

S U B J E C T   A N D   P R E D I C A T E .

A Contribution to the Theory of Grammatical Analysis.

By

Manfred Sandmann..

"Die geschichtliche Betrachtung der Syntax kann ohne die philosophische zu keinen umfassenden und sicheren Ergebnissen gelangen; diese leitet jene in ihre Bahnen und begleitet sie auf ihnen."

Hugo Schuchardt.  
(Brevier, p. 325.)

ProQuest Number: 13855767

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



ProQuest 13855767

Published by ProQuest LLC (2019). Copyright of the Dissertation is held by the Author.

All rights reserved.

This work is protected against unauthorized copying under Title 17, United States Code  
Microform Edition © ProQuest LLC.

ProQuest LLC.  
789 East Eisenhower Parkway  
P.O. Box 1346  
Ann Arbor, MI 48106 – 1346

## C O N T E N T S .

=====

I n t r o d u c t i o n .....	1
-------------------------------	---

### P A R T I

#### T h e S c i e n c e s o f t h e M i n d a n d L i n g u i s t i c s .

##### Chap. (1) T h e L o g i c a l P o i n t o f V i e w .

The general character of Traditional Logic.....	7
The elements of Traditional Logic.....	10
Concepts and Words.....	10
Judgments and sentences.....	15
General Grammar and Latin.....	18
Conclusions.....	20

##### Chap. (2) T h e P s y c h o l o g i c a l P o i n t o f V i e w .

The general character of psychology....	23
The 'psycho-physical event' theory and the importance of the individual...	25
The subjectivism of physiological psychology.....	30
The confusion of representation and thought.....	33
Psychology and grammar.....	36
Psychology and ideal cognitional forms.	39
Conclusions.....	41

##### Chap. (3) T h e L i n g u i s t i c P o i n t o f V i e w .

The linguistic point of view.....	43
The identity of the linguistic sign....	47
The identity of meaning.....	48
Language and speech.....	49
'Sign' and 'Meaning' <u>versus</u> 'Language' and 'Thought'.....	50
The function of language.....	51
Grammar and stylistics.....	62
Linguistics and the sciences of the mind.	64
Conclusions.....	67

#### Chap. (4) The Linguistic Sign .

General problems.....	69
Symptoms.....	69
Symptoms and linguistic signs.....	71
Criteria of the linguistic sign.....	74a
Diacriticon and symbol.....	78
Stages of sign-development.....	84

#### Chap. (5) Meaning .

The problem of meaning.....	87
Material meaning and formal meaning.....	91

#### Chap. (6) Language and Cognition .

Thing-meant and cognition.....	99
Representation and thought.....	105
Cognition and language.....	108

### PART II

-----

#### The Meaning of Subject and Predicate .

#### ~~Chap. (1) The Meaning of Subject and Predicate in the Science of Thought.....~~

#### Chap. (1) The meaning of Subject and Predicate in the Science of Thought .

Exposition.....	113
Some critical remarks on the S - P relation..	115
The problem.....	121
The relation between the concepts A and B....	124
The substance - property relationship.....	125
The subject - object relationship.....	131
The fact - judgment relation.....	137
Conclusion.....	140
Dynamism and purpose of the judgment.....	141
Attribution and predication.....	144
Remaining questions.....	149

#### Chap. (2) The meaning of Subject and Predicate in the Science of Language .

The grammatical conception of S and P.....	150
Grammatical and logical, psychological, ontological S and P.....	156



The partial or total elimination of S and P from grammar.....	160
--	-----

Chap. (3) The Subject - Predicate  
Relation .

<u>Prius (primum) logicum - posterius (postre-</u> <u>mum) logicum</u> .....	167
Concepts and their relationships in the judgment.....	175
Time and modality.....	181
Outstanding questions.....	184
Conclusion.....	191

PART III  
-----

Representational, Cognitive  
and Formational Grammar .

Chap. (1) Parasyntactic Signs .

Introduction.....	193
Presyntactic signs.....	193a
Postsyntactic signs.....	201
Parasyntactic signs and the problem of S and P.....	204

Chap.(2) Construction .

Sentence and construction.....	207
Sentence and proposition.....	209
Representational, cognitive and formul- ational constructions.....	212
Conclusion.....	218

Chap. (3) Term and Relation in

Space - Time .

Space-time constructions.....	220
Term and relation in space-time ( <u>origo</u> , relation and goal).....	221
Two questions of principle.....	224
The fixing of the <u>origo</u> .....;	230
Linguistic symbolization of term and rel- ation.....	231

Chap. (4) O r i e n t a t i o n a n d D e s c r i p t -  
i o n .

Orientational and 'real' time-continua.....	236
Linguistic and logistic analysis of ob- jective constructions.....	241
Orientation words and descriptive words...	242

Chap. (5) O r i e n t a t i o n W o r d s .

Numerals (cardinals).....	246
Pronouns.....	247
Adjectival forms of numerals and pronouns.	249
Particles.....	250
Postscriptum.....	253
Relationships reflected by particles.....	255
Adjectival forms of particles.....	257

Chap. (6) D e s c r i p t i v e W o r d s .

Problem and past explanations.....	259
Substantive, verb, adjective and the categories of representation.....	261
The verb.....	262
The substantive.....	263
Adjectives.....	265

Chap. (7) V e r b a l C o n s t r u c t i o n s .

Two types of verbal constructions.....	267
Inner verbal construction.....	273
Pragmatic verbal aspects.....	275a
Formal characterization of verbal <del>Further complications</del> aspects.....	276
Further complications.....	281
Orientational time.....	284
Orientational aspects.....	285
Orientational and pragmatic aspects....	287
Outer verbal construction.	
Intransitive relations.....	291
The passive voice.....	293
Reflexive construction and medium voice	294
<del>Conclusion.....</del>	<del>298</del>
Impersonal constructions.....	300

Chap. (8) I n t e g r a t i o n o f R e p r e s e n t -  
a t i o n a l G r a m m a r i n t o t h e  
G r a m m a r o f T h o u g h t .

The representational basis.....	304
The Middle Term.....	309
Transposition and analytical periphrases....	314
Analytical periphrases.....	319
Synthetic condensation.....	321
Conclusion.....	325
Subordination and coordination.....	327

Chap. (9) I n t e g r a t i o n o f I d e a l G r a m m -  
a r i n t o t h e G r a m m a r o f  
F o r m u l a t i o n .

Formulational grammar is historical grammar..	336
The problem of the integration of ideal grammar into the grammar of formulation.....	339
Noun and verb.....	343
The dichotomic multiword sentence.....	354
Grammatical and cognitional S and P.....	370
Postscript.....	373
'Logical' and 'illogical' constructions.....	390

C O N C L U S I O N S .....	394
-----------------------------	-----

Part I  
Chapter (1)

The logical point of view.

## I n t r o d u c t i o n .

A few generations ago it ~~would~~ have seemed inconceivable to write a grammar, and particularly a syntax, without making extensive use of the terms Subject (= S) and Predicate (= P). They were considered, as a matter of fact, as the main constituent parts of a linguistic construct. According to H. Paul (Prinzipien<sup>1</sup> p. 138) all syntactic relationships - with the exception of the coordinative nexus (e.g. father and mother) - go back to the S - P relationship. These terms were thus considered as being of fundamental importance. Any doubts concerning their legitimacy or even their mere usefulness betray therefore a crisis of grammatical thought, a new departure in grammatical thinking. They affect the whole system of grammar and not merely part of it.

We are witnessing in our generation such a crisis of methodological thought. Doubts as to the usefulness and legitimacy of the terms S and P have been formulated by both linguists and philosophers as we ~~are~~ shall ~~going to~~ show in a detailed way in Chap. 1 of Part II<sup>1</sup>) ~~As~~ far as grammar is concerned it is not very difficult

---

1) Pp. 115 ff.

to discover the reason which led to such a criticism of the traditional grammatical system. Ever since it was discovered that linguistic forms could not be accounted for by logical categories the whole scholastic basis of grammar <sup>has been</sup> ~~was~~ discredited. A development set in which can be described as the emancipation of grammar from logic. In the eyes of certain reformers this emancipation could not be complete as long as one did not succeed in creating a grammatical system from which the terms S and P had been eliminated. It was therefore only natural that attempts to that end should be made.<sup>1)</sup>

Such a development in the science of linguistics was reinforced by the modern development of logic where the situation was once described to us by an expert as one in which the logician "has lost interest" in the S - P question. Indeed it appears that traditional or Aristotelian logic is housed in a very modest backroom in the building of modern symbolic logic.<sup>2)</sup>

It seems thus that the moment has come to answer

-----

1) Such attempts have been made by Th. Kalepky (cf. p. 134), C. Svedelius (cf. pp. 164a ff.) and, in a way, by A. Lombard (cf. pp. 160 ff.).

2) So in S. Langer's <sup>An</sup> Introduction to Symbolic Logic, London, 1937, pp. 157/60.

J. Ries's call and investigate in a systematic way, what is the usefulness of the terms S and P - if any - for the grammarian.<sup>1)</sup> The present essay is an attempt to answer just this question. - The peculiar<sup>§</sup> fundamental importance of these terms, with which stands or falls a whole conception of grammatical analysis, requires a peculiar<sup>method of</sup> approach ~~of study~~. It ought to be clear from the beginning that the legitimacy of S and P can only be discussed within the framework of a study ~~of~~ the relationship between 'thought' or rather: 'cognition'<sup>2)</sup> and 'language', and this in turn involves a theory on the delimitation of the science of linguistics from the sciences of the mind: epistemological logic and psychology. The problem of S and P is only part of that wider context and should not be separated from it.

It seems to us therefore that the first question we have to answer is not "What <sup>are</sup> ~~is~~ S and P?" as the philosopher would, but rather "Can we build up an autonomous linguistic science not subservient to the sciences of the mind?" Is the linguist ~~not~~ perhaps ill advised to operate with a terminology such as

-----

1) Cf. p. 118.

2) We shall explain on pp. 105 ff. why we prefer the term 'cognition' to 'thought'.

'concepts', 'judgments', 'representations' or 'S and P' which are all borrowed from the sciences of the mind and which imply the acceptance of logical and psychological theories the linguist has no means ~~of controlling?~~ Indeed it seems that we have in 'sign' and 'meaning' terms of a purely linguistic import which can be defined in a purely linguistic theory. It is clear that in ~~the measure~~ <sup>so far as</sup> we succeed in detaching linguistics from logic and psychology or separate language from cognition the main issue is already prejudged. Better still: the very nature of the S - P problem in the linguistic field can only be shown that way: Only if we discover the precise point where linguistic theory is connected with the theory of cognition and explain why they have to be linked, shall we know that the S - P question is not one which can be eliminated from linguistic ~~theory~~ as has been claimed.<sup>1)</sup>

These are the reasons why we shall devote the first part of this essay to a discussion of the relationship between logic and psychology on the one hand and linguistics on the other hand. In this part the reader will find little which refers directly to S and P, but in the end he will probably ~~find~~ <sup>see</sup> that what must seem at first a round-about way was really a short-cut. For when we come to our positive account of representation and thought and their relationship to language, we

-----

1) See above p. 2, note (1).



*any further*

shall be glad not to have to burden the discussion/with critical considerations of a general nature:~~any more?~~ all that critical spade-work will have already been done in the first part.

Once we have formed an idea about the relationship between linguistics and the sciences of the mind<sup>1)</sup> and have arrived at a sharp contrasting of cognitional and linguistic symbolism<sup>2)</sup> we shall approach in the second part the S - P problem proper. After a critical account of the position in the domain of 'thought' and in that of 'language' we proceed to a positive account of the theory of S and P; <sup>these terms</sup> ~~which~~ will appear as constituent parts of the cognitional act and are therefore terms which belong in the first place to cognition and not to language. Since we are convinced that advanced linguistic symbolism cannot be understood without reference to cognitional symbolism, the question arises how far S and P are reflected in language. We shall devote the third part of our essay to the investigation of that problem. - We believe <sup>that we</sup> ~~to~~ have good reasons to distinguish in the sphere of cognition between 'representation' and 'thought'. The discussion of our topic will therefore take the form of showing how representational grammar

---

1) Part I, Chap. 3.

2) Part I, Chap. 6.

is integrated into the grammar of thought and both into that of formulation.

Throughout the treatment of our subject it should be clear that we argue always as linguists<sup>is</sup> for linguists. That is to say the logical and psychological points of view are only considered <sup>in</sup> so far as they have had influence on grammar. Anybody knowing the infinite complexity of the sciences of the mind will probably agree that it was the wiser course to take not to enter here into discussions which do not concern the linguist. On the other hand, since S and P belong in the first instance to the realm of thought, not to that of language, it was inevitable <sup>that we should</sup> ~~to~~ trespass into the philosopher's territory, particularly in Part II. We have done so with all the trepidation and all the courage required by the circumstances. Without any ambition to teach the masters of philosophy anything about a subject which is theirs, we had to aim at a clarification of views for ourselves and in this way at the same time for the linguist. How far we have succeeded in this only the competent critic can tell.

The general character of traditional logic. - The type of logic which has had the most tangible influence upon grammatical theory is the logic created by Aristotle, made widely known to the Occident by Boethius' translations, whence it penetrated into the schoolbooks. 1) In spite of the fact that it underwent certain alterations according to the various theoretical needs and interests in different ages, it remained fundamentally unchanged, so much so that no less a philosopher than Kant could claim in the preface of the second edition of his Critique of the Pure Reason that since Aristotle logic has neither been able to go one step backwards nor one step forwards. 2) To-day most logicians would probably be reluctant to make Kant's statement their own. But whoever wants to give an idea of the influence of logic upon grammar needs hardly be concerned with learned controversies among contemporary logicians. For him it will be sufficient to indicate the general nature of tradit-

-----

1) Cf. H. Steinthal, Geschichte der Sprachwissenschaft bei den Griechen und Römern, 1rst ed. 1862/63, 2nd ed. 1890/91.

L. Kramp, Das Verhältniss von Urtheil und Satz, Bonn, 1915.

2) I. Kant, Kritik der reinen Vernunft. Vorrede zur

ional logic and to give a birds-eye view of its object, and even that only in so far as is needed to understand the logical point of view in grammar.

Logic in the traditional sense may perhaps be described as a science dealing with the forms of thought considered in its adequacy to its ideal function, which is the finding of truth. Such a science obviously presupposes that adequate or true knowledge is possible; that is to say that traditional logic has a natural basis which is the theory of knowledge. The temptation has always been great to draw logic proper into the orbit of epistemology; hence we get different types of logic, with a purely epistemological (Kant), a more metaphysical (Hegel) or a more psychological (Wundt) bias. Aristotelian logic too cannot deny its epistemological origin. It lays stress on the structure of thought instead of analysing the structure of facts<sup>1)</sup> as modern symbolic logic does. For epistemological logic the judgment is of paramount importance. Hence the fact that the terms S and P are inseparably connected with this type of logic and held to be logical terms, although one could equally well consider them as cognitional terms since they are <sup>inseparable</sup> ~~the constituent~~ <sup>from</sup> ~~parts of~~ the cognitional act.

But traditional logic is not purely concerned with thought. One of its most characteristic features is that it pretends at the same time to offer an analysis

of the structure of facts, for the judgment was held to reflect the structure of reality:<sup>1)</sup> The fusion of cognitional notions with those of factual logic determine the general character of traditional logic.<sup>2)</sup>

-----

1) See p.

2) The great progress achieved by symbolic logic consists precisely in this that the cognitional act has been eliminated from the logical field. Consequently it was no longer necessary to reduce the complex variety of facts to the formula A is B which appears only as one possible relationship among an infinite number of others. In the definition of the proposition there is no longer room for the familiar notions S and P. According to S. Langer (An Introduction into Symbolic Logic, pp. 50/51) it runs like this: "Any symbolic structure, such as a sentence, expresses a proposition, if some symbol in it is understood to represent a relation, and the whole construct is understood to assert that the elements (denoted by the other symbols) are thus related."

The elements of traditional logic. - Traditional logic distinguishes (a) concepts, being unifying principles or comprehensions of compatible objective properties, (b) propositions or syntheses of two concepts, one of which is used in affirming or denying something about a thing represented by the other concept, and (c) syllogisms or "forms of reasoning in which from two given or assumed propositions called the premises and having a common or middle term a third is deduced, called the conclusion, from which the middle term is absent."<sup>1</sup>) We may neglect the syllogism altogether, since it has no bearing on our question.

What we call here the logical point of view in grammar is the assumption that a word is the symbol of a concept and the sentence the expression of a proposition.

Concepts and words. - Let us first examine the claim that to a word in language there corresponds a concept in thought. - If we ask a philosopher what is the proprium of the concept as against representation, idea or sensation, it is not always easy to get a clear-cut answer. One widely accepted opinion, however, holds that sensations and representations are found in animals and infants, whereas concepts or conceptual thought is supposed to be the

---

1) Concise Oxford Dictionary s.v. syllogism

privilege of the adult homo sapiens; in other words, that sensations and representations are on a lower psychological level than concepts. This conception is probably the result of the Kantian 18th century psychology, according to which we have different Vermögen: the senses supplying us with sensations, the material of representations, the intellect furnishing the concepts; and since man, that animal rationale, alone possessed an intellect, the conclusion is obvious.<sup>1)</sup> Whatever we may think to-day about that psychology, it is regrettable that both philosophers and grammarians alike did not distinguish clearly between concepts and representations and used these terms promiscue. We shall see later on how useful and important this distinction is.<sup>2)</sup> For the time being it will be sufficient to describe concepts in the sense of traditional logic as classifying intellectual symbols and instruments of thought as distinct ~~ent~~ from representation. Classes ~~generate~~ naturally generate subclasses, and these again further sub-classes, and so forth. The more sub-classes fall under a concept

-----

1) This conception goes back to Antiquity. Cf. W. Jerusalem, Die Urtheilsfunction. Eine psychologische und erkenntniskritische Untersuchung. Wien, Leipzig 1895, p. 38.

2) Cf. Part III, Chap. 2, + pp. 212 ff.

the wider its extension; thus the concept of being is that of the widest extension under which fall all the other concepts. But the wider the class, the poorer its meaning. A concept which means something very general means nothing in particular. So that there is a sort of compensating rule according to which to a relatively wide extension corresponds a relatively scanty content.

Different philosophical systems reserved the name of 'categories' for those classes which are the most general ones after that of being and underlie all operations of thought.<sup>1)</sup> There are wide differences as to how to conceive the theory of categories. As far as grammar is concerned it is mainly the parts of speech which are supposed to reflect logical categories. But this is a point where we see clearly how unsatisfactory it is to account for linguistic phenomena in terms of epistemological logic: All concepts are qualitatively of the same kind, i.e. they all can be defined in terms of extension and intension (content). Consequently a language conformable to logic ought to have only one class of words, and it has been correctly observed by the philosopher Cook-Wilson that only the noun is an

-----

1) G. Hagemann and A. Dyroff, Logik und Noetik, Freiburg i. Br. 1924, pp. 81 ff., 137 ff.



adequate expression of concepts.<sup>1)</sup> As Bergson remarks, our concepts are of a spatial nature in their stability and their mutual limitations,<sup>2)</sup> and nouns are precisely space-words which can be symbolized by circles binding together a certain number of semantic elements. We can point at nouns, either directly or metaphorically, in the same way as we can point at objects in space, which explains why in many languages the noun is accompanied or grammatically characterized by articles which have been originally demonstrative pronouns. But languages have many other kinds of words besides nouns, such as adjectives, prepositions, verbs etc. The existence of these so-called 'parts of speech' has always been recognized by grammarians since Dionysius Thrax,<sup>3)</sup> but so strong was - and is - the predominance of logic in grammar,

-----

1) Cook-Wilson, Statement and Inference I,  
pp. 170/71.

2) H. Bergson, L'Evolution créatrice, 43rd. ed., Alcan,  
Paris, pp. 166 ff.

3) Dionysios Thrax, Techne II, 11; ed. Uhlig, 1884.  
Cf. also L. Lange, Das System des Apollonios Dyskolos,  
Göttingen 1852, p. 8.

that up to modern times they too have been accounted for in terms of concepts. At least as far as nouns, adjectives and verbs are concerned, these were defined as reflecting the 'categories' thing, quality and action. This does not do much harm, as long as one remains conscious of the fact that terms such as thing-words, action-words, quality-words are only rough semantical approximations or logical make-shifts, which do not account for formal differences of these word-classes. Without such a safeguard one fails to understand why good and goodness, the desire and to desire coexist in language, in other words why there are different parts of speech, if the noun is quite sufficient to denote any sort of 'category'.

The influence of logic has had the most disadvantageous effect on the theory of particles and pronouns. As to the former, the very term ~~of~~ 'particle' seems to indicate that <sup>grammarians were</sup> ~~one was~~ at a loss how to classify ~~them~~ them, and since the latter were obviously not concept-words in the sense of substantives or adjectives, there was hardly any other possibility left but to name them concept-substitute-words or pro-nouns. The nature of these words has been discussed in a long series of treatises <sup>1)</sup> and we know now much better

---

1) Cf. K. Bühler, Sprachtheorie, Jena 1934, pp.

their

/deictic or orientational nature, although school-books are slow to adopt views contrary to the type of grammar dominated by logic.

J u d g m e n t s   a n d   s e n t e n c e s . - More interesting for our particular subject than the supposed parallelism between concept and word is that between the logical proposition (judgment) and the sentence. A parallelism of this kind was found first of all in sentences of the type la terre est ronde (Port-Royal) and Socrates is mortal, sentences which serve as illustrations of simple propositions in the handbooks of logic. Here one finds a word corresponding to the logical S (la terre, Socrates), one corresponding to the attribute (ronde, mortal) and finally the copula (est, is), whose function it is to link up the attribute with the S and to express at the same time the positive quality (=Affirmation) of the judgment. Copula and attribute together form the P of the proposition. This has been taught with slight variations by Aristotle, Port-Royal and Christian Wolff. Although the 'copula' was known already to Byzantine grammarians and to Abelard, it seems to have been Wolff who gave to the term 'copula', called by Port-Royal La liaison entre les deux termes, wide popularity; but already

Aristotle himself, who operates in the main with a two-fold division of the proposition into S (ὑποκείμενον) and P (κατηγορούμενον), had declared that εἶναι represents the ἔννεμα in its purest form and had analysed ἄνθρωπος παρὶς as ἄνθρωπος παρὶς ἐστίν. 1)

We see that in traditional logic the cognitional S - P relation is identified with the factual substance - property relation, and the logical form of the judgment is accordingly expressed by the formula A is B. We shall see in due course that this identification is not justifiable;<sup>2)</sup> but we should like to reserve this criticism for later on. Here we may be content with pointing out a general consequence of this view.

If language is essentially the expression of logical thought, it follows that those linguistic forms not conforming to the logical ideal must either be easily reducible to the desired scheme or else be faulty. If

---

1) H. Steinthal, Geschichte der Sprachwissenschaft bei den Griechen und Römern<sup>2</sup> I, p. 241.

L. Kramp, Das Verhältnis von Urteil und Satz, p. 15.

I have not seen E. O. Sisson, The Copula in Aristotle and afterwards. The Philos. Review <sup>XLVIII</sup> (1939), pp. 57/64.

2) In Part II, Chap. 1, pp. 125 ff.

we find for instance in French the sentence Paul court, where two words correspond to three logical units, it must be reduced to Paul est courant. Such an interpretation leads to the opinion that "le verbe est toujours le verbe être" (Grammaire des Grammaires<sup>21</sup>, p. 440). ~~Such~~ <sup>This</sup> ~~an~~ opinion is harmless as long as it remains quite clear that the assertion Paul <sup>u</sup>court = Paul est courant affirms nothing but logical equivalence. But it leads to a grave error should we assume that the more logical expression has any claim to greater linguistic originality and that the other form must be explained by deriving it from the type 'Substance - Copula - Attribute', that is if we establish a genetic relation between both. The comparison between the two types is useless for the explanation of formal discrepancies.

As the concept comprehends compatible objective properties, so ~~must~~, in the sentence-proposition, all elements ~~must~~ be compatible with each other. Differences between this logical ideal and linguistic reality must seem like an insult to the schoolbook logician. In forms such as English she is pretty ugly or French il se trouvait perdu he will see contradictions in terms and mark off such expressions as solecisms. - There is, however, a limited number of illogical usages which even the logician has to respect to a certain extent if he wants to understand linguistic usage at all. But he will admit them only under certain circumstances and under a legal pretext,

as rhetorical devices. These are the famous tropoi:  
Synecdoche, Metonymy and Metaphor.

G e n e r a l   g r a m m a r   a n d   L a t i n . -

This theory, which claims that differences between logical and linguistic structures can easily be reduced to harmony, or else are either blunders or rhetorical devices treats linguistic phenomena as quantité négligeable, of which short <sup>work</sup> ~~process~~ is made if they do not fit into the logical scheme. Therefore it must appear to the logician of the old school that the differences between languages are trifling, and since at bottom linguistic thought and logical thought ~~were~~ one everywhere, it ought ~~of~~ be possible to create a sort of general grammar and a general language common to all human beings and founded on logical principles. It is well known that some of the finest minds of the 17th and 18th centuries have worked in that direction. We need not be concerned here with these attempts to create a general language and an ideal grammar. But it may perhaps not be without interest to add here a remark on the influence of Latin.

It is more than probable that certain basic features of Aristotle's logic <sup>were</sup> ~~have been~~ suggested to him by grammatical distinctions, and it is doubtful whether the 'substance- accident' relation would have been given the place of honour in logical theory by a philos0-

pher speaking a language for which the contrast between the noun (ὄνομα) and the verb (ῥῆμα) was less significant than in Greek.<sup>1)</sup> So profound an expert as Steinthal has pointed out repeatedly that the logical and linguistic points of view are constantly mixed up in Aristotle's thought.<sup>2)</sup> If this could happen to such an ingenious logician we need not wonder if philologists asserted that a certain language reflects better than others the pure structure of thought and is therefore of a greater universal and pedagogic value. This language was Latin.<sup>3)</sup> Latin had been for many centuries the vehicle for scientific thought, and the temptation must have been great to believe that certain grammatical categories of Latin corresponded to natural needs of thought and that Latin grammar was the nearest approach to the ideal general grammar. And as the logical point of view predominated for a long time over the linguistic point of view, so Latin grammar imposed its

-----

1) ὄνομα and ῥῆμα defined already for Plato the parts of the judgment. Cf. W. Jerusalem, Die Urtheilsfunktion, p. 40.

2) H. Steinthal, Geschichte der Sprachwissenschaft bei den Griechen und Römern<sup>1</sup>, p. 187.

3) Cf. O. Jespersen, Philosophy of Grammar, London 1935, pp. 47, 176 f.

categories upon <sup>those</sup> ~~that~~ of other languages. In consequence Spanish school-grammars teach an ablative in Spanish (e.g. para el hombre) following herein probably Sánchez de la Brozas (Sanctius), who taught in his Minerva (1587) that the ablative in Latin required a preposition and explained therefore all pure ablatives as elliptic. Jespersen has pointed out how little the notion of the Latin Future Tense is suited to English,<sup>1)</sup> and we have witnessed not many years ago a long discussion over the Passive Voice in French, so different from Latin,<sup>2)</sup> although this fundamental difference has not always been recognized by schoolbooks.

C o n c l u s i o n s . - For over a hundred years linguists, psychologists and philosophers have been at work to break this double tyranny of traditional logic and Latin grammar and to work out a more realistic view of the relationship between thought and language. It is only natural that linguistic science during the past two or three generations has been unkind towards traditional logic. The more the field of linguistic study was widened by the acquaintance with a great variety of languages, the more it was deepened by comparative

-----

1) O. Jespersen, loco citato.

2) The discussion was conducted between K. Vossler and W. Meyer-Lübke. Cf. Th. Engwiler, Vom Passiv und seinem Gebrauch i. heut. Franz., Jena, Leipzig 1931, p.1.



analysis, the more logical schemes must seem barren, poor and unsuited to an understanding of linguistic structures. This, I think, is a position which cannot be reversed in any way.

If we try now to formulate what we have to learn from this for the preliminary discussion of the S - P problem, it is this: (1) Traditional logic is unsuited to explain language. (2) There is no simple parallelism between concept and word, judgment and sentence.-This does not prove, however, that language has nothing to do with logic. We have seen that traditional logic is of a hybrid character, because it pretends to be a logic of thought and a logic of facts at the same time. It may be possible to reform this logic by purging it of its metaphysical implications. If that is done it may be found that the characterization of that mental symbolism we call 'thought', as we find it in traditional logic, may still be acceptable, i.e. concepts and judgments ~~can~~<sup>may</sup> still be considered as the main forms of thought, provided the judgment is not conceived as a factual relationship of the type <sup>is</sup> A is B. In this way the ~~dichotomic~~<sup>dyadic</sup> structure of thought and with it the reality of S and P could be re-affirmed. Furthermore, the rejection of a parallelism between a purely mental symbolism and linguistic symbolization does not prove their independence from each other. There remains the possibility of both being entangled, that at least a certain

type of linguistic symbolization ~~xxxxxxxxxxxxxxxxxxxx~~  
refers in some way - a non-parallel way - to that  
mental symbolism. If that were true, it would be possible-  
after a period of stressing the d i f f e r e n c e s  
between grammar and logic - to reestablish contact  
with them and see how far certain ideal laws of thought  
or cognition make themselves felt in linguistic sense-  
combinations after all. We may perhaps state here al-  
ready that we believe that such a p<sup>o</sup>sition is tenable  
and that it is the one we shall occupy in this essay.

## Part I

### Chapter (2)

The psychological point of  
view.

The general character of psychology. - In its striving for emancipation linguistic science could not avoid getting under the sway of psychology. As a matter of fact the great battle against <sup>the abuse of logic in grammar</sup> ~~logicism~~ began in the name of psychology. We need not be concerned here with a definition of this 'science of the soul'. As time passes on and new schools develop, which all claim to be 'psychological', the question what ought to be considered as the main psychological fact, becomes more difficult to answer. But it is perhaps possible to give a general idea of the particular brand of psychology which has exercised such a great influence upon grammar.

We shall best begin our account by showing the main difference between the logician's outlook and that of the psychologist. There is first of all a difference of quantity: whereas the logician's interest centres upon thought, the psychologist studies all phenomena related to thought, feelings and volitions. There is secondly a difference of approach. Logic is a science of ideal forms or norms, it studies the formal laws, which thought has to respect, if truth is to be obtained by reasoning. Psychology, however, is concerned with real thought as a concrete event in man's mind, whether correct or not, and with real feelings and affections.

We understand therefore that psychology was opposed to logic in the name of greater realism. There is finally another most remarkable difference: Logic is essentially analytic and static, it takes and analyses concepts and judgments as given facts, whereas psychology is analytic and genetic, considering thoughts and affections in fieri, not in esse. This is necessarily so, since the 'soul' is essentially activity. Psychological analysis is a reduction of relatively complicated phenomena to relatively simpler ones, which are more primitive in the double sense of the term: they are more ~~te~~ elementary and precede the higher and less elementary phenomena in time.

Here are three excellent reasons why psychology seemed to be so admirably fitted to explain language: First, it is not dogmatic. Scientific grammar prides itself upon abandoning the schoolmasterly and academic view of 'correct speech'. It does not say how we ought to speak, but simply states how we do speak: cockney is as good as, and probably more interesting than, standard English. With this indifference <sup>to</sup> ~~for~~ linguistic form is coupled indifference <sup>to</sup> ~~for~~ the correctness of its content, since psychology does not trouble about truth or logical correctness. In the words of Steinthal it is a erkennende, not a beurteilende science.<sup>1)</sup> Secondly,

-----

1) H. Steinthal, Grammatik, Logik und Psychologie, ihre Prinzipien und ihr Verhältnis zueinander. Berlin 1888, p. 137.

since language is apparently never, not even in scientific prose, a mere denotation of ~~though~~ abstract ideas, but *also*, and perhaps mainly, an expression of feelings and tendencies of will,<sup>1)</sup> psychology which makes a special study of these things, seems to be in an admirable position to supply the needs of the linguist. And finally, ever since W. v. Humboldt's famous dictum that language is not an ergon, but energeia,<sup>2)</sup> it was considered as an axiom of scientific linguistics that language is in constant development and the only adequate method of dealing with it is a genetic method; and since all changes must necessarily take place in the soul of the individual, psychology was again called in to furnish the necessary explanations.

The 'p s y c h o - p h y s i c a l e v e n t' theory and the importance of the individual. - What now are the main implications of the psychological point of view? The most important one is probably the conception of language

-----

1) The contention that language is 'the expression of thought and feelings' will be criticized in the next chapter where we shall try and establish the (relative) independence of linguistics from logic and psychology.

2) Die sprachwissenschaftlichen Werke Wilhelm's von Humboldt. Ed. H. Steinthal, Berlin 1883, p. 262.

as an expressive movement, which in turn is a psycho-physical event. According to Wundt expressive movements are only the physical side of an affectional process (Affektverlauf).<sup>1)</sup> According to its three components, he distinguishes expressions of intensity, of quality and of representations, the latter forming ~~part~~ an integral part of any affectional process. Between instinctive, reflexive and voluntary movements there is no difference in principle, the two latter evolving out of instinctive movements by either mechanization (regressive development leading to reflexive movements) or by complication (progressive development leading to voluntary movements). Therefore no distinction can be drawn between animal 'language' and human language, except that between a relatively lower and a relatively higher form of organization.

Now if language is essentially an expressive movement it is real only as an event or a sequence of events actually taking place in the soul of the individual. This consequence seems hardly avoidable and has been widely accepted by grammarians. It has found its most outspoken expression in H. Paul's formulation: "Alle psychischen Prozesse vollziehen sich in den ~~Einzelwesen~~ Einzelgeistern und nirgend sonst." And: "Vielmehr ist es eine Tatsache

-----

1) W. Wundt, Völkerpsychologie, 1st vol. Die Sprache, 1st Part, 4th ed., Stuttgart 1921, p. 43 ff.

von fundamentale<sup>r</sup> Bedeutung, die wir niemals aus dem Auge verlieren dürfen, dass alle rein psychische Wechselwirkung sich nur innerhalb der Einzelseele vollzieht. Aller Verkehr der Seelen untereinander ist nur ein indirekter auf psychischem Wege vermittelter."1) It is true that Paul derives his psychology not from Wundt, but in the last instance from Herbart, and that Wundt has <sup>in fact</sup> defended ~~precisely~~ a sort of collective soul. Be this as it may, even Wundt would probably not have denied that linguistic changes can only be studied in the individual, although they are the expression of general forces and tendencies, which may manifest themselves in a number of individuals independently of each other. This can be clearly deduced from the examples Wundt gives in support of his thesis. He quotes as non-individualistic changes the transition of Latin octo to Italian otto and of German brumben to brummen.2) But these very examples reveal that at bottom there is no escape from ~~the~~ individualism in the sense stated

-----

1) H. Paul, Prinzipien der Sprachgeschichte, 5th ed.

Halle a.S. 1920, pp. 11/12.

2) W. Wundt, Völkerpsychologie I,1 (1921), p. 22.



by Paul, because if changes such as the assimilation of consonants occur in a number of individuals independently, it is clear that they operate only in the souls of these isolated individuals and not in any collective soul. Of course that does not mean that a linguistic change is a sort of individual invention which spreads to other individuals by way of imitation; at least this cannot be considered as the rule. But if these forces responsible for linguistic changes operate in the individual, this does not preclude us from affirming that they are of a superindividual character, and it is this that Wundt contends most emphatically. But 'superindividual' is by no means synonymous with 'collective'. The superindividual forces Wundt has in mind are not the activities of a collective soul, but general tendencies inherent in human nature and the organization of the human body in general; in other words they are not to be derived from the special fact of human society but from the general fact of man as a species.<sup>1)</sup> We see from these remarks that psychology was at bottom a natural science and 'reality' the reality of 'nature'. This was the praxis of Wundt and the theory of Paul. Hence the claim that only the individual was a

-----

1) Cf. p. 66.

concrete and that art, religion etc. - and in this etc. is hidden language itself - are mere abstractions.<sup>1)</sup>

It did not strike Paul's and Wundt's generation that their 'concrete individual' was nothing but an abstract meeting-place of general tendencies, and not the living person with ~~its~~<sup>his</sup> individual character, ~~its~~<sup>his</sup> peculiar spiritual and moral 'structure', as some say to-day, whose rights were ~~going~~<sup>still</sup> to be proclaimed by Karl Vossler. Psychological individualism led naturally to a reduction of linguistic phenomena to psycho-physical events and thus to a sort of atomism.

This one must understand in order to appreciate a certain scientific attitude typical of many works of linguistic research in the past two generations and which is sometimes qualified as 'positivistic'. It is clear that the positivist - let us adopt this name for the sake of brevity - views with scepticism the idea of the Volksgeist which animated the Romantics including Steinthal. Notions such as 'French', 'English', 'Spanish', 'German' were considered as abstractions. Accordingly dialects were nearer to reality, the speech of still smaller groups, such as families, still nearer, but only in the individuals could one really grasp the reality of language.<sup>2)</sup> It would be in keeping with this

-----

1) H. Paul, Prinzipien, p. 11.

2) I quote two works which are typical for this tendency:

atomistic view to contend that we should write two different syntaxes, that of the speaker and that of the listener, since the building up of a sentence in the mind of him who speaks is an event psychologically different from the process taking place in the mind of the person listening to the sentence.<sup>1)</sup>

The subjectivism of physiological psychology. - A consequence of psychological individualism is the subjectivistic attitude of psychology. According to Marty the meaning

-----

P.-J. Rousselot, Modifications phonétiques du langage étudiées dans le patois d'une famille de Cellefrouin (Charente), Paris 1892, and L. Gauchat, L'unité phonétique dans le patois d'une commune, in: Aus romanischen Sprachen und Literaturen, Festgabe für Heinrich Morf, Halle a.S. 1905, pp. 174 ff.

-----

- 1) H. Gomperz points out that the processes in the speaker and in the listener have to be investigated separately. (Zur Psychologie der logischen Grundtatsachen, Leipzig, Wien 1897, p. 24) and Elise Richter fulfills this programme, at least in part, in her book Wie wir sprechen. Aus Natur und Geisteswelt No. 354, Leipzig, Berlin 1925, Chaps. 3, 4.

of a linguistic sign is the psychical phenomenon or the psychical experience which the linguistic sign is apt to ~~el~~voke in the listener.<sup>1)</sup> The phenomena (exper~~e~~iences) can be classified into representations, judgments and phenomena of interest (love, hate).<sup>2)</sup> Here we find a theory which is almost the opposite of the logical point of view. Whereas the meaning of a logical concept can be stated in terms of the o b j e c t comprehended by the concept, the meaning of representation is thought to be a psychical experience and is therefore stated in s u b j e c t i v e terms. This is probably the reason why, in psychologistic grammar, the term 'representation' occupies the place corresponding to that of 'concept' in logistic grammar. As a matter of fact, compared with logical concepts representations are more subjective, they vary from one to another, they often contain visu~~l~~g and acoustical elements or elements of other sensitive data, which are not considered in concepts; they often have not the rigidity of things, but are fluid, melt into each other; they are significant without being necessari-~~l~~ly either true or false; they can be highly unintellectual

-----

1) Cf. H. Dempe, Was ist Sprache? Eine sprachphilosophische Untersuchung im Anschluss an die Sprachtheorie Karl Buhlers. Weimar 1930, p. 75.

2) Marty follows herein Brentano.

untampered with by critical reflection. They are as it were the raw materials of logical concepts, which carry with them merely subjective data which critical reflection has to eliminate, if it wants to arrive at complete objectivity and conceptual distinctness. Paul states expressly that he implies in the notion of representation the accompanying feelings and tendencies.<sup>1)</sup> Steinthal defined the proposition as an analysis of a complex representation;<sup>2)</sup> a similar view is expressed in Wundt's famous definition of the sentence as an analysis of a complex representation into parts.<sup>3)</sup> So that we may say that the parallelism of 'concept' - 'word', 'judgment' - 'sentence', which dominated logical grammar, is replaced in psychological grammar by that between 'representation' - 'word', 'complex representation' - 'sentence'.

-----

1) Prinzipien, p. 26, note.

2) Grammatik, Logik und Psychologie, p. 326.

3) Völkerpsychologie I,2, Leipzig 1900, pp. 234 ff.

The confusion of representation and thought. - We should expect that such a theory would lead directly to the discovery, in the linguistic field, of a purely representational grammar different from the judgment-concept grammar. Such was however not the case. What we do find is that 'representations' and 'concepts' become synonymous expressions. Hence the puzzling fact, that the result of the analysis of a total representation into parts is <sup>said to be</sup> that judgment and part-representations are concepts. This has been the contention of both Steinthal and Wundt, although they differ in the way they account for the breaking up of a total representation into parts. For Steinthal 'judging' is still an autonomous act responsible for the analysis of the total representation, as can be seen from the following quotation, which also shows, incidentally, the synonymy of 'concept' and 'representation': "Die Sätze und Urtheile sind nicht aus zwei Vorstellungen oder Begriffen <sup>1)</sup> zusammengesetzt, sondern die Anschauung, d.h. die Einheit, ist das Erste, und das Urtheil ist die Auflösung dieser Einheit. Von den vielen Momenten, den Merkmalen einer Anschauung oder eines Begriffes <sup>2)</sup> wird eines hervorgehoben, nur dieses, als Prädikat, wird gedacht, und nur als dieses wird in

-----

1) Stressed by me.

dem Augenblick des Urtheils der Begriff des Subjekts gedacht, nur in ihm liegt der Wert des Subjekts."1)

This is how Wundt accounts for the same phenomenon: "Vorán steht eine Assoziation von direkten Empfindungs- und von Erinnerungselementen: das ursprüngliche V o r s t e l l u n g s s u b s t r a t d e s G e d a n k e n s . Aus ihm entsteht auf zweiter Stufe durch einen Apperzeptionsakt, der gewisse Wahrnehmungsmotive vor anderen bevorzugt und das Ganze gegen andere Bewusstseinsinhalte abschliesst, die Bildung der G e s a m t v o r s t e l l u n g . Darauf folgt in dritter Linie eine Reihe s e k u n d ä r e r A s s o z i a t i o n e n ü b e r e i n s t i m m e n d e r B e s t a n d t e i l e verschiedener Gesamtvorstellungen, infolge deren sich solche Übereinstimmende Teile deutlicher von anderen abheben, mit denen sie wechselnder verbunden sind. Hierzu kommt endlich als letzter Apperzeptionsakt die willkürliche Isolierung dieser durch Gleichheitsassoziationen gehobenen Elemente zu selbständigen Einzelvorstellungen."2)

---

1) H. Steinthal, Grammatik, Logik und Psychologie, p. 326.

2) W. Wundt, Völkerpsychologie I,1 (1921), pp. 614/15.

So far there are no logical implications. These appear however clearly when he contends that "jedes Urtheil ein Aussagesatz ist, ebenso aber jeder eigentliche Aussagesatz logisch als ein Urtheil betrachtet werden kann"<sup>1)</sup> and such implications are quite outspoken in Wundt's famous definition of the sentence as "der sprachliche Ausdruck für die willkürliche Gliederung einer Gesamtvorstellung in ihre i n l o g i s c h e B e - z i e h u n g e n zu einander gesetzten Bestandtheile"<sup>2)</sup> which permits the identification of part-representations and concepts. - If we read in Jerusalem's book on the judgment (Die Urtheilsfunktion) p. 29: "Das Urtheil ist eben eine Synthese aus Vorstellungselementen und Artikulationsempfindungen, wozu noch Gefühls- und Willenselemente kommen" and on p. 33 ; "Das Wort ist somit psychologisch nicht Vorstellung sondern Urtheilselement." we shall probably agree that here again psychological and logical categories are not clearly separated, since obviously "Urtheilselement" ~~is~~ or concept is "Vorstellungselement".

We see thus that the same psychological method which in a sense could be described as a revolt against school-logic, could not liberate itself from that same logic and ended up in a sort of reformulation of the main logical elements,

-----

1) Völkerpsychologie I,2 (1900), p. 258. 2) Ibid. p. 240.



'judgments' and 'concepts', which appear now as 'total (complex) representations' and 'part-representations'. This explains the <sup>o</sup>paradoxical fact that the same grammatical science which is so much at pains to stress the a-logical character of language in the name of a realistic psychological method, could not liberate itself from the ~~theory~~ tyranny of logical categories.

P s y c h o l o g y   a n d   g r a m m a r . - Since we were able to recognize in 'total representations' and 'part-representations' the old logical categories 'judgment' and 'concept' it is not difficult to see that in 'psychological' grammar we find often nothing but a translation of the old scholastic terminology into the new psychological idiom. So when K. Morgenroth calls the nominal sentence (Wundt's attributive Satzform)<sup>1)</sup> an "Ordnung einer Gesamtvorstellung mittels des nur die Vorstellungsassoziationen bemerkenden intuitiven Denkens" (e.g. Russ. koschka prygg na lafku 'cat jump on bench').<sup>2)</sup> In the same way J. Haas uses in his works on French syntax the expression "Korrelat einer Gegenstandsvorstellung" instead of 'substantive' or "Korrelat einer Merkmalsvorstellung" instead of 'adjective'. There is little harm done; we have just

---

1) W. Wundt, Völkerpsychologie I,2, (1900) pp. 329/41

2) German. Roman. Monatsschrift IV, p. 10.

to translate psychological terminology back into ordinary grammatical language to know where we are.<sup>1)</sup>

On the other hand in some extreme cases the danger has not always been avoided of drawing linguistics too deeply into psychology. As a matter of fact, if language is to be considered as nothing but the outward manifestation of psychical events, the temptation is great to regard an analysis of the psychical factors of which language is supposed to be the manifestation as the main task of the linguist. In doing so the linguist will not only find well established facts he can use for the explanation of linguistic phenomena, but he will find psychological theories, hypotheses and problems he must criticise or solve for himself before he can use them for his purpose; that is he must become a psychologist himself, he must perform this very dangerous act which the Greeks called *κατάρασις εἰς ἀλλογίαν*. The result of this is not so much grammar, but a psychology which chooses language as a starting point; what ought to be used as a help to explain linguistic forms becomes the central problem. This seems to be the case in the late Professor Ettmayer's Analytische

-----

1) J. Haas, Französische Syntax, Halle a.S. 1916.

Kurzgefasste neufranzösische Syntax, Halle a. S.  
1924.

Syntax der französischen Sprache where we find many pages of purely psychological discussion without a single French quotation (vol. II, pp. 728/32; 687/91 etc.). An extraordinary and difficult book. It may be called a very profound treatise on linguistic psychology rather than a grammar; at least its purely grammatical parts are rather an illustration of psychological facts.

This sidestepping into an alien field would have been avoided if it had been clear that the investigation of the <sup>psycho-</sup>physiological conditions of speech does not define the c e n t r a l task of the linguist inspite of its importance as an auxiliary science. As we shall explain more fully in the following chapter it is the functional point of view which is prevalent in the linguist's work. By occupying the functional point of view the linguist will also be able to overcome the subjectivistic atomism of the psycho-physical method. In this way we shall also understand why the linguist does n o t write two different grammars, that of the speaker and that of the listener, but only one which is respected by both partners in an act of communication. For the linguist there is precisely that normative element in language which a purely psycho-physiological method tries to eliminate. But all this we shall have to explain more fully in the next chapter.

P s y c h o l o g y   a n d   i d e a l   c o g n i t -  
i o n a l   f o r m s . - In the same way as it is  
difficult to see how a psychological method which  
focusses its attention on the individual speaker or  
listener can account for a ~~xxx~~ social norm respected  
by both, it is difficult to imagine how that same  
psychology, which is naturalistic and materialistic in  
its tendency, can give a satisfactory account of ideal  
objects and ideal-objective relationships, for these  
cannot be accounted for in terms of events taking place  
in the mind of the individual. In the face of this  
difficulty three different attitudes are thinkable:

(a) Either one declares that cognitional acts, objective  
and conceptual relations have a psychological side or  
are even psychological facts; this leads to an absorp-  
tion of epistemology and logic into psychology. (b) Or  
one declares them to be scholastic abstractions without  
reality and believes consequently that thought can be  
accounted for without troubling about things such as  
concepts and propositions. (c) Or finally one stresses  
the autenticity of epistemological and logical data  
and their irreducibility to psychological categories  
and thus takes up an anti-psychologistic attitude. -

All these three different attitudes have been taken  
up. It is clear that in practice there is an almost  
infinite variety of blending and dosage possible in the  
three sciences (psychology, epistemology and logic),

but it cannot be our task to go into these details. Moreover the anti-psychologicistic attitude cannot be a subject of this paragraph. We may just remark that it has been taken up by the phenomenologists whose influence on a certain group of contemporary linguists is very marked.<sup>1)</sup>

But we feel that we have to make it clear what our attitude is with regard to this question. And there we should like to point out that it is most important to see that both thought and representation can be regarded as ideal forms, and that, if one does regard them as such it becomes immediately clear that representing and judging have two entirely different ideal structures. Physiological psychology, and Wundt in particular, was so much concerned with the genesis of representations and thought that they had no eye for ideal structures and their differences. Representation and thought appeared as more or less the same thing. The separation of the two realms seems to us a task of the greatest methodological importance. In the same way as we shall stress, in the pages to follow, the normative and social aspect of language, so we shall take into full account the ideal forms

-----

1) One may quote in this connection Ammann, Porzig, Weissgerber, Dempe.

of representing and judging, considering each according to its specific nature and ~~in~~ both in their collaboration and integration.

C o n c l u s i o n s . - Physiological psychology, which at first sight seemed so apt to explain language, reveals itself now as unsuited to account for the normative character of language and <sup>diverts</sup> ~~detracts~~ linguistics from the central task of functional analysis of signs. In the domain of thought it fails to do justice to ideal forms. Both shortcomings are due to the naturalistic and subjectivistic attitude of physiological psychology.

But criticism is perhaps inclined to underline too heavily the shortcomings of a method, and so it must have appeared in our criticism of the psychological point of view that we are blind to the great achievements of the psychological method in grammar. It is therefore important to point out that we do believe that the definition of language as a psycho-physical event contains an undeniable element of truth. For language can undoubtedly be considered in the context of natural science. We have mentioned that this after all is a 'realistic' attitude,<sup>1)</sup> the pursuit of this line of study was quite rightly felt as an act of liberation from scholasticism and has brought much progress in linguistic science. Entirely new horizons have opened up. We can now study the influence of emotions, of subjective tastes upon language and the expressive 'language' of emotion itself. The study of so-called 'primitive' peoples and of children can now be approached

---

1) On p. 24.

and linked up with the study of communication in animal societies. At the same time we are enriched by physiological (or clinical) psychology, which explains phenomena such as aphasia, stammering and other abnormalities, thus revealing the laws of normal linguistic functioning by studying its defects.

Although the definition of language as a psychophysical event does contain an element of truth, it is certainly not the whole truth. Language can well be approached from a different point of view, and we are convinced that the linguist is not only entitled but also under an obligation to fix his point of view *outside* natural science and therefore outside physiological psychology. This does not mean that he can disregard natural science, but it does mean that the centre of his interest is elsewhere. - And the same thing holds good mutatis mutandis for the science of thought. It seems important to recognize the ideal forms of ~~thought~~ thought and representation; although here too is a physiological side to it which should by no means be overlooked.

It seems to us that only by elaborating an autonomous linguistic point of view and by the recognition of the ideal nature of thought and representation shall we be able to establish a firm basis for a satisfactory theory of S and F and of their importance for grammatical analysis.

and linked up with the study of communication in animal societies. At the same time we are enriched by physiological (or clinical) psychology, which explains phenomena such as aphasia, stammering and other abnormalities, thus revealing the laws of normal linguistic functioning by studying its defects.

Although the definition of language as a psychophysical event does contain an element of truth, it is certainly not the whole truth. Language can well be approached from a different point of view, and we are convinced that the linguist is not only entitled but also under an obligation to fix his point of view *o u t s i d e* *n a t u r a l s c i e n c e* and therefore outside physiological psychology. This does not mean that he can disregard natural science, but it does mean that the centre of his interest is elsewhere. - And the same thing holds good mutatis mutandis for the science of thought. It seems important to recognize the ideal forms of ~~xxxxxxx~~ *t h o u g h t* and *r e p r e s e n t a t i o n*; although here too is a physiological side to it which should by no means be overlooked.

It seems to us that only by elaborating an autonomous linguistic point of view and by the recognition of the ideal nature of thought and representation shall we be able to establish a firm basis for a satisfactory theory of S and P and of their importance for grammatical analysis.



## Part I

### Chapter (3)

The linguistic point of view.

The linguistic point of view.-  
In stating the linguist's point of view we cannot simply rely on theoretical pronouncements of leading linguists; because it has happened time and again that the linguist who <sup>has</sup> reflected on the methodological implications of his work, that is when he <sup>has</sup> converted himself into a philosopher, has <sup>r</sup> tried to state his case in the light of some philosophical system which did not quite do justice to his work.<sup>1)</sup> This has raised a certain amount of scepticism among the workers in the field against the introduction of 'philosophical speculations' into linguistics. Some scholars <sup>have</sup> even tried to take up a consciously anti-philosophical attitude, because they realized that the linguist was at his best when he was guided by nothing but his expert common sense. But such an attitude can surely not be maintained the moment one tries to see an individual fact or an individual observation in a wider perspective, the moment one is no longer satisfied with a mere connaissance and tries to rise to the level of coordinated knowledge. An anti-philosophical attitude leads to a sort of wild, uncon-

-----

1) Such influential systems have been those of Kant, Wundt, Croce, Meinong, Husserl, Behaviourism and others.

trolled philosophy instead of one which by reflection upon its principles (is disciplined); it leads furthermore to a sort of voluntary renunciation of enquiry into problems which remain in existence in spite of the positivistic ostrich policy, and their neglect must ~~have~~ <sup>have</sup> sooner or later a bad effect upon the specialist's work for the sake of whose protection this anti-philosophical attitude had been taken up. There is no escape from the truth clearly stated by Hermann Paul that the plainest linguistic fact<sup>1)</sup> cannot be stated without implicating philosophy. But of course, <sup>the</sup> only <sup>one</sup> ~~useful~~ philosophical attitude is <sup>useful</sup> which leaves things in their proper place, which, instead of drawing <sup>linguistics</sup> impatiently and arrogantly ~~linguistics~~ into its orbit, from outside as it were, has enough <sup>first</sup> patience to step ~~first~~ inside ~~linguistics~~ and to learn as much as possible from the expert before the construction of philosophical theories, and the more <sup>it is done</sup> thoroughly ~~he does it~~, the better.

The linguistic fact. - Both the technical procedure and the limitations of a scientific

-----

- 1) It is true that Paul says (Prinzipien, p. 5) 'historical' facts; but there is no doubt that for him linguistic facts are historical facts. Cf. also Schuchardt's word quoted as motto of this essay.

method are determined by the properties of the object the particular science undertakes to study. In this essay, which deals with methodological questions it is therefore of paramount importance to find a correct answer to the question: With what sort of facts has the linguist~~4~~ to deal? Or: What constitutes the linguistic fact?

In a broad sense we may say that we consider as language anything which functions as an i n s t r u -  
m e n t o f c o m m u n i c a t i o n . What do we understand by this? - Communication is a purposeful act by which something is conveyed by an individual to a social partner who partakes in this act by his willingness and his ability to understand what it is the other wishes to convey to him. Whatever else may be conveyed by that purposeful act<sup>1)</sup> of communication<sup>1)</sup> we are sure that it is a purposeful act only in so far as by it is conveyed some m e a n i n g .<sup>2)</sup> This however is not done directly, but with the help of an instrument, the l i n g u i s t c s i g n , which passes as it were from one partner to the other. It is a go-between which fulfills this function of conveying meaning by representing it. This it can only do if it has the same re-

-----

- 1) We are thinking of impressions such as sympathy, intelligence etc.
- 2) 'To have meaning' is the minimum criterion of the linguistic sign.

presentative value for both partners in an act of communication. From this can be seen that it is the meaningful sign which can be produced ('signalled') at will and understood by various members of a community which is the object of linguistic science.

It is worth insisting on the fact that language is an eminently s o c i a l phenomenon. This point cannot be stressed too much. Linguistic theory has for too long given too much consideration to what happens in the speaker instead of observing what happens between speaker and listener. And even to-day B. Croce's philosophy with its identification of language with any form of expression, whether used for communication or not, has many followers.<sup>1)</sup> It is the merit of the so-called 'French School' (Saussure, Meillet)<sup>2)</sup> to have given prominence to the sociological conception of language. Indeed, the functioning of language cannot be understood without taking into account the interpreter who literally collaborates with the speaker in an act of communication. As far as our theory is concerned we shall find that ultimately the distinction of 'language' and 'thought' is one between a socially accepted and socially fashioned symbolism and an ideal symbolism. ~~The~~

-----

1) In the so-called 'Idealistic School'. Cf. I. Iordan and J. Orr, An Introduction to Romance Linguistics, London 1937, Chap. 2.

2) I. Iordan and J. Orr, loc. cit., Chap. 4.

This distinction is one of the cornerstones of the argument presented in this investigation.<sup>1)</sup> For this reason it is so important to insist on the sociological conception of language.

The identity of the linguistic sign. - Language, then, is a socially conditioned symbolism. Whatever empirical differences the production of signs may cause in their physical structure, they must be recognizable as identical by both partners of an act of communication whenever they are used. They must have the relative stability of a social institution. This is an interesting and important point. We see quite clearly that linguistic signs are treated as relatively stable entities; in identifying them one abstracts empirical variations resulting from individual usage. A sign is recognized 'as the same' whenever it fulfills the same function for different members of a linguistic community and not because of its empirical identity. Empirically there are not two identical signs; the 'same' sound for instance, even if repeated by the same person, is empirically different each time it is uttered. But these empirically differences are overlooked as long as the sign fulfills the same function. In this the linguist follows <sup>social usage</sup> faithfully. Whenever he considers language as

-----

1) Cf. Part I, Chap. 6.

a social institution he neglects empirical differences and concentrates on functional equivalence. Since the values of signs are socially accepted they oppose a certain resistance to individual attempts to change these values. Linguistic signs have therefore <sup>a</sup> normative value as far as the individual is concerned. One could say that the normative character of linguistic signs is the same thing as their social character considered from a different angle. Since the identity of the social function of a sign is so allimportant for its identification it is clear that the functional point of view is the one which interests the linguist most.

The identity of meaning. - Now signs are only vehicles for meanings, and in the same way as signs must be the 'same' for both partners of speech, meanings must also be the 'same' for them. That is to say, signs must refer to things-meant which are identical for all who understand the signs correctly, i.e. following a socially accepted norm. Pending a more detailed elucidation of 'meaning' in a later chapter<sup>1)</sup> we may point out here already that meaning has to be assessed in terms other than those of subjectivistic psychology, because the psychological processes in both speaker and hearer are different and in principle non-

---

1) Part I, Chap. 5.

identical, whereas it is a condition for the proper functioning of a sign that its meaning should be identical for both partners of an act of communication. The identity of meaning can only be derived from the identity of the goal in any process of sign-interpretation, whatever its physiological nature may be, and that goal must be conceived as lying somewhere outside both speaker and listener, or sender and receiver: The identity of meaning is to be based on the identity of the thing-meant.

L a n g u a g e   a n d   s p e e c h . - We have now arrived at a conception of signs and meanings as something speaker and listener have in common, in spite of recognizing the reality of individual differences: It is this conception which enables the linguist to detach 'language' to a high degree from speaker and listener and consider it as a metaxy both have in common. By so doing the linguist cuts also 'language' off to a certain extent from the actual act of 'speech!'. It is only by taking this into account that we understand, how the linguist arrives at the discovery of objects called 'the English (French, Spanish, German etc.) language' as a potential possession of linguistic groups.

The isolation of language in the functional sense from concrete individual acts of 'speech' is possible only to a certain degree, admittedly a high degree, but



not completely. Linguistic form and particularly its changes in acts of speech cannot be explained without referring to the physiological and psychological conditions underlying them. Therefore phonematics, for instance, a purely functional branch of linguistics, needs as an auxiliary science phonetics conceived as a natural science. And functional semantics needs as an auxiliary science psychology to explain such things as analogy, contamination etc. But it must be clear, that the main interest of the linguist does not lie there, that such natural sciences are for linguistics auxiliary sciences.

'S i g n' a n d 'm e a n i n g' v e r s u s  
'l a n g u a g e' a n d 't h o u g h t'. - We are now able to see in a general way, what this normative and sociological conception of language ~~looks~~<sup>is</sup> like which we forecast in our criticism of the psychological point of view.<sup>1)</sup> The interesting feature of this conception is that it seems to be quite complete without the introduction of 'thought'. As a matter of fact the classical opposition between 'language' and 'thought' seems to be replaced in a purely linguistic context by that between 'sign' and 'meaning': linguistics presents itself as an autonomous science, not dependent on the sciences of the mind. Should it be possible to exclude 'thought' entirely from linguistic theory, then indeed the question

-----

1) See above, p. 38.

of S and P will be prejudged already. For they are logical terms, and if we exclude 'thought' from linguistics, the ideal laws of thought and its ideal forms ~~do~~ no longer interest the linguist. The answer to this can only be given at a later stage of our discussion, after a further elucidation of the terms 'sign' and 'meaning' in the next chapters. We leave therefore this question open for the time being and first complete our account of the linguistic point of view as different from that of the sciences of the mind.

T h e f u n c t i o n o f l a n g u a g e . - It will be clear by now that linguistics is in the first place a functional science. But the one function of the sign we have mentioned so far was that of conveying meaning. We have <sup>e</sup>therefore considered only the so-called i n - f o r m a t i v e function of language. But linguistic theory has always recognized a plurality of linguistic functions. Beside an informative function language is often held to have an e m o t i v e function.<sup>1)</sup> Nothing else is meant by the statement that language is the expression of thought(corresponding to 'informative' function) and feelings (corresponding to 'emotive' function). - ~~What seems certain, however,~~ For reasons just stated, we should like to avoid this formulation, just because it introduces the awkward term 'thought' which prejudges

---

1) See above, p. 25.

a dependence of language on cognition, a point we should like to reserve for a later discussion. What seems certain, however, is that the purely informative function of language is not the only one; besides an intellectual side language offers also another aspect which has been called 'emotive' (or 'emotional'). But as we had a methodological interest in excluding 'thought' from linguistic theory because it implies quite unnecessarily too much epistemology and logic, so we should like to avoid the term 'emotion' or 'feelings' for the reason that they imply too much physiological psychology. This is not merely a question of words. Behind them lie conceptions of things which are faulty and inadequate. These conceptions are partly the result, partly the sponsors of a linguistic theory which ultimately dissolves itself <sup>simply</sup> ~~precisely~~ into epistemological logic and physiological psychology. They must be corrected and overcome in a properly designed linguistic theory. Yet, as so often, even in this unsatisfactory formulation is hidden an element of truth which we shall try to elucidate.

Let us begin with an analysis of the reality which lies behind the so-called informative function of language. By this, I think, we have to understand the fact, that linguistic symbolism tells us something about an ob-

jective world, that it refers in an act of speech to a certain thing-meant which thus defined the meaning of the sign.<sup>1)</sup> But language does this in a peculiar way: the thing-meant, <sup>in its entirety</sup> is never represented ~~in~~ by the linguistic sign in its entirety with all the objective factors which may be discovered in it.

It is with language as with the visual arts. A picture of a landscape, for instance, gives prominence to certain features and neglects others; it can stress the outline of things and neglect atmosphere or vice versa, it brings out certain colours and mitigates others, it gives mainly a foreground interpretation or shows greater interest in the depth of perspective. In short, it gives an extract from reality, not reality in its entirety. This <sup>is</sup> only one example of the principle termed by K. Bühler Prinzip der abstraktiven Relevanz, which applies to any sort of symbolism.<sup>2)</sup> As in the

---

1) We have to anticipate here something which will be stated more fully on Chap. 5.

2) As a non-psychologist I was surprised to find that such a principle was formulated only so recently. I cannot see in it anything but an instance of the general truth that all symbolism is selective, including that of our senses, since ear, eye, nose etc. act always as filters of sensuous material. This knowledge must be as old as psychology itself.-Cf. K. Bühler, Sprachtheorie, ~~in~~ p. X.

domain of art it operates also in that of cognition, as we shall see, and it applies also to language. Language too refers only to a selection of objective features constituting the thing-meant, and this is easily explained. Not only is our mind incapable of getting interested in too many features at once, it also refuses quite voluntarily to consider those features which are of no importance for the purpose at hand. In this sense symbolization is already the first step in interpretation. We understand therefore that prominence is given to those objective features we are interested in when we speak, while others are merely implied. So we may distinguish between exposed and implied objective features in the linguistic representation of the thing-meant.

Exposed + implied objective features constitute the accepted thing-meant. But we must add that the real thing-meant may have furthermore certain features which are neither exposed nor implied, of which we have no knowledge at all, but which nevertheless are there as potential features which may enrich the accepted thing-meant at a more advanced stage of knowledge.

It is due to the fact that linguistic representation exposes only an extract of the total meaning that we not

only know what is meant, but can learn implicitly something about the speaker's point of view, his personal interest, the attitude he is taking up with regard to the thing-meant and also, perhaps, with regard to the listener. For any selection of representative features is determined by the points of view of <sup>he</sup> who selects them. By paying attention to the personal and individual point of view from which representative features have been selected, we not only understand what is meant by the speaker but we understand the speaker himself. As a matter of fact, the better we are able to identify ourselves with the speaker's point of view, the better can we interpret the meaning of his utterance, or of the symbols he uses. So we may say that our interpretation travels all the time in two opposite directions: Away from the speaker towards the thing-meant, and back towards the speaker, to grasp and occupy his point of view. The first may therefore be called o b j e c t i v e or c e n t r i f u g a l interpretation, the second s u b j e c t i v e or c e n t r i p e t a l interpretation. It is clear that both go hand in hand, that they are two complementary sides of the one process of understanding. We will never be able to understand the word patient unless we can identify ourselves with the point of view of the doctor, the meaning of boss remains a dead letter to us, as long as we cannot appreciate the point of view of an employee. We must be at home in

In the way the objective, informative function of language is fulfilled lie the conditions of symbolic subjectivism.

certain spheres determined by certain human actions and reactions, certain aspirations, evaluations and feelings in order to understand such terms; and if we do, these terms seem to carry with them a certain personal atmosphere.

All words are somehow individually coloured. There are words that ~~smell~~ of the farmyard, others reflect the paleness of thought. The least colourfull ones are those of the most general use such as go, be, left, way, under etc. etc. But this very indifference determines a subjective value.-What applies to words holds also good for sentences, with the difference that <sup>in words</sup> ~~there~~ the material meaning is at least as important and revealing as the formal meaning, whereas in sentences it is the formal structure which 'gives the speaker away'. Between a Ciceronian period and a short ejaculation we <sup>have</sup> a whole scale of subjective values.

Whenever our interpretation goes in the direction of the thing-meant and is centrifugal, we get to understand 'what is meant' by a particular expression. This is therefore the foundation of 'meaning'. What we understand when our interpretation follows the opposite, centripetal, direction is not 'meaning' in the technical sense but 'physiognomic significance'. We may therefore also speak of an objective interpretation of signs

whose aim is elucidation of their meaning and a subjective interpretation which aims at the understanding of the physiognomic significance. This appears to us the reality behind the distinction between informative and emotive language. Looking in the centrifugal direction signs seem to denote things-meant, looking in the centripetal direction they seem to express a world of attitudes and feelings. It should be noted, however, that even the expressive values of linguistic signs are of a sociological nature and should not be confused with the expressiveness of natural symptoms such as blushing, stammering, involuntary mimic reactions which are of a physiological character. To confuse both would amount to confusing linguistic signs and symptoms; we shall have to guard ourselves against this.<sup>1)</sup> Because even these expressive values of linguistic utterances have a well-known currency in a given social group, the outsider or foreigner who would know all the objective meanings of the expressions of a given language is <sup>still</sup> apt to slip <sup>up</sup> off in the correct handling of expressive linguistic values: his grammar may be correct, but his style is faulty.

-----

1) See next chapter.



The question arises whether we are justified in face of this distinction between 'meaning' and 'physiognomic significance' to talk of two functions of language as has been done. To this we should like to answer in the following way: It seems essential from a functional point of view that signs should have a meaning. 'Sign' and 'meaning' are complementary terms, one cannot be thought of without the other. It is quite different with physiognomic significance. This is nothing specifically linguistic but applies to all human activities. The way we sleep, we eat, we sit down, has a physiognomic significance, and I may infer from the way a girl walks in the street that she is a Girl-Guide! I should like to infer from this that the expressiveness of signs is a f a c t u a l characterization, whereas their meaningfulness characterizes the f u n c t i o n a l side of language. And so with the other activities: the expressiveness of walking is a f a c t , whereas the f u n c t i o n of walking is to cover a certain distance by the appropriate movements of our legs, etc. etc. This does not preclude, of course, the enormous importance of the expressiveness of signs for the understanding of linguistic behaviour and even for the understanding of the 'deeper significance' of objective meaning itself as we have seen. But we do think it misleading to call the fact that linguistic signs have a physio-

gnomic significance a second function of language and label it as emotive function.

To characterize an instrument - and language is an instrument of communication - by o n e function only has a great advantage, for it allows us to recognize it in any empirical disguise<sub>x</sub> Whenever we see this function fullfilled without having to trouble about possible other functions. It is easy to identify a chair as a 'table' once it fullfills the functions<sub>x</sub> of a table. In the same way we can discover ~~E~~ language where<sup>ver</sup> we find meaningful signs, whereas we should be at a loss to find a criterion of language in signs of physiogn<sup>om</sup>~~ic~~ significance; linguistic symbols would not be distinguishable from natural symptoms.

Having said this it is almost superfluous to enter into polemics regarding a third, ~~f~~ a fourth etc. function of language. As is well known Bühler thinks that besides an informative and an expressive 'function', there is thirdly a 'function' which he calls Appell.<sup>1)</sup> To my mind this refers to nothing but the social conditions in which signs work. Very indispensable conditions indeed, but hardly a 'function'; this 'Appell-function' is already ~~applied~~ in the definition of language as an instrument of communication. In order to function linguistic utterances must be received by a listener. But this in itself is as little a function of signs as for instance their audibility in spoken language.

---

1) Sprachtheorie, pp. 28 ff. By 'Apell-function' B. means 'vocative' function.

~~ixixx~~ Bühler sees in pet-words and in verbal abuse a display of the so-called expressive and the Appell 'functions'. But if a student could move a market-woman to tears by insulting her with the names of Greek letters (Sie Alpha, Sie Beta!etc.), he could succeed in this because the good woman supplied <sup>u\*</sup>gratiously the most awful meanings to the strange terms she heard. It is precisely because these words had for her an informative function that the effect of tears was produced. - 1)

The distinction between objective meaning and physiognomic significance is an important one and is not invalidated by the fact that it is by no means always easy to determine what is meant and what is only expressed or revealed. A shout Help! has the objective meaning 'I want help!', whereas its physiognomic significance may be circumscribed by saying 'I am in great distress', but this seems problematical. It may quite well be that whoever shouts Help! wants also to imply 'I am in distress' and in that case 'I am in distress' forms part of the objective meaning of the expression. Another doubt may perhaps concern the modality of verbs. In the Spanish sentence Le daré la llave cuando venga, the subjunctive of venga seems to reveal uncertainty on the part of the speaker, who hesitates to present the action as definite or real. But I think rather that the subjunctive does not 'reveal' that uncertainty, but 'denotes' it, and that from the point of

---

1) Sprachtheorie, p. 32.

view of the linguist both the action and the doubts concerning its definiteness or reality form one objective whole.<sup>1)</sup> We sometimes observe how certain features in the empirical make-up of a sign have to begin with only physiognomic significance but no functional meaning, but that they become meaningful in the functional sense later on. That certain speech-melody meaning now 'question' has probably once been a significant symptom of getting stuck before the intended sentence was finished.<sup>2)</sup> And there may have been a time when it was difficult to decide whether that speech-melody was merely significant or already meaningful. But the admission of border-line cases should not lead to a methodological confusion or to an attempt at invalidating an important methodological distinction.

The importance of centripetal interpretation for spoken language is paramount since the most diverse points of view may be revealed through a linguistic medium, which makes language so apt as a medium for art. It is less great in technical languages such as that of the mathematical sciences or symbolic logic. But even those, far from being a

-----

1) Cf. E. Husserl, Logische Untersuchungen II, p. 78:

"Ausdrücke können ebensowohl wie auf andere Gegenstände, auch auf die gegenwärtigen psychischen Erlebnisse des sich Äussernden Beziehung haben." Cf also here p. 188.

2) Cf. pp. 199 f.

completely objective symbolism reveal a subjective point of view, only it is fixed once and for all in contrast to 'living' speech.

G r a m m a r   a n d   s t y l i s t i c s . - On the distinction between centrifugal and centripetal interpretation is built that between s e m a n t i c s (including g r a m m a r) and s t y l i s t i c s . It follows from this that both these linguistic disciplines are complementary to each other and treat the same material from different angles.

Stylistics studies, as we said, the physiognomy of linguistic expressions, that is the mental and moral make-up of the users of creators of the linguistic instrument, it searches for man behind language. Buffon's famous <sup>remark</sup> ~~word~~ le style est l'homme même is quoted so often, because it expresses the essence and nature of style in such a very concise and brilliant way. Only it must be clear that 'man' here is taken in his most personal aspect as different from the generic aspect; homme in Buffon's sentence is equivalent with 'personality'. It must also be clear that 'personality' is not only to be found in the isolated individual, but also in social groups. Whoever denies the reality of 'the' Englishman, 'the' Frenchman, 'the' German etc. is like the man who could not see the wood because of the trees. In the sense of linguistic physiognomy the conception of a Völk~~er~~psychologie is completely legitimate.

It may perhaps be useful to show in just one concrete example how centrifugal or grammatical and centripetal or stylistic interpretation work together. The grammarian will say that in a general way French je ferai, English I shall do and German Ich werde tun denote all the same 'thing-meant', namely future, first person, indicative. As far as they do the form of one language can be translated into the corresponding form of any of the other two languages. But the three expressions differ in prominence they chose to give to certain aspects of the thing-meant: the French future tense reflects a perfective, the German a durative verbal aspect, and the corresponding English tense is modal. At this point stylistic interpretation comes in and finds that the static, ~~for~~ definite view of the French form is typical of a certain logical mentality, aiming at precise distinctions and definitions, that the German form reflects the indefinite Germanic dynamism, which is to its Latin neighbours such a disquieting trait in the T<sup>e</sup>tonic character, and finally, the English future tense with its alterations I shall, you will etc. reflects all the politeness and diplomacy based on morality so characteristic of the English. - We see from this example of the collaboration between grammar and stylistics, how the latter gives sometimes the raison d'être of the forms analysed by the grammatical method and is therefore an indispensable

completion of purely semantic analysis. But it should not be forgotten, that grammar and n o t stylistics defines the central interest of the linguist. For linguistics is a functional science and grammatical interpretation is identical with functional interpretation, whereas stylistic interpretation is not.

L i n g u i s t i c s   a n d   t h e   s c i e n c e s  
o f   t h e   m i n d . - Looking backwards to our previous discussion it is not difficult to discover ~~between~~<sup>in</sup> semantic or centrifugal analysis a linguistic analogon to epistemological logic and in stylistic or centripetal analysis the linguistic counterpart to psychology. In fact, centrifugal analysis tends towards the thing-meant and is therefore objective analysis, whereas centripetal analysis aims at subjective qualities. Likewise, epistemological logic is the science of the objective forms of cognition, whereas psychology looks at the subjective side of psychophysical events. This may explain, in part at least, the methodological shortcomings of the past. Logistic grammar had well grasped the ~~fact~~ truth that linguistic meaning is objective meaning. But it fell short when it identified socially accepted symbolism with ideal symbolism. It is a mistake easily to be explained, for both symbolisms stand for the same objective values.

Once the individuality of socially accepted ~~symbolism~~ systems of signs was discovered in Humboldt's 'inner form', linguistic physiognomy came to the fore under the garb of Steinthals Völkerpsychologie. This, however, should have remained more of an art than a science. It needs all the tact and all the courage of highly synthetic, that is non-atomistic work. But there is of course no reason to deny to this art the name ~~of~~ 'psychology'. It was however an almost unavoidable tribute to the spirit of a 'scientific' age, that that psychological art should take a more and more analytical, atomistic and 'scientific' turn. In consequence of this the linguist's attention was somehow distracted from its proper centre towards the empirical, physiological side of language. Since somehow everything is connected with everything else, this side-stepping into a natural science <sup>none the less</sup> ~~was not without~~ yielding ~~ing~~ useful knowledge to the linguist. The <sup>very</sup> haziness of the very term 'psychology' <sup>h</sup> which was found lying somewhere between physiology and physiognomy ~~is~~ was a stimulus to sharpen more and more the love for analytical details and this led automatically to a sharper formulation of linguistic individuality and to stylistics and back to the very centre of linguistics on a much more advanced level.

To-day it is again relatively easy to see that our centripetal significance reveals attitudes to be assessed in terms of practical needs, aesthetic feelings, moral reactions, temperament <sup>and</sup> characteristics, often not so much of the ~~isolated~~ individual, <sup>as</sup> ~~but~~ of groups, be it regional,



professional or national ~~groups~~. In order to understand them, we need more urgently a study of historical conditions, of traditions and milieus than ~~that~~ of nerve-fibers and centres in the brain. The linguistic subject is not only the individual speaker, although it is he too - but rather all those who stand behind him and have helped to shape the symbols he is using, that is, great linguistic groups.

I should like to point out in a clear way the difference between logic and psychology on the one hand and linguistics and the other moral sciences on the other hand by saying that the former consider 'man' as a c r e a t i o n, the latter as c r e a t o r. The former are interested in the s p e c i e s 'm a n', the latter in m a n a s a p e r s o n a l i t y. Hence the fact that the ideal laws of logic and the empirical laws of psychology claim universal value, whereas norms of grammar or stylistic values belong to certain historical epochs, to certain group-personalities and often to limited space.

By establishing these differences we find also the connection between ~~them~~ two points of view: we belong to a species and have personality. The latter would not be there without the former, and the linguist who ~~would~~ <sup>know</sup> nothing about the generic aspect of man would be ill-prepared for his job. And this we may say with regard to the methodological shortcomings of the past. If the partial confusion of grammar with logic and that of stylistics with psychology was a mistake, at least ~~it~~

it was an intelligent one, because the problem of the polarity object - subject is the same here as there.

C o n c l u s i o n s . - We have tried to establish the outline of a linguistic theory from which the terms 'thought' and 'feelings' were excluded and which does not, therefore, borrow anything from the sciences of the mind. It appears therefore that a purely grammatical method will be able to dispense with an S - P analysis, all the more since there is evidently no parallelism between the socially accepted symbolism of language and the ideal symbolism of epistemological logic. We have insisted on the fact, which we shall ~~etill~~ elaborate in due course, that the meaning of linguistic signs is ultimately to be defined in terms of 'thing-meant' and not in terms of 'concepts' and 'judgments'. But since both the linguistic symbolism and the ideal symbolism of thought may refer to the same thing-meant we may still find that both become somehow entangled, particularly should it become clear that we cannot speak without thinking at the same time, a point we shall have to discuss. Although there is no a priori reason to expect that thought-symbolism should be reflected in linguistic formulations, it is in practice still possible that they may not be independent under all circumstances.

But what is that ideal epistemological symbolism we are ~~speaking~~ <sup>talking</sup> about ? We have pointed out that the

'psycho-physical event' theory confused the realms of thought and representation. This is another question we have to clear up. But that is still a distant task. Our immediate concern has to be whether or not we can discover a point where 'thought' has to be drawn into ~~the~~ linguistic methodology, and for that reason we shall have to continue the discussion of 'sign' and 'meaning' which, in their social setting, constitute the linguistic fact.

## Part I

### Chapter (4)

#### The linguistic sign.

**General problems.** - In a generally accepted sense we may call 'sign' anything <sup>c</sup>accessible to our senses which 'stands for', 'represents' or 'has' a certain meaning. As it stands this definition is of little use to the linguist. On the one hand it is too wide; it comprehends obviously much more than is compatible with the sociological conception of the sign as an instrument of communication. The linguist is not so much interested in the sign in general as in the socially accepted or conventional sign, although he has to know something about the sign in the wider sense in order to understand well the positive characteristics of the linguistic sign; for that reason it is also important to know, what the linguistic sign is not. That is why we shall do well to approach the problem of the conventional sign by way of contrasting it with other possible conceptions of the sign.

But if the general definition is in a sense too wide for our purpose, it is on the other hand also too narrow. For besides an o u t e r form which is accessible to our senses the linguist knows also an i n n e r, purely mental symbolic form. But again, the problem of inner form cannot be detached from that of outer form, so that indeed an outline of a complete theory of the linguistic sign becomes necessary.

**Symptoms.** - So we must review the different

phenomena, which have been or could be called 'signs' and investigate their properties. - There we find first of all one class of signs, which are not linguistic signs at all, although the term 'language' has been extended to them. It is true, this term is used here only in a metaphorical sense. Still, it is easy to forget this and then the danger arises of confusing the second-hand, derived, notion with the real thing.

When the appearance <sup>of</sup> ~~with~~ swallows in North-European countries is taken as a sign of spring, when the rings visible on a vertical section of a tree trunk 'tell' us the number of years of the tree's life, we may well be tempted to speak of a 'language of things'. Do we not have here signs which have a hidden significance or meaning? This is certainly so, there is also the interpreter, able to understand that meaning, but there is no demonstrator or sender, the sign is not 'addressed' to anybody, and therefore this class of sign is not linguistic. Signs in this sense are s y m p t o m s . Now we can easily imagine that a pious man such as Columbus, when he concluded from the presence of floating logs that land ~~is~~ was near, may have imagined that God had placed those logs in the way of his ships in order to give him a 'sign'. In this case the logs are for Columbus not merely symptoms but real linguistic signs. It is by such a metaphysical substitution of a divine demonstrator that one comes to speak of a 'language of things'. It ought to be clear,

however, that such a metaphysical expression has no place in scientific discourse.<sup>1)</sup>

A symptom may be described as a n a t u r a l (automatic, blind) phenomenon related by laws of nature to another natural phenomenon, which defines for an interpreter the meaning of the symptom. A certain greenness of grass may be regarded as a symptom of the fertility of the ground. The outline of a human figure at the far end of the street may be interpreted as 'my friend X.' and thus also be called a symptom. There is no doubt that all automatic and reflexive movements of animals and men alike must be assessed as symptoms. Of special interest are here those phenomena which have some physiognomic significance such as blushing, turning pale, stammering and so on; they are symptoms of intensity of certain affections.

#### S y m p t o m s   a n d   l i n g u i s t i c   s i g n s .

- If we now wish to characterize the linguistic sign in opposition to the symptom we become aware of the fact that a tremendous problem is implied in the term 'linguistic sign', which we have not considered so far. It is the problem of freedom. Indeed, if we consider any sign

-----

1) Professor Campbell reminds me that Berkley's interpretation of the 'causal order of things' as a 'divine language of signs' provides an exact parallel to the belief imputed by us to Columbus.

as an automatic reflex to a stimulus, then it would only be a symptom, it would be part of an inescapable, causal ~~rational~~ nexus; it is only when we grant to the sender a minimum of freed<sup>om</sup> to communicate or not to communicate, that is, a minimum of freedom to break that causal nexus, that we can speak of a linguistic sign. In this sense we might say the symptom is an involuntary, the linguistic sign a voluntary, sign. Indeed the problem of freedom is already hidden in that property of the linguistic sign of being 'addressed' to a partner. If it were not voluntary it would hardly have this specific direction towards a present partner, it would simply be there; whether it would be picked up by an interpreter or not, would be a mere coincidence. The famous question whether animals possess 'language' or not will be answered negatively if we consider animals with Descartes as mere automata. The condition for a positive answer lies precisely in the granting to animals a minimum of freedom. If we assess all the 'signalling' and all the 'interpretation' of animals as ~~xx~~ automatic responses to certain stimuli, then their apparent linguistic behaviour is undistinguishable from other natural events: the bee's transmitting a message to her fellow-bees concerning the presence of pollen in a certain place, the male chamois' warning the herd of an approaching enemy, the old stork teaching his youngsters how to fly, would belong to the same class of events as the rushing of water down the slopes or the tree's bursting into blossoms in spring.



But, and this is perhaps even more important, freedom of will may also be denied to human beings. A linguistic theory on a thoroughly <sup>mechanistic</sup> ~~fatalistic~~ basis has been elaborated by behaviourists. For the behaviourist school a sign is a natural phenomenon or thing acting as a stimulus on the 'interpreter', where it provokes automatically a certain response manifesting itself in a corresponding behaviour. To understand the sign is therefore identical with an automatic adaptation to the fact that a given situation has been altered by a phenomenon called 'sign'.

The great inconvenience of such a theory is that it operates with a 'sign' which is simply there, is simply happening. Without being wilfully addressed to an interpreter it is no social sign. This can be seen from an example which <sup>is intended</sup> ~~means~~ to give an account of how signs are understood: If I have experienced <sup>on</sup> ~~during~~ a number of <sup>occasions</sup> ~~times~~ that, when I strike a match against its box, a flame appears, I shall expect a flame whenever I hear the scratch of a match against its matchbox; the scratch has become a 'sign' of the flame. It acts now as a stimulus, which evokes automatically the expectation of a flame. We see here clearly that the so-called 'sign' is not wilfully addressed to an interpreter and has therefore not the function of communicating anything to anybody; it may be called a symptom, but it is surely not a linguistic phenomenon at all. - Even in the other famous behaviourist example of the dog, who runs into the dining room in expectation of food on hearing

the gong announcing lunch, no linguistic sign is involved as far as the dog is concerned. What for human beings is a signal, is for the dog only a factor of a natural context~~s~~ such as for instance the smell of food.

The problem of language can be discussed on the level of symptoms only if one is the victim of a metaphor as we have pointed out before.<sup>1)</sup>

C r i t e r i a o f t h e l i n g u i s t i c  
s i g n . - These critical ~~xx~~ reflections seem to suggest that we cannot escape from admitting this problematical factor of freedom in the theory of the linguistic sign. But I think we can avoid the danger of being drawn into a metaphysical discussion about the essence of freedom,<sup>2)</sup>

-----

- 1) The behaviourist examples quoted by us have been taken ~~out of~~ <sup>from</sup> The Meaning of Meaning by C.K. Ogden and I.A. Richards, London 1944, pp. 52/57. The most prominent linguist of the Behaviourist School is L. Bloomfield (the author of Language, London 1935). For a historical account of the question cf. M. Schlauch, Early Behaviourists and Contemporary Linguistics, in Word II, 1947, pp. 25 ff.
- 2) Cf. on this question A C. A. Campbell, In Defence of Free Will, Glasgow 1938.

if we make use of a certain methodological modesty and limit ~~at~~ the discussion to the question, of how this factor of freedom reveals itself in the linguist's object, that is, if we replace the question of the moral and metaphysical conditions of language by the question of how far do they betray themselves in linguistic form, by what characters are they to be recongized in the linguistic sign. And there we shall be able to say at once, that the linguistic sign distinguishes itself from the natural sign or symptom by its character of artificiality. Language is an artificial instrument of communication. Man reveals his relative independence from nature, that is his freedom, in his being homo faber. An instrument is made precisely for being used at will. In directing our attention to those features of the linguist's object in which freedom reveals itself, instead of to the problem of freedom itself, we have the great methodological advantage of being justified in confessing our ignorance, wherever this criterion of the artificiality of the linguistic instrument fails to assist us. This applies to animal communication and to certain features of human communication likewise. Whether a certain groan is a mere reflex or a linguistic sign, I cannot tell. But I do know that the mere structure of signposts, artificial models of demonstration and above all articulate sounds betray already their instrumental character and that they are therefore linguistic signs.

As far as our sound languages are concerned this is clearly revealed by the tremendous diversity of speech (Babel); if language were not artificial but natural, then it <sup>^</sup>should be the same for the species man, instead of being almost indifferent to the factor of 'race'. So we may well say that symptoms are natural signs, and that it is characteristic of the linguistic sign to be artificially shaped. Hence we may say that the linguistic sign fulfills its representational function very differently from the symptom. The natural sign belongs to the same natural context as the thing represented by it: Columbus' logs belong naturally, and therefore necessarily, to 'land', the first swallow is a natural ~~sy~~ phenomenon of 'spring'. The linguistic sign on the other hand is not connected with the thing-meant by the same inescapable causal nexus; it is arbitrary and conventional. Experience and observation of natural phenomena can teach us to expect fire where we find smoke, but the same method fails completely if we wish to know the meaning of our linguistic signs: the presence and reality of a linguistic sign ~~does~~ in no way guarantees the presence and reality of the thing-meant. The symptom may be misinterpreted, but it cannot lie, whereas the linguistic sign, apart from being liable of misinterpretation, can also be intentionally misleading. The absence of a causal nexus between the linguistic sign and its thing-meant is thus the blessing and the curse of

language. The blessing, because it marks the liberation of a sign from given physical contexts: we can represent the thing-meant, whether it is physically present or not. This makes it possible to talk of future things or imagined things. The curse, because it is the basis of cheating and lying.

Artificiality is thus one criterion of the linguistic sign. Now, ~~far~~ as far as human language is concerned, we can add to this a second criterion. It is this: ~~T~~ h e t e c h n i c a l p r i n c i p l e a c c o r d i n g t o w h i c h o n e l i n g u i s t i c s i g n i s b u i l t u p i s u n i v e r s a l l y a p p l i c - a b l e . If, for example, the sign of a meaning A is formed by making use of certain phonematic differences of articulate sound, the signs of B, ~~D~~, D, etc. can be built up according to the same principle, by a variation of phone\* matic differences. Such a universal principle is at the basis of writing, morse, signalling by flags etc., which are all derived in the last instance from the principle constituting our sound languages. This seems to indicate that man has conceived 'communication' as a special problem, as a factor various actions such as calling for food, warning, instructing etc. had in common, a problem susceptible of a universal solution, and it seems likewise that this problem was never grasped by animals.

So we may sum up by saying that language is easiest identified where we find an artificial instrument~~x~~ of

communication consisting of signs constructed according to a universally applicable principle. Our previous assumption that language is an instrument of communication has thus been fully warranted and a clear line has been drawn between symptoms as objects of natural science and linguistic signs as objects of the science of language.

D i a c r i t i c o n   a n   s y m b o l . - Inside this category of the linguistic sign, we have now to distinguish two main categories which we shall differentiate as d i a c r i t i c o n and s y m b o l .<sup>1)</sup>

The diacriticon is a d i f f e r e n t i a t i n g sign. Its main function is to serve as a distinguishing mark. A cross chalked at a particular door in order to single it out, to prevent it from being confused with other doors, or reminders such as a knot in the handkerchief or a ring worn on a finger different from the usual one, are examples of diacritica. In our languages almost all phonematic labels or outer word-forms may be considered as diacritica of certain meanings. Sound-labels such as [tri:], [bùk] etc. etc., can be regarded as diacritica of the meanings 'tree', 'book' etc. in the same way as phonological differences between [pɜ̀N] and [peɪ̯N]

---

1) I think that these are better terms than ~~the~~ name

(=diacriticon) and sign (= symbol) which I have used

in On Linguistic Explanation, Mod. Lang. Rev. XXXVI (1941)

or [hɛ:d] and [hɛ:t] are distinguishing marks of sound-labels.

The main characteristic of the diacriticon is its *a r b i t r a r i n e s s*, that is, its form could be changed at will without necessarily impairing its function: Whether I mark a door by a cross or a splash of paint or a nail does not really matter; one form of distinguishing mark is almost as good as any other. From this follows directly the great *m o b i l i t y* or transferability of the diacriticon. A knot in the handkerchief may remind me of one thing to-day and of an entirely different thing to-morrow. In the same way it does not really matter whether I call an 'eye' [aĩ] or [aũgə] or [æj], or whether I change the label [kənə] in the course of time to [sɜːɛ] or whether I use the sound-label [tʌʌʌk] in one context for a large packing-case or in another context for the nose of the elephant.

Semantically speaking we may say that the diacriticon singles out a thing or meaning without betraying by its form which thing or meaning it does single out. In short, it has a negative meaning, that is, a meaning without positive characteristics.<sup>1)</sup>

---

1) A friend tells me the story of a colleague who, looking up in an encyclopaedia the word abacadabra found it defined as 'word without meaning'; looking up under word he was informed that it is 'the ~~sma~~llest unit of 'meaning'. It would have been clearer to say that abacadabra was a mere diacriticon.

In contrast to the diacriticon, which is a sign of arbitrary reference, the s y m b o l is characterized by its a n a l o g i c a l r e f e r e n c e . If we use a cross as a symbol of the Christian Religion, the analogy between this sign and the cross on which Christ suffered bodily death is very obvious. If 'white' is the colour of innocence, it is because we feel an analogy between this colour and purity, etc. It is through those features of the sign which are analogous to something in the thing-meant that it becomes a symbol . It is clear, therefore, that we must class as symbols all imitative signs.

How far now are linguistic signs symbolic in that sense? There is one type of language which seems to consist of nothing but symbols; it is the language of 'natural' signs. They are of two sorts: Deictic and imitative gestures.<sup>1) of</sup> ~~^~~ these only the latter seem to fulfill the conditions of symbols, but it is clear that deictic gestures also are nothing but a special class of imitative signs, ~~th~~ since they all picture the arm in the action of seizing something, although they do not picture the thing-meant. We know also that our script-language has begun by being pictographic and thus symbolic. To ~~ex~~ a certain extent the same thing can be said of our sound-languages. It

-----

1) Cf. B. Bourdon, L'expression des émotions et des tendances dans le langage, Paris (Alcan) 1892, p. 30. Also Wundt, Völkerpsychologie II (1900), pp. 606/07.



is probable that here too at the beginning <sup>are</sup> so-called 'sound-gestures', that is gestures made with our speech-organs, although it is uncertain to what extent they were merely a by-product of expressions in which other parts of the body played a prominent part and how far they were originally singled out for communication purposes. - As things are to-day we may call symbolic all onomatopoeic signs, although they very often do not picture the thing-meant in its totality, but only an aspect of it: cuckoo does not picture the bird, but only its cry, tic-tac imitates the noise of the swinging pendulum but not the clock, etc. etc.

Obviously the range of meanings represented by signs operating according to a pictorial principle would be relatively small, because the nature of the sign material imposes strict limitations. The things we can imitate with the help of sensual material such as sounds, gestures, drawings etc. are relatively not very numerous. But as a matter of fact, man has extended considerably the realm of meanings to be covered by symbols, by using them metaphorically. The gesture imitating a roof may be used to mean 'protection', the sound-group pst! imitating a whispering ~~noise~~ voice is used in German as an exhortation to talk in a low voice and in Spanish as a discreet way of calling a person. Metaphor is an indirect way of symbolizing, in which we use the meaning A of a sign in its turn as a symbol of a second meaning B.

In the case of the roof-gesture or the pst!-sound the pictorial features of the sign were accessible to our senses. But this is generally not the case in linguistic metaphors. If I speak of an 'iron' age, all that is accessible to my senses is the sound-label [aɪrən] and yet we may call an 'iron' age a 'graphic' expression, because here again we have a kind of picture, only the material with which we paint is not of a physical nature, it is a purely mental picture. It is only in our minds that we find the analogous, symbolic features. So in our case the linguistic sign is a characteristic complication of an outer diacriticon or sound-label and an inner, purely mental, symbol; it is a complication of an o u t - e r (diacritical) and an i n n e r (symbolic) form.

What now if I speak of an iron rail? Is it that in this case we have only an arbitrary label or diacriticon affixed to a certain thing-meant, or is it that here too we find an inner symbolic form? There should be no doubt that the latter alternative is the correct one. The only difference between ~~xx~~ the use of the word iron in iron age and in iron rail is that the inner (or mental) symbol in the first example is a somewhat imperfect analogon to the ultimate meaning, which has to be adjusted by the interpreter in order to be correctly understood, whereas in iron rail the mental symbol is already ideally adequate to its meaning and needs no further adjustment.

The higher pictorial value of the metaphor results from the fact that a more abstract meaning is illustrated by certain concrete features which the interpreter has 'to put into brackets', because they do not fit the intended abstract meaning, and it is precisely the incongruity of these ill-fitting concrete features which throws them into relief and makes the whole expression picturesque.

From this we shall ~~xx~~ have to learn a rather important lesson: Most linguistic signs are a complication of diacritical + symbolic features; in our soundlanguages they are normally distributed in outer (diacritical) and inner (symbolic) form, except in onomatopoeic signs, where both features appear in the outer form. If we consider the complication of symbolic + diacritical features as a unity, it is quite legitimate to follow ordinary usage and call all words 'symbols', provided we really think of the complication; but if we abstract from that combination outer form only, we should not refer to it as 'symbol' but as 'diacriticon'. For instance if we consider freeze as a diacriticon we shall say that the 'same word' freeze has two meanings: that of a mural decoration and that of intense cold, if we look at it from the point of view of the symbol we shall say there are 'two different' words freeze in English; one meaning a mural decoration, the other intense cold. A word such as abacadabra only exists as diacriticon.<sup>1)</sup>

---

1) See our note on p. 79.

S t a g e s o f s i g n - d e v e l o p m e n t .-

Symptom or natural sign, symbol or analogous sign and diacriticon or arbitrary sign are first of all analytical concepts, distinguishing different classes of signs which we find hic et nunc before us. Now the temptation is almost irresistible to give to these analytical terms a genetic sense. At once an important perspective opens before us. We would see language emerge from imitations of symptoms, particularly expressive symptoms, which still would be almost indistinguishable from the real thing; they would be inarticulate and cover a small range of elementary meanings. Once the principle of metaphorical extension had been grasped, we see it conquering the material world and soon extending its area to abstract meanings by the way of inner symbolism. We would then have created the condition for the arbitrary sign, because we have only to suppose on the one hand that the direct (original) meaning of the sign is forgotten and on the other hand that the production of the outer sign becomes mechanized and <sup>b</sup>apreviated. Now the creation of signs is really free, severed from all fetters imposed by material conditions; language <sup>approximates</sup> ~~becomes~~ closely to the ideal of scientific notation. This picture acquires an even deeper significance if we suppose that this linguistic development gives us the measure of the development of human intelligence. The elaboration of the abstract sign would indicate the conquest of abstract thought.

Linguists have yielded to this temptation to put at the beginning of language imitation of natural signs and to see in the arbitrary, artificial sign the crowning of a long process of development. The famous bow-wow theory (Max Müller) or Steinthal's three levels of inner form corresponding to our distinctions of outer symbol (e.g. onomatopoeic signs), inner (mental) symbols and *diacritica* <sup>1)</sup> are famous examples of such a theory.

For my part I should think that it is in principle correct. It would be wrong, however, to overwork this genetic view, claiming that all arbitrary signs go back in the last resort to imitations of natural signs. Historical reality is infinitely more complicated. Grammont has shown in his famous article Onomatopées et mots expressifs <sup>2)</sup> that onomatopoeic words have often their origin in arbitrary words and vice versa. As long as language is being used for artistic expression we shall find that the more "primitive" onomatopoeic signs are used, because they are so much more imaginative, they seem to bring us ever so much closer to reality than the abstract arbitrary sign. Artistically E. A. Poe's Raven expresses himself much better in the original where he says Never more! than in Mallarmé's famous translation where he utters Jamais plus!

-----

1) Grammatik, Logik u. Psychologie, pp. 97-101.

2) Revue des langues romanes, XLIV (1901), pp. 97/158.

But that on the whole linguistic progress goes from the imitation of natural signs (i.e. motivated signs) in the direction of arbitrary signs is not only suggested by the evolution of conventional gestures which follows this pattern, but also by the development of our script with its three characteristic stages, called pictographic, ideographic and phonetic.-All this has a direct bearing on our question of S and P. for the simple reason that it will be all the more difficult to look for an S - P structure in signs which are to a large extent sensorial pictures. But it may be different in the domain of arbitrary signs being associated with purely mental pictures.

## Part I

### Chapter (5)

#### Meaning.

The problem of meaning. -

→ A theory of the linguistic sign such as we have outlined in the preceding pages should be supplemented by a theory of meaning, because a sign only exists only in so far as it is a meaningful sign. The very notion of 'sign' implies that of 'meaning'. One can never be ~~thing~~ thought of without the other. It is therefore all the more deplorable that the very term 'meaning' seems to be elusive and opinions disagree widely as to how the question 'What is linguistic meaning?' should be answered. Is 'meaning' a thing of our mind or is it identical with the thing-meant? Surely one can say 'to get hold of the meaning of an expression is to get hold of the thing meant by it'; and consequently the thing-meant and meaning are taken to be identical. On the other hand there are powerful arguments against it. To quote Professor Gardiner's words 'the thing meant by the word cake is eatable, while the meaning of the word is not.' And the same thing can be affirmed mutatis mutandis with regard to abstracts: '....it is not the meaning of the word religion which stirs such emotions, which can create saints and inquisitors; only the thing meant by religion can do that.'<sup>1</sup>) If we look however in Professor Gardiner's book for an answer to the question, what linguistic meaning is, apart from its being different from the thing-meant, we are disappointed. We learn that word-

-----

1) Alan H. Gardiner, The Theory of Speech and Language, Oxford 1932, pp. 29/30.



meaning for instance can be looked upon subjectively, and we find its grammatical meaning; or objectively and we discover the area of meaning comprising all the things-meant a word might refer to. (p. 36). We hear that word-meanings are 'adjectival' in relation to the thing-meant (p. 39); 'meanings' belong to the psychical side of words (p. 69), 'when we allude to the 'meaning' of a word what is signified is the multitude of ways in which a speaker may, if he will, legitimately employ it' (p. 100); in the term 'meaning' is involved the notion of human purpose (p. 103). All these remarks are most valuable characterisations of the phenomenon in question, revealing a very thorough and competent linguistic experience, and yet I feel that they still leave a gap, which must be filled up before we can answer our question. If we look for help to other scholars we find that according to L.R. Palmer 'meanings' are the mental contents of sound-patterns<sup>1)</sup> Does that indicate that meanings are ideas, or concepts? We have only to ask this question and we remember what Stuart Mill taught in his polemic against Hobbes<sup>2)</sup> 'When I say "the sun is the cause of day" I do not mean that my idea of the sun causes or excites ~~in~~ in me the idea of day; or in other words, that thinking of the sun makes me think of day. I mean, that a certain physical fact, which is called the

-----

1) L.R. Palmer, An Introduction to Modern Linguistics, p. 77.

2) J. Stuart Mill, Logic I, p. 21.

System of LONDON 1866,

sun's presence ... causes another physical fact, which is called day.<sup>1)</sup> This seems to indicate that meanings cannot be assessed in mental terms, and we are thus back - at least apparently - to the point we started from. For Marty - Brentano meanings are definitely of a psychological character.<sup>2)</sup> Here looms the danger we spoke about in our chapter on the Psychological Point of View, that the linguist might be drawn into an alien field.<sup>3)</sup>

The most puzzling thing about this question of the linguistic meaning is probably, that the closer we analyse the language situation, the less we discover anything that could be called 'meaning'. There are the speaker and the listener and the thing-meant; there are the relation between thought and thing-meant, that between sign (Bally's signifiant) and thing-meant (Bally's signifié)<sup>4)</sup> called by Ogden and Richards reference.<sup>5)</sup> but no 'meanings', unless we want to confine this term to either the reference or, <sup>alternatively,</sup> to the thing-meant, as has been done. Should we therefore consider the term 'meaning' devoid of any sense? This is

---

1) J. Stuart Mill, System of Logic I, London 1856, p.24.

2) Cf. p. 31, note 1.

3) See above pp. 37 f.

4) The Meaning of Meaning p. 14.

- 4) Ch. Bally, Linguistique générale et linguistique française, Paris 1932, passim.
- 6) According to Gomperz - Dittrich 'meaning' is a relation between "Aussage" and "Sachverhalt".. This merely says that sentences are meaningful if they refer to facts; meaning is thus identical with reference to facts. Nothing is said, however, about the nature of this reference, nor is it clear how we have to conceive the meaning of isolated words, which do not refer to facts. Cf. O. Dittrich, Die Probleme der Sprachpsychologie und ihre gegenwärtigen Lösungsmöglichkeiten, Leipzig 1913, p. 33.

hardly possible in view of the fact that linguists have used the term to very good effect.

And I think an answer to our question can be found. Signs operate according to the quid pro quo principle, that is to say, we accept them in communication instead of the things-meant which they represent. The whole situation reminds us of commercial life, where we accept a cheque or a banknote instead of hard cash, and we do so, because both are equivalent. Sign-representation is also an expression of a sort of equivalency, and 'meaning' is nothing but the representational value of signs, where the term 'representational' should not be taken in a psychological sense as referring to representation in the mind, but is merely the equivalent of the German stellvertretend; representational value is the quid pro quo value. In order to forstall possible confusions between epistemological and linguistic terminology we shall call the quid pro quo values of signs semantic values and avoid the ambiguous word 'representational' in this connection. Thus we shall say that meaning is the semantic value of a sign.

Values are something immaterial, and that is why we cannot eat the meaning of the word cake, nor can we, for that matter, walk on the meaning of Columbus's logs. On the other hand, values are nothing, if they cannot be properly assessed, and, in the last resort, the semantic

value of signs has to be assessed in terms of 't h i n g s - m e a n t'. Without the possibility of experiencing the thing-meant speaker and listener would be deprived of that neutral platform on which both must meet if the aim of communication, namely understanding, shall be reached.<sup>1)</sup> Comparison with a commercial situation may again be helpful. If I say 'This half-crown means an ounce of tobacco to me', we use a material object as evaluator, and in the same way we use the thing-meant as evaluator of signs. When I say my lamp means that well-known particular object just in front of me, this object is not the meaning of my lamp, but it d e f i n e s it. Therefore we must get hold of the thing-meant in order to understand a meaning, but that does not prove that thing-meant and meaning are identical, although we can understand that a confusion of both is not necessarily harmful, provided the context suggests that the thing-meant is not quoted in relation to other things but as evaluator of the sign.

M a t e r i a l m e a n i n g a n d f o r m a l m e a n i n g . - Our statement that meaning is the thing-meant value of a sign, must be qualified and elaborated if misunderstandings are to be ruled out. Looking at

---

1) Cf. p. 49.

isolated nouns such as cake, logs and lamp etc. we might be tempted to think that, broadly speaking, each sign ~~xx~~ really denotes a thing in the outside world. Nothing could be farther from the truth. We have only to look at all those signs, which the grammarian calls 'formal signs', such as articles, auxiliary verbs, pronouns, prefixes, endings, word-order, accent etc. etc. in order to see at once that this is often not the case. But our statement is true in ~~this~~ sense, that a linguistic sign always refers to a world thought of as lying 'opposite' both speaker and listener - ~~even~~ should this world only exist in imagination - and subjected to their attention, and it is precisely the rôle of the sign to direct the listener's attention towards that goal. A linguistic sign is a directing as well as a directed sign, and the ultimate goal of that direction is the 'thing-meant'.

Uncomposed or holophrastic signs seem to fulfill their function in the most direct way, by simply telling us what is meant or to which thing-meant they direct the listener's attention, without, however, indicating how this ultimate meaning is to be built up. The composed sign, however, functions in a different way. If we compare it to an optical instrument, we may say that certain parts of it have the function of singling out the broad objective sphere which appears somehow blurred until we adjust the focus with the help of additional, auxiliary signs. If I pronounce the word hunt for instance, I

evoke for any English speaking person a certain objective sphere of a relatively unprecise character, I give a first orientation. By saying either the hunt or to hunt I single out certain much more precise features in that ~~obje~~ general sphere. The question 'What is the thing-meant value of to or the <sup>or</sup> even an isolated hunt?', is a very puzzling one, because on the one hand we feel that these signs refer somehow to 'something objective', on the other hand we are unable to single out any precise objective feature in a possible thing-meant for which they stand. But once we have come to know the thing-meant value of the c o m b i n a t i o n to hunt or of the c o m b i n a t i o n the hunt, we are able to characterize the rôle played by these part-signs in building up the thing-meant value of the combination. Therefore, instead of asking the material question 'What is the thing-meant value of to or the or hunt?' it is much more reasonable to ask 'What contribution do these signs make in the building up of the ultimate thing-meant value?', and this is a functional or a formal question. In other words, all questions concerning the 'meaning' of part-signs or signs destined to work in combination with other signs really aim in the first place at the operative or functional value of signs and are therefore formal questions.

Strictly speaking it would be preferable to avoid any question of the form 'What is the meaning of the & definite article or an ending -er etc.?' and replace it

by a more accurate formulation such as 'What is the function of the article etc. in a given meaningful reference?'. But the term 'meaning' has been so currently adopted in this context that it would be pedantic to replace it by the more accurate but much more clumsy 'function in meaningful reference'. We shall therefore simply say that the thing-meant defines the ultimate meaning of the total sign materialiter, whereas the meanings of part-signs in composition define the ultimate meaning formaliter. Likewise 'semantic values' may be either material values or formal values.

We may well characterize the ultimate thing-meant value as extrinsic meaning, because the thing-meant value is always transcending grammatical form,<sup>1)</sup> the thing-meant lies outside the linguistic sign, from which it can be dissociated. To the extrinsic meaning we may oppose the intrinsic or functional (grammatical) meaning of part-signs in composition. So we would say that the ~~extrinsic~~ meaning of the hunter is defined by a certain thing-meant, namely a man exercising the functions of hunting. Whereas the meanings of the, hunt-, -er are intrinsic or grammatical meanings indissolubly associated with the part-signs the, hunt-, -er, and to

-----

1) We have called attention to the fact that certain features of the thing-meant remain outside linguistic symbolization. Cf. p. 54.



be defined in terms of function in meaningful reference.

At this juncture we come up against a terminological difficulty, because the term 'material meaning' is not confined in grammatical parlance to extrinsic meaning only, but covers also the meaning of elements such as hunt- in our example. This<sup>is</sup> perhaps not very satisfactory from the theoretical point of view, but as so often in the case of traditional terminology which has proved useful in practice there can be found some reason, why the term 'material meaning' should be used in that way. In our case the reason is that both whew! and hunt- contain a s p e c i f i c reference to the objective world, whereas elements such as the, -er and the like are more g e n e r a l signs. This traditional terminology has an obvious disadvantage: it obscures the fact that the pertinent question which can be asked with regard to whew! is: 'What is meant by whew!?' whereas in the case of hunt- we can only ask 'Which function does it fulfill in meaningful reference?'. In other words, traditional terminology obscures the fact that even root-meanings as that of hunt- are grammatical meanings, whereas whew! is outside grammar. However, I think it is wiser to avoid terminological novelty as far as possible in order to avoid confusion, so that we shall adopt the following compromise: We<sup>shall</sup> retain the traditional term of

'material meaning' in the sense of specific reference to the objective world together with our distinction between extrinsic and intrinsic (grammatical) meaning:

Material meaning	{	<u>whew!</u>	Extrinsic meaning
		<u>hunt-</u>	Intrinsic (grammatical) meaning.
Formal meaning		<u>the, -er</u>	

Inside the grammatical field we would call hunt- a s e m a n t e m e , the and -er m o r p h e m e . In any composition of part-signs semantemes are the most important ones just because they ~~they~~ refer to the objective word<sup>q</sup> in a specific way. They are therefore able to suggest in any meaningful reference the bulk of the information. Compared to them morphemes play only an auxiliary rôle, they are auxiliary signs (outils grammaticaux) in the largest sense.

In a statement such as the hunt-er kill-s the deer we have three semantemes, the rest are morphemes. The semantemes as the most important parts in a linguistic communication are the natural halting-points for the interpreter's attention. This can be clearly seen if we compare He fell. Dead! with He fell dead. In the first instance fell receives the full weight of attention, whereas in the second example our attention races ahead to the relatively most important word dead, thus degrading fell to a mere auxiliary.

The meaning of semantemes is the one which allows us to establish word-families, it is the meaningful element

common to the desire, to desire and desirous. It also allows us to distinguish morphological varieties of the same meaning: good, better, best; to go, went, gone etc. On the distinction between semantemes and morphemes is thus based the entire grammatical organization of languages.

'Meaning' as an action implies doubtless an element of will, and the goal of our wilful effort in speaking is the thing-meant defining extrinsic meaning. It is therefore the extrinsic meaning we are aiming at, which stands out clearest in our consciousness, whereas the intrinsic meaning, which is purely instrumental in achieving that aim is often not noticed at all. While we speak or listen we seem to live entirely in the world of things-meant, and it requires the methodical effort of the trained linguist to learn anything about the mechanism of intrinsic meaning. Our description of meaning as a wilful act corresponds exactly to our characterization of the ~~sign~~ ~~xxx~~ linguistic sign as a voluntary sign. In the sphere of meaning as in that of the sign the same problem of freedom is implicated.<sup>1)</sup> However, not in all cases does the meaning of a socially accepted sign conform to the intention of whoever uses that sign. Language has a peculiar life of its own; as soon as a linguistic formulation has come into existence its meaning is that corresponding to the norms of social convention, and nobody

-----

1) See above p. 74a.

has the right to claim he meant 'white' when he said black. But this does of course not obliterate the fundamentally i n t e n t i o n a l character of meaning as something we aim at when speaking.<sup>1)</sup>

From our foregoing remarks on extrinsic and intrinsic meaning it can be gathered already that both are interdependent. Without a knowledge of the thing-meant value of to hunt or the hunter it would be impossible to analyse the formal meaning of the linguistic elements involved, and it is almost a commonplace to repeat that knowledge of the thing-meant is one of the most valuable assets in the interpretation of signs. This gives to the linguistic norms which regulate understanding, a certain elasticity. As long as we know what is meant by an expression, this expression need not conform very closely to conventional form, It is here that lie the germs of linguistic change.

-----

1) It is the merit of phenomenologists (Husserl, Dempe) to have insisted on this fact. If it is overlooked one might be tempted to define 'meaning' as an associative link between sign and sense and thus fall back into associational psychology which has been overcome by phenomenology. (H. Dempe, Was ist Sprache?, p. 50: "Intentionalität ist das Wesen des Psychischen".) The conception of 'meaning' as an associative link is still upheld by S. de Ullmann, Language and Meaning, in Word II, 1946, p. 118.

P a r t I

Chapter (6)

L a n g u a g e a n d c o g n i t i o n .

Thing - meant and cognition. -

We have pointed out on p. 91 that the thing-meant has a great social importance: it provides that neutral platform on which both speaker and listener can meet. The possibility of adequately experiencing the thing-meant is therefore one of the most important conditions of linguistic understanding. It is only in the thing-meant that we find a truly 'neutral' platform, that is something that ~~does~~ neither belongs to the speaker nor to the listener; the same could hardly be said of subjective psychological events. According to Dittrich<sup>1)</sup> Gomperz has tried to define the neutral platform where speaker and listener meet in terms of "generell-typischen Totalimpressionen". By this he understands those representational features of the objective substratum common to all members of a linguistic community: "die allen gemeinsamen Vorstellungselemente einer Aussagegrundlage". Against this we should like to point out that any listener can know that certain representational features in the speaker correspond to certain others in his own mind only if and when experience shows that the goal of attention, i.e. the thing-meant, is identical for both in a given act of communication.

-----

1) Die Probleme der Sprachpsychologie, p. 44.

But our insistence on the rôle of the thing-meant as evaluator of signs does not mean that we underestimate the factor 'cognition' in the process of understanding. We have to recognize that, notwithstanding its existence outside the subject, the thing-meant is 'given to us' only in c o g n i t i o n ; it exists for us only in so far as we have come to know it. We can refer to the objective world in a meaningful way only with the help of those mental processes which we call cognition.

This looks as if we are after all giving prominence to a subjectivistic psychology, which we <sup>have striven</sup> ~~strove~~ all the time to relegate to the rank of an auxiliary science. But in reality we do nothing of the kind. All we do is to affirm the truth formulated by Schopenhauer that there is no object without a subject. In the very term ~~of~~ object, cognition is already implied as a potentiality <sup>have</sup> We <sup>have</sup> seen already that the very term 'objectivity' is the necessary correlatum of the subjective fact we call 'directing our attention'. It is true we introduce the cognizant ego <sup>over against</sup> ~~opposite~~ which the objective world is found and the subjective action of experiencing it. But in a theory of cognition we consider individualistic psychological processes only in so <sup>far</sup> ~~much~~ as they are <sup>related to the experience of</sup> ~~precisely~~ o b j e c t s . ~~We~~ ~~experience~~ We do not consider them in their psychological reality but only

in their ideal function of reflecting objects. The very terms 'reflection of objects' or 'objective experience' imply that objective features have for our mind the value of cognitional features in potentia and that cognitional features have the value of actual objective features; in other words, cognitional features are congruent to objective features. And it is this ideal parallelism between objective and cognitional features which dispenses us from analysing cognition of the 'same' thing-meant in listener and speaker separately, because by granting the identity of the one, the identity of the other is already implicitly accepted. Cognition as a psychological process differs from one individual to another in intensity, clarity and sentimental colour, but functionally it is the same in so far as certain objects are recognized.

The ideal equivalency between cognitional and objective features should not be taken for more than it really is, namely an expression of equivalency accepted by the cognizant ego, that is to say that the question of truth or equivalency between cognitional and real (as opposed to imaginary) objective features is not prejudged by our statement. If I say the chimaera exists, I know of course that there is nothing in the real world corresponding to chimaera, and yet, there is an 'accepted' object or a thing-meant by chimaera which can



be recognized independently by speaker and listener, and there are in their minds cognitional features ideally conformed to this accepted object. This goes to show that the question of 'reality' and 'truth' can be eliminated from a theory of meaning by qualifying the term 'object' or 'objective world' by the attribute 'accepted', by insisting that 'objective' is merely anything we can direct our attention to and 'objectivity' is nothing but the necessary correlatum to that subjective fact. And we can direct our attention not only to real things but also to imaginary ones. In fact cognitional experience embraces much more than the real world. We have not only access to the spoon we eat our soup with or to the tree in our street: there is the tremendous world of fiction, and the meaning of fairy can be tested in the same way as that of table, cat or house, and some people know Mephistopheles better than the typewriter on their desk.

In the same sense <sup>a</sup> statements such as My house is built of water is still meaningful although it is manifestly untrue. Husserl would have said that a statement ceases to be meaningful only when it is unsinnig, not when it is widersinnig.<sup>1)</sup> In our terminology we

-----

1) E. Husserl, Logische Untersuchungen II, p. 312.

should say that in our statement we have a compatibility of formal meanings of the signs involved, but incompatibility of material (=extrinsic) meanings, but since the linguist deals only with accepted objects he has no means of testing this material incompatibility. Therefore he accepts statements such as This round triangle is industrious.<sup>1)</sup> provided the formal meaning is in order. And this is also what Steinthal was trying to point out in his famous parable in which the logician protests against the statement diese runde Tafel ist viereckig, whereas the grammarian accepts it; his turn of criticizing comes when he hears dieser Tafel sind rund to which the logician has ~~nothing~~ <sup>objection</sup> ~~to object.~~<sup>2)</sup> According to Steinthal it is the job of the logician to point out the contradiction in terms of a statement, whereas the linguist is only concerned with formal correctness measured by the norms of language.

All this confirms that for the linguist the thing-meant is the thing-meant accepted in cognition, and it is possible to accept things-meant even if they are constituted in such a way that they would not exist in reality.

---

1) Cf. E. Otto, Die Wortarten, Germ. Roman. Monatsschr. 16 (1929), p. 420.

2) Grammatik, Logik u. Psychologie, p. 220.

We were very careful (in Chap. 3) to build up a theory of 'sign' and 'meaning' without introducing the terms 'thought' or 'cognition'. Our aim in this was to develop the consequences of a pure linguistic point of view, giving it as much autonomy as possible. This we have done because we believe that, if the S - P analysis has any foundation in fact at all it can be applied only in the realm of thought, a proposition which we shall endeavour to make acceptable later. Now if this point should be granted, it is clear that the fairest way of conducting an enquiry as to the legitimacy of an S - P analysis in the realm of language would be not to introduce cognition or thought into linguistic theory unless it becomes absolutely unavoidable. We believe that we have now reached a juncture where this is indeed the case. If meaning is in any sense the thing-meant value of signs, and if thing-meant values can only be adequately assessed in cognition, then the function of language is not conceivable without a cognitional basis. This does not say anything about the way the relationship between cognition and language has to be conceived, but it does prove what we might call the factual entanglement between cognition and language. The acceptance of this fact is a decisive step in the direction of the

solution of our problem. We have found the plane on which to look for S and P: cognition, and we know also that cognition and language hang somehow together.

R e p r e s e n t a t i o n   a n d   t h o u g h t . -  
It seems to be the practice of treatises on the philosophy of language to talk of 'thought' where we use the term 'cognition'; the relationship between 'thought' and 'language' has been the high theme of these treatises.<sup>1)</sup> Unfortunately, however, we found that in the term 'thought', as currently applied, two quite different things are confused, namely a higher type of cognition, or 'thought' proper, and a lower type of cognition, namely 'representation',<sup>2)</sup> which furnishes to 'thought' its material content. The difference between thought and representation becomes immediately obvious if we consider them as ideal structures rather than psychophysical events,<sup>3)</sup> and we have explained how important it is to consider cognition from an ideal functional point of view if one wishes to understand the rôle

-----

1) Cf. the titles of works by Brandenstein, Brunot, Delacroix, Deutschbein, Jespersen, Jordan, Kramp, Morgenroth, Matthes, Sechehaye, Steinthal, Stenzel, Sweet, Vossler, given in our bibliography.

2) See above pp. 39 ff.

3) See above p. 40.

of the thing-meant as evaluator of signs.<sup>1)</sup>

If we do that, we realize at once that in representation the objective world is given ~~to~~ us in two extensive forms: space and time, and in one intensive form: quality.

In thought this representational material is broken up into entities of a certain fixed objective range (analysis, yielding concepts) and re-united into units of a higher order (synthesis, yielding judgments).

Representation is essentially an automatic process, that is to say, given our sensorial apparatus and those parts of the brain responsible for their control, we cannot help representing under certain conditions. - Thought, on the other hand, is essentially creative and constructive; it consists of purposeful acts in contrast to a mere train of associations. This purposefulness of thought reveals itself already in its analytical phase, in the creation of concepts. No concept without conception, that is, without a position taken up by the thinker, adapted to his purpose: From all the representational features lying before him, those are picked out and given prominence which best serve the ends of his thought. It is precisely the purposefulness of the concept which is at the basis of its higher intellectual

-----

1) See above pp. 100/01.

value as compared with representations; purpose is the truly 'understandable' factor in concepts, a factor which allows us to get a grip on the representational material, which gives also to concepts the stability and rigidity so necessary for a successful operation of thought. According to different purposes we may consider the same individual from different points of view, and the same man may appear as 'foreman' as 'colleague', as 'husband', as 'daddy' etc. All these reflect different conceptions of the same thing-represented, they are notae picked out from a variety of possibilities as the material of the corresponding concepts. In this analytical step is given already an appreciable degree of prominence to certain representational features above the rest, and this, as is well known, may be carried a step further to complete independence by a b s t r a c t i o n, which is nothing but carrying the analytical process to its extreme. This goes to show that conceptual symbolism is only another instance of the fact that all symbolism is selective.<sup>1)</sup>

This analytical selection of notae has the advantage of shelving, as it were, those representational features which are relatively unimportant for us at a given moment, and this makes it easier to dominate the whole complex. They are comparable to strongholds of high strategical value in the representational material. But

---

1) See above p. 53, note 2.

such a stronghold is <sup>of</sup> permanent, or at least, enduring, value only if it can be properly linked up with positions already fortified. We must even say that these strongholds are already selected with this view in mind, and that it is carried into effect by the synthetic phase of thought. Indeed, by one concept we only seize a thing-represented, it is only by means of the synthesis that we mentally act upon it.

This superficial and metaphorical account of the relationship between representation and thought may suffice at this stage of our discussion to give us a first idea of how this relationship may be conceived; it does not pretend to give more than that, it does not pretend, above all, to give an epistemological or psychological account of mental processes.

We add one word on terminology. Both representation and thought have their specific forms. Now, while there is the adjective representational to qualify forms, there is no adjective derived from thought. We shall therefore make the term cognitional do the work of such an adjective wherever it is clear that we use it in opposition to representational. (In other contexts it will still comprehend both representation and thought.) We shall say for instance that space time and quality are representational forms, S and P are cognitional forms, we shall also call the judgment a cognitional act.

C o g n i t i o n   a n d   l a n g u a g e . - We have arrived at the following situation: on the one hand we find language, i.e. a certain order of diacritical and symbolic signs and their socially accepted semantic values, their formal and material meanings. On the other hand we have the thing-meant, defining the ultimate meaning, and the ide<sup>l</sup>~~e~~<sup>a</sup> cognitional forms ( representations integrated into thought) through which they are experienced. The question of the relationship between 'language' and 'thought' is there<sup>c</sup>~~fore~~<sup>fore</sup> for us a problem of the relationship between two kinds of symbolism: a s o c i - a l l y conditioned one, viz. 'language' and an i d e a l cognitional symbolism, viz. 'thought'.

This sharp opposition between cognitional and linguistic symbolisation is the basis on which ~~th~~ our investigation of the S - P problem has to be built up. Being now able to contrast in a clear way linguistic and cognitional symbolism we gather the first fruit of our introductory discussion which was mainly aimed at this point. From here the way leads on in a clearly marked direction: after the distinction of the two kinds of symbolism, cognitional and linguistic, we are now faced with the task of showing how they are related to each other.

In this respect we shall have to say first of all that in intelligent speaking and understanding cognition



is necessarily involved, because the accepted thing-meant cannot play its rôle of defining <sup>the</sup> meaning of linguistic signs, unless it is got hold of in cognition. It is therefore to be expected a priori that at least in a d v a n c e d linguistic symbolization signs will refer somehow to the ultimate thing-meant only by a round-about <sup>route</sup>, i.e. referring directly to cognition and only indirectly, through cognitional forms, to the thing-meant. Because, if they do, they can obviously help understanding, which is the correct assessment of the thing-meant in the mind of the interpreter. And experience shows that this is without doubt the case. Indeed, our first knowledge of cognitional categories has been gained by abstracting them from grammatical categories, and this would have been impossible if language could teach us nothing about them. But in view of the fact that for so many centuries cognitional and grammatical categories have been thought of as identical, it is most important to assert that this reflection of cognitional categories in language i s b y n o m e a n s a n e c e s s i t y and can therefore not be expected to be found in all linguistic manifestations at any time, that its raison d'être is n o t a n a t u r a l n e c e s s i t y, but due to the p e d a g o g i c a l t e n d e n c y in the speaker to facilitate understanding, a tendency which is a mark of advanced speech and therefore a h i s t o r -

i c a l phenomenon. If that is so we shall have to expect also that the manifestations of this tendency are not all equally clear and pronounced even where they are encountered, and it will be precisely our task to show specifically how cognitional categories are integrated into grammatical categories.

In view of the fact that very eminent philosophers such as B. Croce and W.M. Urban<sup>1)</sup> have proclaimed a sort of cogito ergo loquor theory, it may perhaps be useful to dwell a little longer on the d i f f e r e n c e between language and cognition, as we see it. There is first of all a f u n c t i o n a l difference. Functionally cognition is not a social phenomenon, whereas language is. The thinker faces the objective world alone, the speaker, however, faces also the listener. To this we may add a p r a c t i c a l difference: linguistic symbolism is necessarily bound to physical signs and is therefore influenced directly by physical factors, thought-symbolism may be conceived as purely mental, physical factors can come to bear on it only indirectly, through an influence of language on thought. For the linguist the relative independence of language from cognition is recognized in the great m o b i l i t y of the linguistic sign as it manifests itself in synonymity and homonymity. It would be wrong to infer from the

---

<sup>1)</sup> See bibliography.

absence of an adequate linguistic sign the ignorance of the corresponding thing-meant (German has no word for bully, English no word for Schadenfreude); it would be equally wrong to conclude that an English speaking person could not see that dew, rain, ice, water, mist etc. are only different states of the same thing, only because there is no word for that thing in the English language. Generally we know many more things than we can name or describe adequately, we may also know a number of words which remain mere diacritica for unknown meanings. Even the fact that language and thought influence each other is a proof of their difference. Physiological inhibitions (aphasia) are likewise most easily understood with the help of our hypothesis.

On the other hand we believe also that the difference between language and cognition, to be recognized in principle, does not warrant the belief in an all-pervading factual independence of both. We do not believe, therefore, that it is feasible <sup>or</sup> ~~and~~ justifiable to expel cognitional terminology from the field of grammar of advanced linguistic constructions as certain modern reformers would like to do. We think ~~therefore~~ also that the terms S and P are going to continue to play a legitimate rôle in grammatical analysis. But the sense of these terms has to be restated in such a way that the metaphysical implications of the tradit-

ional theory are avoided.

To prove all that we shall have to fulfill the following programme: (1) We shall have to outline a theory of S and P in the domain of thought which is purely formal. (2) We shall have to investigate how far S and P are reflected in language.

Part II

Chapter (1)

The meaning of Subject and  
Predicate in the science of  
thought.

E x p o s i t i o n . - Through the discussions of the First Part we believe <sup>we</sup>~~to~~ have fulfilled the two points of our programme as outlined in the Introduction; (1) we possess a qualified opinion on the relationship between linguistics and the sciences of the mind, logic and psychology. We have seen that the functional and sociological conception of language allows us to build up an autonomous theory of sign and meaning, relatively independent from physiological psychology and also from epistemological logic. (2) On the other hand we found in spite of this that <sup>a</sup>language is factually entangled with cognition. - Instead of confusing representation and thought as the followers of both Wundt and Paul have done (Part I Chap. 2) we propose to separate them as sharply as possible. This we can do if we treat them not in their physiological and psychological aspects, but as ideal forms. We have pointed out in Part I Chap. 1 that the inadequacy of traditional logic for the analysis and explanation of linguistics, i.e. social symbolism cannot be taken as an argument against certain basic assumptions of traditional logic, and indeed we believe that 'concepts' and 'judgment' - and hence S and P - define accurately forms of thought as different from representational forms. But this is ~~as~~ so far nothing but an assumption for which we still have to give further justification.

This we propose to do in the course of this Second Part of our essay where we attack the problem of S and P proper. We cannot, however, offer a fair statement of our case without discussing the view of others on the subject; this will most certainly not only enrich but also complicate matters. It will be useful ~~th~~therefore to outline a plan de campagne according to which we shall proceed in this Second Part of our investigation.

To begin with it will probably be indispensable to quote a few authorities, both linguists and philosophers, expressing scepticism with regard to the usefulness of the distinction of S and P. For it is in these opinions that the modern methodological crisis is best reflected. Secondly, we shall endeavour to show what might be and has been understood by the terms of S and P. As far as possible we have ~~divided~~<sup>divided</sup> up the whole complex into two realms, that of thought and that of language. As introduction to the problems of the former we are going to choose a very brief exposé of Aristotle's classical theory, because it seems to <sup>us</sup>~~me~~ that all the main aspects of the question are already involved in it. The questions we have to deal with there are the following: Is the S - P relation to be found ~~x~~ in the relation between things or that between concepts or in a complex thing-concept relation? - In the realm of language we shall discuss those questions which are somehow different from those already considered under the heading of 'thought', as

for instance that the P of a sentence is the finite verb, or the stressed term, that the S precedes the P in speech etc. These two sections will be critical and negative. We reserve the exposition of our positive point of view for the following chapter, which brings ~~thus~~ <sup>to</sup> ~~the~~ the theory of S and P proper. This, I trust, will provide us with a basis sound enough to discuss the limits of grammatical method operating with an analysis into S and P in the Third Part of this essay.

S o m e c r i t i c a l r e m a r k s o n t h e  
S - P r e l a t i o n . - According to the old logistic grammar a sentence was "the expression of a judgment" (La proposition est l'énonciation d'un jugement says M. Chapsal<sup>1)</sup>); as such it is supposed to consist of two main parts called S and P; the latter may in turn be analysed into copula and attribute. - This conception is dangerous, because it might lead to the opinion that we think first according to the rules of formal logic and then express this thought in such a way that to each logical element there would correspond a linguistic one. ~~It~~ is also faulty, because it leaves out the one-word sentence altogether; furthermore it does not say, how requests and commands are to be classified, and, lastly, it does not envisage the possibility that a

-----

1) In: Ch.-P. Girault-Duvivier, Grammaire des grammaires I, Paris 1879, p. 440, note.



sentence may comprehend not one but various judgments. In spite of these shortcomings this old formula has the considerable advantage of expressing the fact that sentences - if they are analysable at all - have to be analysed according to a dichotomic principle, and it is this, which secured the formula's success in syntactical treatises. But when grammar began to emancipate itself from logic, the old formula fell into discredit, and in extreme cases reformers wanted to do away completely with the terms S and P, which were considered to be remainders of an antiquated scholastic point of view, which could no longer be adopted in modern scientific grammar.<sup>1)</sup>

Hugo Schuchardt affirms that one would be justified in eliminating the terms S and P altogether from grammar. If he goes on using them, it is only for reasons of convenience.<sup>2)</sup> A similar scepticism is <sup>expressed</sup> ~~uttered~~ by Stout, who writes; "the subject-predicate relation is altogether distinct in kind from those relations, with which it is commonly identified by grammarians. It is a psychological category, characteristic of the nature of discourse as a mental process."<sup>3)</sup> Noreen is very cautious ~~in the use of~~

-----

1) This attitude is reflected nowadays even in popular works.

Cf. F. Bodmer, The Loom of Language, London 1943, pp. 130/33

2) Hugo Schuchardt Brevier, ed. L. Spitzer, Halle a.S. 1922, p. 225.

3) In Mind, XVI, 1891, p. 192.

in the use of the terms S and P; he speaks of the "sogenannte Subjekt" and the "sogenannte Prädikat", and prefers to call the two terms of a "prädikativer Konnexion" a "prinzipale Gloss" and an "akzessorische Glosse" in order to arrive at a purely grammatical terminology as distinct from the logical or psychological one.<sup>1)</sup> -

Svedelius is very categorical on this point: "On ne peut tenir compte de celle-ci (i.e. "de la nature pratique du langage") qu'en abandonnant toutes ces dénominations de proposition (= jugement logique), sujet, prédicat, empruntées à la logique."<sup>2)</sup> More recently Professor Hjelmslev affirms: "Et la phrase ne semble pas être une notion d'ordre ~~logique~~ linguistique." Consequently he arrives at the conclusion: "Nous doutons .... qu'il soit possible, par des procédés purement grammaticaux, d'aboutir à dégager des termes tels qu'un sujet et un prédicat."<sup>3)</sup> -

The late Professor Kalepky says in an article on the impersonal construction: "Als Ergebnis dieser Erörterungen sei nunmehr festgestellt, dass die beiden Termini Subjekt und Prädikat die dominierende Rolle, die sie seit zirka zwei Jahrtausenden - unter Einbeziehung der aristotelischen

1) A. Noree, H.W. Pollak, Einführung in die wissenschaftliche Betrachtung der Sprache, Halle a.S. 1923, p. 230.

2) L'analyse du langage appliquée à la langue française, Uppsala 1898, p.6.

3) Principes de grammaire générale, Copenhagen 1928, p. 35.

Ausdrücke - in den Grammatiken okkupiert hatten, ausgespielt haben und - wenigstens in wissenschaftlichen Satzdarstellungen - nur noch genetische Bedeutung beanspruchen dürfen, nämlich so, dass gesagt wird: 'Jeder Satz~~x~~ ist das Prädikat zu einem sein Subjekt bildenden Bewusstseinsinhalt.'<sup>1)</sup> - J. Ries

in his book on the sentence writes: "Subjekt und Prädikat setzen den Satz voraus, lassen sich erst aus der Form und den Gliederbeziehungen des Satzes herleiten und verstehen." But he cautiously adds in a note: "Falls sie überhaupt aufrecht zu erhalten sind, was noch genauerer Prüfung bedarf."<sup>2)</sup>

A similar hostility against the terms S and P <sup>is to be encountered</sup> ~~we find~~ among philosophers, and occasionally we <sup>encounter</sup> ~~find~~ that they think these terms good enough for the grammarian in the same way as a grammarian might leave them with the philosopher but eliminate them from the field of linguistics. Heinrich Maier writes: "Es wäre vielleicht, da das ~~Substrat~~

-----

- 1) Th. Kalepky, Sind die "Verba Impersonalia" ein grammatisches Problem? In: Die neueren Sprachen, XXXV, p. 166. Cf. also Neuaufbau der Grammatik, Leipzig, Berlin 1928, pp. 19 ff.
- 2) J. Ries, Was ist ein Satz? Beiträge zur Grundlegung der Syntax III, Prag 1921, p. 7.

remark  
~~word~~

[illegible]

~~XX~~

Cf. Words, Logic and Grammar, Coll. Papers of H. Sweet.

YLD

Wien, 1897, pp. 52/53.

gage."<sup>1)</sup> The P does not belong to either grammar or logic: "Si la prédication est l'énonciation de ce que je pense, elle n'appartient ni à la grammaire, ni à la logique, mais à la séméologie."<sup>2)</sup> It is thus a semantic category. This distinction between semantic and grammatical categories can only be understood if one knows that for Serrus "la grammaire est indifférente au sens." <sup>3)</sup>

These few quotations may suffice to show that both among linguists and among philosophers the terms S and P are treated with a good deal of scepticism. This will become completely understandable, once we shall have seen

-----

1) Ch. Serrus, Le parallélisme logico-grammatical, Paris (Alcan), 1933, p. 167. - Cf. also: "Il faut exclure le sujet de la logique", ibid. p. 170.

2) Ibid., p. 180.

3) Ibid., p. 134; cf. also p. 83. - I find it difficult to reconcile with these statements what follows: "Sujet et prédicat sont des termes grammaticaux dont il faut reporter l'origine aux conditions psychologiques de la connaissance. Le prédicat est l'objet de l'énonciation, la chose dite; le sujet, c'est ce dont on parle... Il apparaît alors que la phrase....pose le thème général de la pensée, c'est-à-dire son sujet, puis, dans le prédicat, le jugement réel." (pp. 296/97.) Here we find that P, contrary to his earlier affirmation, is a grammatical term after all. Furthermore, if we accept the grammatical nature of both S and P we should expect

what different senses have been attached to our terms and what a highly complicated state of affairs has been reached, which almost deserves the the name of confusion. And yet, I think, this scepticism can be overcome in the end. But before we expose our positive point of view, we have still to do a certain amount of critical spadework.

The problem. - The oldest meaning of S and P, that attached by Aristotle to his terms ὑποκείμενον and κατηγορούμενον was that the S was the basis on which the predicative relation was founded. In a proposition it was a concept A, about which something was affirmed or denied through a concept B; it was καθ' οὗ λέγεται. To this concept A there corresponded a thing in which was found (ἐν ᾧ ἔσται) whatever was represented by B. The thing represented by A was necessarily a substance (οὐσία), all possible κατηγορούμενα, that is concepts ~~of qualities~~ <sup>ref. to qualities</sup> that can be affirmed of the substance, ~~are~~ to be found in it; they are συμπεφυκότα.

-----

these terms to be defined within the framework of grammar. Instead, we find that S is the substratum and P the content of a judgment or, as Serrus says, the 'real' judgment. On the identity of P and judgment cf. also p. 220. If either a semiological or a grammatical P reflects the real judgment, what is the form of such a judgment?

We may add, perhaps, that linguistically the S - substance was symbolized by an ὄνομα whereas the P or property affirmed or denied of the S was represented by a ῥῆμα.

Ἐπεὶ δὲ ἐστὶ τι κατὰ τινας ἢ κατὰ γὰς  
σημαίνουσα τοῦτο δὲ ἐστὶν ἢ ὄνομα ἢ τὸ  
ἄνωρυμον... ἄντε δὲ ῥήματος οὐδεμία  
κατὰ γὰς οὐδὲ ἀπόγας. (de interpr. 19b). <sup>1)</sup>

This seems a rather crude and superficial statement of the great Stagyrīte's theory concerning S and P. It does not show, how all this is connected with his epistemology and metaphysics and it presents it as a ready-made article, not taking into account the development of Aristotle's thought. It is furthermore a shortcut, pushing aside all difficulties arising from the comparison of different writings which tradition has handed to us under Aristotle's name and which would prove that it is not easy to form an accurate idea on the relationship between Logic and Grammar as conceived by the great Greek philosopher. But all this - important and interesting in itself - has been deliberately

---

1) F.A. Trendelenburg, Geschichte der Kategorienlehre, Berlin 1846, p. 18. Cf. also H. Steinthal, Geschichte der Sprachwissenschaft bei den Griechen u. Römern<sup>1</sup>, pp. 138/39.

discarded, because it would deflect us too much from our immediate purpose and lead us away into questions which only a specialised philologist-philosopher could handle competently. As it is, we rather take the risk of leaving matters unduly simplified, provided we get a good introduction into the question about the nature of S and P and th&s, I think, we obtain in the most excellent way.

Taking thus the above given Aristotelian statement as a starting-<sup>point</sup>~~off-ground~~, we may now investigate the relation between the various elements such as 'substance', S; 'property', P; concepts A and B etc. as they can be derived from Aristotle's scheme. But in order not to make matters too complicated, we shall leave out the question of language, that is to say all questions concerning *ὄνομα* and *ῥῆμα*, at least for the time being.

We are thus left in the realm of objective reality with substances and all those properties which can be affirmed (or denied) of them, and the realm of knowledge, or *νοῦς*, with two concepts A and B bound together in judgments (= acts of affirming and denying) as S and P. These two realms are now related to each other in such a way that substances are the potential material of a concept A, functioning as S, and the property of substances are the potential material of a concept B, functioning as P.



The relation between the concepts A and B. - It is most important to hold on to these distinctions and this formulation, because if we do not, we lay already the foundation of a dangerous confusion. Should we for instance simply say 'S' instead of 'concept A functioning as S' and, respectively 'P' instead of 'concept B functioning as P', we would be easily led to believe that we know everything about the S - P connection, if we know the relationship between the concepts A and B. This would be, however, a mistake: The relationship between A and B is entirely ideal and can, to a large extent, perfectly <sup>considered in isolation from</sup> ~~well be perceived outside~~ the function as S and P. By affirming this we do not want to deny that in the S - P relationship there is involved also a conceptual relationship, and we shall have to come back to this in due course.<sup>1)</sup> But certain aspects of the conceptual relationship fall indeed outside the judgment. If I say 'A falls into the extension of B' or 'the spheres of A and B have no contact' or 'B falls partly under A' and so forth, I speak about possible relations between concepts, but then S and P are ~~precisely~~ not involved. If it is true that in judgments<sup>e</sup> the extension of B, functioning as P, is always wider than that of A, functioning as S, I obtain certainly useful information. This knowledge may help, for instance, in cases of

1) on p. 175 ff.

doubt to find out, which of two concepts involved in a judgment is really functioning as S and which as P; but this would be only a criterion of things the existence of which is already presupposed. I can use furthermore this knowledge as a starting-point for further investigation, asking why it should be that in a judgment the concept functioning as P should be wider than ~~in~~ the concept functioning as S. But all this would not say anything about the S - P connection itself. All this goes to show that the proprium of the S - P relationship cannot be discovered in those purely conceptual relationships we have just mentioned.

The substance-property relationship. - Not only has this not always been properly observed, so that A became synonymous with S and B synonymous with P, but <sup>it was</sup> ~~one went even~~ <sup>extended</sup> further <sup>there was added</sup> by declaring that the S - P relationship is identical with that holding between a substance and its accidents (in the widest sense). In this way ~~one added~~ to the confusion between concepts and cognitional functions, that of both with an objective ~~or~~ material relationship; for the relation of, say, a substance and its properties is a transcendent objective relation founded in the nature of things, which, <sup>in the same way</sup> ~~exactly~~ as the ideal relation

between A and B, can be conceived independently from that between S and P. It is an expression of such a confusion when Bally - following a long scholastic tradition - declares that S is always the lieu of P: if we have the proposition la terre est ronde we see that 'roundness' is found 'in the globe'.<sup>1)</sup> As a matter of fact the objective relationship between substance and quality cannot be ~~only~~ <sup>not only</sup> adequately represented by a judgment of the form Socrates is wise but also by its reversion Wisdom is in Socrates. Here the objective relationship remains unchanged although the cognitional relation has been reversed.

The well-known contention to be found in contemporary grammars that the S of a statement denotes a thing or a person (standing for 'substances' or concreta) and that the P denotes a quality or state (= accident) is therefore wrong.<sup>2)</sup> According to this contention only Socrates is wise is a statement as it should be and Socrates remains therefore the 'real' S<sup>3)</sup> even in Wisdom is in Socrates. ~~One~~ <sup>It</sup> could not <sup>be</sup> admit <sup>red</sup> that Socrates

---

1) Ch. Bally, Linguistique ~~générale~~ générale et linguistique française, p. 43.

2) Aristotle would also admit 'abstract substances' such as wisdom; but this is only a device to overcome the difficulty under discussion and to save the ὅμοια - substance parallelism.

3) F.N. Finck operates with the terms reales Subjekt

in this second statement is no S at all, neither 'real' nor 'logical', nor, for that matter, 'grammatical'. And yet this is the truth. In Wisdom is in Socrates, Socrates is as little S as Africa in The camel lives in Africa. In the one case we affirm that the place where the camel is found is Africa and in the other that the place where wisdom is found is Socrates. Both statements are strictly parallel. We have to admit that abstract things or qualities can be made the bases of judgments in the same way as concrete things can. This seems so obvious, so easily confirmed by our experience of judging, that one may well ask oneself, why it was not generally accepted as a matter of course from the very beginning, and why even now it seems so tempting to define the S as the substance about which something is predicated.<sup>1)</sup>

-----  
and reales Objekt. Cf. his essay on Der angeblich passive Charakter des transitiven Verbs. In Zeitschr. f. vergl. Sprachforsch. XLI (1907), p. 213 and passim.

-----  
L) Already in the Categoriae we find the exposition of the famous theory that the primary substance (ἡ πρώτη οὐσία) is the concrete individual and that this can never be

predicated of it: Οὐσία δὲ ἔστιν ἡ κοινωτάτα τε καὶ πρώτη καὶ μάλιστα λεγόμενη, ἢ μήτε καθ' ὑποκειμένου τι ὅς λέγεται (μήτ' ἐν ὑποκειμένῳ τι καὶ ἔστιν) οἷον ὁ τις ἀνδρῶν ἢ ὁ τις ἵππος (Ib., II-13). and: τὰ δ' ἄλλα πάντα ἢτοι καθ' ὑποκειμένου λέγεται τῶν πρώτων οὐσιῶν (ἢ ἐν ὑποκειμένῳ αὐτῶν ἔστιν). (Ibid.: 34-35). cf. also p. 126, note 2.

The answer to this seems to me to lie in the following:  
Our experience generally seems to go in an inductive direction, starting from the concrete, the individual, that is, the things directly accessible to our senses, and to rise only gradually to more abstract levels. Or perhaps we should say that we <sup>first</sup> become ~~earlier~~ conscious of the reality of intuitive data in our experience, and ~~earlier~~ conscious that only trained reflection gives us access to those general "things" which appear as being "contained" in the individual, from which we have to 'abstract' them. In experience thus the concrete individual seems to come first and the abstract ~~general~~ thing second. So far so good. But now one commits a quite impermissible confusion: One thinks <sup>that</sup> what is supposed to be true of the progress of experience in general must also be true in the case of the individual experience constructed in the cognitional act. But one forgets that at the time this act takes place, innumerable abstract things have already been conquered and are stored up as abstract concepts in our minds and that they can be made the basis of judgments in the same way as concrete notions can. This confusion was helped by the psychological tendency to start in new experiences, and especially in ~~ex~~ every-day life, again from the relatively concrete; hence the impression that this is <sup>a</sup> ~~the~~ more 'natural'

way <sup>of</sup> ~~than~~ starting <sup>than</sup> from the abstract; but instead of explaining this tendency psychologically, one is apt to look for a reason for it in the 'nature of things', which error helped to make the definition of the S as thing or person we think about so tempting and made the introduction of the 'real' S and the 'real' P almost unavoidable, although it is time that that definition and this notion should disappear from our ~~xxxxxx~~ manuals.

In any case we could only say that even in such instances as Socrates is wise, la terre est ronde, the thing conceived as A, functioning as S, is the lieu of the property conceived as B, functioning as P, and n o t that S is the lieu of P. Quite ~~on~~ the contrary. If we conceive concepts with the help of spatial symbols ascribing to them 'extension', then we shall find that the concept corresponding to S falls within the extension of the predicated concept: A is found in the sphere of B; B i s t h e l o g i c a l lieu o f A. This is a general rule established already by Boëthius and taken up in modern times by Professor Jespersen.<sup>1)</sup> The difference between the two scholars is only that the former admitted one exception (P indicates the proprium of S) which the latter does not take into account. So we may well say: In the realm

-----

1) Philosophy of Grammar, p. 153.

of things a substance is the lieu of a property, in the realm of thought the concept representing the property (= B) is the logical lieu of the corresponding concept A representing the substance.

These things are of course not only compatible with each other, but it is difficult to see how they could be otherwise. I can therefore not see, how a logical system placing more emphasis on the substance-property relation could be opposed to another system underlin<sup>n</sup>g the conceptual relation between A and B, as it is done by M. V. Brøndal, who calls a logical system of the first kind logique compréhensive and characterizes it as analytic, deductive, with a panlogistic tendency, whereas a system of the latter kind is described as logique extensive, revealing an antimetaphysical attitude; the difference<sup>r</sup> <sup>between</sup> ~~of~~ this system <sup>and</sup> ~~from~~ the logique compréhensive is formulated in the following words: "rien n'est fondé (in the 'logique extensive') sur la nature des choses; toute vérité est purement empirique" (sic).<sup>1)</sup>

That the substance - not the concept A - is the lieu of its property is true first of all with regard to positive statements. A negative statement (e.g.

-----

1) In: Pensée. Langage, 1re et 2e partie de l'Encyclopédie française, Tome I. L'outillage mental, Paris 1937, p. 48 - 4.

Kar vasselages par sens nen est folie, Chans. de Rol. 1724) really affirme that the spheres of A and B are separated from each other, in other words that the attempt to find vasselages in the sphere (= logical lieu) of folie has come to naught, which means at the same time that in the realm of things folie is not found where vasselages is found.

The subject - object relationship. - A theory which considers the substance as S and its property as P of a judgment must not only be embarassed by statements such as wisdom is in Socrates, where the 'real' substance is found in the P, but also by such statements where more than one substance is involved. It seems that statements such as Jack calls Jill can only be accounted for in the framework of the substance - property theory by interpreting it as the fusion of two judgments, each exhibiting only one substance:

Jack calls  
is called Jill  
Jack calls Jill.

Such an analysis will appear artificial and superfluous once S and P will have been defined in formal terms instead of material terms such as substance and property; we shall come back to this question once the formal definition of S and P will have been found.<sup>1)</sup>

---

1) See p. 190.



Here we shall be content with pointing out that the analysis of statements of the type Jack calls Jill has had considerable influence on the manner the S of propositions has been conceived. And with this we enter still deeper into the maquis of the confused application of our terms.

The characteristic feature of this sort of statement involving two substances is the presence of what we are accustomed to call in grammar an object. Although the opposition S - Object is completely different from that of S - P it has had a certain influence on the theory of this latter relationship. Already the term S in this connection is suspect and offers an opportunity for confusing S as opposed to 'object' with the S as opposed to P. Indeed, in a proposition such as the man fells the tree, the word man can be taken as a symbol for either, and as their terminological determination is identical, they can easily be thought of as being essentially identical.

If we ask which objective relation is involved in the opposition S - object we shall be well advised to avoid this ambiguous terminology and replace it by a more appropriate one. The best I can think of is that of ego and non-ego, which, I believe, goes back in the last instance to J.G. Fichte. These terms

are so fitting because they bring out clearly three important facts about this relationship: (1) The fact that the two factors are correlated in such a way that the one, the non-ego, can only be conceived in contrast to the other, the ego, as the negation of its essential properties; (2) the fact that the one is active the other passive; this is really only a specification of (1); (3) the fact that one can perceive the ego only per analogiam with one's own ego.

Ego and non-ego are relative terms. The ego is conceived as a centre of energies and feelings, it is thus essentially active and re-active. It requires for its full realization something upon which it can exercise its activity and to which it can react: the non-ego. This in ~~turn~~ turn is conceived as essentially un-personal, something in-active, the material on which the ego sets to work. But the non-ego appears as such not necessarily, if considered in isolation, but only from the point of view of the ego. In a statement such as Jack calls Jill we do not doubt that Jill is as much a person as Jack, but relatively, viewed from the point of view of the acting Jack, she is the object of that action. Jack in turn can only be conceived as acting through a sort of selfidentification of whosoever conceives the proposition in question with Jack, through lending to Jack an ego. If this self-

identification does not take place we could not speak of an action at all, but only of a (neuter) event involving two objects (substances).

This relation between ego and non-ego has been called by Kalepky "pragmatisch", and he pretends that it is this at bottom that such statements express and that what has been arbitrarily called S is nothing but a sort of ego, "der Träger der Handlung" and the so-called P the action or state ("Verlauf").<sup>1)</sup> That this pragmatic conception pervades grammar, is reflected in the 'persons' of the verb, in the distinction of an active, passive and medium voice. If behind the grammatical terminology of S and P were really nothing but this, then indeed grammar would be better off without such ill-fitting terms. For, <sup>as in the case of</sup> ~~in the same way as~~ the substance- accident relationship (la terre est ronde), the ego - non-ego relationship is an objective one, holding between things and can therefore be conceived quite independently<sup>n</sup> of the terms of any judgment. But is there really nothing else behind S and P as used in grammar? - This is precisely the question we shall try to answer in the course of our investigation.

We have seen that Kalepky was right in so far as he recognized that the ego - non-ego relation ~~was~~ is

-----

1) Th. Kalepky, Neuaufbau der Grammatik, Leipzig, Berlin 1928, pp. 25/26.

essentially different from the S - P relation. But another, very eminent, linguist, Ch. Bally, has made this very relation the basis of his theory of the logical judgment.<sup>1)</sup> For him the S of the judgment is the person who judges, that is, asserts which degree of actual validity a representation has for him in determined circumstances.<sup>2)</sup> The representation is the ~~obj~~ object of the judgment. This is to begin with a simple vue d'esprit and therefore virtuel; by the act of assertion it becomes actuel. The assertion is a logical copula, linking the object of a judgment to the judging S. Copula and object form together the P of the judgment. Example: In the statement Galilée affirme que la terre tourne we have the representation la terre tourne, object of a judgment formulated by Galilée who appears thus as a S. The copula affirme shows for whom la terre tourne is the object of an assertion, it lodges as it were the object into the mind of S and expresses at the same time the assertion itself. Affirme que la terre tourne is the P of the judgment. If we have the statement la terre

-----

1) Ch. Bally, Linguistique générale et linguistique française, pp. 31/38.

2) "Assertion" has been replaced in the 2nd edition by "reaction towards a given representation".  
2nd ed. § 27.

<sup>answer to</sup>  
~~the question~~ <sup>whether</sup> the representation la terre tourne, the object of the judgment, is conceived or asserted as being correct, false or possible, that is the modality of the judgment, is implied in the verb tourne. Can we say now that la terre tourne represents a judgment without an S? and without copula? By no means; for there cannot be an object of a judgment without a S. Though S and a copula such as je pense or on sait etc. may now be only implied, they do not cease therefore to be very real.

As we can see, Bally's S is nothing but the ego as opposed to the non-ego. Only both terms are taken in a limited sense: they are the cognizant ego and the object of cognition. But of course, if it is true that the ego - non-ego relation in the widest sense cannot be made the basis of a theory of S and P, the same must hold good with regard to any restricted application of the terms, and we have reason to suspect that something is wrong in Bally's theory. And I think it is this: For anybody who thinks, affirms or atters the statement Galilée affirme que la terre tourne, Galilée is an object of representation and he himself the S. It is an inescapable consequence of Bally's theory to say that here too S and copula are implied; the full expression would be je sais que Galilée affirme que la terre tourne or something similar. But in that case the judging S

would have become in turn an object of representation, and we would get into an infinite regress. On the other hand, in the statement la terre tourne the thinker is only implied as the psychological condition of the whole judgment and can therefore not be opposed as a correlative part of any P of a judgment. In other words, there is no difference in the exposition of logical terms in both Galilée affirme que la terre tourne and la terre tourne. So our contention that the term S in the S - object relation has a totally different meaning from the same term S in the S - P relation has been confirmed.

In conclusion we have to repeat: In the same way as the S - P relation could not be discovered in certain idea relations between two concepts, it cannot be discovered either in any objective relationship, be it that of substance - property, be it that of ego - non-ego, actor - actio or any similar relationship.

The fact - judgment relation .-

It remains to see, whether S and P cannot be discovered in the relation between the objective fact on the one hand and the judgment ~~in~~ in which it is apprehended on the other hand. The popular belief that S is the thing or fact, we are talking about and P what we have to say about it can be traced back to Aristotle himself, whose term of ὑποκείμενον can easily create that im-

pression. Did not Boëthius say "subjectum est de quo dicitur id quod praedicatur. Praedicatum est quod de eo dicitur quod subjectum est"?<sup>1)</sup> - Since we are at present not concerned with language but with thought, we may perhaps change that popular formula by saying that P is what we 'think' (instead of 'say' or 'talk') about the fact apprehended by the judgment.

And indeed it is the fact - judgment relationship or the parallel thing - concept relationship which according to Kalepky is the only one for which the S - P terminology can legitimately be applied.<sup>2)</sup> And if H. Paul<sup>3)</sup> (~~and~~ <sup>among</sup> others) operates with a situational S to which a monotomic holophrase may function as P (e.g. Excellent!) may be considered as P of the objective fact to which it refers), he seems to admit that Kalepky is right. Now Kalepky's contention - and that of Paul in so far as he agrees with Kalepky - is at bottom nothing else but the expression of the conviction that any symbolic representation is P with regard to the thing or fact represented. If we draw the last consequences from such hypothesis we are driven to the conclusion that the interpretation of a noise heard by our ear as a combination of sounds is also P with regard to the noise itself, since it is a symbolic representation of that noise; and the same would hold

---

1) Boëthius, ed. Migne, Patrologiae, 64, p. 1130.

2) Th. Kalepky, Neuaufbau, p. 25.

3) H. Paul, Prinzipien<sup>5</sup>, p. 129.

good of the optical interpretation of visual forms: a picture of a landscape for instance would be P with regard to the landscape itself. As a matter of fact all sense-interpretation would be P in relation to the sensed object. In other words, any form would be P with regard to its material, and the S - P relation would be identical with the form - material relation. It is when we are driven to this last consequence that we begin to feel uneasy and doubt whether this is true. But it is perhaps not <sup>so</sup> quite easy to justify with clear theoretical reasons (this instinctive doubt). This is particularly so if we confine ourselves to the examination of the situational S with relation to which an explanation such as Excellent! functions as P. This seems indeed quite legitimate, and we are ourselves going to operate with this distinction later on.<sup>1)</sup> I think therefore that we may accept Paul's example as a legitimate borderline case for the true S - P relation but reject the rest. And here are our reasons to justify such an attitude: In the following chapter we shall explain that the typical feature of P as distinct from S is a factor not considered so far, namely modality. Without this specific factor there can be no P and consequently no S. Now in Excellent! there is indeed to be found a positive modality, but it

-----

1) Cf. p. 354.



is this precisely ~~which~~ is lacking in mere symbolic representations outside the judgment. Therefore the acceptance of an example of this sort does not imply the acceptance of the identity of the S - P relation with the material - form relation. Indeed the latter in its general form, must be rejected precisely because it leaves the question of ~~modal~~ modality untouched.

C o n c l u s i o n . - So we may sum up the negative results obtained by our critical survey so far by saying:

The S - P connection cannot be discovered in certain<sup>1)</sup> ideal relationships between concepts, nor in that between objective factors, nor in that between concepts and things or judgments and objective facts.

---

1) See above p. 124.

D y n a m i s m   a n d   p u r p o s e   o f   t h e  
j u d g m e n t . - We have given above individual  
reasons, which compelled us to arrive at this conclusion.  
Now we shall be able to ask: Is there a general reason,  
valid for all the relations so far examined? Have these  
relationships anything in common which prevents them  
from being identified as S and P? I think that such a  
general reason can be discovered in the fact that all  
these relations are of a static character. 'To judge'  
or 'to propose' are apparently acts taking place in  
time and therefore of a d y n a m i c character. We  
therefore need a genetic definition of S and P. We  
have explained before,<sup>1)</sup> why the psychologists have a  
better eye for thought as a process than the logicians,  
who are probably too much under the influence of mathem-  
atics, where relations are reversible and sequence in  
time does not matter; mathematically it is the same,  
whether I say  $2 + 2 = 4$  or  $4 = 2 + 2$ . The psychologist  
will be able to see, however, that the mental picture  
of S is necessarily complete b e f o r e the S - P  
picture. Stout compares the movement of thought with  
a walking movement: "sentences are in the process of  
thinking what steps are in the process of walking.  
The foot on which the weight of the body rests corre-  
sponds to the subject. The foot which moves forward

-----

in order to occupy new ground corresponds to the predicate."<sup>1)</sup> This<sup>is</sup> indeed a most important contribution towards a solution of our problem and one of the very greatest importance for grammar. For if we believe that language reflects thought in its movement, then - but of course only then - we shall make word-order the only grammatical criterion for the discovery of S and P as ~~xx~~ has been done by von der Gabelentz.<sup>2)</sup>

But the judgment is not merely an event taking place in the mind, it is a p u r p o s e f u l act. If we take these two things: dynamism and purpose together, we shall not be content with saying, the S is the relatively old, the P the relatively new part of a proposition, but we shall somehow express the purpose which prompts the act. Now if we look at thought we shall talk of the S as determinandum and the P as determinans or call S the identificandum and P the identificans (Rozwardowski);<sup>3)</sup> 'determination' or 'identification' expressing the immediate theoretical p u r p o s e underlying the judgment; we de-

---

1) G.-F. Stout, Thought and Language in Mind XVI, 1891, pp. 181 ff.

2) In: Zeitschr. f. Völkerpsychol. u. Sprachwissensch. Vi and VIII and in Die Sprachwissenschaft, Leipzig 1884, pp. 348 ff.

3) J. v. Rozwardowski, Wortbildung u. Wortbedeutung, Heidelberg, 1904, p. 65.

termine a concept A by a second concept B in order to get rid of a want, namely the indetermination of A. If we look rather at propositions from the linguistic point of view we shall talk with Wegener of the 'exposition' (S) of a statement.<sup>1)</sup> For Elise Richter S, in a sequence of sentences, is the term which takes up something previously mentioned ("Anknüpfung"), while P is "der Gegenstand der Aussage".<sup>2)</sup>

If we now reconsider our basic example of a judgment involving two concepts A and B, it is clear that those scholars seem to do better justice to the dynamic view who, like Paul, define the proposition as a synthesis of concepts (representations), because it is only then, that <sup>we</sup> ~~you~~ get a sequence of (1) A + (2) B = AB. If, on the other hand, one takes the view that the judgment is the analysis of a complex representation, then A and B seem to come to mental existence at the moment the analytical act is proceeding: much in the same way as two half circles are made by one act of drawing a dividing line through the centre of a whole circle. Be this as it may; we learn that those who take the dynamic view of the

-----

1) Ph. Wegener, Untersuchungen über die Grundfragen des Sprachlebens, Halle, a.S. 1885, pp. 20/30.

2) Zeitschr. f. Roman. Philologie XL, p. 20.

proposition must not only place S and P in the right temporal order, but also the complex AB. We shall have to come back to this question in due course.<sup>1)</sup>

A t t r i b u t i o n   a n d   p r e d i c a t i o n .  
- We saw that the genesis or dynamic view brings us a considerable step forward, but one flaw is to be found in everything we have mentioned so far in this connection. All these observations are useful once we know where the judgment begins and where it ends. If not, everything we mentioned could equally well hold good of two consecutive judgments or even groups of judgments. But not only may larger units than the individual judgment be divided into determinandum and determinans and the like, but also smaller units: the two parts, and in exactly the same relationship, seem to be found in Whitehouse, the white house and the house is white; but only the latter is regarded as a proposition. In other words, the judgment as such must be given already, before we can find out anything about its parts.

We have mentioned already that the view which regards Jack calls Jill as a fusion of two judgments

---

1) Cf. pp. 169 ff.

(Jack calls + is called Jill) is only a consequence of the substance - accident hypothesis; it will lose all value once this hypothesis ~~will have~~ been discarded, and we need not trouble about it now.<sup>1)</sup> The problem of the fusion of various judgments into higher units presents itself, however, also in another form. Magnifique, ce tableau!, for instance or I found the cage empty are explained as fusions of Magnifique! Ce tableau! and of I found the cage. It was empty. respectively. The solution of the problem such forms imply ~~needs~~ requires as a preliminary a discussion on coordination versus subordination which we propose to give in a later chapter to which we may perhaps <sup>simply</sup> refer here, in order to avoid repetitions.<sup>2)</sup> Remains the question of the proprium of the type the house / is white as opposed to the white house or Whitehouse.

This question has often been under discussion. Two sorts of solutions have been given to it: those of a more psychological and those of a predominantly epistemological character. We may cite under the former heading Herling who writes: "Im Satze erscheint die Beziehung als geschehend, im Worte schon als geschehen. In der Vogel fliegt geschieht die Beziehung wirklich, in der fliegende Vogel ist die Beziehung

-----

1) See above p. 131.

2) Cf. Part III, Chaps. 7 and 8.

des Fliegens auf den Vogel schon als geschehen bezeichnet." <sup>upon</sup> <sup>statement</sup> <sup>word</sup> <sup>of</sup> <sup>Herling's</sup> <sup>by</sup> saying: "Was Herlings Aufstellung besagt, ist dies: Der Satz ist die sprachliche Auswirkung eines psychischen Akts in seinem gegenwärtigen Vollzug, die (enge) Wortgruppe der Ausdruck des Ergebnisses eines solchen früher vollzogenen Aktes." <sup>2)</sup> Ries himself stresses the fact that in groups of the type the white house <sup>"die"</sup> "die Attributvorstellung dem Kernglied der Wortgruppe e i n g e g l i e d e r t (ist)", whereas in the S - P synthesis the second part of the judgment is "z u g e o r d n e t" to the first, preserving a relative autonomy and not forming a fixed unit. - According to K. Ettmayer the P is characterized by the fact that only part of a complex representation is the object of our attention. It is at the same time that part which is clearly distinguished inside that sphere which is called the S of the linguistic expression. <sup>3)</sup>

-----

1) Die Syntax der deutschen Sprache, 1830, p. 18.

2) Was ist ein Satz? p. 69.

3) K. v. Ettmayer, Zur Theorie der analytischen Syntax des Französischen, Akademie d. Wissenschaften in Wien, Philos.-histor. Klasse, Sitzungsberichte, 209, Bd., 3. Abhandlung, Wien, Leipzig 1929, p. 15.

Therefore is white in the house is white is much more distinctly and consciously perceived than white in either the white house or Whitehouse.

Such distinctions and characterizations deserve the name of psychological, because they are all based on observations of the judgment as a psychical event. But we may call epistemological a theory, which considers above all the relation between the objective content of a judgment and the cognizant ego.

Traditional logic has recognized that a judgment is more than a synthesis of two concepts A and B. By that only a mental picture of an objective fact is created. But a judgment also expresses whether this mental picture is believed to be conformed to reality or not; this is known as the m o d u s of the judgment. The modus thus expresses the objective value the cognizant ego discovers in the A-B synthesis, whereas A-B apart from the modus is the ~~m~~ m a t e r i a l of the judgment. Now it is important to note that the act of objective evaluation (or of judging, assent, belief) has as its object n o t t h e w h o l e m a t e r i a l of a proposition. It does not decide, whether A-B is correct or not, but it answers the question: 'Granted A, can I correctly connect with it B in the way I did?' This shows that the positive or negative belief, the modus of a judgment, h a s a c l o s e r c o n n e c t - i o n w i t h B a n d i t s r e l a t i o n s h i p



w i t h A than with A itself. It is this circumstance which c o n s t i t u t e s t h e p r o p r i u m o f P, and the fact of u n q u e s t i o n e d a c c e p t a n c e by the cognizant ego o f A c h a r a c t e r i z e s A a s S . This accounts for the fact that in a proposition of the form the house (= S) is white (= P) the copula is thought as belonging to P, since it is the expression of both the modus and the relationship of white to the house. It is therefore the expression of modality which allows us to identify a judgment and which distinguishes the S - P relation from any other.

Needless to say that the psychological theories and the epistemological thesis are well compatible with each other. But it seems to us that the former are rather concerned with side-issues, whereas the epistemological account deals with the central question. The difference between "Zugliederung" and "Eingliederung" (Ries) or the fact that P receives a greater attention than S (v. Ettmayer) receive their e x p l a n a t i o n only through the epistemological account which gives the real key to the question of the proprium of the judgment.

R e m a i n i n g   q u e s t i o n s . - Should this be granted in principle, many questions remain still open. The first one would be whether 'judging' is a separate act from the representational synthesis, as Goedeckemeyer seems to suggest,<sup>1)</sup> or whether 'representing' and 'judging' are only two sides of the same cognitional act. - The second question regards the nature of modality. In ideal thought it can be only positive or negative, because between ideal truth and falsehood no transitions are possible. But, and this interests above all the linguist, in verbal modality we find expressed all sorts of shades of doubt, of non-theoretical interests and of volitions. ~~Wexten~~  
~~herexxpoint~~ A third question, intimately connected with this one, is the relationship of questions and commands to judgments. - And there is finally the famous question of the elementary judgment such as it is raining, where we do not seem to relate two terms but have only one. The answer to these questions must however be deferred until we have given our positive account of S and P.

---

1) A. Goedeckemeyer, Das Wesen des Urteils, in: Archiv für systematische Philosophie IX (1903), pp. 179/94.

## Part II

### Chapter (2)

The meaning of Subject and  
Predicate in the science of  
language.

The grammatical conception of S and P. - Hitherto we have studied the possible sense of the S - P combination in the domain of 'thought'. It is now time to draw into the picture 'language'. To a large extent the same things we have remarked there also hold good here: We have only to replace 'thought' by 'speech' or 'language', 'concept' or 'representation' by 'word', 'proposition' or 'judgment' by 'sentence' or 'statement', and we will find<sup>again</sup> all the things ~~again~~ we have been speaking about, only clad in a new garb. This reformulation can easily be done by the reader, so that we may be excused from making statements which are at bottom nothing but repetitions. Two things remain however still to be done: We must mention those opinions which had no proper place in the previous exposition, and we must show, to what a chaotic situation the adoption of various points of view at once leads in the field of grammar.

It is perhaps worth while <sup>t</sup>pointing out, that the immediate interest of the grammarian, whose task it is to <sup>a</sup>analyse sentences, consists in possessing a clear criterion for the distinction of S and P, which allows him to proceed with his analysis, and that he is not immediately concerned with more far-reaching questions about the intimate nature of these phenomena. We must therefore not be surprised to find in grammarbooks statements concerning S and P, which testify to this

methodological modesty. The justification for the adoption of this or that criterion does not lie in any philosophical theory of S and P, but rather in its methodological usefulness.

Such a formal criterion we find in the remark made by Messrs. Le Bidois in their syntax,<sup>1)</sup> where they affirm that S is "tout simplement le mot qui, selon la naïve mais très juste expression du vieux grammarien, 'donne la loi au verbe' (Vaugelas), le mot qui régit l'accord (en personne et en nombre)..." The S here is identical with the 'person' of a finite verb. From this it would follow that the finite verb itself should be called P. Everybody knows that this is often done in practice. It has been proclaimed<sup>by</sup> Sweet and mentioned by Professor Jespersen: "Sweet (NEG p. 48) says that in a sentence like 'I came home yesterday morning' the word came by itself is the grammatical predicate, but came-home-yesterday-morning the logical predicate. In another case (HL) he says that in 'Gold is a metal', the strictly grammatical predicate is is, but the logical predicate is metal." <sup>2)</sup> We see that the points of view of Messrs. Le Bidois and of Sweet complete each other: S is the noun or noun-equivalent with which the finite

---

1) G. Le Bidois et R. Le Bidois, Syntaxe du français

moderne, ses fondements historiques et psychologiques,

Paris, 1935, p.382.

2) Philosophy of Grammar, London 1924, p. 149.

verb is in grammatical accord, and P this finite verb. It is obvious that such a narrow morphological criterion is only applicable to a certain type of sentences. Everywhere where there is no finite verb as in infinitive constructions or sentences Lat. Paulus fortis or Russ. on soldatom, furthermore in short exclamations such as Nice day! let alone such languages, as do not use finite verbs, ~~is~~ a strictly grammatical analysis into S and P does not seem possible although the possibility of logical analysis does not seem to be ruled out.

It is not difficult to see that noun or noun-equivalent, being the 'grammatical' S, and the finite verb, being the 'grammatical' P, are nothing but Aristotle's  $\delta\upsilon\omicron\mu\alpha$  and  $\xi\tilde{\eta}\mu\alpha$ . The very name of noun (nomen) is nothing but a translation of the corresponding Greek term; as to the verb it always expresses relation through time (cf. Germ. Zeitwort) and it is this element of time which distinguishes Aristotle's  $\xi\tilde{\eta}\mu\alpha$  from his  $\delta\upsilon\omicron\mu\alpha$ . And it serves also as the expression of P in propositions.

At this point it becomes apparent, by the way, how much Aristotle's logic was unconsciously dominated by grammar. The syntax of Greek - as that of all Indo-European languages - knows the distinction between nominal and verbal constructions which are often logically equivalent. Hence the possibility of reduc-

ing one to the other:  $\lambda\rho\sigma\omega\pi\omicron\varsigma \lambda\alpha\delta\iota\gamma\epsilon\iota = \lambda\rho\sigma\omega\pi\omicron\varsigma \lambda\alpha\delta\iota\gamma\omega\rho \iota\sigma\tau\epsilon$ . In Both the noun is S, and the verb the characteristic element of P. The reason why Aristotelian logic was and is so popular among grammarians is precisely because it fits so well the main features of our grammars. But we must not forget that it does so only because it has once been abstracted from them. All we do in fact is <sup>to</sup> ~~that we~~ explain grammar by grammar in disguise, and our aim must be to get out of this vicious circle.

Although the opinion that the noun or noun-equivalent is the linguistic expression of S and the finite verb the linguistic expression of P can be traced back to Aristotle's logic, there is this that is new in Sweet and others, that they are compelled to operate with two different distinctions of S and P, the grammatical and the logical S and P. And it is here that we touch at the root of the crisis in modern grammar. The practice of distinguishing two or even more different sorts of S and P in the same sentence is quite common. This means that in the last resort one becomes more and more conscious of the difference between thought and language, language can no longer be treated as a mere exponent of thought, and from there it is only a logical step to ask whether the science of language should

not be considered as autonomous with regard to the science of thought,

For the time being, however, such a radical separation of grammar from the sciences of thought has not become a practical<sup>a</sup> possibility, and the old identification of judgment and sentence can still be felt in the very terms of grammatical S and P. I think ~~may~~ one may sum up the present situation by saying: Although it is not true that the S and P of the judgment are necessarily symbolized in language exclusively by certain types of words, it is true that certain types of words have a natural 'vocation' to symbolize S and P. In other terms: not every P is symbolized by a finite verb, but the finite verb has no other vocation than symbolizing P either by itself or in conjunction with other words, which form with the finite ~~word~~<sup>verb</sup> a syntactic group. A Subject is ~~n~~ often not expressed in language at all, but if it is, it is symbolized by a noun or noun-equivalent either by itself or in conjunction with other words, forming with the noun a syntactic group and being in grammatical agreement with the finite verb. That is ~~wh~~ why in grammar the noun or nominal group "qui donne la loi au verbe fini" is called grammatical S and the finite verb or the corresponding group is called the grammatical P. This, of course, holds good first of all ~~of all~~



of our Indo-European languages, but such a restriction ~~does~~ in no way invalidate these distinctions. We see that the grammatical S and P in this sense are not only noun and finite verb but comprehend also larger groups, which is an advantage, because it eliminates the discrepancy between language and thought in Sweet's examples 'I came home yesterday morning' and 'Gold is a metal'.

These grammatical criteria can be made even more far-reaching. For the grammarian does not hesitate to identify S and P even where certain types of construction exhibiting different morphological features can be naturally translated into the type characterized above. In this way the Latin constructions known as ablativus absolutus and accusativus cum infinitivo can be analysed into S and P as is well known to everybody and, generally, so can all so-called 'predicative' constructions. This is not the place to discuss the problem which may arise from such a procedure. Supposing that we possess here a method of grammatical analysis, which allows us to identify S and P in the great bulk of linguistic utterances, the fundamental problem of the difference between thought and language has not been overcome. The fact still remains that l i n g u i s t i c f o r m i s a s o f t e n a s n o t m i s - l e a d i n g, that is, does not fit its content. The

formal or grammatical S and P, even if taken in the liberal and wide sense just indicated, is often different from the 'real' S and P of thought.

G r a m m a t i c a l   a n d   l o g i c a l ,   p s y c h o -  
l o g i c a l ,   o n t o l o g i c a l   S   a n d   P . -

The commonest and most simple case of such discrepancies between the formal and the 'real' S and P may be represented by a sentence, where a word, which is not the formal P is stressed: J i l l   h a s   d o n e   i t. We have seen that in a judgment of the type "A is B", it is P which constitutes the real object of the judgment, and psychologists tell<sup>us</sup> that it is P which is in the focus of attention; there can be no doubt that P is the most important part of a judgment, and if in its enunciation any part is stressed, it should be P. And that is what we find normally.<sup>1)</sup> If now in our example the grammatical S is stressed, we shall agree, that by J i l l   h a s   d o n e   i t~~we~~ we 'really' wanted to say The doer of it has been Jill; and this would be a more correct though less usual form of expression. If we were allowed to generalize from this one example, we could formulate the rule, that morphological criteria allow us to identify the formal or grammatical S and P

-----

1) See how<sup>e</sup>ver Part III, Chap. 8, p. 346.

and that the distribution of stress indicates the S and P of thought. ~~And the validity of this rule has been accepted by most writers.~~ And the validity of this rule has been accepted by most writers (Wegener, Paul, Gardiner).

Others such as v. d. Gabelentz have adopted a different criteria for the identification of the 'real' S and P, namely word-order.<sup>1)</sup> We have ~~been pointed out,~~<sup>shown</sup> that in thought S precedes P in time, or, as v. d. Gabelentz would have said, S is the 'initial notion' and P the 'goal of communication'. From this it followed that, whatever the grammatical structure of a sentence may be, each word which is first heard is S in relation to any other word expected to follow. van Ginneken has pointed out that v. d. Gabelentz was not the first to make this discovery, that the credit for this belongs to Henri Weil who outlined in his book L'ordre des mots (Paris 1844, 2nd ed. 1869, 3rd ed. 1879) an essentially similar doctrine.<sup>2)</sup>

Now a word becomes necessary on terminology. There is fairly general agreement with regard to what should be called the formal or grammatical S and P. But there

---

1) See above p. 142.

2) J. van Ginneken, Principes de <sup>linguistique</sup> ~~psychologie~~ <sup>psychologique</sup>, Paris, Leipzig, Amsterdam 1907, p. 495.

is little unity on the question of how to name the S and P of thought. Both the terms 'logical' and 'psychological' have been used in this connection, and both terms can be defended. If, as we said before, The doer of it has been Jill is logically a <sup>more</sup> correcter expression than Jill has done it, then the term of logical S and P will appear justified. - If we stress more the psychological fact that one part of the statement occupies more strongly than the other our attention, we may well call that part the psychological P and consequently oppose ~~xx~~ to it a psychological S. - But things become more complicated when we learn that some scholars want to give a different sense to 'logical' and to 'psychological' S and P. J. Haas would say that in our example the grammatical S and P coincide with the logical S and P, but differ from the psychological S and P. In The doer of it has been Jill, however, it is the psychological S and P which coincide with the grammatical, whereas the logical S and P would be different. This is because Haas calls the substance - property relation 'logical' S and P, which remains the same in both formulae.<sup>1)</sup> I do not think personally that 'logical' S and P are good names for this sort of relation, which really belongs to the realm of things and is therefore of an

-----

1) J. Haas, Französische Syntax, Halle A.S. 1916, Chap. VI, pp. 79/85.

o n t o l o g i c a l character. As a matter of fact, Haas's 'logical' S and P are identical with the 'real' S and P, mentioned on p. 126. They represent also Kálepky's "Träger - Zustand" relation, characterized by the philosopher Erdmann as "Inhärenz".<sup>1)</sup> -

If, we rebaptize for the sake of argument, Haas's 'logical' S and P 'ontological', we would come to a threefold distinction: (1) Grammatical S and P, (2) logical or psychological S and P, (3) ontological S and P. - It is not difficult to imagine a statement in which none of these three distincta coincides with any of the other two. Let us suppose some students discussing the merits of a poem and of a novel written by different authors. To avoid confusion one student would say: The poem is written by Longfellow". In this case the poem is the formal (grammatical) S and the logical (psychological) P, whereas the ontological S would be Longfellow. Haas would surely accept this sort of analysis with a slightly different terminology. Others apparently shrink from the introduction of too many points of view into the analysis of sentences.

---

1) "Die Beziehungen der Merkmale, die in dem Inhalt eines Gegenstandes vereinigt sind, zum Gegenstande selbst haben ..... das Inhärenzverhältnis der Eigenschaften zum Dinge zu ihrem Musterbild."

Wundt for instance claims that the grammatical and logical S and P always coincide and that in a case such as J i l l has done it the stressed word corresponds to a "dominierende Vorstellung".<sup>1)</sup> A similar method has been adopted by Ch. Bally; for him there is a grammatical S and P, arbitrarily characterized by certain morphological features, and a "thème" and "propos", which he does not want to call psychological S and P, but simply A and Z. A and Z may or may not coincide with the grammatical S and P. In our example the stressed word Jill would be Z and the rest A.<sup>2)</sup>

The partial or total elimination of S and P from grammar.

- There has been another, very subtle, attempt to overcome the difficulty which is created by the non-coincidence of grammatical categories with those of thought.

It is the grammatical system elaborated by Monsieur A. Lombard.<sup>3)</sup> In it the terms S and P appear rather as concessions to traditional terminology, as mere names, but are divested of their central importance for grammatical analysis. It is true that this system

---

1) W. Wundt, Völkerpsychologie I,2 (1900), p 259.

2) Linguistique générale et linguistique française,  
p. 44.

3) A. Lombard, Les membres de la proposition française.  
Essai d'un classement nouveau. In: Moderna Språk  
XXIII (1929), pp. 202/53.

has been created in the first instance for the analysis of French only, but there can be little doubt that it fits probably any grammar which is built up on the fundamental distinction of noun and verb, that is at least any Indo-European grammar.

In the centre of Monsieur Lombard's system we find the verb and particularly the finite verb, which is called P. Now to this P there <sup>o</sup><sub>^</sub> r e s p o n d s n o t a S , but the following parts of speech: substantive, article, adjective, pronoun, adverb, infinitive and participle. According to ordinary grammatical parlance these are m o r p h o l o g i c a l distinctions, where <sup>as</sup> the finite verb occupies a special place. Besides this morphological we find a s y n t a c t - i c a l distinction: all parts of a sentence grouped round the verb are called "adverbal", all those grouped round a noun are called "adnominal". The latter are subdivided into "épithète", "attribut", and "apposition". These three together with the P and the "adverbal" form the group of f i v e g r a m m a t c a l f u n c t - i o n s . Not taking into account the finite verb or P, each function can be represented by a "membre direct" (constructed without preposition), a "membre indirect" (constructed with the help of a preposition) or a subordinate clause; besides, the "adverbal" can also be an absolute construction.

We obtain thus 13 categories (4 for the "adverbal", 3 for each of the other three). Each of these can express an unlimited number of "v a l e u r s" such as "valeur qualificative", "valeur subjective", "valeur objective", "valeur dativale", "valeur possessive", "valeur temporelle", etc. etc. Of these the "valeur subjective" is of special interest for us. Since it represents "celui, ou ce, qui fait, ou qui est quelque chose, c'est-à-dire celui à qui, ou ce à quoi, on attribue une action, un état ou une qualité" (e.g. "i l h é s i t e, s o n h é s i t a t i o n, i l e s t s i n c è r e, s a s i n c è r i t é")<sup>1)</sup> we can easily recognize in it our so-called 'ontological' S, i.e. the first member of the substance - property or "Träger - Zustand" relation (Kalepky). And I think it is also not difficult to see in Monsieur Lombard's P or finite verb a modern successor to Aristotle's ὁν/μα.

One feature of this system will probably strike any grammarian who examines it, that is t h e a b - s e n c e o f t h e n o t i o n o f a g r a m m - a t i c a l S as opposed to P. But in practice this term turns up in the examples analysed by Monsieur Lombard. The S of passive constructions for instance is called "sujet grammatical", but this seems to be a mere verbal concession to traditional usage, since there is

---

1) Ibid.p. 245.



the other expression "adverbal au sens objectif" at our disposal. It is more difficult to find an appropriate expression for the neuter pronoun in cases such as il est nécessaire de partir, because the "adverbal subjectif" is de partir; il is called "sujet apparent" by the author. But this may be dismissed as a point of minor importance, since il here can be considered as a purely morphological element.

On the other hand the advantages of Monsieur Lombard's system are apparent: one finds one's way easily through it; it permits us to group together such things as il désire, il est désireux, son désir or César construit un pont and un pont est construit par César in an easy and clear way, and thus finds points of comparison which are somewhat obscured by the usual grammatical method, and we know what excellent use Monsieur Lombard has made of these possibilities in his books on nominal constructions in French.<sup>1)</sup>

But this must not prevent us from ventilating some criticism. Actually the terms S and P in Monsieur Lombard's system are mere words. To call the finite verb P is obviously a mere concession to tradition and the "valeur subjective" is really a "valeur de substance". So it looks as if Monsieur Lombard's system is really, what certain linguists have been striving after for a long time, namely a g r a m m a t c a l s y s t e m w h e r e t h e t e r m s S a n d P a r e p r a c t i c a l l y e l i m i n a t e d, and with it the

1) Les constructions nominales dans le français moderne. Étude syntactique et stylistique. Uppsala, Stockholm, 1930.

deliverance of grammar from logic and psychology seems to be achieved. And yet, it seems to me, that the old difficulties are only masked, but not eliminated.

Monsieur Lombard defines an "adverbal" by saying:

"Un adverbial est un membre de phrase se rapportant à un verbe, à une proposition entière, à un adjectif, à un adverbe ou à un groupe prépositionnel." By choosing the neuter expression "se rapportant à" he says nothing about the nature of the thought-relation of the adverbial to the corresponding part of the sentence.

Now we know that in César construit the verb determines the noun, whereas in (un pont) est construit par César it is the noun which determines the verb. We know furthermore that the relationship between César and construit is the reversion<sup>al</sup> of that between est construit and par César. All these differences are hidden<sup>within</sup> between the general term "se rapportant à", and its determination by any of the "valeurs" is of no help in the matter. Nevertheless they are very real differences and claim our attention, and with that we are precisely back at the point we started from.

Lastly we shall do well to mention a system of grammatical analysis which rejects explicitly the terms S and P; it is that elaborated by C. Svedelius in his very sagacious book L'analyse du langage appliquée à la

langue française. (Uppsala 1898<sup>1</sup>). He eliminates the term proposition altogether; the object of grammatical analysis is the "communication". Of this purely linguistic category the author says: "Cette catégorie permettra de rechercher librement ce que l'homme communique vraiment à son semblable dans chaque cas particulier, recherche d'où ressortira aussi, nous l'espérons, la subdivision de la communication." (p. 6). How does he define his term "communication"? We find the answer to this on p. 17, where the author declares: "(Est communication) toute combinaison linguistique par la quelle une personne fait part à une autre, ou d'un procédé lié à une certaine substance, ou d'une relation existant entre deux substances." - In other words, Svedelius promises us to give an analysis of the objective contents of acts of communication: "ce que l'homme communique à son semblable", but he discards the proposition or judgment for which these objective contents might be the material as linguistically irrelevant. He affirms furthermore that all communicated contents are of two sorts: (1) "substance - procédé", (2) "substance - relation - substance". The difference between the two is that the "relation de procédé" (1) "renferme un procédé comportant un élément o c c a s i o n n e l par rapport au terminus a quo (=le locus, lieu de naissance du procédé)<sup>1</sup>):

-----

1) P. 17.

(écoutez!) les oies jacassent", whereas "la communication de relation" "com<sup>o</sup>pr<sup>t</sup>e un élément c o n s t a n t par rapport à la substance subordonnée: Les oies jacassent = sont des animaux jacassants." (p. 41); "sont" r<sup>e</sup>pr<sup>e</sup>sents the relation, "animaux jacassant" the second "substance".

In the way of criticism we should like to point out that Svedelius has ~~very well~~ <sup>very well</sup> seen two important facts: (1) That the Aristotelian Substance - Accident theory does not do justice to the complexity of facts; he therefore replaces it by two fundamental schemes: "communication de relation" and "communication de procédé". (2) That his own classifications and therefore ~~that~~ <sup>the</sup> of traditional logic which they are meant to replace have nothing to do with the ~~judgment~~ <sup>judg<sup>g</sup>ment</sup> and its S - P structure.

What he did not see, however, was the fact that even his two fundamental schemes <sup>still</sup> represent too great a simplification of the complexity of facts, and, above all, it seems to us that it is quite illegitimate to conclude as he does: Objective relations must be considered independently of the S - P relation; ergo the judgment does not interest the linguist. To restrict the analysis of "communications" to that of objective facts seems to us quite legitimate as long as one knows that one simply leaves out another, not less important

aspect: One has still to account for the grouping of the three objective factors 'substance - relation - substance' in two groups: (1) substance, (2) relation-substance. And one has also to consider the question of m o d a l i t y . These a r e questions the linguist has to take notice of. Svedelius' reform of the traditional method is quite justified as far as it goes, but it is i n c o m p l e t e. Had he seen that it would have been difficult for him to avoid the question of S and P.

P a r t   I I

C h a p t e r   ( 3 )

T h e   S u b j e c t - P r e d i c a t e   r e l a t i o n .

P r i u s (p r i m u m) l o g i c u m - p o s -  
t e r i u s (p o s t r e m u m) l o g i c u m . -  
The preceding ~~xx~~ chapter was mainly of a preparatory  
character. We have pointed out where, in the ~~xxx~~ sphere  
of thought, S and P cannot be looked for, but we have  
also mentioned those positive characteristics of trad-  
itional theory, which must be taken into account in  
any theory of S and P. They are the act-character of  
the judgment, which takes place in t i m e, and the  
theory of m o d a l i t y. - In the sphere of language  
we have convinced ourselves that, however wide we  
make the definition of the grammatical S and P, we  
never get rid of the fact that linguistic form is as  
often as not misleading, that there is a difference  
between what linguistic form seems to express and what  
it really does express. Hence the introduction of var-  
ious sorts of S and P into linguistic analysis and a  
rather disquietingly arbitrary choice of terminology,  
which seems to indicate that grammatical analysis has  
not the firm basis it ought to have.

Now we are going to attempt a p o s i t i v e  
t h e o r y o f S a n d P, and again we shall  
try and separate the two spheres of 'thought' and  
'language'. That is, for the time being we are going  
to disregard linguistic morphology altogether and con-  
centrate on thought-analysis of statements. As a

startingpoint I choose a simple French sentence, where the question of distinguishing different sorts of S and P does not arise, where thought and language coincide as far as these distinctions are concerned. The sentence is Son attitude intransigeante intimidait tout le monde. This statement we are going to analyse in the traditional way, that is, granting that an analysis in S and P is possible. But this, for the time being, can only be a hypothesis. We shall however accept the hypothesis, if we find out in the course of our investigation that it is not arbitrary, that these terms have a definite sense measured by the standard of our previous critical remarks, and I hope to convince the reader that this will be the case, so that this whole chapter will be a defence of the legitimacy of the old terms S and P in the realm of thought.

Taking thus the first step we shall say that Son attitude intransigeante is the S, intimidait tout le monde the P of the statement. Now both S and P are complex and therefore further reducible. Let us begin with the S. We could not conceive the meaning of son attitude intransigeante, without having previously accepted a statement of the form son attitude est intransigeante. This in turn is based on the acceptance of il a pris une attitude, which in turn presupposes the acceptance of il y a une personne définie (e il). Here



we seem to reach a limit beyond which we are not able to extend our analysis. - Let us turn now to P. It can be analysed in a similar way; we obtain again a number of statements, each of which is the logical basis for the next: (1) il y a ~~ixxxxxix~~ intimidation, (2) l'intimidation est éprouvée par tout le monde.

This analysis reaffirms what is widely recognized: namely that this sort of sentence can be analysed into two main units which are related to each other as S and P and that its sub-units can further be analysed according to the same principle.<sup>1)</sup> But it brings also out something which, as far as I am aware, has not ~~been~~ singled out with all desirable distinctness and which we shall call l o g i c a l t i m e. What we mean by this term will become immediately clear.

We found that both S and P of our sentence presuppose the acceptance of the validity of certain other, more elementary, suppositions, each of which appears resumed in the S of the next higher statement. We found furthermore, that the order in which the part-statements have to be accepted is not arbitrary but logically conditioned; it obeys a n e c e s s i t y of thought. And, lastly, we found that this method of analysis can be pursued until we reach a sort of elementary statement of the form il y a A.

1) Cf. W. Wundt, Logik, 3rd ed., vol.I, Stuttgart 1906 ✓

In the light of these findings we are able to say that each S is a prius logicum in relation to its P, which is thus a posterius logicum with regard to its S and that the elementary statement, on which all the others are based, may be called primum logicum. This, I think, gives us at least one outstanding characteristic feature of the S - P relation. And since it reflects a necessity of thought it seems reasonably firmly established.

Now we can go one step farther. If, instead of going logically backwards from the whole statement to its most elementary basis, the primum logicum, we follow up the opposite direction, we shall find, that in the whole statement itself is involved a logical process, which leads necessarily up to a result which may be expressed in the following formulation: Il y a intimidation de tout le monde, causée par son attitude intransigente, and since we cannot go any farther in this direction, we may well call this statement the postremum logicum. Two things about it are rather remarkable: (1) The S of the postremum logicum has the same form as that of the primum logicum which will allow us to see in il y a the most elementary form of S.<sup>1)</sup>

-----

1) See Part III, Chap. 8, p. 387.

(2) The S of the original statement (son attitude intransigeante), after having been determined by intimidait tout le monde, appears in the postremum logicum as the determining factor of the original P: the original determinandum has become, in the postremum logicum, the determinans. Bally has formulated the principle of what he calls "conditionnement réciproque": "Dans toutes les formes d'énonciation, le thème (A) et le propos (Z), le déterminé (t) et le déterminant (t') sont dans un rapport d'interdépendance, de complémentarité, de conditionnement réciproque. On ne peut imaginer d'énoncé sans qu'on dise à propos de quoi il est fait, de même qu'il n'y a pas, en logique, d'assertion sans une matière de jugement."<sup>1)</sup> As can be seen from this quotation Bally simply affirms the fact that S and P are relative terms, one cannot be thought of without implying the other. We, however, affirm here more than that. Besides proclaiming the relative interdependence of S and P we also contend <sup>for</sup> the reversible of functions of A and B in the postremum logicum as compared to the original judgment: ~~A(xS)xxxEx(xP)~~ A - B becomes Il y a B-A. The importance of this will show itself in our account of the mechanism of transposition and of analytical and synth<sup>et</sup>ic forms.<sup>2)</sup>

1) Linguistique générale et linguistique française, p.44.

2) Cf. Part III, Chap. 7.

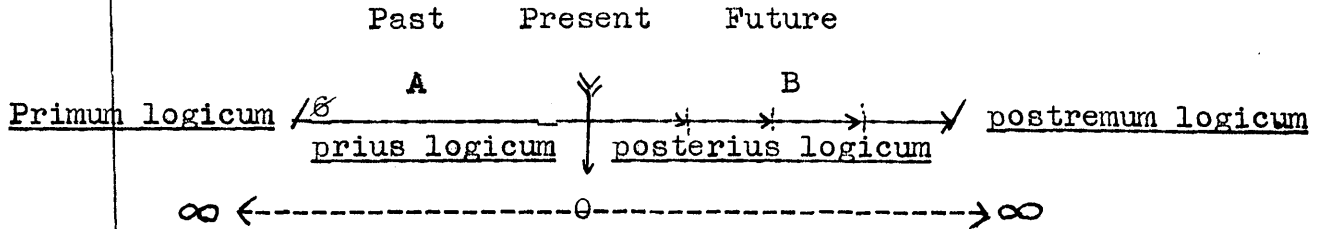
Having said this, we must add that it is difficult to see in this reversal<sup>ab</sup> of functions more than a tendency, for we have accepted ourselves son attitude intransigente as the postremum logicum of son attitude est intransigente, whereas<sup>e</sup> according to the principle of the reversal<sup>ab</sup> of functions we should expect \*1'intransigence de son attitude as the result of a judgment of the form son attitude est intransigente. Likewise, the postremum logicum of the house is white should be the whiteness of the house rather than the white house. These things are difficult to assess, because it looks as if we have to count with various tendencies which influence each other. I should be inclined to see in the whiteness of the house the triumph of an ideal logical tendency, whereas the ~~house~~ white house reflects the force of that psychological tendency of which we have spoken above (pp. 128/29), according to which we prefer the relatively concrete concept to function as determinandum and the relatively abstract as determinans. The overriding of the ideal<sup>e</sup> logical tendency is ~~the~~ easily accepted since the whiteness of the house and the white house are equivalent in that sense that they both describe the same substratum.

If we analyse now more closely the two parts of the

main judgment we shall find that the constitution of B or posterius logicum does not depend on the same factors as that of A or prius logicum. Which objective features of the substratum are comprehended by A depends on how much of it has been taken in by previous experiences; A comprehends the previously accepted cognitional features. The choice of the objective features to be incorporated in B is determined by the character of the postremum logicum or the cognitional goal to which the cognitional act leads up.

This cognitional goal is reached and becomes an acquired reality only after the cognitional act is spent. Hence the possibility of pushing that goal farther away (while the cognitional act is still in progress). We can imagine that in our example there was a first goal: Il y a intimidation causée par son attitude intransigente, to be reached by a judgment exposed by the statement Son attitude intransigente était intimidante, and that the additional factor tout le monde was added as a result of what we just called 'pushing that goal farther away'. ¶ In other words, while the extension of A is relatively stable, that of B is relatively 'l a b i l e'. And this becomes quite understandable if we look at the constitution of the cognitional act in logical time. There we see that

the 'lability' of B is conditioned by the fact that the Present displaces itself on the positive time-axis marked 'Future', whereas A is completely part of the Past.



And this is also the reason why, in the analysis of A we proceeded moving from the right to the left, whereas we went in the opposite direction in the analysis of B.

What conclusions shall we draw from this analysis? Does it mean that in <sup>the</sup> thought we build up the postremum logicum by a number of successive steps? By no means. The statement just analysed represents o n e step only, leading up to the final result or postremum logicum. Even the occasional 'pushing farther away' of the cognitional goal can rather be likened to a hesitation in doing the one step than to a second (or third etc.) step. Th analysis into part-statements gives expression only to two facts: (1) That, generally speaking, e a c h c o n c e p t we possess h a s b e e n a c q u i r e d t h r o u g h a c o g n i t i o n a l e x p e r i e n c e, w h i c h, w h e n m a d e,

had in its turn the S - P form .  
(2) That this is the only reasonable form of connecting in thought cognitional experiences, and can therefore be reconstituted in any analysis of combination of concepts purposefully leading up to a theoretical result; and it is just this which distinguishes 'thought' from a mere stream of impressions or a mere chain of associations.

Concepts and their relationship in the judgment . - If, as we say, concepts are the result of cognitional experiences, forming part of our mental equipment, that means that they are stored up in memory . It is here that they are transformed in a special way. In the cognitional act the concepts involved in S and P are well distinguished. It is only through a special mental effort that they are brought together into a new unity. Once this unity has been created, it becomes the predominant feature of the combination, because it is just that which our mind strove to achieve. The S - P duality will in time be obliterated and finally the stage will be reached where they become unanalysable in the sense that the old S - P structure has left no traces. We may symbolize this process

graphically by the following notation:  $A - B \supset AB \supset T$   
 (= 'term'). Of course, as a rule T is still analysable  
 as to its c o n t e n t s, but this analysis, called  
 'definition' is not an analysis reconstituting the form-  
 er S - P structure. In our example it is the concept  
il or lui, which is unanalysable as to its former  
 S - P structure, although we were well able to define  
 it by saying Il = une personne définie. In this <sup>mnemonic</sup> ~~mem-~~  
~~erial~~ simplification of concepts a law of mental economy  
 reveals itself: Our memory retains the important part  
 of the past cognitional experience, that is the unity  
 and extension of the objective content, but it elimin-  
 ates the traces of the fabric which served to create it.  
 This fact enables logical handbooks to symbolize con-  
 cepts by simple letters of the alphabet and to reduce  
 the judgment to the notation  $A (= S) \supset B (= P)$ .

From this it follows that concepts, which we have  
 previously defined in a preliminary way, as 'unifying  
 principles or comprehensions of compatible objective properties',  
~~intellectual symbols,~~<sup>1)</sup> derive their unifying force  
 from the fact that they are terms of a judgment. I  
 think therefore also that the question whether or not  
 w o r d s d e n o t e c o n c e p t s can only be  
 answered in the affirmative in s o f a r a s  
 w o r d s r e f l e c t t e r m s o f j u d g -  
 m e n t s (either actually or potentially).

1) on p. 10.



In a judgment two concepts A and B are brought together into a higher unity by a purposeful act which consists in d e t e r m i n i n g A t h r o u g h B.<sup>1)</sup> Whatever the ultimate purpose of such an act may be, its immediate and general purpose, as we said before,<sup>2)</sup> is that of determination. Determination is only another word for i d e n t i f i c a t i o n . We may say that in the cognitional act a substratum, first identified through a concept A, is now being identified as belonging to experiences <sup>similar to those</sup> represented by the concept B.

But the term 'identification' should be taken in a dynamic sense as an attempt on the part of the thinker to make the spheres or extensions of A and B ~~cover each other~~ <sup>overlap</sup>. It should not be taken as an expression of the result of this attempt, that is to say, it should not be thought of as meaning that the conceptual spheres of A and B are actually of identical extension. So while it is not true that all judgments have the form  $A = A$ , it may be said that t h e y a l l a r e v a r i a t i o n s o f t h e 'f i r s t l a w o f t h o u g h t' which is expressed in that formula. This attempt of identification of A through B can be successful, however, only if the extensions of

-----

2) On p. 142.

~~of~~ the concepts cover each other at least partially; wherever this is not the case we obtain either no valid judgment at all or a negative judgment.<sup>1)</sup>

When is this condition fulfilled? There can be only one answer: The attempt to cover the extensions of two concepts can be successful, if the experiences reflected in the concepts are really experiences of the same substratum from different points of view, or, in other words, if they are founded on properties of one and the same substratum. The self-identity of the substratum reveals itself thus as the objective condition for the act of identification or determination.

The judgment would not be a purposeful act of ~~thinking~~ thought, if no progress were achieved by it. Now the progress lies precisely in the fact that a relatively isolated experience is being linked up with other experiences through common features. If we say Socrates is wise, we find that in the experience of the man Socrates there is found an element 'wisdom' which it has in common with experiences of other people i.e. we perceive Socrates as a member of the class of wise men. Hence the fact that B must needs be the wider concept relatively to A, because that is the only way we can bring the experience classified under A out of its isolation. In view of a later discussion<sup>2)</sup>

-----

1) Cf. p. 186. 2) On p. 179.

we might note here that the impossibility of saying \*wisdom is Socrates has nothing to do with Socrates' being a substance and 'wisdom' an accident and that we cannot predicate substances of accidents, but only with the relative extensions of both concepts, as one glance at the equally impossible \*feeling is hunger shows. In other words, the reason for the impossibility of such judgments are formal and not metaphysical. - According to this we should think that in judgments of the form  $A = A$  no progress in thought is achieved, because the sphere of the predicate-concept is not larger than that of the subject-concept. But in reality even here there is a little progress achieved if we take the formula  $A = A$  as a shorthand for 'What was supposed to be A is really A'.

Things seem to be different in the case of a judgment of the form  $\overset{(:S)}{il} \overset{(:P)}{y} \overset{S}{a/A}$ , because  $\overset{S}{il} \overset{S}{y} \overset{S}{a}$  seems to represent nothing but the general concept of 'existence'; the S of the primum logicum seems to be the objective world in its potential totality. In this case the concept involved in S seems to be necessarily larger than any B could ever be. But, as a matter of fact, il y a does not represent 'existence' in general, but a particular unclassified or undetermined existence, an isolated particle of existence.

We find thus that the relative extensions of the concepts A and B become really understandable if we take the purposefulness of the cognitional act into account: progress of thought can only be achieved if A can be classified under B. On the other hand, as we have pointed out, the fact that a concept A falls under B can well be assessed outside the judgment.<sup>1)</sup> But the fact that A is a prius logicum and a determinandum in relation to B, which is thus a posterius logicum and a determinans, is indeed an inter-conceptual relationship which cannot be separated from the judgment. There we have a <sup>i</sup>positional relationship between concepts, i.e. we compare them in relation to their position in <sup>the</sup>'pyramid' of concepts.<sup>2)</sup> We see <sup>e</sup>whether or not they have contact and examine their relative rank, compare their extensions. Here we have a consequent relationship between prius logicum and posterius logicum which is at the same time a ~~pm~~ purposeful relationship between determinans and determinandum.

It is sometimes said that only a very limited number of statements reflect a classifying judgment of the type A is B, others, such as Socrates is wise are perhaps better called 'descriptive' judgments; others again, such as Socrates converses with his

1) See above pp. 124/25.

2) See above pp. 11/12.

disciples could best be called 'narrative' judgments. In this sense C. Serrus divides judgments in 'descriptive', 'narrative' and 'relational',<sup>1)</sup> W. Jerusalem distinguishes "Wahrnehmungs-" and "Begriffsurtheile",<sup>2)</sup> and linguists such as Schuchardt<sup>3)</sup> or Elise Richter<sup>4)</sup> speak of "Mitteilung" as something different from "Urteil". We think ourselves that all such distinctions are the result of a confusion between the aim for which a judgment is formed, and the judgment itself, which may be only <sup>s</sup>instrumental in reaching that aim. In order to describe 'Peter' as 'running' I must have classified him ~~previously~~ under the concept of 'running beings'; the classifying judgment underlies the description. This in turn should not be <sup>descriptive</sup> called 'judgment'; it is no judgment at all, as little as a picture is a judgment. In this way we should like to defend the universality of the form of the judgment.

-----

1) Le parallélisme logico-grammatical, p. 96.

2) Die Urtheilsfunktion, p. 59.

3) Hugo Schuchardt Brevier, p. 225.

4) Wie wir sprechen, p. 71.

Time and modality  
~~The unfolding of the~~

~~gnitional act in time~~. - Until now we have only considered the ~~in~~ concepts involved in a judgment, their nature and relationship. We have not yet analysed the main thing: the judgment itself as a special act taking place in time. It is true the factor 'time' was already reflected in a way in the terms prius logicum, posterius logicum etc., but this anteriority of posteriority was until now nothing but a logical postulatum, it was a 'con-sequent' not a 'sequent' relation.

If we wish to study the unfolding of the cognition-  
al act in real time, we shall have to place at  
the initial moment (1) the centrifugal direction of  
our attention <sup>towards the substratum</sup> with all its potential cognitional  
features. Of these we shall analyse first those which  
have been assimilated already by previous experiences.  
Of this fact we may be well assured: it is a general  
law that those movements or actions are most easily  
performed to which we are used, which have been parts  
of previous experiences. All training, be it bodily  
or mental, rests on this fact. So we may well suppose  
that of all the potential features of X, those which  
form the contents of A become first actual. But to A  
belongs a certain point of view, which is not the one  
we are occupying now. We are now viewing X through

a perspective, which brings out certain other cognitional features, which form the contents of a concept B. This in turn is the result of previous experiences which have not been made in connection with  $X = A$ , but in different connections. Their applicability to A is now realised and A is consequently reclassified as B.

Let us take an example to illustrate this abstract account. If I say Notre ami N. est musicien. I have singled out somebody - the general object of attention - at whom I am used to look in a familiar way as notre ami N.; now I realize that he performs acts which I have observed in certain people known as 'musicians'. This is why I can classify notre ami N. as musicien.

Now something else. The new cognitional features observed in A, as long as they are not yet assessed as B, create a theoretical uneasiness, which manifests itself in a feeling of *t e n s i o n*; this accounts for the fact that A appears on the one hand as the *f a m i l i a r*, on the other hand as the *p r o - b l e m a t i c a l*. It is characterized by a *d o u b l e m o d a l i t y*: that of quiet acceptance and that of doubt. That is why the whole judgment appears as an answer to some question and gives it its discursive character. But in reality no question is asked;

the double modality of the S is only a sentimental reaction of the cognizant ego. The greater the difficulty in assessing the relatively unfamiliar features of X, the stronger the tension accompanying the act of subjectio will be and consequently the stronger will be the sort of explosion which initiates the sentimental <sup>e</sup>relation marking the fact that B has been found and used as a classifier of A. We may say therefore that the act of judging is accompanied by an emotional process which develops in two phases: (1) tension, and (2) relaxation after a sort of 'explosion' of the tension.

If this account is correct, the cognitional act can be analysed into various phases or part-acts following each other in time in a determined order:

- (1) Isolation of X by direction of attention.
- (2) Identification with A felt as only partly satisfactory because of the discovery of cognitional features not accounted for by A. Double modality of S, sentiment of ~~x~~ tension.
- (3) Identification of relatively unfamiliar cognitional features with B and by that, reclassification of X = A. Relaxation of tension.



O u t s t a n d i n g   q u e s t i o n s . - It seems we have reached the point from which it will be possible to answer the questions raised at various points of our previous discussion and left unsolved so far. Let us take them one by one and begin with those questions labelled on p. 149.

The first question was: Is 'judging' a separate act from the representational synthesis, or are judging and representing only two sides of the same cognitional act?. There seem indeed to be certain psychological states such as representation in dreams (including day-dreaming) and in certain aesthetic intuitions where no judgments are involved although representations certainly occur. As far as judgments are concerned the question of the psychological independence of a representational act from that of judging proper does not seem to be of very great importance to the analyst. All he is interested in is the fact that t h e r e i s n o j u d g i n g w i t h o u t a r e p r e s e n t a t i o n a l c o n t e n t , and a closer analysis of the problem of how the representational order is integrated into the order of thought will reveal furthermore that the former is dependent on the latter. <sup>1)</sup> In any case no representation of the form the white house precedes the judgment

---

1) Cf. 307.

the house is white. On the contrary, the white house is the P of the postremum logicum of such a judgment: the house is white > there is: the white house, and therefore later in logical time. Its dispositional and virtual character is therefore an acquired quality.

It may be, however, that the existence of pronouncements such as Yes! and No! could be held against the view that there are no judgments without representational content. Indeed they seem to be the expression of modality pure and simple, independent of representational acts. Such a view would, however, be wrong. From what we have previously said on the denotation of modality<sup>1)</sup> <sup>it follows</sup> ~~it results~~ that modality may become an object of attention and as such it must of course be represented. Whether this is done by representing acts of consentment or refusal <sup>whether it is done</sup> or in a more abstract way, difficult to describe with words, does not really matter, as long as we can agree that in Yes! and No! there is a representational content. But something else is interesting in these exclamations, and it is this: whereas usually statements contain judgments on facts which are represented independently of modality, Yes! and No! judge judgments, they are therefore derived, <sup>c</sup>second-hand phenomena: The content of these new judgments is the modality of another judgment asserted by a new modality of their own.

1) See above p. 61.

This leads us naturally to our next point, the question What is modality? Modality is the expression of a <sup>degree of</sup> belief or conviction that there is an objective <sup>ground</sup> ~~reason~~ for the identification of X first through A and secondly through B. But this belief is first of all not a theoretical act, but a state of feeling of satisfaction or dissatisfaction accompanying the judgment. It is thus the specific emotional reaction of the ego while judging. If we consider the judgment as a purely theoretical act, we may say that m o d a l i t y i s i t s p r a c t i c a l c o u n t e r - p a r t , without ~~it~~ which, however, the judgment would not be complete. Like the theoretical component of the judgment modality has two phases: during the first identification or subjectio, the accompanying feelings are mixed and then dissolved into satisfaction in the course of the praedicatio.<sup>1)</sup> If the latter is unsuccessful, we do not obtain a negative judgment, but only an abortive judgment, that is, n o j u d g m e n t a t a l l . We get stuck as it were in the middle of the process. That goes to show that at bottom all f i r s t - h a n d j u d g m e n t s a r e e i t h - e r p o s i t i v e o r n o t h i n g .

---

1) See above p. 183.

But - and this is most important - the practical side of the judgment may in turn become conscious, that is to say, an object for the cognizant ego. It is this objectivation of subjective data we call 'r e - f l e c t i o n'. As a result of this the cognizant ego has now before itself an enlarged vista: it sees the judgment in its specific practical context. The judgment has become a reflected judgment, and this can indeed be n e g a t i v e or p o s i t i v e .

This is most easily shown with regard to the negative judgment. Its very form shows that it has to be conceived as a positive proposition, parts of which have been blotted out. Whoever thinks A is not B must have conceived previously A is B as a possibility. But a positive judgment such as A is indeed B, or A is in f a c t B, etc. may also reveal the reflection on the modality of the original judgment.

In the fact of reflection a new situation is created: the thinker makes his own feelings an object of thought. He changes his point of view. He looks first in the direction of X, that is in a centrifugal direction, and secondly he looks back upon himself, converting by this change of point of view what used to be only of centripetal significance a moment ago, when he looked towards X, into objective meaning. That is why in any

conscious expression of modality we have an ~~objectified~~  
~~and~~ objectified subjective  
attitude.

Now we can dissolve the apparent paradox that in ideal thought there can be only a positive or negative modality, whereas we find expressed in language so many shades of doubt and volition. The first statement expresses in a reflected form the fact that the genuine (unreflected) judgment is either positive or nothing, the second presupposes the critical reflection on the subjective reactions accompanying the unreflected act. That we are so little aware of this change of point of view in the reflected judgment is easily explained, I think, by the factor of mechanization. We are so very used to it that it has become a second nature, but we should do well not to forget that it is only second nature, not nature itself.

It is a peculiarity of reflected judgments, that by the mere fact of reflection the thinker splits himself up into two persons. It is at this point that we find that in thought something of a social phenomenon, <sup>a duality of persons,</sup> plays a role. It is therefore not surprising to find that such typically social phenomena as questions and commands receive an explanation similar to that of reflected modality. They are not judgments proper, but they presuppose and reflect judgments.

This is true of the total question, which requires an answer in terms of yes and no (e.g. Did father come?) and of the partial question (e.g. Who came?). The former represents the reflection on the modality of the judgment Father has come, the latter a reflection on the partial indetermination of A: Some (not sufficiently defined) person has come.

Commands likewise <sup>anticipate</sup> ~~presuppose~~ judgments. By saying Come! I wish to create the objective basis for the judgment you come. As in questions the underlying judgments, so in commands the preconceived judgments are normally reflected in their form. This is important to observe, when we approach later on the analysis of questions and commands.<sup>1)</sup>

It seems thus that we find the S - P structure in any basic act of thought, and consequently we should find it also in the e l e m e n t a r y j u d g - m e n t of the type it is raining, which has apparently a S without meaning, that is it has no S at all. As far as the question of the S of impersonal expressions is a linguistic one it need not occupy our attention just now.<sup>2)</sup> Considered as an act of thought, however, there should be no doubt that an actual experience of water falling from the sky, which is as

-----

1) Cf. pp. 209 ff.

2) Cf. pp. 308 ff.

← yet unclassified, is connected with similar experiences in the past, which are classified as rain; this allows us to determine the actual experience in the same way. It is as if we said 'The event I am witnessing just now is rain.', only we think of S in a way still less determined than the words 'the event I am witnessing just now' suggest. In it is raining the S is that relatively undetermined X individual existence X, constituted by the fact that we turn our attention to it, and the judgment has again the structure of X is A.

Speaking of the elementary judgment leads naturally to a re-consideration of the question of a c o m - p l e x j u d g m e n t raised on p. 131. Does a statement such as Jack calls Jill represent a synthesis of various propositions? The answer can no longer be in doubt. By showing that the S - P relationship cannot be defined as one holding between objective elements and by giving to S and P a purely formal definition we have, as a matter of fact, d e t a c h e d S a n d P f r o m t h e s u b s t a n c e - a c c i d e n t relation. The presence of various substances such as Jack and Jill in one construct does therefore in no way characterize this construct qua proposition. To infer from the presence of various substances that the construct is a synthesis of propositions is therefore wrong.

C o n c l u s i o n . - We have given a purely formal definition of S and P in the domain of (=concept A) ~~th~~ thought. S appeared to us as a prius logicum with regard to P, the posterius logicum (=concept B). This relationship is characteristic of the potential judgment. In the actual judgment they follow each other in time and are characterized by a certain modality which manifests itself in a feeling of theoretical <sup>dis</sup>insatisfaction and psychological tension in the case of the S and in a feeling of theoretical satisfaction and psychological de-tension in the case of P. Nothing at all has been said about the relationship of concepts and judgments to representations. Both concepts and judgments have been called by philosophers 'representations of representations',<sup>1)</sup> which paved the way to a complete confusion between the ideal forms of representing and thought among psychologists. We shall discuss the question of how representations are integrated into thought later.<sup>2)</sup> But only in so far as they are symbolized in language; for we must never forget that we are concerned with the analysis of language and that we distinguish ideal epistemological forms only because<sup>S</sup> we believe it necessary for a better understanding of language.

---

1) Cf. Steinthal's criticism of Kant in Logik, Grammatik u. Psychologie, p. 329, and A. Schopenhauer, Die Welt als Wille u. Vorstellung (Reclam) Leipzig. p. 78.  
 2) Part III, Chap. 7.



One consequence of our formal definition of S and P seems to be that we need not subscribe to the thesis: Since in most cases linguistic constructions are not conformed to the 'logical' scheme A is B grammar has nothing to do with S and P. - Our contention is precisely that A is B is n o t a 'logical' but an objective relationship; it is descriptive of a f a c t , not of a judgment. All sorts of facts may be represented and form the material of judgments (e.g. Jack calls Jill , Cologne lies between Berlin and Paris etc. etc.). It is therefore quite true that the formula A is B is not of universal value. But this proves nothing against the S ~~and~~ P structure of judgments which is independent from the structure of represented facts. S and P are realities of the elementary form of thought, of that analytic and synthetic constructive act we call 'judgment'. The question how far S and P are reflected also in language is still open.

## Part III

### Chapter (1)

Parasyntactic signs.

I n t r o d u c t i o n . - The result of our investigation in the Second Part of this essay is simple enough: All thought is performed through cognitional acts of an S - P structure. The question we have to study now is whether and to what ~~an~~ extent the same structure appears also in linguistic form and what methodological use ~~can~~ the grammarian<sup>can</sup> make of this distinction.

For the purpose of this new investigation it will be appropriate to start with a limitation of the field. There is one large class of linguistic signs, which do not <sup>x</sup>hibit any grammatical or - as we should say perhaps more accurately - syntactic structure; we shall call them p a r a s y n t a c t i c signs to distinguish them from the other sort of signs, which deserve the name of s y n t a c t i c signs. It seems clear that we can look for S and P only inside the syntactic field; but since parasyntactic signs and syntactic signs ~~are~~ are not to be found ~~im~~neatly separated in different compartments it is not possible to limit our observation to the syntactical field only without having first eliminated the parasyntactic signs from the whole complex of linguistic signs. That is why we have to start with an account of parasyntactic signs.

Under the heading of 'parasyntac signs' we group together all signs which do not exhibit any syntactic or grammatical structure. Their meanings can be assessed in terms of thing-meant values, but they contain no indication as to how these meanings are to be built up. In accordance with our explanation in Part I, Chap. 5, we may say that they exhibit material (i.e. extrinsic) meaning but no formal meaning. Para-syntactic signs may be divided into the two groups of pre-syntactic and post-syntactic signs. The latter presuppose already the existence of an elaborate grammatical language, the former do not.

Pre-syntactic signs. - At the beginning of linguistic development we should like to place a sensual intuitive sort of symbolism, rather realistically imitating or picturing all sorts of symptoms.<sup>1)</sup> In the earliest stages art, such as painting and acting, may have been indistinguishable from language, both creating a somewhat deceptive image of reality, which seemed to our primitive forefathers almost indistinguishable from reality itself, as indeed it does in primitive societies to-day. Language, one might almost say, started

---

1) See above, pp. 80/86.

by way of cheating and acting. This at least seems to be the<sup>e</sup>~~the~~ essence of the first linguistic act performed by the baby. The youngster first utters a howling sound, say, as a symptom of hunger. Soon he learns that whenever he howls, somebody appears to look after him. This knowledge he uses now by howling, even when he is not hungry, just to call somebody. In other words he imitates a symptom in order to signal. We need not think that the baby is very conscious in his intentions, but no doubt the imitative howl is already intelligently used and a somehow artificial product. It is therefore already a linguistic sign.<sup>1)</sup> We find already a deflection from its symptomatic to its symbolic meaning comparable to the metaphor.-In the deictic gesture we find even, besides this semantic deflection, an ~~abridgment~~<sup>abridgment</sup> of the originally grasping gesture,<sup>2)</sup> and therefore something comparable to ellipsis in our grammatical languages.

Such imitations, be it of personal symptoms such as howling, sighing, laughing etc. or those of outside phenomena (bow-wow) are ipso facto symbolic pictures; these may well show a structure, even a dyadic structure, as the numerous reduplications in so-called primitive and children's language prove; but these may be

---

1) See above p. 75.

2) See above p. 80.

prompted by a desire to be very impressive and by an esthetic rhythmical tendency. In any case, this structure is not of an epistemological nature; it has nothing to do with S and P.

If we describe the noise of a machinegun as  
rat - tat - tat - tat  
~~tac - tac - tac - tac!~~, the structure of the symbol reflects that of things, not that of thought. - If the vanquished throws himself into the dust before the victor, he pictures the man without force and without defence, but it is impossible to distinguish in his movement any phases which betray S or P, or any grammatical category. We call these symbolic imitations of symptoms without grammatical structure *presyntactic* signs, because it is probable that this sort of linguistic signs was already in use before the existence of grammatical (syntactic) language.

This does not mean, however, that presyntactic language became obsolete, once grammatical language had been well established. On the contrary: this acting or picture-making lies so much in our blood, that we go on using presyntactic symbols always *beside* grammatical signs. Better still: they are so intimately interwoven with grammatical expression that one might well say of some of them that they belong to it as

colour belongs to physical objects; others again have a certain independence, but they are not felt therefore as strangers in our languages. We nod assent when listening to some-body's talk; that means we 'incline' ourselves to his authority; we shake the head in sign of disapproval. The original meaning of this gesture, I take it, was the shaking off of an opponent; in this the whole body and particularly the shoulders must have participated. If this interpretation is correct, it would mean that the well-known Mediterranean gesture/consisting of shaking the pointed finger from left to right, to and fro, is a sort of translation from one gesture - that of the body - into a similar one - that of the finger.<sup>1)</sup>

Knowing that a sudden noise in the midst of silence automatically attracts attention, we artificially yell hello! to arouse somebody's attention, behaving not very differently from the cheating baby. Generally speaking all so-called interjections imitating emotional symptoms, such as ah!, oh!, whew! etc. belong into the same category. But the use of parasyntactic signs is by no means restricted to a handful of gestures

---

1) Incidentally, outstretched finger and lower part of the arm have to be moved together. I was corrected once in Florence for the 'mispronunciation' of this gesture when I moved finger and hand only.

and interjections. They are only the relatively independent elements. Of equal, if not greater, interest are those presyntactic signs which belong to the very body of our languages: sentence-melody, dynamic stress for the purpose of 'underlining' important parts of words ~~and~~<sup>or</sup> sentences, and word-order.

The melodic pattern of statements varies from one language to the other, but one feature most of them seem to have in common: that the end is marked by a falling note, and the beginning by a rising note, whereby the rise starts from a higher level than would be the final level reached by the falling note at the end. I think this reflects originally the tension - detension movement, which accompanies the cognitive act in its progress from S to P<sup>1)</sup> and has then been used artificially to denote the beginning and the end of a statement. But whereas the melodic features of statement-curves show great uniformity as far as the beginning and the end is concerned, there is a considerable variety in the way sense-units inside the statement are marked off by melodic features.

By way of illustration I reproduce the correspondent curves of French and Spanish as given by Grammont<sup>2)</sup>

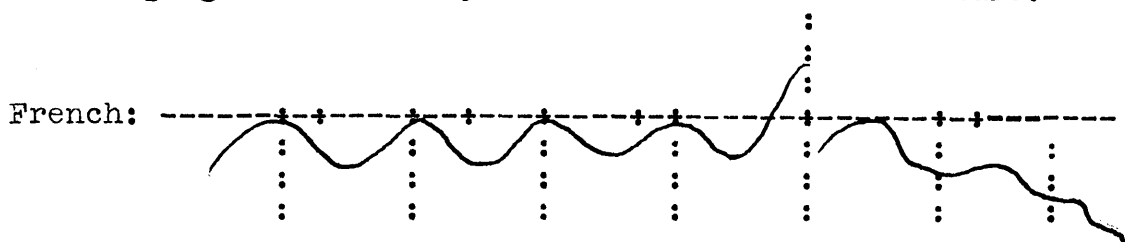
---

1) See above pp. 182/83.

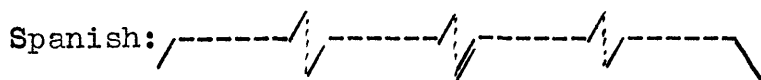
2) M. Grammont, Traité de phonétique, Paris 1933, p.134.



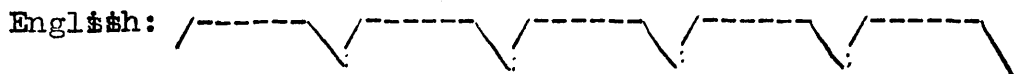
and add ~~an~~ characteristic English curve.<sup>1)</sup> (The German curve, by the way, would be essentially similar to the Spanish one; the main musical differences between the two languages are of a dynamic not of a melodic nature.



On avait vu / Paul III / et Chales Quint / causer ensem-  
ble / sur une terrasse, // et pendant leur entretien /  
la ville entière / se taisait.



Andando por aquella caverna adelante / había encontrado  
al fin unas galerías subterráneas e inmensas / alumbradas  
con un resplandor dudooso y fantástico / producido por la  
fosforescencia de las rocas.



A brilliant debator<sup>e</sup> in Trinity College, / he was called  
to the bar, / but preferred journalism, / and bought a  
newspaper, / and still more newspapers and magazines.

)))-----

1) English is extremely rich in intonational patterns, but the sentence melody we reproduce here in a schematic form is one of the most typical ones.

We see that all the curves have special signs to mark sense units, but whereas these are almost completely merged in the continuous flow of the whole in French, thus asserting the preeminence of the sentence over the word, Spanish and English assert the relatively great<sup>er</sup> autonomy of the element in relation to the whole, but both in a very different manner: in Spanish the end of one unit is separated from the beginning of the next unit by a maximum of melodic difference, in English by a minimum. In stylistic parlance I should say that the French solution is the most elegant, the Spanish the most expressive and the English the most repressive of the three.

The melodic patterns of questions, commands and exclamations can be interpreted according to the same principle as those of statements. They too are imitations of symptoms. - To begin with questions, their particular melodic features <sup>were originally</sup> ~~has been once~~ a symptom of getting stuck in the middle of a statement, that is before the statement melody was completed. This was equivalent to a stimulus <sup>to</sup> in the ~~listener~~ <sup>listener</sup> to collaborate and help out with the answer. This interpretation has been given by Kretschmer with regard to alternative questions,<sup>1)</sup> but I think it is safe to

---

1) P. Kretschmer in: A. Gercke, E. Norden, Einleitung in die Altertumswissenschaft I, 3rd ed., Leipzig 1927, 6, 61. - Cf. also B. Sonneck, Der Satz als

generalise it, either supposing that this melodic feature was adopted for all questions per analogiam or else that from the very beginning it applied also to situations like this one: A (speaks) The father...  
B (answers) has come.

That the melodic (and dynamic) features of commands express the exertion of will tending towards a definite end is so easily seen that it needs no comment, and the same holds good of the melodic features of exclamation which is the symbol of the speaker's being overwhelmed by emotion. All this goes to show again that, while we speak, we act at the same time - unconsciously of course - not unlike actors on the stage.

Into the ~~same~~ chapter of presyntactic symbols as sentence-melody belongs stress in its rôle as underliner of important significant parts and that of the order of parts of speech with its two main forms, the intellectual order A B and the emotional order B A, where the very terms 'intellectual' and 'emotional' indicate their originally symptomatic character. But these two, word-order and stress, have such a complicated and long history, some phenomena have travelled so far from their understandable origin, that from the modern point of view

---

Einheit und die Satzarten. Arch. f. d. ges. Psychologie  
XCIV (1935), p 468. - J. van Ginneken, Principes de  
psychologie linguistique, p. 340, - M. Gramont,  
Traité de phonétique, p. 423.

they seem to be sometimes completely arbitrary. Since the question of word-order and stress are intimately linked with each other and of a very particular importance for the problem of S and P, we are going to deal with them in a later chapter.<sup>1)</sup> Here it will suffice to point out that they belong together with interjections and sentence-melody in the realm of presyntactic signs.

It remains to indicate in a clear and conclusive way the essential characteristics of this sphere. I think they are the following: In the presyntactic sphere speech appears as acting or picture-making in the largest sense. Presyntactic symbols are imitations of symptoms, be it subjective symptoms such as oh!, be it symptoms of outside phenomena such as ~~tac-tac-tac-tac~~ <sup>rat-tat-tat-tat</sup>. If we compare the symbolic with the symptomatic meaning, we find from the very beginning a displacement of meaning: the howling baby 'says' hunger (symptomatic meaning), but 'means' Come and occupy yourself with me (symbolic meaning); the vanquished throwing himself into the dust before the victor expresses weakness (symptomatic meaning), but symbolises submission under the victor's will. We can easily imagine that if the sense-displacement goes farther and is coupled with abridgment of the symbol, this can change its character completely and become a mere diacriticon. This can be clearly observed

---

1) Cf. Part III, Chap. 6, pp. 374 ff.

in the later development of our 'submission' symbol: the meaning becomes equivalent to 'yes', the symbol is abridged to a slight inclination of the head. For most people this 'nodding-assent' gesture has become a mere diacriticon.

Presyntactic symbolic pictures, if they show any division into parts, reflect either parts of the thing pictured (<sup>rat - rat - tat - tat</sup>~~(tae - tae - tae - tae!)~~) or different expressive 'pushs' (puff - puff) but in neither case has this structure anything to do with the S and P structure of cognitive acts. We learn from this that, whereas it is important to denote in speech with reasonable distinctness what is meant, it is not important to indicate the method according to which this meaning is <sup>to be</sup> built up in the listener's mind.

Postsyntactic signs. <sup>We come</sup> - ~~To~~ the same result, ~~we come~~ when we glance at what I should like to call the postsyntactic sphere. Here belong those diacritica which have grown out of grammatical language, but lost their grammatical structure, and furthermore diacritica arbitrarily fixed by previous agreement and therefore really translated from grammat-

ical language into a new signal-medium. Examples of the former kind are the particles of affirmation and negation (yes, ja, oui, si; no, nein, non, pas, no) which all go back to grammatical constructions or parts of grammatical constructions (e.g. French oui < Hoc (dicit) illi, ne - pas < non - passu etc.); examples of pre-arranged (or translated) diacritica would be the red traffic light or the signal-ball warning ships ~~ng~~ of atmospheric disturbances. Not all such signals belong of course to the postsyntactic sphere, but only those which reflect the content of the original, without however reflecting its grammatical form; others, such as Morse, translate both content and grammatical structure.

One might perhaps raise the objection that signals such as the traffic light also exhibit a S - P structure, S being~~x~~ represented by all those features which arouse the interpreter's attention, such as its peculiar emplacement at road-crossings, the arrangement of the lamps, the white post supporting them, and that those features which occupy the interpreter's attention during the act of interpreting, such as the red light, represent P. But such an argument ~~xx~~ can hardly invalidate our contention, for ~~there~~ is no grammatical institution or convention to indicate S and P. Should we accept that the general signal-character stands for S, we have at least to admit that there is no S as

part of the light-signal, corresponding to the part of a statement in grammatical form which can be identified as S by grammatical convention,

With regard to those postsyntactic signs which have grown out of grammatical language, one may well ask ~~what~~ conditions favour this process of degrammaticalization. There we shall doubtless have to name in the first place emotional pressure, or better, perhaps, pressure of time which translates itself into emotional pressure. In circumstances where the urgency of the situation calls for brevity, that is in exclamations and commands, we observe that sort of transition. It is in this kind of situation that Greek ὦ, French tiens!, Spanish ¡toma!, vaya!, English fiddlesticks! German Da hast es!, Ja Kuchen! (fam.) become degrammaticalized interjections. Sometimes we have originally wilfull disguising of outform for reasons of taboo as a helping factor: Cp. English My foot!, French Sappristi!, German Potz tausend! for My God!, Sancti Christi!, Gottes tausend!

Most interesting phenomena result, when these degrammaticalized expressions are taken back into grammar. We may find ~~that way~~ a nominative depending from a transitive verb: ὦ ὁ ἄνθρωπος, a nominative after a preposition: Rum serman de eu,<sup>1)</sup> a predicative

1) H. Tiktin, Rumänisches Elementarbuch, Heidelberg 1905, p. 128.- S. Lyer in Zeitschr. f. Rom. Phil. LXVIII (1938), p. 340.

← adjective, which shows no agreement with its noun: porter haut la tête, an adverb without adverbial ending: courir vite,<sup>1)</sup> an imperative becoming an adverb: das ist halt so (South.Germ.) etc.

~~XXXXXXXXXXXXXXXXXXXXXXXXXXXX~~

Parasyntactic signs and the problem of S and P.- Where parasyntactic signs are symbolic imitations of symptoms, it is easy to ascribe them to the presyntactic sphere. Pure diacritic<sup>a</sup> however, may grow out of either presyntactic symbols or else grammatical signs, as the comparison between the gesture by which we nod assent and its ~~ling~~ spoken equivalent (yes!) shows. In the case of arbitrary signals it may therefore not always be easy to say at a glance whether they are presyntactic or postsyntactic signs. But this need not disturb the grammarian, for whom it will be sufficient to classify certain utterances (or signal-emissions) in the wider category of parasyntactic signs. And this he can always do where he finds sentences or sentence-equivalents without grammatical structure. - It is perhaps not without interest to note that parasyntactic signs have often a very great semantic stability, their meanings show little tendency to develop.

---

1) M. Sandmann, On Neuter Adjectives Determining Verbs. With Special Reference to French and Spanish. Mod. Lang. Rev. XL1, pp. 24/24.



⇒ From this account of parasyntactic signs we may learn several lessons. The most obvious and the most important one is perhaps the fact that there is a large group of signs which are not constructions, and that it would be in vain to look here for any S - P structure. They stand for things-meant but do not reflect cognitional acts.

The second lesson we can draw from our observation of parasyntactic signs seems to be this: In the same measure as signs are realistic imitations of symptoms and represent a sort of sensorial, intuitive language it will be difficult to consider them as mere reflections of thought. But this holds good also with regard to signs representing the other extreme; i.e. with regard to those signs which are merely arbitrary hints. And these two groups of signs, besides teaching us that a grammatical interpretation of S - P structures can by no means be universally applied, also teaches us that it is the two extreme forms of symbolization - that of very intuitive, and that of very arbitrary, forms - which offer us the least chance of discovering such a structure.

Now between these two extremes we find the field of constructions, of syntactic language, which we are going to investigate presently.

But before we do so we have to remember, that there is to a large extent a factual interpenetration of parasyntactic forms (speech-melody, word-order) and syntactic forms and also that it may be possible to give to some of these originally parasyntactic features of constructions some syntactic significance.

P a r t   I I I

Chapter (2)

C o n s t r u c t i o n .

## Sentence and construction.

- After having dealt with the sphere of parasyntactic signs we are now free to approach the syntactic field proper. This is characterized by the fact that it extends as far as we can recognize the phenomenon called construction. We remember that the Latin word constructio is nothing but the translation of the Greek syntaxis. The conception underlying these terms was the belief that speaking consisted in 'putting together' words in order to build up sentences, and up to to-day syntax is often taken to mean 'theory of the sentence'. Sentence was thus by definition a construction consisting of at least two parts in relation, and construction was therefore considered as the criterion of sentences. From the fact that grammarians called the two related parts, which constituted the minimum construction, S and P, it is clear that ~~the~~ sentence was a synonym of proposition and that 'word' was consequently synonymous with 'concept'.

It should follow from this that sentences consisting of one word only are impossible. But here the instinct of the linguist got the better of the logistic prejudice; it was admitted that there did exist one-word sentences, and one tried to overcome the paradox by declaring that they either were construction-equivalents, that is to say, that currit had to be

analysed in the same way as puer currit, or they were sentence-substitutes such as, for instance, isolated interjections; a third possibility was offered in the subterfuge of ellipsis: me miserum!, puer! etc. were thus considered as incomplete constructions.

This state of affairs has been slowly changed by a great many enquiries into the nature of the sentence. In spite of the lack of conformity in the answers given to the now famous question What is a sentence? the discussion of this topic has not been in vain.<sup>1)</sup> It has been recognized that parasyntactic utterances cannot be explained away by either supposing that they are only truncated or elliptic constructions or by degrading them to a sort of construction-ersatz or 'sentence-equivalent'. The sheer force of things has led to the recognition on the one hand that they are not constructions, and on the other hand that they have essential properties in common with recognized types of sentences, and that it is just these properties which distinguish sentences from anything else. They are, seen from the side of meaning, the completeness of their sense, their being semantically self-sufficient, and from the point of view of form, the clearly marked signal-unit.

-----

1) J. Ries, Was ist ein Satz?; E. Seidel, Geschichte und Kritik der wichtigsten Satzdefinitionen. Jenaer Germanist. Forschungen XXVII, 1935.

With regard to spoken language, this signal-unit is identical with those melodic features of the utterance which characterize it as statements, question, request etc.<sup>1)</sup> - We were careful to point out in the previous chapter that these forms, as old imitations of sym<sup>2)</sup>ptoms, have always existed as units, and this character of unity was never lost. ~~although the melodic sentence~~  
~~features have developed~~ So we may confidently assert that this unity of melodic form is the outer criterion of sentences. It thus appears certain that sentences in the full sense of the term can be found in the parasynthetic sphere; from this it follows that 'sentence' and 'construction' are not equivalent and that the sentence as such is not necessarily an object of syntax.

Sentence and proposition.-  
On the other hand there can be little doubt that sentences can often be analysed into S and P and are therefore constructions in the sense of propositions. But even in these cases it is of great methodological advantage to distinguish the sentence-quality from the proposition-quality.  
Comparing for instances tu viens, viens-tu? and viens! we should be able to say that these three forms are identical qua propositions, but that they are different

<sup>1)</sup> E. Lerch, Vom Wesen des Satzes und von der Bedeutung der Stimmführung für die Satzdefinition. Arch. f. d. ges. Psychologie 1898, Nr. 133/92.

qua sentences.

This, I understand, is contrary to philosophical practice<sup>1)</sup> and also contrary to Bally's analytical method.<sup>2)</sup> According to this author our three examples should be interpreted as j'affirme que tu viens, je demande si tu viens and je veux que tu viennes. Against this analytical procedure two objections can be raised.

(1) We have explained that modality may be considered as the practical counterpart of the theoretical act establishing the synthesis of two concepts A and B by conferring ~~for~~ them the cognitional functions of S and P respectively.<sup>3)</sup> As such modality can be distinguished from that purely theoretical act. In the first instance of unreflected judgments, modality is not an object of attention. This changes in reflected judgments. And there can be little doubt that in our three instances modality is reflected. Speechmelody here does not express modality but denotes it. However, by the fact that speechmelody is still a true picture of modality and as such a parasyntactic sign it is still clearly distinguishable ~~from~~ the synthesis of A and B functioning as S and P. This can only mean that it should not be interpreted as forming part of that synthesis which alone has syntactic form. By saying tu viens means j'affirme

3) See above  
p. 186

1) I have been told this by Prof. Campbell. 2) See above p. 135, note (1).

que tu viens etc. one has made modality the main part of the judgment which may result in a ~~material~~ material equivalenc~~e~~ but results certainly also in a destruction of the original propositional construction.

(2) But even this material equivalenc~~e~~ between tu viens and j'affirme que tu viens etc. is doubtful; for the new formulation j'affirme que tu viens carries withi<sup>a</sup> it, new modality expressed again by melodic features which have the same ~~ca~~im of being transposed into constructional elements as the original ones. In this way the beginning is made of that 'infinite regress' of which we have spoken on page 137.

By declaring that tu viens, viens-tu? and viens! are identical qua propositions we overcome the difficulty which would arise from accepting Steinthal's opinion that questions and commands are not propositions although they can be analysed into S and P.<sup>1)</sup> For now we no longer oppose questions and commands to statements, but see in them only different practical contexts of possibly identical propositions.

\*\*\*-----

1) H. Steinthal, Grammatik, Logik und Psychologie,  
p. 169.



Representational, cognitional and formulational constructions. - Now as we have seen in Part II,<sup>1)</sup> it has been claimed that this possibility of analysing certain sentences into S and P does not interest the linguist, that the analysability of sentences depends on the distinction of partes orationis<sup>is</sup> and that these cannot be related to parts of the cognitional act but rather to sections or aspects of reality, and that they are used in sentences as elements of a picture of reality. In a sentence such <sup>a</sup>the king arrives in London, it is of little interest<sup>e</sup> to say the king represents a S and the other words together a P, but it is of paramount importance to recognise an actor (the king), and action (arrives), and the relation between the acting actor and the place (in = relation, London = place). Here then we have a second meaning of 'construction': a picture of reality analysable into different relatively autonomous parts, the partes orationis.

The problem we are faced with is to explore how far the linguist, recognizing the element of truth in these contentions, can really do without the propositional analysis or whether he will not be well advised to operate with both. If we adopt the latter method we shall have to show how they are related to each other.

---

1) See above pp. 134 and 164/66.

One thing can already be pointed out here, and that is that the analysis into actor, action, place and the like leaves out something which has always been regarded - and I think rightly so - as being of eminently syntactic interest, and that is the grouping of the partes orationis. There can be little doubt that in our example arrives in London ~~FORMS A GROUP OPPOSED TO THE KING~~ forms a group <sup>distinct from</sup> ~~opposed~~ to the king and that inside this group in London forms a sub-group opposed to arrives. Now it has always been considered that such groups are functional units such as 'subject', 'verb', 'adverb' and that they reflect reflect in their grouping the S - P structure. This consideration is certainly apt to make us inclined to operate with both conceptions of construction.

But there is still more to be considered. The grouping of elements involves more problems than can be solved by either analytical method. It can hardly be denied that manus manum lavat and manus lavat manum are both identical qua sentences, propositions, pictures of reality, and functional units, and yet, since the order of elements is different, one might legitimately say that they are different as to their syntactic make-up. Surely the rule that the verb in German sub-ordinated clauses goes to the end, is a syntactic rule, the reason for which cannot be

accounted for by any of the syntactic methods so far considered. But there are more constructional features which we can mention in this connection. There is for instance the breaking up of a sign into different words such as French ne - pas; the obligatory repetition of S such as moi je ne sais pas or le père est-il arrivé?. All these seemingly arbitrary features of construction are due to accidents of formulation and can only be accounted for by a genetic method (historical grammar).

Thus we are left with several different conceptions of construction or syntax which all make sense, and because they do, <sup>the answer to</sup> our problem cannot be ~~fix~~ ~~fix~~ to discard one or the other and declare them out of bounds and keep certain other types, or only one, as the legitimate kind(s), but rather to find a link between them which makes us understand how they keep together. The justification for the different possibilities of syntactic analysis lies in the fact that in meaningful speaking and intelligent understanding not one but various operations are involved such as representation, cognition (thought) and formulation.

To these correspond three kinds of grammar:

(1) R e p r e s e n t a t i o n a l g r a m m a r .

It accounts for the 'actor - action - place' picture in our example the king arrives in London.

(2) C o g n i t i o n a l g r a m m a r . It accounts for the grouping of the elements in the same example: the king : arrives (in London).

(3) F o r m u l a t i o n a l g r a m m a r . It accounts for all those accidents in outer form which cannot be justified by the other two grammars, such as the end-position of the finite verb in German subordinate clauses etc. etc.

The task of r e p r e s e n t a t i o n a l grammar will be to show <sup>o</sup> ~~which~~ use language makes of the ideal categories of representation: space, time and quality,<sup>1)</sup> in constructing the representational patterns underlying its outer forms. The traditional treatment of grammar has given us glimpses of representational grammar, but, to our knowledge, its principles have never been systematically worked out. ~~The~~ The reason is that 'representation' and 'thought' were not clearly distinguished, as we have pointed out before<sup>2)</sup>

-----

1) See above p. 105.

2) On pp. 33 ff.

and that a physiological psychology was so much occupied with genetic problems that it had little time for the patient analysis of ideal representational forms.

But representational grammar cannot stand by itself; it has to be integrated into cognitional grammar. If we divide constructional patterns according to their grammatical P into verbal and nominal constructions, according to their grammatical S, into personal and impersonal constructions, it is clear that these notions are somehow connected with the representational categories since the noun is connected with space as the verb refers to time; at the same time they function as S or P. This is the old problem of the relation of *ὄνομα* and *ῥῆμα* to S and P, put in a modern form. We shall therefore have to show how representational orders are integrated into cognitional ones.

Finally we shall have to demonstrate how both representational ~~gr~~ and cognitional grammar fit into that of formulation and show how historical accidents create, remodel and destroy grammatical forms, be it nominal or verbal forms or coordinating and subordinating patterns and, in connection with this we shall have to work out a theory of the grammatical S and P.

The order in which this programme has to be fulfilled is dictated to us by the nature of things. Representation, cognition and formulation are related to each other as content and form. That is to say, reality has to be converted into represented reality, which in turn is the basis on which the cognitional acts are founded, whereas formulation arises on the basis of cognition. We find thus that the order (1) representation, (2) cognition, (3) formulation, is an ideal one, derived from the nature of their relationship to each other.

Having said this, we must hasten to make it quite clear that we do not pretend to affirm that psychologically we proceed by first representing, second thinking, and third speaking. What these three stages represent is nothing but the reversal of an analytical order. The analyst of linguistic constructions finds, indeed, first a certain order of signs, of words and word-elements, secondly, behind this as it were, a cognitional order, and thirdly an order of represented things, which he relates to each other as material foundation and form. That is all he can achieve; the genetic question of how the collaboration of representation, cognition and formulation is achieved in the psyche of both speaker and listener cannot even be approached by a purely analytical method.

Members of an analytical order do not exist independently in reality. Representational, cognitional and formulational forms are therefore always found together, integrated into each other. This is why representation and cognition cannot be dealt with independently of linguistic formulation which has to be present at all stages of our discussion, and we must show things one in the other rather than one beside the other. This is an advantage rather than a drawback since the linguist is obviously not interested in ideal forms as such but only in the way language refers to them.

C o n c l u s i o n .- The characterization of parasyntactic signs in the previous chapter has confirmed the expectation which we formulated in Part I, Chap. 6, namely that language can well be thought of existing without referring to cognitional forms. On the other hand we have now found in 'constructions' the type of advanced linguistic symbolization of which we spoke in that same chapter, and which ~~does~~ refers to the thing-meant by the round-about<sup>method</sup> of referring to cognitional forms. It is in the field of constructions that the final solution of our problem - the reflection ~~xxx~~ of an S - P structure in linguistic forms - has to be attempted. The discovery of the three syntactic orders,

that of representation, that of thought and that of formulation, allows us to see the problem in its proper perspective. The syntax of thought has its base in representation and its expression in formulation, it occupies thus a <sup>middle</sup>~~medium~~ position in that ideal order: representation - thought - formulation. It is only by drawing the lines both backwards and forwards that our problem can be solved in its main implications.



P a r t   I I I

C h a p t e r   ( 3 )

T e r m   a n d   r e l a t i o n   i n   s p a c e -  
t i m e .

# S p a c e - t i m e c o n s t r u c t i o n s . -

After what we have said about the ideal order of representation, cognition and formulation it is clear that we shall have to begin with an exposition of the principles of r e p r e s e n t a t i o n a l s y n - t a x . That is we are going to treat constructions such as the king arrives in London etc. as p i c t - u r e s of r e a l i t y . Now all these pictures, be it the 'actor-action-place' picture or the 'thing-(person-)place' picture (e.g. he lives in Rome) or the 'possessor- possession' picture (e.g. he has many books), or any other, are all built up out of the same elements, which we may call t e r m s and r e l a t i o n s , so that we may say that we find representational constructions exposed by linguistic form, wherever semantic analysis leads us to the discovery of representational constructs consisting of terms and relations.

A l l c o n s t r u c t i o n s o f t h i s s o r t a r e a t b o t t o m s p a c e - t i m e c o n s t r u c t i o n s . That is to say the two ideal forms of representation, space and time, are the proper medium f~~or~~ defining representational terms and relations.

This does not mean that in a process of //representative ideation we always a i m at the representation of space-time forms, but it does mean, that even when

we think of non-extended and non-measurable entities such as qualities, space-time symbols play an auxiliary rôle, which, in however a subtle way, make representational constructions possible.

If these assumptions are true, it seems to follow that the P a r t s o f S p e e c h, being parts of representational constructions reflected in language, must be somehow connected with the two ideal forms of representation, and that it is from this position that the intricate problems they represent are likely to be approached in a satisfactory way. They seem to be the bricks with the help of which representational constructions are built up in language and as such ~~will~~ deserve our interest and attention.

T e r m a n d r e l a t i o n i n s p a c e -  
t i m e ( o r i g o , r e l a t i o n a n d g o a l ).

In ancient Rome proprietors of land erected at the borders of their property statues of the god Terminus in order to indicate the limits of their domain, and if we talk to-day of 'terms' we still denote by that expression limits of an extension. 'Extension' has thus originally a purely spatial meaning, but it is not difficult to see how this concrete original meaning could be transferred to denote more abstract things.

The statues of the god Terminus marking the limits of legal property could easily symbolize the limits of property rights, the limits of a validity. In this case we operate with a spatial metaphor, that is to say we do not aim at the representation of a spatial relationship, but the spatial relationship still plays an instrumental rôle in representing the abstract non-spatial relationship of 'validity'; and it is safe to generalize that wherever we operate with relationships we operate with a spatial metaphor. Thus we may say that in the same way as the Termini marked the limits of an extension, any terms mark the limits of a relationship.

'Space' is the representative form of the outer world, the world opposite the cognizant ego. That does not mean, however, that this space-world can be understood without taking into account the cognizant ego. On the contrary, any <sup>at</sup>statement about a spatial relationship becomes understandable only if related to the cognizant ego. A simple example will show this. A statement such as the tree stands in front of the house holds only from the point of view of an observer who is placed on an imaginary axis running through the two points 'tree' and 'house' in such a way that his cognizant attention, travelling

along that axis meets the tree before it meets the house.<sup>1)</sup> This interesting enough, because it goes to show that what appears to be to the observer a stable, purely spatial relationship in front of is as a matter of fact nothing but the projection into space of a representing activity connecting the tree with the house in such a way that the former appears before the latter.

The stable, spatial relationship in front of is being constructed by a cognizant movement establishing the points of a line one after the other, and we may call this the operational or constructional value of the relationship. From the constructional point of view, relationships are thus to be assessed as time - extensions, they presuppose a movement of cognizant attention.

Terms on the other hand appear as resting-points of cognizant attention, as 'not yet'- and as 'no more-'movements; that is to say that whereas relationships have a positive constructional value, terms have a negative constructional value. But terms are not of an indifferent constructional status; they must be differentiated. Instead of saying that the relation in front of holds

---

1) This is correct, provided we fix the "origo" in the observer.  
cf. however p. 234.

between two (indifferent) terms, it would be better, from the operational point of view, to say it holds between the origo (the 'not yet'-movement) and a goal (the 'no longer'-movement), and the formula for an elementary construct in representation would be O R G, where O stands for origo, R for relating movement, G for goal. In view of later discussions it is important to note here already, that whenever we mention either O or R or G, we imply the other two. So any movement has by definition a direction, that is, the very notion of movement implies the notions of a possible O and G; likewise any O or 'not yet'-movement, implies already the notion of a (possible) movement going towards a G in the same way as G, the 'no longer'-movement, implies the notion of this very movement coming from an O.

T w o   q u e s t i o n s   o f   p r i n c i p l e .  
- From this there arises an important question of principle. It is this: How is it possible to conceive the fact that we can construct a stationary relationship between the tree and the house with the help of cognizant attention which itself is moving? This sets us the problem of defining s p a c i a l c o e v a l i t y i n t e r m s o f c o g n i z a n t

m o v e m e n t ; and this is not very difficult. Coevality of two objects A and B means that, if our cognizant attention goes from A to B in a time n and then turns in the opposite direction, it meets A again after an equal time interval n, provided its speed is uniform throughout. As a matter of fact our attention does not turn, but each step we do actually in one direction implies the possibility of doing the same step in the opposite direction; or we might say that by each actualization of a direction we imply its reversion in potentia, the two being exactly equal.

On this fact is based at bottom the equality of n measured from A to B and of n measured from B to A; on this ~~is~~, incidentally, <sup>is</sup> also based the other fact that whoever says A is to the right of B implies at the same time B is to the ~~right~~<sup>left</sup> of A. We shall see in due course that much formulational freedom is gained by language through utilizing this type of equivalency.<sup>1)</sup>

There are different ways in which the balance between the actual and the potential cognitional timedistances can be effectuated. In the case of a s t a t i o n a r y relationship the balance is a b s o l u t e, i.e. the chances of actualizing in turn the potential timedistance are at no moment diminished. In the case of m o v e m e n t we

have a r e l a t i v e o r c o m p e n s a t o r y balance: one timedistance grows in the same proportion as the other diminishes. The movement is p r o g r e s s i v e, if the potential timedistance is shortened: the apple falls to the ground (after the actualization of a timedistance, origo and goal have made contact); it is r e g r e s s i v e (i.e. A and B are separated) if the potential timedistance is lengthened: the apple drops from the tree.

The s e c o n d question of principle we have to clear up is the following: In our ideal orientational system we <sup>have</sup> had so far nothing but a pattern of one-dimensional, centrifugal vectors along which cognizant attention was supposed to travel. In this way, however, we can only construct single points; but there can be no doubt that in the world represented there exist also lines running at angles to the centrifugal vector, there exist also two- and threedimensional relationships. The question therefore arises how are they to be ~~con~~ceived in a process of ideation which can only operate along onedimensional vectors?

The solution of this problem lies in the possibility of moving the observer in relation to the thing observed. Ideally these movements are of three sorts: (1) movement along an extension (extended movement), (2) movement round an imaginary axis (movement of rotation), (3) a <sup>bin</sup> ~~complication~~ of the former two movements.

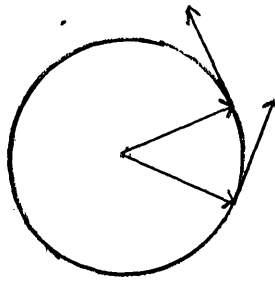


Let us suppose the thing to be represented be a ~~xxxx~~ straight line running at angles to the centrifugal vector of cognizant attention. In this case the observer has to move p a r a l l e l to this line, because if he were fixed he could only rotate <sup>round</sup> his own axis with the result that he would only perceive a curve bending away from him. - Let us now suppose the thing to be represented be a circle and the observer be placed in the middle of it. Obviously he builds up the continuum 'circle' by moving round his own axis or, mathematically speaking, round an axis going through the centre of the circle at right angles to a plane defined by any three points on the circle's perimeter.

Whereas in the case of the straight line the distance between the observer and the thing to be represented is irrelevant,<sup>1)</sup> it is fixed in the case of the circle, so that the construction of the circle requires as it ~~xxx~~ were t w o orientational axes: one connecting the centre with the perimeter and one running 'parallel' to the rotation movement. (Parallelism of a curve can be conceived in terms of tangents striking the perimeter and running parallel to the observer's movement; the rotating centre must in this case be thought of as a circle with the radius =  $Q$ .)

---

1) It may be even shortened or lengthened in the course of the movement. In this case the movement ceases to be parallel only judged from o u t s i d e the plane which comprehends both the straight line and the line described by the observer's movement. The circle has to be considered from outside in order to appear as such.



The building up of a t h r e e d i m e n s i o n a l relationship is nothing but a c o m p l i c a t i o n of what we have seen in constructing the straight line and the circle and needs hardly to be described in mathematical language. This would only be an idealization of experiences in every-day life where we reconstruct a room by looking around, a column by following its lines up and down and connecting them from right to left (or left to right) etc.

Once a multidimensional thing has been constructed point after point and the coequality of these points established, the whole forms a spatial continuum or resting point for cognizant attention, i.e. a t e r m . From the operational point of view it can be described as a 'no-longer' movement, which in turn may serve as a starting point or as a 'not-yet' movement. Now if we characterize a term as a continuum in space, that cannot mean, of course, that we can ever represent

space without time, but it does mean, that the time-component of orientational movement does not count, ~~be~~ <sup>whether because counts</sup> ~~it that it does~~ no longer count, <sup>or because</sup> ~~be it that~~ it does not ~~do so~~ yet count.

On the other hand the time-component is of vital importance to relations, although here again time cannot be represented independently of space. So if we wish to bring out in a sharp clear manner the essential properties of term and relation in space and time we may perhaps say without fear of being misunderstood that a term is (essentially) a continuum in space, a relation is (essentially) a continuum in time.

The term is always something isolated, which only through the synthetic force of time can be linked to another isolated term. It is therefore time which helps to give unity to an objective construct. To say that 'purely spatial' relationships are constituted by 'stationary time' is a paradox only in appearance, for we have seen that this 'stationary time' is in representation two dynamic time-extensions balancing each other.

The fixing of the origo. - Let us now approach the question of the fixing of the origo. The continuum in space becomes an origo by the fact that we consider it as the focal pint of an ideal orientational system where four axes, called the three dimensions of space and the time-dimension intersect. This system is in the last instance abstracted from the concrete orientational system of the human body,<sup>1)</sup> where front is the direction in which we look, right and left correspond to our arms, back to our back etc. In the centre of this system is located the cognizant ego existing in time; coevality with it is the mark of the present, from where we can construct a past and a future.

We can easily transfer notions such as front, back, right, left etc. to objects which have some resemblance with the human body, such as certain animal bodies or even plant-bodies, then also huts and houses, where the door is conceived as a kind of mouth, possible windows as eyes etc.; it is the sort of metaphor which explains the etymological kinship between Lat. os and ostium. The metaphor is faded completely where the same system is transferred to cubes and spheres, where the different directions are fixed arbitrarily. But even

---

1) Cf. K. Bühler, Sprachtheorie, pp. 130 ff.

in the completely abstract field the notion of origo remains a derived notion, which invariably points back to a first origo which is identical with the hic et nunc of the cognizant ego of the observer. Any object that might become the origo of an objective construct begins its existence in representation as goal of the ego's attention, where 'attention' describes a specific activity of the ego linking itself to the object. Ego and non-ego hang together as in language the origo of a deixis and the thing demonstrated. This allows us to establish a correspondence between the continuum in space with the self-identity of the ego and the continuum in time with the cognizant activity of that ego. But it is worth pointing out that by conferring an orientational pattern upon the non-ego no 'personification' is necessarily intended or felt to be expressed, as any example of the kind of the tree stands in front of the house can easily testify. Only learned reflection is able to feel in stands an activity of an animal body.

L i n g u i s t i c   s y m b o l i z a t i o n   o f  
t e r m   a n d   r e l a t i o n . - If we turn our attention  
to language we must point out three rather important

things: The f i r s t is that linguistic expressions may be a m b i g u o u s, they do not, for instance, clearly mark, where the orientational \* O is to be found. ~~Forxinst~~ When I show a picture of a church having houses on both sides and say the building to the right of the church is the Town Hall, ~~Ø~~ I must know whether I mean to the right of as seen from the observer or as seen from the point of view of the church, before I am able to identify the Town Hall. That is to say, we either transfer the cognizant ego to the church without altering our direction or else we change the orientational direction by bestowing unto the building such differences as front back, right, left etc.

This leads immediately to our s e c o n d point.- We have just seen that according to whether we fix the origo in the cognizant ego or transfer it to the church, the expression the building to the right of the church is the Town Hall or the building to the left of the church is the Town Hall may be equivalent. In this a remarkable f r e e d o m o f f o r m u l a t i o n reveals itself. We can easily understand that, wherever the fixation of the origo is supposed to be clear, the speaker may use a neutral term such as beside or by which can mean either to the right of or to the left of

Much of this formulational freedom is based on the fact that any actual relation is equivalent to its potential reversal<sup>1)</sup>. Therefore it is in the philosophical sense of the word 'immaterial' whether a Spaniard answers a knock at the door by saying Voy! (cp. French On y va!) where the Englishman says I am coming, because both forms are equivalent, the one being the reversion of the other. We find a similar equivalency in French l'ami de Jean and l'ami à Jean. From here it is only one step to the combining of both directions in one expression. We think of Old French devers which means originally 'from-to': Devers les porz de mer üit un vent venir (Pèlerinage de Charlemagne, ed. E. Koschwitz, Heilbronn, 1880, v. 370) or of modern French s'a p procher de (cp. also Ital. da = de ad) etc. The same freedom of formulation reveals itself in the equivalence of active and passive formulae: the hunter kills the deer - the deer is killed by the hunter.

Here belong also reversals of the type Socrates is wise and wisdom is in Socrates,<sup>1)</sup> I own a book - the book belongs to me; German ich dürste and mich dürstet, and many ~~things more~~, other instances.

---

1) Cf. above pp. 126 f.

The t h i r d thing to be pointed out is of even greater importance. If we take up again our first example, the tree stands in front of the house, we observe a remarkable fact: although I obviously establish a relationship between the 'tree' and the 'house', where the 'tree' comes first and should therefore be O and the 'house' second and should therefore be G, the expression in front of is to be understood from the point of view of the 'house'. The whole expression wants to say 'If you transfer your cognizant ego to the house, so that 'it' looks out of the front door along an axis which meets the house at right angles, 'its eyes' will meet 'the tree'. It seems therefore correct to assume that although the word tree (together with its definite article) is the 'first' term in sentence construction, it is the 'second' term in representational construction.

In other words the elements of the representational construct O R G are given to us in the order G R O, which is quite c o n t r a r y t o r e p r e s e n t - a t i o n a l l o g i c. But it is not difficult to see that the order is c o n f o r m a b l e t o c o - g n i t i o n a l l o g i c, where G corresponds to the prius logicum, R-O to the posterius logicum. The question how these two orders are related to each other (if at all) will occupy us later on when we come to the discussion



of the integration of representational into cognitional grammar. But we must point out here that the order in which representational elements appear in language is not always to be explained in such a simple way as in our present instance. The most superficial acquaintance with questions of word-order suffices to show that it is often influenced by a great many factors other than cognitional relationships; some of these will be discussed in the chapter devoted to the grammar of formulation.<sup>1)</sup>

---

1) Cf. Part III, Chap. 8, p. 374.

P a r t   I I I

Chapter (4)

O r i e n t a t i o n   a n d   d e s c r i p t i o n .

O r i e n t a t i o n a l   a n d   ' r e a l '   
t i m e - c o n t i n u a .- If we look at the   
linguistic formulation of the objective construct   
the tree stands in front of the house we find that   
the three objective factors (i.e. the two terms and   
the relation holding them together) are symbolized   
by four semantic units (i.e. two nouns, a verb and   
a preposition). The two nouns correspond to the two   
terms and offer no particular problem. But why should   
should the continuum in time be symbolised not by   
one but by two semantic units? Both verbs and prepos-   
itions have a relating function, so we should expect   
that one or the other would be sufficient to symbol-   
ise relations, or else that one class of words should   
be enough from the functional point of view.

In order to explain the difference between the   
two parts of speech verb and preposition, and to   
justify thereby their existence in language, we are   
going to analyse an example which is more suitable   
than the one we have been operating with so far. Let   
us examine the statement Caesar travelled from Padua   
to Rome. Here we see clearly that the prepositions re-   
present a p u r e l y o r i e n t a t i o n a l   
action to be performed by the cognizant ego, that   
is an action which lies o u t s i d e the re-pres-

ented reality, and another action performed by Caesar inside the objective field. The former links the travelling Caesar with his starting point and his goal, by the latter Caesar links himself to Rome, separating himself by so doing from Padua.

The word to makes the listener's attention race ahead of Caesar and establish a time-continuum still to be spent by Caesar, whereas the word from makes the listener's attention race backwards from Caesar to <sup>the</sup> point Padua thus establishing a time-continuum already spent by Caesar. That is to say, we have to distinguish two sorts of movement: (1) orientational movement which connects as it were different points of the scenery (Padua, Caesar, Rome), and (2) real movement performed by the dramatis persona (Caesar). The existence of the former depends on an action on the part of the cognizant ego, whereas the latter exists <sup>also</sup> independently of the cognizant ego and is performed in our case by a sort of alter ego, namely the person called Caesar. It is the function of orientational movement to establish a limiting framework within which the rela movement may be represented; it defines the real movement in potentia, whereas the the movement performed by Caesar is represented as real movement in actu.

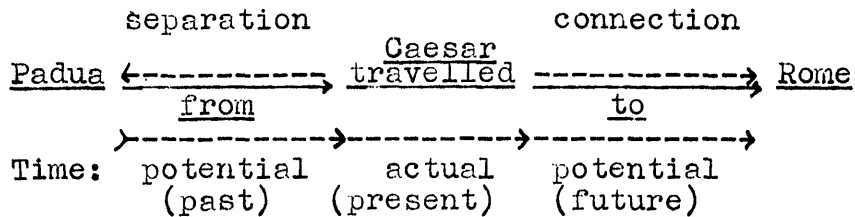
The potential time-continuum can become actual reality only by representing the manner in which it is spent, and to represent this is the function of the verb. - We see thus that the verb distinguishes itself from particles such as to and from by the fact that through it we represent actual time as distinguished from potential or orientational time, and this is only possible by representing the manner in which potential time is actually spent. In this we discover a new, qualitative, factor of which mere orientation words are devoid. This it is, incidentally, which establishes the semantic kinship of verbs with nouns, in which the same qualitative factor is clearly apparent (cf. to desire, the desire, desirous).<sup>1)</sup>

With regard to time actually spent we can only repeat what we said of the representation of time generally: any positive step in a time-direction implies a potential step in the opposite direction of equal extension which is the reversal of the positive step; the connecting activity of travelling implies ~~extension~~ at the same time its reversion which is 'separation'. Now in the objective construct Caesar travelled from Padua to Rome, the word to

)------

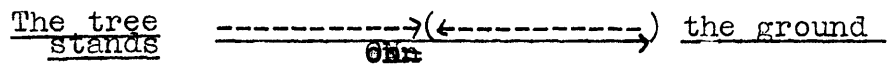
1) See the following Chapter.

represents the connecting or positive aspect of the verb, from the reversion, namely the factor 'separation' as the following graph will show:



This graph calls for two supplementary remarks in the way of commentary: (1) The potential time corresponding to from has a positive direction although it corresponds to the time spent; for although our attention goes backwards from Caesar to Padua (i.e. from right to left), it links Padua to Caesar from left to right. (2) The actual present is marked by an e x t e n s i o n and not by a simple point dividing the time spent from the time to be spent, because any act of spending time, in our case the act of travelling, takes time in itself; thus the actual present has the linear character of a p h a s e. This is the reason why there exists a difference between the so-called psychological conception of time and the mathematical conception of time. We shall see in Part III, chap. 6 that the notion of the extended present is of the greatest importance for the question of how time is constructed by verbal symbols.

After having studied this example we are now in a position to show that at bottom the example the tree stands in front of the house is of the same structure in spite of its differences. The most striking of these differences is perhaps the fact that the whole construct is stationary; there is no movement by which the tree would link itself to the house. But still, there is a positive time-continuum linking the tree to a place, symbolized by stands. The difference <sup>from</sup> ~~with~~ Caesar travelled from Padua to Rome is mainly that the negative aspect of the verbal action, which was called 'separation' there, is in this instance a 'resistance' of the 'ground', and that the stationary action results really from a balance of two opposing forces of which only the positive component is symbolized:



This diagram shows the fundamental identity of this example with Caesar travelled from Padua to Rome. And from here it is easy to find the transition to the tree stands in front of the house. All we have to do is in fact to replace the word ground by house and on by in front of. In that case, it is true, the character of the verb is derived from the relation of the tree to a term which is not mentioned in the

construct, namely the ground, but this only proves that we are able to operate with derived verbal characters and that we can replace the original term, the one which accounts d i r e c t l y for ~~xxx~~ the stationary character of the verb, by another, equivalent, term. But it is most interesting to see that by doing so the specific qualitative character of the verb is being obscured and stands is almost equivalent to is.

L i n g u i s t i c   a n d   l o g i <sup>c a l</sup> ~~s t i c~~  
a n a l y s i s   o f   o b j e c t i v e   c o n -  
s t r u c t s . - I think the distinction between  
orientational and 'real' time-continua not only ac-  
counts sufficiently for the distinction between pre-  
positions and verbs, and offers an answer to the quest-  
tion of how both collaborate, but it <sup>also</sup> throws incident-  
ally ~~also~~ some light on the difference between the  
linguistic way of analysing representational constructs  
and that adopted by symbolic logic. For the logician  
it is sufficient to state that 'a relation holds be-  
tween terms'. He does not trouble about the distinct-  
~~ion~~tion, in the realm of reality, between potential  
and actual time-continua. He would say therefore that  
the statement the tree stands in front of the house  
has to be analysed as the tree (term), stands in front  
of (relation), and the house (term), and he would



presumably say that the construct Caesar travelled  
~~FROM~~ from Padua to Rome reflects a relation  
travelled from to binding together three terms: Caesar,  
Padua and Rome.<sup>1)</sup> The reason for this difference in  
analysis is, of course, that the linguist has to account  
for formal differences such as prepositions and verbs,  
which are grammatical distinctions, whereas the logici-  
an has not. From this follows that our distinction  
between orientational and real time is only useful  
for a type of language which distinguished between  
prepositions and verbs, whereas the logistic analysis  
should be valid in general. But our distinctions are  
for their relative value not less but more interesting.  
For they disclose resources of the human mind a  
purely logistic approach would not even suspect.

O r i e n t a t i o n   w o r d s   a n d   d e -  
s c r i p t i v e   w o r d s . - In defining the  
difference between verbs and prepositions in con-  
structs where both collaborate, we have come across  
a distinction of a very great importance. The verb,

-----

1) According to S. Langer in a proposition such as  
"Xanthippe is the wife of Socrates" the relation is  
"being the wife of". (An Introduction to Symbolic  
Logic, p. 51.)

we said, by expressing the manner in which time is spent, exhibits a qualitative factor, of which the preposition is found devoid. Here is the place to elaborate this distinction further.

If the task should be laid before us to divide all possible words into two groups, then I should say that the most adequate way of doing so is to place into one category all orientation words and into the other all descriptive words, i.e. words expressing in one way or another this qualitative factor. Into the first group I should place prepositions, conjunctions, adverbial particles, pronouns and numerals, including the articles, and into the second group *verbs*, all substantives (common and proper names), qualifying adjectives and qualifying adverbs. That is to say, we should adopt with regard to word-language a division which corresponds mutatis mutandis to the classification of symbols in gesture-language into deictic and imitative gestures, where the former have the function of establishing an orientational order, the latter that of describing or qualifying.

We may remark in passing that a twofold division of the kind indicated is as old as grammar itself. It corresponds to Appollonios' distinction between words exhibiting *πολιότης* and deictic words. An echo

of this is found in Joseph Priestley's A Course of Lectures on the Theory of Language and Universal Grammar (Warrington 1762) who says: "All the words of which languages of men consist are either the names of things and qualities (the ideas of which exist in the mind) or words adapted to denote relations they bear to one another"; although he adds a rather vague third division: "or lastly, a compendium for other words, with or without their relations."<sup>1)</sup> Among moderns this division has been adopted in the most outspoken manner by A. Noreen who distinguishes expressive and pronomielle Sememe,<sup>2)</sup> by K. v. Ettmayer who calls them bedeutungstragende Wörter and Formantier (Analyt. Syntax I, p. 8.), finally by K. Bühler whose distinction between Symbolfeld and Zeigfeld is one of the pillars of his Sprachtheorie.<sup>3)</sup>

-----

1) O. Funke, Englische Sprachphilosophie im späteren 18. Jahrhundert. Bern 1934, ~~XXX~~XX p. 32.

2) A. Noreen, H.W. Pollak, Einführung in die wissenschaftliche Betrachtung der Sprache, p.

3) Chaps. 2 and 3.

## Part III

### Chapter (5)

#### Orientation Words.

O r i e n t a t i o n - w o r d s .

N u m e r a l s ( c a r d i n a l s ) .- The common denominator of all orientation-words is the fact that they must be interpreted with reference to the ideal scheme of orientation we have described before. In the first place we shall mention here the most abstract orientation-words, t h e n u m e r a l s . Their connection with the orientational scheme is very obvious. In the very notion of origo and goal is already implied the order antecedens - sequense or first - second.

Numerals reflect a pure t i m e - o r d e r and are therefore all found on the time-axis of our orientational system; but we must not forget that 'time' is always represented with the help of spatial symbols. Even mathematicians will say that the time-dimension intersects the three dimensions of space 'at right angles', and we know furthermore from our own experience in childhood, from the observation of less advanced peoples, and from the etymological origin of our numerals, as far as it can be ascertained, that the simplest operation with numerals, namely counting, is closely connected with deictic fixation of objects and their progressive relation.

In the same way as the ideal orientational system of our body, so the decimal system has been abstracted

from the fact that we have ten fingers (or ten terms related to each other by progression); the vigesimal system, partly preserved in French quatre-vingts, refers back to fingers + toes. The idea of antecedens ~~OR~~ or 'precedence' is still revealed by the kinship of first with Germ. Fürst, whereas second, secundus is clearly connected with Lat. sequi. Unus and one show to the expert that they belong to Greek ἓν, Latin semel, meaning something like 'togetherness in one place'.

It is clear that in view of these close connections no sharply defined borderline can be drawn from the semantic point of view between numerals and the other orientation-words. Nothing more natural than the transition from numeral to a r t i c l e : one a(n) and its function as p r o n o u n : one says, a new one. From the linguistic point of view it is reasonable to see with Professor Jespersen in numerals a sort of pronoun<sup>1)</sup>.

P r o n o u n s . - With these we may deal briefly. Whereas the old grammatical school stressed their noun-substitute character as most important, modern

-----

1) Philosophy of Grammar, ~~Pxxxix~~ p. 85.

linguists do not doubt that they have to be classed as d e i x t i c words, or, as we should like to say, as orientation-words, since this expression is more general and comprises even cases like the <sup>one</sup> just-mentioned ~~one~~ where no deixis proper is performed, although it is there as a potentiality. In this large sense we might say that a p r o n o u n r e f l e c t s a t t e r m i n t h e o r i e n t a t i o n a l s y s t e m, <sup>d e f i n e d</sup> ~~xxxxxx~~ i n i t s r e l a t i o n t o a n o r i g o which may be definite (here, I) or indefinite (anywhere, anyone), or as yet undetermined (where?, who?). We need hardly point out that any such term may be in its turn origo in relation to any other term.

It is the representational fact of being space-continua ~~WHICH PRONOUNS HAVE~~ which pronouns have in common with qualifying or descriptive substantives, which explains why they can function 'in place' of such substantives.

A d j e c t i v a l f o r m s o f n u m e r a l s  
a n d p r o n o u n s . - Both numerals and pronouns  
have adjectival forms beside substantival ones. The  
sense of the adjectival form is to symbolize a term  
in that general relation called 'grammatical dependence'.  
In the substantival pronoun the relation to an imagin-  
ary origo belongs to the d e f i n i t i o n o f  
the term: You may be defined as 'the person opposite

Adjectival forms of numerals and pronouns.- Both numerals and pronouns have adjectival forms beside substantival ones. The difference is this: whereas substantival pronouns (and numerals) are terms in isolation, adjectival pronouns (and numerals) are terms seen in relation to another term. In the substantival form the element 'relation' to an imaginary origo belongs to the definition of the term: you may be defined as 'the person opposite me', it is thus a device for the correct establishment of the term; but once it has been established it is seen in isolation and may function, in a context, either as origo or as goal. The related term, reflected by adjectival forms, has to be regarded as potential goal only. My hat is the 'hat belonging to me', the third house is the 'house belonging to the place No. three' etc.

But whether a pronoun or numeral appears in isolation (substantival form) or as related term (adjectival form), the fact remains that all pronouns and numerals have to be regarded as representational terms.



P a r t i c l e s . - A similar clear-cut statement does not seem possible with regard to deictic adverbs, prepositions and conjunctions. It is clear that prepositions and conjunctions represent orientational relations, but the same can apparently not be said of adverbs such as here and there, which seem to mark fixed places and have therefore the appearance of terms. This would present no difficulty if we could classify conjunctions and prepositions on the one hand and deictic adverbs on the other hand in two different compartments. This is however not possible.

The same words which present themselves normally as prepositions, such as in or through, take the character of adverbs in he goes in, I am through without changing their meaning. In other words, prepositions and deictic adverbs cannot be separated from each other,<sup>1)</sup> and instead of opposing them as relations and terms we have to look for a conciliatory formula embracing them both. Such a formula should not be a verbal compromise but reveal the true nature of the words under consideration.

On closer inspection we shall see that the definition of deictic adverbs as terms is faulty and that a more correct analysis will disclose their relational character, thus bringing them into line

---

1) It is evident that the same is true of conjunctions and adverbs. Cf. Where is he? and I know where he is.

with prepositions and conjunctions.

In Bally's terminology we might say that deictic adverbs represent a case of cumul,<sup>1)</sup> here meaning 'in this place', ~~there~~ or 'in the place close to the speaker', there 'in that place' etc. This is even true of the same words if combined with a preposition such as from here, to there equivalent to 'from in this place', 'to in that place', forms which are parallel to from under the table etc. Such periphrases represent more than purely logical equivalents in the sense of definitions, they bring out the representational fact that here, there and the like never represent isolated places such as Rome, Padua or <sup>St.</sup>Pancras Station, but relations to certain places, and must therefore be interpreted in terms of cognizant movement. The thing here is a thing to be placed in representation close to the speaker etc.

The representational character of deictic adverbs can perhaps best be demonstrated by a comparison with adjectival pronouns (numerals). There too we found relations and terms: my hat was interpreted by 'the hat belonging to (= relation) me (= term)', but whereas in the case of adjectival pronouns the stress lies on the 'term', it lies in the case of deictic adverbs on the element 'relation'. One might well say that whereas adjectival pronouns represent 'terms seen in

---

1) Linguistique générale et linguistique française, p.115.

relation to another term', deictic adverbs reflect 'relations seen in their goal'. But both have this in common that they cannot function as grammatical S.

We believe therefore, that the difference between a preposition (e.g. towards) and a deictic adverb (e.g. there) is not one between cognizant movement (=relation) and cognizant term, but one between direction going on and direction seen in its result, or as we should like to say between imperfective and perfective direction or deixis.<sup>1)</sup> This seems a more appropriate characterization than that suggested by Professor Jespersen in his Philosophy of Grammar (pp. 87/90), who speaks of intransitive and transitive particles. At any rate, the expressions 'imperfective deixis', that is a deixis which still requires to be perfected, and 'perfective deixis', ie. one which is already complete in itself, give us the inner reason of this phenomenon which, looked at from outside, reminds us of verbal transitivity or intransitivity.

If our view is correct and there is no fundamental difference between prepositions and conjunctions on the one hand and deictic adverbs on the other hand

---

1) Kalepky (Neuaufbau d. Grammatik, pp. 103/05) distinguishes between zweistützige, einstützige and stützenlose Verhältnissangaben. The first corresponds to our 'imperfective' the second to our 'perfective' orientation-words. The stützenlose Verhältnisswörter are simply degrammaticalized perfective orientation-words.

we are entitled to group all these three classes of words under a common name and call them p a r t i c l e s , in the same way as we grouped pronouns and numerals together as pronouns. In so doing we obtain in the field of orientation-words t w o m a i n c l a s s e s : p r o n o u n s , r e f l e c t i n g t e r m s , and p a r t i c l e s , r e f l e x t i n g r e l a t i o n s . This division is parallel to that in the field of decriptive words between the noun and the verb, as we shall see in the next chapter and suggests that in grammar there is something resembling a systematic organization, unstable and delicate as it may appear to be.

P o s t s c r i p t u m . - The reason why particles "share some of the peculiarities of pronouns" 1) is simply that both are orientation-words; but this should not induce us to include among the pronouns adverbs such as then, there, thence, when, where, whence Etc. as Professor Jespersen suggests; this is incompatible with their grammatical behaviour. On the other hand it seems regrettable that K. Bühler in his Sprachtheorie did not see that the orientational or deictic character belongs to a l l particles, whether they

-----

1) Philosophy of Grammar, p. 85.

(~~they~~) go back to deictic roots such as Germ. da or not, such as Germ neben, which Bühler calls "ein ~~n~~ waschechtes Begriffswort" (p. 107) to distinguish it from deictic words ("Zeigwörter") such as da. This is a step backwards in linguistic theory since Hermann Paul had clearly affirmed the demonstrative character of even <sup>sach</sup>~~so~~ abstract particles as Germ. weil, falls or Engl. because, in case.<sup>1)</sup>

The fact that the same particle can be used either imperfectively or perfectively (cf. we left him behind us and we left him behind) offers no difficulty, it rather confirms our view that both usages belong closely together and cannot be opposed as term and relation. More interesting is perhaps the observation that some languages are less sensitive than others to the distinction between dynamic and stationary time with regard to the choice of particles. French for instance uses à Paris, whether the idea is 'he goes to Paris' or 'he is in Paris'; où is 'where' or 'where to'. Similar things can be observed elsewhere; we have only to think of Engl. come here! (= 'hither') as compared to stay here! The explanation for this lies in the fact that the cognizant movement of, say, consigning somebody in imagination to Paris remains the same, whether in represented reality the relation

---

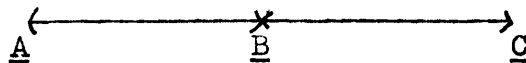
1) Prinzipien der Sprachgeschichte, p. 370.

between the person and the town is conceived as dynamic or as stationary.

R e l a t i o n s h i p s r e f l e c t e d b y  
p a r t i c l e s . - A last word is due on the different methods of reflecting relationships by particles. There we find first of all that one particle refers not ~~only~~ to one relational element or simple relation, as do those hitherto considered (i.e. from, to, in front of, behind, to the right of, to the left of) but to several relational elements at a time. Let us analyse for instance the statement the tree stands opposite the house and ask ourselves what opposite means in this connection. To this we shall have to answer: opposite means that one orientational vector, in our case that of the tree, 'runs against' another orientational vector, in our case that of the house. In order to construct the relation meant by opposite we lend to the house the orientational system of the observer and make the house look towards the tree. But the tree is also made an origo, it is made 'facing' the house, looking in the direction of the house in such a way that its orientational axis meets the imaginary right<sup>h</sup> - left axis of the house at right angles. In other words, opposite presupposes two orientational axes and two origos, and this is why it may be called

a c o m p l e x relation.

In the instance just analysed the relation was not only complex, it was also d e f i n i t e in the sense that both origos and both goals were known. But that is by no means always the case. They may be ~~a~~partly or totally unknown. If I say the tree stands beside the house ~~we~~ we get a relationship which might be called a l - t e r n a t i v e , since beside means in this context 'either to the left or to the right of'. An interesting case is represented by away in he is away , because here we have ~~is~~ a d i s g u i s e d n e g a t i v e relationship, meaning the same as 'not here'. Special mention is deserved by m u t u a l relationships such as side by side or against each other. Closely akin to these is the case of between. B lies between A and C means that A and C are opposite each other and that somewhere on their axis of orientation lies B opposite both A and C:



In this case one might speak of a s y m m e t r i c - a l l y c o m p r e h e n s i v e relationship.

Here we have to make special mention of m u l t i - d i m e n s i o n a l relationships. Indeed a continuously moving origo may be considered as an integration of an <sup>n</sup> infinite number of fixed origos, each having its

particular axis of orientation. But on the other hand there is a marked difference compared with a genuine complex relationship of the type of opposite or between; here the respective origos and goals do not form a continuum, whereas they do in the case of multidimensional relationships. And this is the reason why it may be advisable to reserve the name of 'complex' for those relationships in the world of outer representation which require for their construction separate origos and goals.

These short remarks may suffice to give an idea of the complexities offered by the representational analysis of particles. It cannot be our task here to aim at any sort of completeness. We have to be content with the analysis of a few obvious cases, just sufficient to show up the specific method to be employed in representational grammar. It would ~~would~~ lead too far to enter into the almost infinite subtleties of more abstract usages of particles. Their analysis and classification would certainly be an interesting task but would contribute little to the clarification of principles with which we are alone concerned here.

#### A d j e c t i v a l   f o r m s   o f   p a r t i c l e s .

- There exist also adjectives derived from particles such as German hiesig, jetzig etc. They are hardly ever strictly equivalent in meaning with the correspondent adverbs.



Der hiesige Arzt does not mean 'the doctor living in our town', but 'the local doctor', jetzig is 'present' etc. They are best grouped together with other adjectives such as northern, blue-eyed etc. of which we shall speak in the following chapter; divisions are here very unstable, particularly since outer form is not always a sure guide. ~~Enten~~ Span. entonces in el entonces médico may be considered as either a deictic particle or as an adjective. Syntactic and morphological associations make it difficult to give a categorical decision in these matters.

P a r t III

Chapter (6)

D e s c r i p t i v e w o r d s .

Problem and past explanations. - After having dealt with orientation-words, i.e. words which in one way or another refer to the g cognitional categories of space and time only, we have to turn our attention now to descriptive words.<sup>1)</sup> These have in common that they all express in different ways the third representational category, that of quality, and it is this which gives them their common descriptive character. If we compare hard, hardness, to harden, or the desire, to desire, desirous or Spanish el arbol florece, el arbol está en flor, el arbol está florido, we see that descriptive words are substantives, adjectives and verbs and that these parts of speech reflect different aspects of a qualitative factor which may be identical for all three. If we call this identical factor their material meaning, the different aspects of it define their formal meaning.<sup>2)</sup>

In the past these parts of speech have often been defined in terms of things-meant. In this sense substantives were words denoting things or persons, adjectives (we include in this category also adverbs

---

1) I reproduce here in substance, with appropriate alterations, what I have said in: Substantiv, Adjektiv-Adverb und Verb als sprachliche Formen. Bemerkungen zur Theorie der Wortarten. Indogerm. Forschungen, LVII, pp. 81 ff.

2) See above pp. 91 ff.

derived from adjectives; (slow - slowly) were considered as expressing qualities, and verbs were held to stand for actions or states. These material definitions although of a certain practical value, are obviously not satisfactory from the theoretical point of view. Indeed, it is difficult to see why we should call a relation a 'thing', or why hardness should not express a quality in contrast to hard etc. On the other hand it should not be forgotten that, although not all substantives denote things, not all adjectives qualities etc., the ~~reverser~~ of this contention, namely that things or persons are denoted by substantives, qualities by adjectives, states and actions by verbs is indeed true; and this is a point which has to be taken into account in a satisfactory theory of the parts of speech.

An attempt has been made to overcome the imperfect school-theory by explaining the different formal meanings of our parts of speech with the help of their syntactic function, by saying a word is a substantive if it functions as S or object, it is an adjective if it functions as an attribute, and it is a (finite) verb if it functions as P. But there again it seems that one confuses the form of a word with its vocation syntactique. Such a method would be entirely satisfactory only if really to one form such as substantive or adjective or verb there corresponded in each case only one function. Such is however not the case. The substantive for in-

stance, besides being S, is also object, apposition, predicative word; the adjective is either attributive or predicative, and although the finite verb is always P, or at least the most characteristic formal element of P, we find the P in so-called nominal constructions without a finite verb. So we see that form and function can always be distinguished, and are no more identical than our word-forms with the forms of certain things-meant such as things, qualities or actions.

S u b s t a n t i v e , v e r b , a d j e c t -  
i v e a n d t h e c a t e g o r i e s o f r e -  
p r e s e n t a t i o n . - It seems that we obtain  
a much more satisfactory theory if we interpret them in  
the light of what we said about representational categories.<sup>1)</sup> If we do that, it becomes apparent that a  
substantive represents the qualitative element in the  
form of a term in the sense of continuum in space, the  
verb in the form of a relation in the sense of continuum  
in time; to these representatives of the two categories  
of extension may be opposed the adjective as the re-  
~~intensive~~  
presentative of the category of intension. It symbolizes  
-----

1) See above p. 105.

the form in which we represent the connection between the measurable space-time world and the non-measurable world of qualities , i.e. the form of inherence.- That does not mean that the substantive denotes space, the verb denotes time, the adjective denotes qualitative inherence, but that the three categories of representation are instrumental in representing the meanings of the corresponding verbal categories.

The verb . - The connection of the verb with its tenses and time has never been in doubt since Aristotle, and German grammarians are <sup>accustomed</sup> ~~used~~ to call the verb Zeitwort. The analysis of our examples Caesar travelled from Padua to Rome and the tree stands in front of the house has revealed that we should say that the verb qualifies the manner in which time is spent. This and the distinction between actual (or 'real') time and potential time may perhaps be assessed as an <sup>advance</sup> ~~progress~~ in linguistic theory, because it shows the systematic relation of this part of speech to particles, a connection traditional grammar was unable to see.<sup>1)</sup> it also has the advantage of not discarding the element of truth contained in the traditional contention that verbs denote actions or states, because it brings out sharply the

-----

1) See above p. 263.

~~the~~ common formal characteristics of both actions and states. Further on we shall have also an opportunity of showing the fruitfulness of our conception for the theory of verbal aspects and genders.

T h e s u b s t a n t i v e . - The character of the substantive as spatial continuum or ~~term~~ representational term will form no problem as far as the substantive denotes things or persons, the representational form of which is by nature spatial. But that this can be generalized to cover all substantives can be shown also.

If I say Caesar travelled from Padua to Rome I see Caesar's action infieri, step after step; but if I go <sup>to</sup> on/~~speaking~~ of Caesar's travel, I now <sup>conjoin</sup> ~~comprise~~ starting point and goal and all the imaginary points in between together, I have established their coequality, and that is precisely what I do when I construct a continuum in space. - But not all post-verbal substantives are based on the principle of establishing coequality of all moments involved in an action. English is particularly rich in d y n a m i c substantives such as the kill, a hit, a knock etc. They all represent dramatic moments, but again not in their natural~~l~~ connection~~with~~ preceding and following moments, but in isolat-

ion, cut out or framed, as it were. And in this subtle way the space-character of the substantive is again established.

The same thing can be shown with regard to post-adjectival abstracts, although it is perhaps less obvious here. When I say iron is hard I show the quality of iron in its proper connection with the metal, as inherent in it. When I speak of the hardness of iron I have isolated this property. Now the annihilation of a connection, for this is what 'isolation' means, is equal to the establishment of a 'no-longer' relation, and in this lied precisely the characteristic feature of a representational term or spatial continuum. - Our thesis is indirectly confirmed by the fact that in many languages substantives are often accompanied by the definite article which is a form of deictic em-  
placement, or an indefinite article which corresponds to 'singling out' or 'isolation', Indeed these two forms of emplacement and isolation play a rôle in the linguistic actualization of the substantive, parallel to that of the forms of dynamic development in the actualization of the verbs, i.e. the finite forms.<sup>1)</sup>

---

1) Cf. G. Guillaume, Temps et verbe. Théorie des aspects, des modes et des temps. Paris 1929, p. 10, note.



**A d j e c t i v e s .** - Whereas substantives refer primarily to the representational category of space, finite verbs to that of time, adjectives exhibit the representational form of quality. That is not to say that they denote necessarily qualities as words such as northern, blue-eyed etc. prove. To contend that a word-form is defined by the representational form of quality means that whatever it denotes is conceived as inherent in the space-time world or its representatives. 'Inher~~n~~ece' as opposed to self-sufficient isolation (substantive), but also different from relation in the sense of time-continuum (verb) is the general formal character of the adjective.

In the real world qualities inhere in things; i.e. they are represented at the same time and in the same place as things. By representing things and qualities in discourse by differnt words we separate their representations in time and space. This isolation of the quality may result in a substantive, and any connection with things has in that case to be represented by a relation-word: a man of courage. The adjectival form, however, cancels as it were the artificial isolation of the qualitative element in a separate word by a form which characterizes the quality as potentially inherent: a courageous man.

The adjectival form, however, does not only fit

the denotations of qualities such as good, bad, red, high etc. but also the expression of other inherent characteristics such as northern, blue-eyed etc.

The latter are of quite a different character from the former: good, bad, red, high distinguish different degrees, whereas northern, blue-eyed, as indications of situation and possession respectively, do not. But the fact that they are nevertheless felt to be true adjectives shows that the formal characteristic of inherent dependency is wider than that of denotation of qualities, although it has been abstracted from that representational form of quality. As we have mentioned already, words like Germ. hiesig and ~~gerzig~~ jetzig also enter this formal scheme.<sup>1)</sup>

P a r t s o f s p e e c h a n d s y n t a c t i c  
f u n c t i o n . - To complete the theory of these  
parts of speech we should have to explain the relation  
of their form to syntactic function. This has always  
been understood to account for the fact that a word  
changes its category when it changes its syntactic  
function. A predicative adjective hard, for instance,  
in iron is hard may become a substantive in the hard-  
ness of iron is not disputed etc. This is an instance of  
what is called 'transposition', <sup>which will</sup> ~~and that shall~~ be dealt  
with in chapter 7.

1) see pp. 267 f.

P a r t III

Chapter (7)

V e r b a l   c o n s t r u c t i o n s .

Two types of verbal construction. - After having dealt with the parts of speech singularly we may possess some knowledge of the elements of construction but we still lack an insight into the constructional patterns into which these elements are integrated; it would therefore be logical to make the 'pictures of reality' such as the 'actor-action' or the 'thing-emplacement' patterns an object of further analysis. These and all similar representational pictures have a certain ~~context~~ material content and a certain constructional form; it is with the latter that we are concerned here. - In grammatical parlance the constructional or operational characteristics of our patterns are covered by terms such as 'active', 'passive', 'transitive', 'intransitive'; 'personal' and 'impersonal'. ~~sometimes~~ We have only to go through the formal characteristics just mentioned in order to see that they are all at the same time notions intimately connected with the ~~verb~~ v e r b . And this is easily understandable: in Jack calls Jill, Jack appears as 'actor' and Jill as 'thing-acted-upon', in other words, they appear as so-called subject and object of a transitive construction, because of the meaning of 'calls' as a transitive action. It is because of the semantic character of arrives that the king (in the king arrives in London) appears as an

'actor' and London as 'scene or place of the action', etc etc. It is always the verb which expresses the dominating idea of the whole construction. That is why Bally could claim "la grammaire toute entière est dans le verbe"<sup>1)</sup> and why M. Lombard placed the finite verb in the centre of his grammatical system.<sup>2)</sup> Let us call the characterization of the rôle the verb plays with regard to other parts of speech o u t e r v e r b a l c o n s t r u c t i o n.

Beside this there is an i n n e r v e r b a l c o n s t r u c t i o n. By this term we understand the way verbal time itself is constructed. Because, far from being amorphous, verbal time shows a rich and interesting structure so that we may speak of a real a n a t o m y o f v e r b a l t i m e. Both things are not entirely disconnected. We owe to Professor Hammerich the discovery that the essence of the passive construction is of a representational nature, it is, to use his term, an "an<sup>t</sup>ichronic" construction, one which is followed from the goal of an action ~~xx~~ b a c k - w a r d s to its origo: the deer is killed by the hunter instead of following the "catachronic" way from the origo to the goal as in the active construction the hunter kills the deer.<sup>3)</sup> The same term of "an<sup>t</sup>ichronic" may be applied

---

1) Linguistique générale et linguistique française, p.49.

2) See above p.160, note (3).

3) J.L. Hammerich, Nexus. Subjekt und Objekt. Aktiv und Passiv. In A Grammatical Miscellany Offered to Otto Jespersen. Copenhagen, London, 1930, pp. 313 f.

to the construction of a future tense with the help of perfective verbs in Slavonic languages, and this in spite of their active character. This is possible because I can very well see an action tending from its origo to its goal, i.e. an active process, in r e t r o s p e c t i v e.<sup>1)</sup>

How these things hang together may best be shown by the analysis of a concrete example. ~~As such may serve the~~ already quoted the hunter kills the deer. Before we begin the analysis of this instance we have to remember that the verb refers to r e a l t i m e as opposed to potential time, and that the representation of real time is bound up with the representation of the manner in which time is spent.<sup>2)</sup> Since this in turn takes time, the finite verb never refers to a mathematical moment or point in time but to a ~~phase~~ p h a s e . The kills of our example represents such a phase.

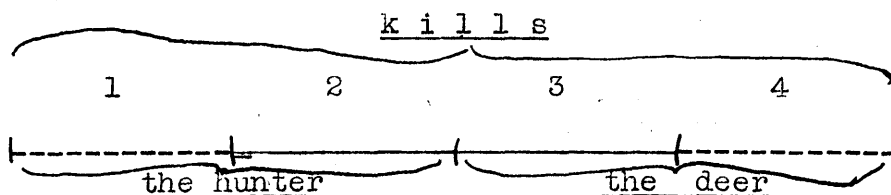
Now the action of 'killing' starts in an actor (the hunter), but is fulfilled only in the thing-acted-upon (the deer) we may say therefore that the whole phase represented in the construct the hunter kills the deer may be divided into t w o s u b p h a s e s, of which the first may be called c a u s a t i o n a l or a c t i v e or s u b j e c t i v e and the second e f f e c t u a l or p a s s i v e or o b j e c t i v e .

---

1) See pp. 289 ff.

2) See above p. 239.

Now we can go a step further and say that the killing, before it becomes the hunter's action, must have gone through a preparatory phase in which the hunter's will took its aim and was concentrated to bear in a definite direction, where the killing existed already i n p o t - e n t i a. Similarly the effective phase can be thought of as being followed by another phase in which the killing continues existing v i r t u a l l y in its results. If we call the potential phase preceding the active one 'e x i s t - e n c e i n p r o s p e c t i v e', and the resultant phase following the effective one 'e x i s t e n c e i n r e t r o s p e c t i v e', the whole ~~xxx~~ construct the hunter kills the deer may be symbolized as follows:



In the case of our particular verb which denotes a willfully directed act aiming at a definite result we may qualify our four phases as i n t e n s i o n a l<sup>al</sup> (1), t e n s i o n a l (2), d e t e n s i o n a l (3) and e x t e n s i o n a l (4). Furthermore we may oppose nos. 2 and 3 as a c t u a l phases to nos. 1 and 4 as v i r t u a l phases. Nos. 1 and 2 together may be opposed to nos. 3 and 4 together as s u b j e c t i v e ( t r a n s i t i v e) to o b -

j e c t i v e ( t r a n s i t i v e ) phases. All these distinctions appear thus related to each other in the following way:

	{	(1) intensi <del>onal</del> virtual	
subjective (intransitive)		(2) tensi <del>onal</del>	actual
	{	(3) detensi <del>onal</del>	
objective (transitive)		(4) extensi <del>onal</del> virtual	

We have chosen this example because it is particularly rich in analytical possibilities, and thus offers a good chance of covering the most important factors in this connection. Other cases are easily assessed in reference to this our model case. If we take for instance the tree stands in front of the house, we see at once that the virtual phase no. 1 is a mere 'not yet' and phase no. 4 a mere 'no more-'standing, the verb is simply tensive and intransitive. There is hardly any need to analyse other verbs here where we are merely concerned with the clarification of principles.

The one thing we should like to stress is the fact, that the inner construction of verbal time in successive phases and ~~the~~ important factors of outer verbal construction such as transitiveness, intransitiveness have the same representation - a l b a s i s and can only be properly dealt with in representational syntax. One concrete example may further



illustrate the importance and usefulness of our analytical principle. The so-called 'past participle' has in our modern languages two logically distinct functions: as participium perfecti it refers to the past, as participium passivi it refers to a passive action or state. These things are logically as different as two things can be, and yet, for our linguistic feeling they belong together. This becomes easily understandable, if we say that these participles refer in a general way to the objective phase of a represented action. This is ~~at~~ a phase where the action both finishes and becomes "perfect" and at the same time is considered in the thing-acted-upon, i.e. passive. Now with regard to verbs of the type to kill the objective phase comprehends two subphases: the detensional and the extensional. Different contexts may narrow the general meaning of the past participle down to the one or the other. Hence the differences in English between he has gone (detensional), he is gone (extensional), between French il a disparu (detensive) and il est disparu (extensional); and similarly in the passive voice: his bills are paid regularly (detensional), his bills are paid (extensional); les chevaux sont attelés par le valet (detensional), les chevaux sont attelés (extensional).<sup>1)</sup>

---

1) O. Jespersen, Essentials of English Grammar, London 1909, p. 253.

Th. Engwer, Vom Passiv und seinem Gebrauch im heutigen Französischen, Jena, Leipzig 1931, pp. 23ff. and so.

We see that reference to the detensional phase means reference to the conclusion of an act. This element is therefore absent in verbs which have no detensive phase: he is admired and he is admired by everyone refer both to facts as distinct from ~~extensive~~ acts; the same holds good of French il est admiré and il est admiré par tout le monde.

Representational constructs seem thus to define the ground common to both outer and inner verbal constructions. This is why we should like to deal with both in the same chapter.

Inner verbal construction. - Inner verbal construction is defined by aspects and tenses. The term 'aspect' refers to begin with to the dynamic or pragmatic character of the verb, it characterizes a process as 'inchoative', 'iterative', 'perfective', 'imperfective' etc. ; 'tenses' on the other hand refer essentially to subdivisions of time in the abstract, orientational, sense, such as present, past and future. Hence the very name tense = Old French tens, Latin tempus.

I think it is unfortunate for analytical clarity to confuse the pragmatic and the orientational characterization of time-extensions as has been done. ~~One~~ <sup>It</sup> <sup>been</sup> has claimed that the aoistus (~~present~~) (preterit; passé défini), the perfectum (past perfect, passé composé) and the

imperfectum (past imperfect, imparfait) mark at the same time temporal and aspectual distinctions. This can be only true if 'aspect' here does not refer to the pragmatic character of the verb since in modern Romance and Germanic languages any verb, whatever its dynamic character, may be constructed in any tense. We shall therefore distinguish two kinds of aspects: 'pragmatic aspects' or characterizations of the pragmatic character of verbs and 'orientational aspects' referring to the construction of epochs in tenses. The confusion of these two notions is understandable, even to a certain degree justifiable, in historical grammar, since the distinction of tenses is to a large extent the historical successor to the distinction of aspects: At a time when it was realized that two different verbs of different dynamic character such as sum and fui could be used in reference to different phases of the same process which followed each other in time, the completed process being past with regard to the process still going on, the distinction of tenses was born. But nowadays the dynamic character of the verb is irrelevant for the construction of tenses; this is an analytical truth<sup>which</sup> the unqualified use<sup>of</sup> the word 'aspect' tends to obscure.

P r a g m a t i c v e r b a l a s p e c t s . -

If we compare the dynamic character of our two verbs to kill (in the hunter kills the deer) and to stand (in the tree stands in front of the house) we find that the former has a detensive phase, the latter has not. In other words, the action of killing cannot be prolonged beyond a certain point, it belongs to its character that it is conclusive, whereas 'standing' may be prolonged ad libitum. This is in essence the difference between p e r f e c t i v e and i m p e r f e c t i v e verbs. So if we wish to decide, whether a verb is perfective or imperfective we have just to ask the question whether it refers to an action (process) which ~~cannot~~ cannot be prolonged in represented reality beyond a certain point or not. If it can it is imperfective, if it cannot it is perfective. To start for instance is a perfective verb, because you cannot 'go on starting'; to walk or to sing, on the other hand, are imperfective verbs, because one can, at any moment, go on walking or singing.

This distinction between perfective and imperfective verbs, useful as it is, does not help <sup>us</sup> to understand fully the rather complicated question of pragmatic verbal aspects. It is nothing but a starting point and needs further elaboration.

One important point to consider is this: in actual experience we can <sup>s</sup>assess the character of an action such as 'killing' only after having witnessed its results. For if the victim is not 'dead', we should have to speak of 'wounding', 'hurting', 'persecuting' or the like. Therefore, the meaning of such an action can be assessed properly only once it is over. We understand thus very well, why certain perfective verbs such as Lat. fui or tuli had no real present and were used to denote past actions.<sup>1)</sup> If we can form such a present of perfective verbs, this can be explained in the following way: After ~~the experiences of~~ a number of typical experiences of 'killing' we are able to assess the meaning of such an action before it has come to its final development, at a moment when the issue is no longer in doubt, that is at a moment when the victim is not 'dead' but 'dying'. In this way it becomes possible to assess the meaning even of a 'perfective' action such as 'killing' before it is completed, and in actual fact we always speak of to kill in this sense. We see the action of 'killing' before the tension of the act is spent, in its *t e n s i v e* phase without doubting therefore that it is a perfective verb.

-----

1) See above p. 174.

of perfective verbs can be interpreted in two ways according to the tensive or detensive character of that participle. Cp. on entendait le cri d'un lièvre é t r a n g l é (= qu'on étrangle, tensive) and on trouvait le cadavre d'un lièvre é t r a n g l é (= qu'on avait étranglé, detensive); cp. also les chevaux sont attelés par le cocher (tensive), les chevaux sont attelés (detensive). But the difference can also be observed elsewhere. In English it is possible to say I forget now how it was, because to forget is tensive, but this sentence has to be translated into German ich habe vergessen, wie das war, because vergessen is detensive.

F o r m a l c h a r a c t e r i z a t i o n o f  
p r a g m a t i c a s p e c t s . - Until now we  
have applied the notions ~~of~~ perfective and imperfective  
to different verbs, i.e. verbs semantically unrelated  
to each other such as to stand, to start, to kill, but  
it is clear that the same notions can be applied to  
one and the same verb, provided its character can be  
assessed with the same degree of justification at the  
level of different phases. Such a verb is for instance  
to fall.

We are able to assess the descriptive character of  
the process alluded to by the verb, in its initial phase,

i.e. the moment we see a body breaking contact with another body in <sup>the</sup> direction of the ground. Now if we refer to that phase, the meaning of the verb will be perfective, for the body under consideration cannot 'go on breaking contact'. But the descriptive character of the verb in the sense of 'free movement towards the ground' persists during the next phase, that of descent. If we allude to that phase the verb will be imperfective. Now this phase is followed by another moment where the 'falling' comes to an end and ceases to exist. If we refer to this final phase our verb will again be perfective since one cannot 'go on <sup>ceasing to fall</sup> ~~to cease falling~~'. We obtain thus with regard to to fall three different phases: one during which the movement has already the character of 'falling', one where it has still that character and one where it ceases to have that same character. Considered in the first and last phases the verb appears to be perfective, because they cannot be prolonged in their specific function, during the second phase the verb is imperfective, because we expect it to continue.

This whole analysis of to fall looks obviously artificial, for we can oppose the different <sup>a</sup> meanings of to fall to each other only by narrowing down in each case the meaning of the verb, by specifying it in each

case with the help of notions such as 'already', 'still', 'cease', whereas if we take the general, unspecified meaning of to fall, which is that of 'free descent towards the ground' we shall not hesitate, probably, to classify it simply as an imperfective verb. This is very true. And yet, our foregoing analysis was valuable because it teaches us to expect that a given verb in different specifying contexts may appear to be occasionally perfective, even though it be generally, i.e. outside a context, imperfective. If I say for instance he falls from the roof, it is obvious that I refer to the <sup>i</sup>initial phase and the verb is perfective. In he falls to the ground, I refer to the final stage, and we have again a perfective verb. But in the parachutist falls so many feet per second, to fall is imperfective.

If we look at our examples we find that the characteristic keywords for the perfective interpretation are from and to. Now wherever such particles are felt to belong to the verb itself such a verb will be characterized as perfective. Such is the case for instance in German, where we have ab-fallen, auf-fallen and - in a metaphorical sense only - be-fallen, ver-fallen etc. Most of these compounded ~~xx~~ verbs in German (cf. also zu-fallen, durch-fallen etc.) seem to be perfective verbs or at least to have once been perfective verbs,



whereas the corresponding simplicia are often imperfective. There is, however, a notable exception to this rule. Wherever we find in German side by side two verbs, both composed with the same prefix, which is, however, stressed in one case and unstressed in the other case, such as dúrchbrechen and durchbréchen, übersetzen and übersétzen, übernehmen and übernéhmen, it is the one with the stressed prefix which is perfective and the one with the unstressed prefix which is imperfective.

As is well known, the same method of distinguishing the perfective verb from the imperfective by prefixation has been largely adopted by Slavonic languages where we have (in Russian) stroit' (imperfective) beside po-stroit' (perfective) 'to build', pisat' (imperfective) besides na-pisat' (perfective) 'to write' etc. But besides this method there is the other one of marking the difference with the help of endings. Thus we have beside the imperfective stuchat' 'to knock' not only a perfective po-stuchat' but also a perfective stuknut'; besides kivat' (imperfective), we have kivnut' (perfective) 'to nod' etc.

To a certain extent we find characterization of perfective verbs with the help of an ending in Latin where the so-called 'inchoative' -esco has been

abstracted from verbs which by their general meaning denoted the beginning of an action or a process. Thus we have obdormisco beside dormio, calesco beside caleo, amasco, beside amo etc.

Prefixation and suffixation are only the most direct methods of distinguishing perfective from imperfective verbs.<sup>1)</sup> Between the two extreme cases of occasional characterization as in to fall and permanent characterization as in compounded or derived verbs, we shall have to class those semi-fixed expressions in which the specifying element is an auxiliary verb. In Spanish for instance the relation between correr and exharse a correr ~~is~~ is that between German laufen and loslaufen, to German schlafen - ein-schlafen corresponds Spanish dormir - quedar dormido (cp. also the synonymity between enfermarse and caer enfermo), and here belong also those groups which function as verbs, although the main element be a noun; <sup>take a</sup> to/walk for instance is perfective as compared to to walk, to fall in love is perfective as compared to to love; furthermore to fall ill is perfective as compared to to be ill, and parallels to this can be found in any language. They are particularly abundant in Spanish where we find salir victorioso beside ser

---

1) About reduplication cf. pp. 287.

victorioso, quedar rico beside ser rico, resultar herido besides estar herido, dar principio beside empezar etc. etc.<sup>1)</sup>

F u r t h e r c o m p l i c a t i o n s . - Now we must consider a further complication. As is well known we can say in English he goes on killing without having the feeling that such a statement is a contradiction in terms, <sup>though</sup> ~~since~~ killing is an act which cannot go on, once completed. It is clear that in such a case the statement does not refer to a definite act of killing but to a g e n e r a l a c t i v i t y described as 'killing', for which the individual act may serve as an illustration, without being reconstructed in detail in representation. It is, in the verbal sphere, the same phenomenon as the general or abstract use of the noun in the nominal sphere, where the horse may mean an individual or be a general term. <sup>and in a general sense</sup> ~~And as here,~~ the horse is not a collective noun, but a genuine singular as the different number of to be indicates ~~where~~ when we compare the horse i s a domestic animal with the government (collective noun) a r e not satisfied. Thus in he goes on killing we do not represent an

---

1) Cf. H. Keniston, Verbal aspects in Spanish. Hisp. Cal. 1936 (XIX), pp. 163/76.

undetermined quantity of individual acts, but rather an undivided activity, which may or may not be prolonged, and in that case we obtain a purely imperfective representation.

This parallelism between the verb and the noun goes even further than that, and may serve to introduce certain other qualifications of verbal processes, which, <sup>like</sup> ~~as~~ the before-mentioned inchoativum, are closely related to the distinction between perfective and imperfective verbs. - Not only do we have verbal forms parallel to the general and the individual use of the noun, but also forms parallel to the collective noun, to which corresponds the representation of a number of individuals in a unity. It is the case of the i t e r a t i v e verb, where representation of a sequence of ~~of~~ individual acts is necessary to the constitution of the verbal element. Such verbs are for instance to flutter, to twitter, to stammer, to whittle etc. Generally speaking iterative verbs are imperfective, unless they are made perfective by some contextual factor as in to whittle down.

Here again the vision of repeated action may present itself without being symbolized morphologically, as in Spanish golpear, or else there may be a morphological characterization: golpetear. Cf also Lat. trepidare

against Greek  $\tau\rho\acute{\alpha}\omega$  , vocitare (where the iterative has become an intensive) against vocare, cursitare against currere; German plätschern against platschen, zischeln against zischen, English to hobble against to hop etc.

A further parallelism with the noun may be found in the fact that the same forms may serve to denote quantity and intensity. In the sphere of the noun we find beside the collective singular its <sup>opposite</sup> ~~reversion~~, which, instead of denoting a plurality of individuals in a unity, represents a unity broken up into individual fragments; cf. Spanish los papeles andan por l o s suelos, buenos días, etc., French lea eaux, les cieux etc. Such a plural comes easily to denote an emphatic singular. It is understandable therefore, that the iterative verb may be easily used as an intensivum, when the repeated acts produce an accumulative effect as in vocitare, or, on the contrary, as a debilitativum, when the effect is that of breaking up a force into fragments: plätchern against platschen, to whittle down against to cut down.

The interesting thing to note with regard to the emphatic iterativa is that they may become perfective, as we shall see when we go on to consider the part of emphatic iterativa such as dedi, steti, cucurri, pepuli etc. in the formation of the Latin perfect tense: this will be done in a later paragraph.

We have seen how intimately the notion of verbal aspects is connected with the meaning of the verb itself and the unfolding of that meaning in the representation of time. Aspects in this sense express the different ways in which the 'going-on' of verbal meanings is represented; <sup>since</sup> they refer ~~in short~~ to the pragmatic character of the verb <sup>we have</sup> ~~and may therefore be called~~ <sup>them</sup> ~~pragmatic~~ aspects.

O r i e n t a t i o n a l t i m e . - Quite a different matter is the representation of verbal meaning in o r i e n t a t i o n a l t i m e . For orientational time can be conceived quite independantly of pragmatic aspects. It can be expressed in terms of present, past and future. Only this much results from the integration of pragmatic happenings into orientational time, that the present is ~~is~~ not a mathematical point without extension, not simply the negation of past and future, the 'no-longer-past' and 'not-yet-future', but it is a positive time-extension, which extends as far as the pragmatic time-extension integrated into the present; it thus includes some time-particles of the past and some of the future in the mathematical time. The verbal present has the character of an e p o c h , and and so have past and future. .

Present, past and future are relative notions; the

past lies before the present, the future lies ahead of the present and the present itself is fixed with relation to the speaker, it is the temporal 'here'. Once we have fixed an epoch as 'past', we <sup>are</sup> free to imagine another epoch still further past, as we may also imagine an epoch lying ahead of ~~in~~ a supposed future epoch, and that may go on in theory ad infinitum. In actual practice the past of an epoch which is itself past in relation to the present's past is already rare and so is the corresponding future epoch; and further complications are hardly of any importance to the linguist.<sup>1)</sup> The epochs seen in direct relation to the present are sometimes referred to as absolute past and absolute future, epochs only indirectly related to the present are referred to as relative past ~~in~~ or relative future epochs. It would be clearer and less misleading to talk of directly related past and future and indirectly related past and future.

O r i e n t a t i o n a l a s p e c t s . - Now the march of time <sup>appears as</sup> ~~is~~ a continuous flow; by introducing the notion of epochs, we introduce some element of stability into the representation of time, and this

---

1) But of course not entirely. Cf. Ch. de Boer, Les temps "surcomposés" du français. Revue de Linguistique Romane, iii, p. 283 ff.

can have different degrees. We may represent epochs as merging into each other, as sharply separated or simply as different, and in this way we arrive at the notion of o r i e n t a t i o n a l a s p e c t s comparable to that of pragmatic aspects.

In English, for instance, there is one form for the past, which characterizes that epoch as not-connected with the present epoch. It is a definite past: he travelled. There is secondly a form where the connection with the present is left undecided, it may or may not exist: he used to travel; <sup>1)</sup> there is thirdly a form which expresses that the past epoch merges with the present: he has travelled, and there is finally an expression for an unfinished epoch: he was travelling, which has of course its counterpart in all epochs, present, future and past.

In French again there is a definite future je ferai, i.e. a future seen as detached from the present, and another where the present and future are linked up: je vais faire, whereas the English future I shall do is indifferent to these distinctions. The difference between je fis and j'ai fait corresponds roughly to that between English I did and I have done, although the periphrastic past has the tendency of taking the place of the definite past, in spoken French. In il

1) The almost synonymous he would travel denotes the same orientational aspect; whereas he used to travel indicates simply a habitual activity in the past, he would travel implies that such a habitual doing is typical of a person.



faisait the past epoch is seen as unfolding itself without however being felt as unfinished as it is the case in he was doing.

O r i e n t a t i o n a l   a n d   p r a g m a t -  
i c ~~xxx~~ a s p e c t s . - The fact that our modern Germanic and Romanic languages and also Latin, lay the stress, in verbal morphology, on the symbolization of epochs and orientational aspects, seems to be a relatively advanced feature. In many cases we are still able to see how the predominantly orientational morphology has grown out of a mainly pragmatic morphology. For instance Latin nosco and novi have once been related to each other in the same way as German ich lerne kennen and ich kenne (cp. Greek  $\tilde{\omicron}\tilde{\iota}\delta\alpha$  ); Greek  $\epsilon\sigma\tau\alpha\mu\alpha\iota$  and  $\epsilon\sigma\tau\eta\kappa\alpha$  correspond to ich stelle mich and ich stehe; the same holds good with regard to Latin do and dedi, where reduplication means originally emphasis and thoroughness, 'I give thoroughly', 'I give until I can no more'; or with regard to Greek  $\beta\alpha\lambda\lambda\epsilon\iota\nu$  'to throw' and  $\lambda\epsilon\lambda\epsilon\iota\nu$  'to hit'.

It is clear that nosco and novi can be taken as two different phases of the same process, which follow each other in time and thus take on the character of epochs: the initial phase nosco preceding the final phase novi, or else, the final phase following the initial phase. And the same time-relation can be recognized

mutatis mutandis with regard to do - dedi and the rest. It follows from this that at the level of novi, nosco has past already and I can therefore use novi in order to express a past nosco surviving in its results. In this way we get a morphological expression for a past epoch linked up with the present, which is the essence of what we call a perfect tense. We see a past action in its present result, we view phase X no. 1 from the point of view of phase no. 2.<sup>1)</sup>

There exists also the possibility of constructing a future tense in a similar way, because from the point of view, say, 'throw', the action denoted by 'hit' lies in the future. Hence the fact that in Slavonic languages perfective verbs, representing the perfective phase of a process, serve as an expression of the future epoch. This seems plausible enough, if we look at the phenomenon superficially. But while in actual fact the adoption of a form expressing the terminating phase for the symbolization of a perfect tense has never been very difficult to understand once the connection between pragmatic aspects and tenses had been grasped, the adoption of perfective verbs for the expression of the future epoch is still a subject of learned discussion.<sup>2)</sup> We must therefore dwell a little

---

1) See p. 280.

2) Cf. Debrunner's review of E. Koschmieder, Zeitbezug und Sprache, Indogerm. Forschungen XLVIII (1930), pp. 89/95.

longer on this vexed question and consider the difficulties of the problem.

I think the main difficulty is the fact that perfective verbs in Slavonic languages cannot form a present tense, whereas in other languages a perfective verb behaves in this respect exactly as an imperfect one. There is nothing to prevent us from forming a true present tense from German erbauen (perfective) in the same way as from German bauen (imperfective), but in Russian ya postroyu dom, although being parallel in its form to German ich erbaue das Häuse, has the meaning of a future tense. If that is so, it is probable that the way in which the future epoch is constructed in both languages differs.

■ The German sentence, without any doubt, represents a present action in view of its future accomplishment, that is, the time-construction is p r o s p e c t i v e . In Russian, on the contrary, I consider a future accomplishment, the beginnings of which lie in a relative past, that is, my time-construction is r e t r o - s p e c t i v e .<sup>1)</sup> Hence also the fact that the Slavonic

---

1) I follow in this E. Koschnieder, Zeitbezug und Sprache. Ein Beitrag zur Aspekt- und Tempusfrage, Leipzig, Berlin 1929, and also G. Guillaume, Temps et verbe. Théorie des aspects, des modes et des temps, Paris 1929, pp. 105 ff.

that the

/ future thus constructed is a definite future, comparable to French je ferai, that is, one which does not evolve out of the present, as would be <sup>the case with</sup> the other Slavonic construction ya budu stroit', comparable to German ich werde bauen. It is furthermore clear that such ~~retrospective~~ retrospective time-constructions can only operate in perfective verbs, because the conditio sine qua non of it is the fixation of a point beyond which the view cannot extend and from which we can only turn back as it were. Such retrospective perfective verbs cannot construct a present tense for the simple reason that the present is an epoch consisting of the juxtaposition of past and future time-particles. Once I select one undetermined time-particle as point to look back from, all preceding time-particles appear in the perspective of a relative past, whereas any possible following time-particles are excluded from the view. Retrospective perfective verbs express really disconnection with the present.

This hypothesis is thus of a very great explanatory value. If it has any weakness, this lies probably in its psychological improbability. Psychologically it seems so artificial, and surely it is difficult to see in retrospective perfective constructions old primitive types. But this impression of improbability will dis-

appear if we can discover a plausible motive for adopting the retrospective view ~~in place of an~~ <sup>consider</sup> for the construction of a future epoch. <sup>This</sup> ~~Here~~ is not the place to conduct a detailed investigation into this problem. But at first sight it looks as if the clue to it could be discovered in an <sup>emphatic</sup> ~~intensive~~ fait accompli construction. ~~One could imagine~~ One could imagine that he shall die to-morrow could be expressed in a more vivid form as by to-morrow, he has died already!, anticipating the result. In this way we would select a point in the future seen from which the process has already come to an end, and the adoption of a perfective verb to suggest just that becomes understandable,

I n t r a n s i t i v e r e l a t i o n s . - So much for the time-anatomy of the verb. We have now to approach another question, which we should like to formulate as follows. If the verb is a time-continuum, it is by its very nature the symbol of a relation, and yet, if we compare the hunter kills the deer with the hunter ~~run~~ runs, it would seem that only in the first instance does the verb fulfill a relating function, but not in the second, and that it is therefore not true to say that the finite verb always symbolizes the R of an objective construct.

But it can be easily shown that the difference between the two expressions cannot be assessed in this way. As a matter of fact, with each step the hunter takes, he reaches a possible goal, which is shifting with each further step. It would be correct therefore to say that in the hunter runs the finite verb expresses a relation to a potential goal outside the verbal time-continuum, whereas in the hunter kills the deer there is a real goal inside the verbal time-continuum. If a goal is to be fixed for a verb such as to run, we have to prolong artificially the continuum of actual time by an orientational time-continuum: the hunter runs towards his hut.

As we have said before,<sup>1)</sup> the very idea of a time-continuum or relation implies that of at least two terms, and if one term only is expressed, the other is still necessarily implied. If we call a verb whose second term lies outside its scope an 'intransitive' verb, we shall understand without difficulty, why one speaks of a transitive verb 'intransitively used' when no specific second term is mentioned, but the general idea of it is implied: King Arthur hunts the deer, King Arthur hunts; we eat a meal, we eat (well). ~~What~~ What the genuinely intransitive verb and the transitive verb intransitively used have in common, is the con-

<sup>1)</sup> See above p.224.

centration of our attention in the causational phase of the process, and this is what the grammatical definition of the intransitive verb as denoting an action not leaving the sphere of the subject, expresses.

The passive voice. - The exactly reversed picture of the intransitive verbal construction is the so-called passive voice. ~~It~~ Reversed, because the process, instead of being viewed from the point of the 'agent' or origo, is conceived from the point of view of the 'thing-acted-upon' or goal, that is, it is considered from ~~the point of view of~~ a phase which is latest in the development of verbal time so that we view the time-axis not in its natural progression as would be the case if we viewed it from the point of view of the origo. This has been called by Hammerich an "antichronic" construction.<sup>1)</sup>

That the passive is a <sup>counter part</sup> ~~reversion~~ of the intransitive and not of the transitive construction can be seen from the fact that here the verbal process is only considered inside the goal <sup>just</sup> as in the ~~xxx~~ intransitive construction it is regarded as confined to the sphere of the origo. Therefore a possible connection with the origo must be established, in the case of the passive voice, with the help of a preposition, exactly as we use a preposition to extend the intransitive active time-dimension to the goal. In this respect the hunter

---

1) L.L. Hammerich, Nexus. Subjekt und Objekt. Aktiv und Passiv. In: A Grammatical Miscellany off. to O. Jespersen p. 314.

runs towards his hut and the deer is chased by the hunter are in close correspondence. Wherever an active transitive verb is used in a passive construction a process of intransitivation takes place.<sup>1)</sup>

R e f l e x i v e   c o n s t r u c t i o n   a n d  
M e d i u m   V o i c e .- A special case of intransitivation is given in the r e f l e x i v e verb. Here the effect of intransitiveness is produced by the identification of origo and goal: he washes himself. Here we have to distinguish two main possibilities. The first is the o c c a s i o n a l use of the reflexive. In this case the reflexive pronoun is a genuine goal, which happens to be identical in meaning with the origo; the reflexive pronoun is used in opposition to the non-reflexive: il s'arrête would be understood as being parallel to il m'arrête, il l'arrête, il les arrête etc. This is a genuine splitting of a term into origo and goal, the same term appears twice in different rôles which present themselves in time one after the other.

---

1) "Das Passiv stellt einfach eine besondere in der Sphäre des Subjekts sich abspielende I n t r a n s i - t i v i e r u n g dar." F. Sommer, Vergleichende Syntax der Schulsprachen, Leipzig, Berlin 1931, p. 48.

This is identical with what we say, only we ~~should like~~ prefer talking of 'goal' instead of "Subjekt".



The second possibility is the p e r m a n e n t use of the reflexive pronoun with the verb. Now one reflexive pronoun functions in opposition to another reflexive pronoun: il s'arrête as opposed to je m'arrête, tu t'arrêtes etc. In this case we do not have two terms following each other in time, which happen to be identical in meaning, but one term which from the outset is felt as something which is origo and goal at the same time. the pragmatic process instead of being first centrifugal and then centripetal as in the genuine or occasional reflexive, is at each moment both centrifugal and centripetal:



Our effort of splitting the term in two is frustrated from the outset by an opposing force outweighing it in strength, a positive progressive movement is outweighed at any moment by a negative regressive one. The so-called reflexive or m e d i u m voice is born. It is a true 'medium' voice in the sense that it is neither active nor passive, neither progressive nor regressive, but both at the same time. It is reflexive in so far as it is an action doubly, i.e. positively and negatively, related to its term, which is origo and goal at the same time. -

From all this the semantic kinship between the reflexive medium <sup>and</sup> ~~with~~ the intransitive becomes obvious, because the whole construction is a frustrated or negative transitiveness, i.e. in-transitiveness; cf. il s'arrête ~~with~~ he stops.

Often, however, the reflexive medium has a characteristic shade of meaning of its own. Grown out of the occasional reflexive it retains something of that notion. An action is performed with respect <sup>to</sup> ~~of~~ the origo or agent. Hence the fact that the reflexive medium voice underlines the part the agent takes in the action, his interest in the action (medium of interest). We can observe that often verbs denoting such subjective psychological phenomena ~~such~~ as emotion, volition, thought etc. appear in the form of the reflexive medium. Cf. English to enjoy oneself, to trouble oneself, to forget oneself, to pride oneself; German sich freuen, sich schämen, sich irren, sich bemühen, sich erinnern, sich anstrengen; French se réjouir, se douter, s'apercevoir, s'évanouir, se tromper, se repentir, se tromper, se moquer, s'amuser, s'aviser, se souvenir, s'exprimer, se taire, se désespérer etc. Spanish deserves a particular mention in this connection, for not only has this language gone very far in the use of the reflexive medium, but also the reflexive medium there, far from being a petrified occasional reflexive

as in French, is very much alive and particularly expressive in all those instances where it is used as a significant variation of the non-reflexive verb. As to the extension of the reflexive medium, we find that it has spread to old intransitive verbs: irse, venirse, salirse, entrarse, estarse (but cf. also French s'en aller, s'enfuir), besides the other uses to be observed elsewhere such as equivocarse, alegrarse, entristecerse, esforzarse, acordarse etc. etc.

But its semantic effects are most remarkable where we find side by side in almost identical contexts: creer and creerse, pensar and pensarse, callar and callarse, dormir and dormirse, comer and comerse, caer and caerse, creer and creerse etc. etc. In all these occasions the reflexive is a true "signo de espontaneidad" (Cuervo)<sup>1)</sup> and gives often a peculiar Spanish flavour to certain expressions; cf. Ella se tenía la culpa por no hacer caso de mamá.<sup>2)</sup>

Apart from this 'subjective' medium as we might call it, which directs the listener's attention back to the origo and thus underlines its part in the action, we also find a sort of 'objective' reflexive medium, the meaning of which is passive.

---

1) In the appendix (Note 102) to A. Bello, R.J. Cuervo, Grammatica Castellana, Paris 1936.

2) V. Blasco Ibáñez, Arroz y Tartana, Valencia 1910, p.110.

It is of the greatest interest to observe how this type of reflexive medium is admitted in French, only when the first term is a thing, but not if it is a person. Meyer-Lübke notes that la langue française se parle dans toute l'Europe is currently accepted, but it would be inadmissible to say \*où Jésus-Christ se vend chaque jour.<sup>1)</sup> The reason for this is apparent enough: With the idea of a person that of 'activity' is so closely associated that it resists successfully the passive tendency of reflexive construction, whereas the idea of a thing lends itself naturally to passive treatment. To this we may add the other observation that, although French admits the passive medium voice with a thing as first term, it does not admit the mentioning of an agent without adopting a different construction altogether; it is not possible to say \* la langue française se parle for la langue française est parlée par les diplomates par les diplomates, as it would be possible to say in Spanish el idioma francés se habla por los diplomáticos or el idioma francés es hablado por los diplomáticos. This goes to prove that in French the movement of the attention remains truly reflexive; origo and goal remain identical. It is not possible to add a second origo as it were. In other languages, such as Spanish for example,

-----

1) W. Meyer-Lübke, Grammatik der Romanischen Sprachen,

← this step has been taken, however, and the reflexive movement has become occasionally purely regressive. In Rumanian (Slavonic influence?), the Slavonic and the Nordic languages the reflexive is the sign of the passive.

Note: The reason why Spanish has gone farther in the elaboration of the passive medium than French, lies, according to Reichenkron (Passivum, Medium und Reflexivum in den Romanischen Sprachen, p. 65), in the fact that Spanish possessed a reflexive impersonal construction with passive sense. The development started from constructions such as el idioma se habla, where el idioma is originally an accusative which came to be felt a nominative thanks to its place before the verb. It is in any case remarkable that French has replaced Lat. impers. dicitur by homo dicit (= on dit) and not as Spanish by se dicit (= se dice).

~~The substance-property relation.- This investigation of verbal constructions from the point of view of representational grammar will not only have clarified the idea of time-constructions generally, but will also have substantiated, in conjunction with the theory of the parts of speech, our claim that the different patterns such as the 'actor-action-object' pattern, the 'thing-placement' pattern~~

the 'possessor-possession' pattern etc. are really all representational term-relation constructions and variations of the basic O-R-G relation.

#### Impersonal constructions.-

As a last item in this chapter we may deal briefly with impersonal constructions, because they seem to have something to do with verbal genders. This at least is the opinion of Professor Gamillscheg who calls the type il est arrivé un malheur "unpersönliches Medium". It is a medium voice because it is "die Feststellung einer Veränderung, deren Agens gefühlt aber sinnlich nicht erfasst werden kann." It is impersonal, "weil das Seiende, das von der Veränderung erfasst wird, gleichfalls mit den Sinnen nicht bestimmt werden kann."<sup>1)</sup> I find it difficult to make Professor Gamillscheg's statement my own. For my linguistic feeling il est arrivé un malheur is distinctly active in contrast, for instance, to German es wird gesungen which is distinctly passive, whereas cela ne se fait pas seems to<sup>be</sup> best assessed as a reflexive medium voice.

- 
- 1) Cf. his criticism of Bally's Linguistique générale and linguistique française<sup>1)</sup> in Deutsche Literaturzeitung LV (1934) col. 264. Also: K.W. Asbeck, Das unpersönliche Medium im Französischen. Berliner Beiträge zur Romanischen Philologie VIII, p.1.

In the past the problem of the impersonal was stated by asking whether or not impersonal constructions had a 'subject'. To us the question presents itself differently, since we distinguish between cognitional and representational structure. The question of the S - P structure of the type pluit has been decided by us in the sense that doubtless S and P are expressed, because by pluit a given experience (S) has been assessed with the help of a passed experience as rain (P).<sup>1)</sup> The question remains now, what representation, if any, may correspond to the impersonal pronoun or the equivalent impersonal ending?

In order to answer that question we must remember that the representation of any progressive movement is a relation (R) and refers consequently to a potential O and to a potential G.<sup>2)</sup> In the case of an intransitive construction such as pluit the potential G remains outside the sphere of verbal development, it remains potential in character.<sup>3)</sup> The origo, on the other hand, is felt as being actually there in some vague way which seems to defy definition. To conclude from this that there is no origo would be wrong. The truth is that the origo is a c t u a l b u t u n d e r m i n e d .

---

1) See above p. 190.

2) See above p. 214.

3) See above p. 291.

It may be that such an undetermined origo is not 'active' in the sense of 'cause of the verbal movement' and that in that sense the impersonal verb has indeed no 'subject' in the sense of 'actor'.<sup>1)</sup> But there can be no doubt that (1) the origo ~~is~~ of the movement is represented although it has been left undetermined, and (2) that the movement itself is progressive. It is therefore 'active' in the sense of representational grammar, although not in the sense of 'movement promoted by somebody or something'.

If that is so we must expect that impersonal <sup>s</sup>passive and medium constructions also occur, and this is indeed the case. Cf. German es tanzt (vor meinen Augen) with undetermined O and progressive construction, es wird getanzt with undetermined G and regressive construction, es tanzt sich(gut), where an undetermined O and an undetermined G coincide and the movement is both

-----

- 1) That the impersonal construction is easily tinged with activity has been shown by H. Ammann, Zum deutschen Impersonale, Festschr. Ed. Husserl = Jahrb. f. Philos. u. phänomenol. Forsch., Ergänzungsband, Halle a.S. 1929, pp. 1/25. Cf. also E. Kieckers, Zu den verba impersonalia im Neuhochdeutschen. Sprachl. Miscellen VI, 30. Acta et Commentationes Universitatis Tartuensis (Dorpatensis), B (Humaniora) XVII, 2, Tartu 1930.



pro- and re-gressive. We see thus that, from the point of view of representational grammar, impersonal constructions behave in every respect as other verbal constructions and that it is even relatively easy to account for their grammatical behaviour in terms of representational forms. A problem only arises if one tries to analyse them in ~~a~~ materialistic terms; they are too massive. I ~~sk~~ould be at a loss to explain in terms of 'persons' and 'actions' what is meant for instance by the construction of a 'regressive movement relating a potential origo (which remains outside the verbal sphere) with an undetermined goal'. Such a statement is however easily understandable in the framework of representational grammar. In other words, constructional problems which appear intractable in a materialistic terminology are easily solved in terms of representational forms. This seems to prove that the latter approach is the more realistic one.

Part III

Chapter (8)

Integration of representat-  
ional grammar into the grammar  
of thought.

The representational basis .  
- We have shown how the possibilities inherent in the ideal~~x~~ forms of representation, space, time and quality are utilized in linguistic constructions; they were all term-and-relation patterns which could be analysed without troubling about S and P. But as representations are integrated into the cognitional form of thought, so we must show how representational grammar is integrated into cognitional grammar. In dealing with this question we are immediately faced with a major difficulty. The reasonable thing would seem to be to begin with the representational basis or the material of the cognitional act and then show how it is formed and welded into propositions. But, unfortunately, although in a statement such~~x~~ as the tree stands in front of the house the representational construct O-R-G is a prius from the ideal point of view compared to the S - P structure, ~~is~~ is an analytical poster-i~~us~~ i u s, i.e., it is found only at the end of the analytical process of interpretation, and this very representational basis appears only in so far as it is formulated in the statement.

As it is, it looks as if we had first a complex representation, which is being analysed into its elements O, R and G. In this way we obtain three isolated elements which, in relation to thought, deserve all in the same way the name of 'term' in the sense of possible

objects of thought, notwithstanding the fact that <sup>to</sup> one term in thought corresponds R, i.e. a representational relation.<sup>1)</sup> The latter seems, however, to have a privileged position, since it is defined as being something between Q and G, whether I say the tree stands in front of the house or the house stands behind the tree.

We may say therefore that Tr (= term of thought reflecting the representational R) is the M i d d l e T e r m , and the others, by way of contrast, are the E x t r e m e T e r m s .

But isolated terms do not constitute<sup>t</sup> the special thought-construct we call a proposition. In order to do that they must be brought together. The link connecting the elements of thought must of course belong to thought and n o t to representational reality. The

-----

- 1) It seems a little odd that our linguistic habits force us to speak of 'term' and 'relation' in the domain of t h o u g h t as we did in the domain of r e p r e s e n t a t i o n . In this way we are not only forced to call a representational 'relation' a 'term' of thought, but we have to look later on for a relation in thought, different from that in representation. This state of affairs is, however, not without a psychological justification. Thought processes are not <sup>introspectible</sup> conscious. We can make them observable only by representing them, i.e. t r a n s p o s i n g t h e m i n t o t h e c a t e g o r i e s o f r e p r e s e n t a t i o n ;

link is called 'determination'; for either we look for the tree and wish to 'determine' it by its relation to the house, or else we look for the house and wish to determine it by its relation to the tree. Now if the determinandum of the thought construct is 'the house', the determinans would be 'its relation to the tree'. In either case it is the M i d d l e T e r m or Tr which appears as the p r o p e r i n s t r u m e n t o f d e t e r m i n a t i o n . It is also clear that in thought the three terms, gained by this analysis, are welded together by a synthetic movement called 'determination' into a dichotomic construct (Tg) (Tr-To), and this accounts for the order of the representational terms and also for their grouping. It is not difficult to see that such an <sup>a</sup>alysis, starting with the analytical breaking up of a complex representation and ending in the constitution of a proposition, contains all the essential features of Wundt's famous hypothesis, which has had so many supporters among psychologists, logicians and grammarians.

we repeat,

S u c h a n a n a l y s i s, however, ~~x~~ w o u l d <sup>we repeat,</sup> be f a l s e . For not only can the specific character of Tr ~~not be assessed before 'the house has been~~  
 -----  
 hence the fact that we obtain again 'related terms' if only in the metaphorical sense.

as in front of not be assessed before 'the tree' has been fixed as determinandum, but also the choice of 'the house' as origo depends clearly on the choice of 'the relation to the house' as determinans. ~~IN OTHER WORDS XXXXXXXX THAT~~ If we chose 'the house' as determinandum and its 'relation to the tree' as determinans, the specific character of Tr would have to be assessed as behind. In other words we find that, given a particular situation, the representational order O - R - G is in functional dependence on the cognitional act, it can therefore not be supposed to exist prior to the cognitional act, although it can be abstracted from it, it can be considered in isolation; but such an abstraction is only possible after the cognitional act has taken place, and it would be a grave fallacy to deduce from the fact that it appears to us as an ideal prius, that it is also a real or psychological prius. As a matter of fact, the psychological question can only be decided by empirical observation and experiment and has no place in a discussion of functional and ideal relationships.

The functional dependence of the representational order on the cognitional act and the possibility of

abstracting it après coup are points of cardinal importance which can hardly be overstressed. All this not only proves that a purely representational logic, that is a logic working with a symbolism ideally adapted to the aprioristic forms of representation, is possible, because its possibility is nothing but the possibility of abstracting the orientational order from the cognitional act which is instrumental in its establishment, it also proves that a representational grammar is possible, in so far as the same representational order is reflected by words and word-elements, <sup>that</sup> ~~and therefore~~ justifies to a large extent the attempts of certain reformers such as Kalepky and Svedelius to build up a grammar outside Aristotelian logic (in the large sense).

But this is only part of the truth, for it goes also to show that the possibility of abstracting a representational order from the cognitional act proves nothing against that cognitional act. It would therefore be wrong to use representational logic as an argument against cognitional (S - P) logic, as it would be wrong to use representational grammar as an argument against traditional grammar, and it is here that the same reformers overshot their mark.

The Middle Term. - So far our thesis has been based on one example only, and although I believe it to be true, it does not perhaps contain the whole truth, and it remains to be developed into its consequences. The first point we have to take up and to submit to closer inspection is the contention that the proper instrument of determination is Tr, i.e. a term of thought reflecting a representational relation. This is quite convincing as long as our first term was either 'the tree' or 'the house', but what happens, if we begin our statement by the being in front of...? A statement such as the being in front of relates the tree with the house, may sound a little odd in everyday language, still, it cannot be denied that it is perfectly legitimate, and it should not be difficult to find in scientific prose many statements in which apparently R is taken out of its position as Middle Term and made 'First Term'.

We have to say again 'apparently': It looks as if we had the same representational basis

O - R - G, out of which R was taken and employed as a first term, and that all the new proposition does, is to re-place R into its original context. The shifting of R involves an abstraction, its re-placement necessitates a new factor R, a new Middle Term', in this case re-



presented by the word relates, which has not been gained through a widening of the representational field (as we would find it for instance in the tree stands BETWEEN the house and the road) but by way of an analytical expansion, by splitting stands in front of into the name of the relation, expressed by the being in front of and its function, represented by the word relates; and such an account would give us apparently the key to the understanding of 'abstract' and 'analytical' linguistic constructions.

But again, such an analysis would be based on an error of perspective. It may be true that <sup>by</sup> the sta<sup>t</sup>ement the being in front of... a relation designate or R is being placed into a context represented by Q and G. But this only goes to show that the establishment of Q - R - G is the result of a cognitional act aiming at the placement of the potential relation; it would be wrong to assume the Q - R - G forms already the basis of that proposition, and that R has been taken out of this particular context only in order to be re-installed into that same context. To contend that, would be equal to contending that the speaker moves in a circle. What has happened in reality is that the being in front of has formed part of various previous experiences from which it has been

isolated in ~~no other~~ <sup>the same</sup> way ~~than~~ <sup>as</sup> 'the tree' in the statement the tree stands in front of the house; it is therefore a real term in exactly the same sense as 'tree'. The difference is only that the being in front of is, as we said, a relation designate, whereas the tree in the other statement is not.

The rule about the position of the Middle Term is therefore in no way infringed by a statement beginning with a relation designate.

The fact that the one expression (the being in front of) is abstract and the other (the tree) is not, is irrelevant in the matter.<sup>1)</sup>

Let us now consider the example he took a walk to Craigmond. As in our previous example  $T_1$  (the being in front of) could be considered as a relation designate, we find now that a  $T_2$  (a walk) is in the same case: we can consider it as "abstracted" from a Middle Term to walk (cf. he walked to Craigmond) into which it is "replaced" with the help of to take, as the being in front of was "replaced" into the "original" construct with the help of relates. To take a walk seems to be in the same apparent sense the result of an analytical expansion as the being in front of.

And again we have to insist on the fact that in reality there is no "original" construct he walked to C.  
-----

1) Cf. above pp. 127 f.

If we can consider at all to take a walk as an analytical form, it is not in relation to an 'original' construct, but in relation to an i d e a l construct which is the result of an interpretation:

to take a walk ~~XX~~

is being interpreted in the direction of to walk;

the being in front of relates the tree and the house

is being interpreted in the direction of the tree

is in front of the house. In both cases we reduce

a relatively complex representational construct I

to a relatively simpler construct II of material

equivalence. To consider the simpler construct II as

the 'original' one is equivalent with committing the

same methodological mistake which we have criticized

before, when we considered the judgment wisdom is

in Socrates as against Socrates is wise!<sup>1)</sup> Here as

there a psychological prius is considered as a meta-

physical or ontological prius. This is quite unwarranted

as we have seen and we may refer the reader back

to our discussion on wisdom is in Socrates without

having to repeat our argument.<sup>1)</sup>

But, seen from a different point of view the

expression wisdom is in Socrates <sup>fits</sup> ~~belongs~~ into the

-----  
See above pp. 127 f.

the present discussion, for it is parallel to  
the being in front of relates etc.. The <sup>other</sup> expression,  
to take a walk, has also a parallel in Socrates has  
wisdom. Both wisdom is in Socrates and Socrates has  
wisdom are to be interpreted in the direction of  
Socrates is wise. In both cases we have an Extreme  
Term to be "replaced" into an attributive connection.  
This is not quite the same thing as a relation design-  
ate but an analogon to it. Already Aristotle had  
seen that the substance is the place (  $\epsilon\iota\varsigma\ \tilde{\omega}\ \epsilon\delta\epsilon\iota\chi\epsilon$  )  
of the accident, i.e. Socrates is wise is a term-relatio<sup>n</sup>  
pattern in which the relating factor <sub>$\chi$</sub>  is not independ-  
ent as in <sup>the has of</sup> Socrates has wisdom, but forms a whole  
with the accident, <sup>being implied in the adjective</sup>  $\chi$  The adjective wise may be charact-  
erized as an attribute in statu attribuendi whereas  
wisdom represents the attribute in isolation. The  
paradoxical nature of the adjective<sup>1)</sup> can thus be  
symbolized by  $t_{\chi\chi}\ t_r T$ .

---

1) See above pp. 265 f.

T r a n s p o s i t i o n   a n d   a n a l y t -  
i c a l   p e r i p h r a s e s . - As the reader  
may have realized already, it is on these facts,  
namely the described reduction of a relatively com-  
plicated analytical construction to a relatively  
simpler synthetic one <sup>that</sup> is based the mechanism of  
transposition and that of analytical periphrases.  
We shall deal with transposition first.

By transposition different authors seem to under-  
stand different things, but most would probably agree  
that a walk may be regarded as tran~~posing~~ a verb to  
walk and that wisdom likewise is the transposition  
of wise. The former is a verbal, the latter an adject-  
ival abstract. They correspond to Aristotle's  
'secondary' substances as opposed to the 'primary',  
concrete substances. It seems <sup>advisable</sup> ~~indicated~~ to limit the  
discussion, for the time being, to such instances as  
these.

The very term 'transposition' is a difficult and  
dangerous one, for it seems to imply that for inst-  
ance something called a 'verbal idea' can be given  
under certain circumstances in a nominal form, and  
that seems to be always the case, if the 'verbal  
idea' is made the grammatical subject or object  
of a statement: the being in front of relates, I take  
a walk. Likewise an 'adjectival idea' is in its

correct place when I say Socrates is wise, but in wisdom is in Socrates ~~IS APPEARS~~ it appears 'transposed'.

Behind this belief we find the conviction that basically the idea of an action or a state should be symbolized by a verb, that the idea of a quality reflected should be ~~symbolized~~ by an adjective, and that by virtue of a metaphysical necessity. If we find states, actions or qualities expressed by a substantive this must be regarded as a sort of artificial trick the name of which is 'transposition'. There is little doubt that Aristotle's philosophy is in the last resort responsible for such a conception, for the belief that a substantive is necessarily a substance and S for metaphysical reasons can be traced back to the Greek philosopher. The conviction that the verb is the 'proper' symbol of states and actions, the adjective the 'natural' expression of qualities is exactly parallel to the substantive-substance assumption, the germs of which can be detected in the traditional 'substance-accident' scheme and the connection of the 'copula' with the categories 'verb' and 'existence'.

As the substantive is closely associated with the grammatical function of S, the verb with that of P and the adjective with that of attribute, one argues that the change of syntactic function is responsible for transposition. If the meaning of an attribute-word or a P predicate-word is to be incorporated into a subjectword we have to transpose an adjective or a verb into a substantive. This looks as if between the supposed 'original' adjective or verb and the corresponding substantival words resulting from transposition there is a *g e n e t i c* link: transposed substantives seem to be *d e r i v e d* from the corresponding adjectives or verbs, and 'transposition' appears therefore as a special form of 'derivation'.

That transposition and derivation have in fact been confused results for instance from Bally's contention that French laboureur transposes a verb labourer and ~~solair~~ solaire transposes soleil.<sup>1)</sup> Here we see that also primary substances are being considered as either the result (Laboureur) or the material basis (soleil) of a transposition.

Against this we shall have to point out that derivation and transposition should be clearly distinguished.

---

1) Ling. génér. et ling. franç., 2nd edition (§ 184).

'Derivation' is a purely genetical concept which can be used properly only in historical grammar, whereas 'transposition' concerns only representational logic. One example makes that clear: Whether I say wisdom is in Socrates or courage is in Socrates is functionally the same thing; both wisdom and courage may be considered as transposing wise and courageous respectively. Nevertheless in the first instance it is the substantive wisdom which is derived from the adjective wise, whereas in the second instance it is the adjective courageous which is derived from the substantive courage.

In order to decide whether or not a given word is derived from another given word we have to await the verdict of historical grammar. The question whether or not a given word is transposing another given word can be decided without any historical knowledge. The basis for this decision is only the reduction of a psychologically less simple analytical expression to a psychologically simpler synthetic construction of material equivalence, as we have pointed out.

What now is 'psychologically simpler'? - From the point of view of thought it is psychologically simpler to have a concretum as the basis of S, because it is more tangible. In this sense Socrates is wise,



the tree is in front of the house are simpler than wisdom is in Socrates or the being in front of relates the tree with the house.- From the point of view of representational grammar it is simpler to represent a relation designate by a verb or a particle instead of by a substantive, or to symbolize the attribute in statu attribuendi by an adjective, a form specially designed for such a purpose.

We may now turn to the problem of p e r i p h r a s e s . We have seen that in the thought construct  $(T_r T_2)$  form a group as opposed to  $(T_1)$ . Accordingly we find that take  $(T_r)$  a walk  $(T_2)$  forms a unit of thought as distinct from a possible  $T_1$  which would be S. The being in front of  $(T_1)$  relates  $(T_r)$  on the other hand do not form a close unit. The closely knit unit now appears to be ~~a periphrase~~ p e r i p h r a s e of the simpler expression: to take a walk may be considered as a periphrase of to walk. A periphrase appears thus<sup>as</sup> the result of two forces: analytical transposition and synthesis with an element  $T_r$  inside a predicative function. This is the principle of the constitution of periphrases. We shall give a more detailed account of their mechanism in the following paragraph. All we wanted to do here is to show that the concepts 'transposition', 'analytical form' and 'periphrase' belong closely together and that the criticism of the one entails necessarily the criticism of the other.

Anal y t i c a l p e r i p h r a s e s . - Up till now we have considered only one type of periphrase, namely to take a walk = to walk where <sup>a</sup>substantive 'transposes' the verb. Often, however, it is the adjective which fulfills this function: he is dependent on = he depends on, he is agreeable to = he agrees to; l'abbre~~ss~~~~er~~~~er~~ est fleuri = l'arbre fleurit; estamos deseosos = deseamos, etc. The adjective as representational form has this in common with the substantive that it is a non-temporal form, it can therefore very well symbolize something that looks as if it had been taken out of temporary connections and can be combined with a verbalizator to constitute with it the symbol of a time-continuum in the shape of a 'conjugated adjective'. The difference <sup>from</sup> ~~with~~ the substantive is only that it cannot be thought of as existing in isolation, hence the fact that it is unsuitable to function as first term: whereas to take a walk can be reversed in the form of a passive voice: a walk was taken, periphrases consisting of a verbalizator and an adjective cannot be reversed in the same way.

On the other hand the adjective itself has an analytical equivalent in the form of preposition + substantive or a casus obliquus. In this way we obtain the adjective-equivalent: a man of courage = a courageous man.

It is possible to abstract a whole scheme of periphrastic analytical equivalences according to which auxiliary verb + noun may represent the analytical periphrase of the verb: el arbol echa flores = el arbol florece. If the auxiliary verb is transitive it has in turn an analytical equivalent in an intransitive verb + preposition: el arbol está con flores el arbol está en flor; con flores or en flor being also analytical equivalents of an adjective, this corresponds to el arbol está florido = el arbol florece.

We could go even further than that and construct according to the same principle the most analytical expression corresponding to German er tötet: er ist bei Tötung von, where von symbolizes analytically the transitivity of the verb; bei + copula is the equivalent of a transitive verb: er bewirkt Tötung von; preposition + substantive = adjective: er ist Töter von; verb + first preposition, substantive + second preposition: er schlägt tot etc.

The mechanism of analytical transposition can be expressed in a simple formula:

Verb → Adjective → Substantival Abstract.

This formula has to be read: an adjective may transpose analytically a verb, a substantive may transpose analytically both verb and adjective:

florece, está florido, está en flor.

Having abstracted this scheme of analytical equivalences we have to insist on the warning we uttered before, that it reflects nothing but possibilities of interpretation, which in each concrete case may be

vague and in many instances unrealistic or impracticable. The obvious and ordinary thing remains, of course, that a given linguistic construction should be interpreted in its own right and not as a periphrasis of another representational construction. On the other hand the correspondences are so frequent in our languages that the theorist must find the courage to formulate the rules of this constructional synonymy, which after all, illustrates well the tendency of language to liberate itself from material bondage and become a free interplay of interchangeable forms.

S y n t h e t i c c o n d e n s a t i o n . -  
The logical counterpart of analytical expansion which accounts for periphrastic expressions would be  
s y n t h e t i c c o n d e n s a t i o n . And here again we would have to point out that by this term we must not understand an operation in the mind of the speaker but a principle of interpretation, which would operate in the opposite direction from that adopted in the case of analytical forms, i.e. if in the process of interpretation we are forced to dissolve a given picture into more parts than it shows on the surface.

Such seems to be the case with certain adjectives:  
polar regions = regions of the poles; British made =  
made in Britain; French wine = wine of (from) France;  
vehicular traffic = traffic of vehicles; a winged  
creature = a creature with wings; a one-eyed person  
= a person with one eye etc.

In the realm of verbs we find for instance to cool,  
to sadden, to clean etc. in the sense of to make cool,  
to make sad, to make clean; to dust, to motor, to  
house there correspond to clean the dust, to go in a  
motorcar, to put up in a house etc. - Although English  
seems particularly rich in such forms they seem to  
form a normal feature in other languages; it is there-  
for redundant to add more examples.

The question arises ~~arises~~ whether or not we shall  
call the synthetic forms 'transpositions' of the  
corresponding nouns in the analytical interpretation.  
In other words, is solaire to be called a 'transposi-  
tion' of soleil,<sup>1)</sup> vehicular a 'transposition' of  
vehicle, to dust a 'transposition' of the dust etc.  
I should be inclined to answer this question in the  
negative.

The analytical forms in all these instances are  
in fact undistinguishable from definitions.  
Their relation to the corresponding synthetic con-

---

<sup>1)</sup> See above p. 316.

densations is the same as that between mare and female horse, between manse and the minister's residence etc. They have a distinct explanatory character which is in no way characteristic of either transpositions in the sense of 'secondary substances' nor of analytical periphrases. Indeed, which term is transposed in mare or in manse?

Other considerations will confirm this view. The principle of condensation is most conspicuous in ellipses. The heading of a newspaper article recently published was Under the Influence, which has to be interpreted, of course, as under the influence of drink; to see in the shorter formula a transposition of any element of the enlarged formula would be quite impossible. We may even go further and say that the principle of synthetic condensation is operative in all abridgements, be it of the type B.B.C. for British Broadcasting Corporation be it in any etc.

Because of these difficulties it is perhaps advisable to see in transpositions and periphrases typically analytical phenomena.

It remains to mention that the ~~the~~ principle of synthetic condensation can work occasionally in a

very subtle way and explain certain cases of what we should like to call ~~disguised syntax~~ dis-  
guised syntax. When I say il m'a favorable-  
ment impressionné, it is easy to see that the ad-  
verb really qualifies the nominal element of the  
synthetic condensation: il m'a fait une impression  
favorable. It is less obvious to distinguish between  
the two meanings of he has spoken well, because the  
same verb to speak is a synthetic condensation if  
taken in the sense of to make a speech, and in that  
case the adverb again qualifies the nominal element  
of that condensation: he spoke well at the luncheon  
= he made a good speech at the luncheon; otherwise it  
is just an ordinary adverb of manner qualifying the ~~xxx~~  
verb itself. The same difference can be observed com-  
paring French manger bien in on mange bien dans ce  
restaurant with notre petit mange déjà très bien.  
In the former instance bien qualifies the idea of 'food'  
synthetically contained in the verb, in the latter  
instance it is just an ordinary adverb of manner.

C o n c l u s i o n . - We have surveyed a fair variety of analytic and synthetic constructions, different formal possibilities of materially equivalent meanings. What we considered were not psychological processes but principles of interpretation. Integration of representational forms into those of thought is for us a question of functional analysis of interdependencies of representational and cognitional forms as they are suggested through linguistic constructions and not a question of psychological happenings in the souls of either speaker or listener. The result of these investigations is very simple indeed. We found that representational constructions are in functional dependence on thought, and that, whatever complications may arise, it is always the **Middle Term**, the representational relation, which is the instrument of determination in thought. This is not surprising. One has to know what one wants before one can find out what is. In thought one wants always to determine one factor in relation to another factor, <sup>and</sup> only once this is decided can the specific character of the relation be properly assessed. It can therefore not be given already before thought starts to act.

The integration of representational into cognitional forms can therefore be expressed by the formula



$(T_1) = S (T_r T_2) = P$ . In order to bring this out in the clearest possible way we have neglected certain complications or, rather, variations of this basic formula. We have treated, for instance, the being in front of as a simple  $T_r$ . In reality the syntactic analysis of the tree is in front of the house gives a more complicated formula than  $(T_1) = S (T_r T_2) = P$ . ~~We have~~  
We have the tree  $(T_1)$  is  $(T_r = t_1)$  in front of  $(t_r)$  the tree  $(t_2 = T_2)$ . But even this complication only confirms the correctness of the basic formula.

Linguistic constructions can express these cognitive structures thanks to the fact that both verbs and particles refer to representational relations, pronouns and substantives to representational terms. Adjectives have, as we said, a paradoxical nature which can only be adequately symbolized by  $t_r T$ . - All this is very akin to Aristotle's theory, it is only slightly more complicated through the distinction of representational and cognitive forms and, above all, it eliminates any ontological implications by a simple reversion of the perspective from a genetical view to a merely analytical view.

Here is the place to forecast a further complication: in formulas such as there is: A and similar ones there seems to be no  $T_1$ , or else,  $S$  seems to be symbolized by a verbal expression. As we shall see, this

does not invalidate the results we have just formulated. The difficulty presented by such constructions will be overcome by distinguishing the grammatical from the cognitional S and P. This is a question of the relationship between ideal grammar and the grammar of formulation which ~~will~~ occupy us in the last chapter.

S u b o r d i n a t i o n   a n d   c o o r d i n -  
a t i o n . - Having said this it must be surprising that in this scheme there seems to be no room for certain Middle Terms, which nevertheless play such an important part in thought and in language and which are generally called c o o r d i n a t i n g relationships, since determination is essentially the same as subordination.

Grammarians simply accept the fact that both types of relationship exist, they also accept the fact that coordinating constructions easily change into subordinating ones, and that, generally speaking, the difference between both is slight, which may be proved by the (hypothetic) etymological kinship between Greek  $\epsilon\pi\iota$  and Latin et or the semantic kinship between and and with.

Philosophers have in modern times analysed certain types of coordination and distinguished "Kopulative" and "konjunktive Addition" (Erdmann), to which Carnap

has added a "divisive" function. Bühler's distinction between "sachbündelndes" and "satzkettendes und" throws light on the creation of a grammatical tool out of a concrete relation. But all this leaves the fundamental question of the difference between these two classes of relationship (subordination and coordination) unanswered.<sup>1)</sup>

It is perhaps not without interest to point out that the terms coordination and subordination belong originally to traditional logic, where they denote different relative ranks in the pyramid of concepts. Coordinated concepts are those located on the same level of the pyramid; if concepts are located on different levels, those on the lower level are subordinated to those on the higher level. In other words coordinated concepts are those of the same degree of generality, whereas subordinated concepts are of lesser generality than the corresponding subordinating concept. 'Snow' and 'sugar' are coordinated, but each is subordinated to 'white objects'. Since predication aims at subordination I can express the fact of two coordinated concepts being subordinated to a third by saying snow and sugar are white objects.

-----

1) Cf. K. Bühler, Sprachtheorie, pp. 317/18.

It is easy to see, however, that such a distinction does not account for the different construction in he painted the madonna and the child and he painted the madonna with the child, nor for the difference between the landscape is beautiful and beautiful, the landscape! We must therefore try and find a different basis for assessing correctly the difference between subordination and coordination. And I think it is this: Subordinating relationships are d i r e c t relationships, coordinating relationships are i n d i r e c t relationships. An i n d i r e c t relationship holds where two or more terms are connected by an identical (d i r e c t) relation to another term, without being (d i r e c t l y) related to each other. This is, first of all, a r e - p r e s e n t a t i o n a l characterization. In T h o u g h t indirectly related terms occupy the same rank, directly related terms occupy d i f f e r e n t ranks.

It seems to me that such a definition covers all the instances quoted. Both sugar and snow are characterized in their relationship to white objects but not to each other. Likewise the madonna and the child are both goals of an action of painting but are not related to each other as they are in the madonna with the child,

which is one single goal. In beautiful, the landscape!<sup>d</sup> we have a simple juxtaposition of two statements, which are both held to be parts of another statement, and it is in this that lies their relationship to another term. The fact that the one, i.e. the landscape<sup>d</sup>, is destined to be S, beautiful P in that other statement, is of course not expressed, if we do not take into account musical characterization.<sup>1)</sup> Likewise in a statement such as Cologne lies between Berlin and Paris we have a direct relation holding between Cologne and the other two, but only an indirect relation between Berlin and Paris.

Since coordination of two terms is based on a common relationship to a third one, they are often of a certain semantic harmony: he is young and inexperienced; if this expectation of harmony is frustrated, this may be expressed by some element of modality in coordination: he is young yet (b u t) experienced. O notte, dolce tempo b e n c h è nero. (Michelangelo). Often the terms are alternative possibilities: either - or (and with negation) neither - nor. Very often semantic harmony of the terms is expressed by a particle indicating similarity, which involves comparison: Du bist w i e eine Blume. A is the same a s B. etc.

- 1) Syntactically we have here a straightforward parataxis, the S - P relation is only hinted at by parasyntactic symbolism. Cf. p. 381.

If the coordinated terms both form part of a constructional picture, they are constructionally equivalent through the relationship to another term (equality of rank). This means that each of them separately or both together can be counted as one element of thought-construction: (Peter) (preached in Rome), (Paul) (preached in Rome), (Peter and Paul) (preached in Rome) are examples of such constructional equivalencies.<sup>1)</sup>

Constructional equivalency is sometimes referred to as 'telescoping two statements into one': Peter preached in Rome + Paul preached in Rome = Peter and Paul preached in Rome. Or I found the cage + it was empty = I found the cage empty.<sup>2)</sup> But as in the case of transposition, analytical expansion and synthetic condensation, it is most important to point out that the expression 'telescoping various statements into one' is dangerous and easily misleading, since it seems to suggest a genetical hypothesis, where nothing but a possibility of interpretation is involved. It would be quite wrong to think that two independent statements

-----

- 1) Things are naturally different, if the coordinated terms are nothing but unspecified parts of a constructional picture still to be evolved, as in beautiful, the landscape!, just because they are still constructionally unspecified.
- 2) On this construction and others cp. the discussion immediately following.

existed in the speaker's mind, which have been telescoped into one. The truth is that we have a mental act called coordination, and that it is an outstanding property of coordination that it allows the interpreter to establish this equivalency between a coordinating construction and a corresponding plurality of statements.<sup>1)</sup>

Generally speaking, the linguistic characterization of coordination is morphological uniformity, i.e. coordinated finite verbs appear in the same tenses, moods and number, coordinated nouns appear in the same case. To this rule the predicative nominative seems to be an exception: vir est fortissimus is obviously a subordinating relationship, in spite of the formal concord between vir and fortissimus. But we must not forget that the predication of a noun implies a comparison; this is not only the case when the predicated noun is an adjective, which may be either a positive, a comparative or a superlative, but also when it is a substantive: Du bist eine Blume = du bist wie eine Blume. In this instance we have two coordinated terms Du and Blume, and bist represents the tertium comparationis, the meaning of the whole being Du bist wie eine Blume ist. This coordinating relationship is particularly clear in the Old French construction

-----

1) This supplements our remark on Jack calls Jill, p. 190.

tu fais que fols.

The transition from vir est sicut (est) fortissimus to vir est fortissimus is made in this way that, through frequent usage, the attention of speaker and listener learns <sup>to some extent</sup> to pass over ~~slightly~~ the tertium comparationis and to connect vir and fortissimus directly instead of indirectly. The result of this displacement of the centre of attention is that the original substantive fortissimus is turned into an adjective and that the whole construction acquires the value of a subordinating expression. The original coordination is felt already much more strongly in examples such as he died a hero. In any case we are entitled to consider the construction consisting of Noun (nomin.) - Copula - Noun (nomin.) as one where the two nouns are coordinated first terms or subjects of an intransitive verb. Hence the kinship of this construction with what is generally known under the name of  $\lambda\eta\theta\acute{o}\ \kappa\omicron\iota\iota\omicron\upsilon\acute{o}\tilde{\nu}$  as exemplified by I found /the cage/ empty,<sup>1)</sup> where empty is clearly coordinated with cage in no other way than hero is with he in he died a hero. But, of course, it is by no means always necessary that the nouns should be coordinated. In Shakespeare's there is a devil haunts you<sup>2)</sup>

---

1) O. Jespersen, Philosophy of Grammar, p. 122.

2) H. Paul, Prinzipien<sup>5</sup>, p. 122.



the two verbs are coordinated through their equal relation to devil. - ~~Into~~ this chapter belong inter alia the double accusative (eum regem fecerunt) and parent constructions (je vous le dis en ami; ihn ist ein grosser Künstler dahingegangen), which need not be enumerated in this general essay.

In any case our assumption seems to explain the very curious morphological fact that we find an intransitive verb such as to be combined with a nominative instead of a preposition or casus obliquus as occasionally in Slavonic languages,<sup>1)</sup> and accounts also for the peculiar constructional flavour of the so-called predicative noun which is nothing but a feeling of coordination as distinct from subordination.

Coordination is a term denoting equality of rank of two or more terms indirectly related, it belongs thus to ideal grammar; it is useful to distinguish coordination in this sense from the parataxis found in formulation. Formulation parataxis applies to the juxtaposition of two independent entities as in beautiful, the landscape!, but does not cover instances such as the Madonna and the child, although both expressions show coordination. - What now is

- 1) Instances such as je vous le dis en ami, er nahm sie zur Frau show how originally subordinated terms (en ami, zur Frau) may come to be felt as coordinated terms.

coordination in relation to subordination? Is it a special procedure in its own right? The answer is that thought is essentially subordinating and that coordination is only a complication of the subordinating process. Two terms of thought can be coordinated only through either being subordinating or subordinated in respect of a third term. Therefore the chapter on coordinating relationships is only a necessary elaboration to that on subordinating ones and does not reveal a new principle of thought.

P a r t   I I I

Chapter (9)

I n t e g r a t i o n   o f   i d e a l   g r a m m a r  
i n t o   t h e   g r a m m a r   o f   f o r m u l a t i o n .

Formulational grammar is historical grammar. - In the previous chapter we have dealt with what we called the integration of representational grammar into the grammar of thought. It remains to take the last step, namely to describe how both are integrated into the grammar of formulation. And here again we must guard ourselves against the danger of falling a victim to a false perspective. In <sup>just</sup> a similar way as we discovered <sup>apprehend</sup> that we do not represent first representational relations and then think, <sup>so</sup> it would be quite wrong to suppose that we have now thought (with the corresponding representations) denoted by language in formulation. For in this way we could only arrive at a parallelism between the grammar of formulation and ideal grammar, i.e. grammar constituted by the ideal forms of representation and cognition.

This is, however, not the case, and it was precisely the recognition of the absence of this parallelism which justified the revolution of ~~the~~ 'empirical', 'positivistic', 'historical' and 'psychological' grammar in its different aspects against the 'scholastic' and 'aprioristic' grammar of antiquity, the Middle Ages, Port Royal and Becker, ~~and~~ which constituted such a great <sup>advance</sup> ~~progress~~ in linguistic science. At the base of this revolution in grammatic-

al science was the realization of the fact that formulation, far from being a mere reflex of ideal grammar in linguistic symbols, had to be considered as the fulfillment of an eminently practical task: that of communicating a certain material meaning to a listener.

The specific form, in which the speaker chooses to express that material meaning is only of an instrumental, secondary, importance and <sup>is</sup> largely conditioned by practical factors such as the type of language he chooses - signal, <sup>s</sup> gesture-language, word-language, mothertongue or foreign tongue - and, furthermore by his own acquaintance with the subject-matter, the acquaintance with the subject-matter supposed to be possessed by the listener, the physical presence or absence of the thing-meant, the physical and psychical degree of alterness or tiredness in the speaker, his momentary disposition, his taste, age, education etc. etc.

This means that the speaker in no way necessarily aims at designing, say, a person-action-place picture or at arranging the parts of his communication according to the distinction and order of prius logicum and posterius logicum in a proposition; what he does aim at in the first place is, we repeat, the communication to the listener of a certain material meaning. Any means to that end is legitimate, if only he can hope to make himself understood. If that were not so, the use

of parasyntactic forms, of mixed constructions, of all sorts of negligent speech including 'mistakes', repetitions and curtailments, reformulations and corrections, in other words all that has interested <sup>far</sup> the psychology of language could not be accounted for.

Now formulation would not be the practical business it is, if it did not avail itself of a socially accepted symbolism with relatively fixed semantic values which it could <sup>2</sup> adapt more or less scrupulously - or unscrupulously - to a given purpose. This goes to show that formulation is dependent on the one hand on social tradition: it uses a stock of symbols accepted in a given society, and in so far as it does it is conservative, sometimes very tenaciously conservative; on the other hand, however, it may be very revolutionary and innovating in the way this traditional symbolism is handled; and these two apparently contradictory properties of formulation are completely compatible with each other, just because formulation is a continuous readjustment of traditional symbolism to new purposes.

Formulation is an activity. In formulational grammar language appears as energeia, not as ergon, everything appears in a continuous flow. The reasonable approach to the grammar of formulation is therefore the historical method. The lesson historical grammar

gives us is twofold. (1) Formulation is not only destructive but also creative, or better still, by destroying it creates: French s'approcher de starts life as a contradiction in terms, as a logical mistake, as it were; this contradiction has been eliminated, however, for the modern speaker, by adjusting the etymological sense of de to the function of à. In the Nordic languages there has been created a passive voice out of a reflexive construction which is no longer felt as such, etc. etc. (2) The new symbols and values thus created bear the mark of historical accident as distinguished from natural or aprioristic necessity. On the other hand they use of course possibilities inherent in the human mind and reveal therefore in varying degrees a certain kinship to each other in languages widely separated in time and space, and any answer to a genetical question has to be based on the knowledge of the potentialities of the human mind, the 'pure' forms of representation and cognition, and has therefore inevitably a general, or, as certain modernists would say, a panchronistic aspect.

The problem of the integration of ideal grammar into the grammar of formulation. - Now let us see how the problem of the integration of ideal grammar

in its two aspects (representational and cognitional) into the grammar of formulation presents itself in the light of the foregoing considerations. We might start from the recognition of the fact that in our Indo-European languages there exist certain representational patterns such as the 'actor - action' pattern, the 'possessor - possession - object' pattern, the 'thing - identical - thing' pattern and the like, which may be considered with Aristotle as variations of the one basic  $\delta\upsilon\omicron\mu\alpha - \rho\acute{\epsilon}\eta\mu\alpha$  pattern and reveal the dichotomic S - P structure of thought.

Integration of ideal grammar into the grammar of formulation may then be taken to mean <sup>the process whereby</sup> ~~how~~ out of these normal patterns, new constructions are developed in the course of historical development through their adaptations to new purposes. This we have shown already to some extent in the foregoing chapters with regard to certain details, and we were forced to do so, because these ideal structures interest the linguist only in so far they appear in formulation, and formulational constructions had thus to be present at all previous stages of our discussion.

But our problem presents itself in the most radical and exacting form if we ask how these ideal patterns themselves have been created. For if we start from the recognition of certain Term-Relation patterns, we accept already a certain integration as given, whereas



we do not if we make the genesis of these patterns themselves an object of investigation. The question therefore is , how was it that representational and cognitional relationships became at all symbolized in language at all?

From this formulation <sup>it comes about</sup> ~~results~~ that two sides of the problem have to be considered: the representational and the cognitional aspect. Under the first heading we may ask how language came to distinguish the main parts of speech, noun and verb. If it is true that all representational patterns are nothing but variations of the *ὄνομα - ῥῆμα* pattern, the genesis ~~is~~ is by implication answered, at least in principle, by answering the question of the creation of the noun and the verb. We need not be concerned with the adjective. It is probable that it represents a later nominal development.<sup>1)</sup> Under the second heading we shall have to investigate the genesis of the dichotomic multiword sentence.

Here as always the very formulation of <sup>a</sup> ~~our~~ problem forces upon us a certain method to be employed in its solution. In our case the question itself suggests that at some ~~distant~~ moment in the distant past there <sup>were</sup> ~~have~~ been in exclusive use linguistic symbols satisfying the most rudimentary and practical needs of communication <sup>namely</sup> ~~which exists~~ is the intimation to some listener of a certain material meaning, ~~without~~ without having therefore re-

1) We have seen that *fortissimus* in *vir est fortissimus* was originally a coordinated subordination. See above p. 333.

course to space-words and/or time-words or to a S - P structure. This methodological postulatum finds itself fulfilled in pre-syntactic holophrases, which have therefore to be the starting<sup>point</sup> of the investigation. We should then be called upon to show the genesis of our constructional patterns either by way of inner<sup>differentiation</sup> of potential parts of the holophrase into words, or by way of outer agglutination of various independent holophrases, or a combined process. According to the first hypothesis, say, a subordinating 'person-action-place' pattern, as symbolized in les Anglais sont arrivés ici, would have been formed through inner differentiation of an old holophrase [lesanglɛs sɛtarivezisi]; according to the other it would owe its existence to the agglutination of [lesanglɛ! sɛtarivezisi!].<sup>1)</sup>

Although analogies to such developments may be found here and there in languages to which I have access, I am unable, as a student of modern languages, to trace the history of the creation of our ~~constructional~~ constructional patterns according to the terms of our problem. Furthermore I suspect that it is with this question as with that other<sup>one</sup> of the origin of languages: a very legitimate problem, but one whose solution is quite impracticable.

All I can supply under these circumstances is a

---

1) Needless to say that of the two the agglutination-theory is by far the more popular.

critical account of some of the hypothetical answers to our question which have been attempted by others. Even such an account if ~~that~~ has no other results than that of clarifying our ideas regarding the vexed nature of the problem, it will perhaps not be entirely useless.

N o u n   a n d   v e r b . - As to the question whether the first holophrases were nominal or verbal, no satisfactory answer has yet been provided; it is even difficult to see what is the precise nature of this question. We can conceive the two terms nowadays only in contrast to each other, and on this contrast our Indo-European grammars are largely built up. It is difficult to imagine that only one formal category should determine the structure of a language, because that would be equal to a <sup>t</sup>oal lack of grammatical categories. Such a language would simply not distinguish any parts of speech at all. Should the question mean that there was a language denoting things but not states or actions, or the other way round, it would be absurd. If it could be shown that old nouns are formed from roots, which we have to consider as rather verbal than nominal, such as serpens belonging to serpere, we would narrow the problem down to an etymological question concerning certain words in a certain linguistic family and not be able ~~at all~~ to make any sort of general pronouncement as required by our question. Even

with these restrictions in mind it would be difficult to get sufficient etymological proof for Schuchardt's thesis that the first words were rather of a verbal nature corresponding to a dynamic interpretation of the outside world,<sup>1)</sup> since nominal roots of the type the bear (= 'the brown one') are as old as verbal roots.

On the other hand there may be some reason to support a nominal hypothesis, if we take the term 'noun' in a very large sense and not in the precise morphological sense of Indo-European grammar. The isolated holophrases may be interpreted as representing the object of a deixis, bang! for instance meaning there is: (a) bang! The deixis is indeed nothing but the social equivalent of the phenomenon called 'direction of attention'. It is destined to focus the listener's attention in the same direction as that of the speaker's. Reasoning on these lines one may argue that in the deixis we may see a sort of verb avant la lettre (cf. voilà!) and in the possible object of a deixis a sort of prae-nomen. And we would thus have in all those cases where the action of demonstrating is symbolized by a real bodily action (outstretched arm, turning of the face etc.) the possibility of perceiving the holophrase as symbolizing the object of that deixis. And in so far as deixis and object are differentiated, we would have the beginnings of a differentiation of categories required for the establishment of the category 'noun'.

But there is an interesting corollary to this hypothesis. The moment where the deictic action in turn is expressed by holophrastic words such as Latin ecce!, Russian vot!, we would have to take them for potential verbs. We would thus get a language built up on the distinction of deictic words, which are verbal and descriptive words, which are nominal. It is on these assumptions that we can reconstruct a nominal origin for the much discussed impersonal verbs of the type pluit, of which <sup>in fact</sup> we ~~factually~~ know only that it consists of a descriptive and a deictic element, or that we may embark on the reconstruction of a prehistoric nominal morphology out of the isolated use of descriptive words.<sup>1)</sup> On some such assumption is ultimately based also the widely held conviction that nominal syntax is older than verbal syntax.<sup>2)</sup> For descriptive verbs are typical of subordinating syntax and, according to another hypothesis equally widely held, the coordination of two objects of deixis precedes this subordinating syntax. To use Bally's example, before we obtain a form coucou frrt!

- 
- 1) A. Nehring, Anruf, Ausruf, und Anrede, in: Festschrift Th. Siebs (1933), pp. 95/144.
  - 2) F. Lorey, Der eingliedrige Nominalsatz im Französischen. Ein Beitrag zur französischen Syntax und Stylistik. Diss. Marburg 1909, p. 17.  
H. Keyl, Zweigliedrige prädikative Nominalsätze im Französischen. Diss. Marburg, 1909, p. 8.

in the sense of 'the bird flies', we had an older type  
coucou! frrt! = 'There is a bird! There is flying! 1)

All this taken together forms quite a plausible body of scientific opinion. But the student of modern languages will find it difficult to subscribe to it, for he will often search in vain for analogies to these assumptions in the material he observes. First of all he finds that deictic words are either pronouns (this, that) or particles (here, there) or paragrammatical words (ecce, vot). Where genuine verbs are used for the purpose of deixis they tend to lose precisely the syntactic properties of verbs: ἴδοῦ ὅ ἔστιν ἡ πόλις , le voilà, c'est nous.

Secondly he will find it very difficult to see in most cases of nominal syntax an older type than verbal syntax. - 2 In order to show this it will be useful to distribute all the linguistic phenomena which have been grouped or might be grouped under the heading of 'nominal sentence' into <sup>three</sup> ~~two~~ main categories: exclamations and statements. Beginning with the latter we find again a threefold subdivision: (1) the monotomic nominal statement (défense de fumer), (2) the dichotomic nominal statement (Paulus fortis), (3) the contrasting nominal statement (Froides mains - chaudes amours. Tel maître - tel valet.).

---

1) Linguistique générale et linguistique française, p. 20.

The explanation of this last group is the easiest and most obvious; we are going to deal with it first.

The fact that its correct explanation has been so consistently overlooked by the most eminent grammarians is no proof to the contrary, but only shows how blinding the prejudice of the so-called 'primitiveness' of this type has been.

The form of the contrasting nominal statement is to be explained by that well-known phenomenon called reprise. It consists in isolating from a previous statement - whether spoken or imagined - a significant part (or parts) in order to make sure whether it (they) may legitimately belong to the same statement, or else to make sure whether one has correctly understood. For instance one hears someone saying Jimmy is a scoundrel and is puzzled by such a statement. Now one picks up (re-prise) its main terms and weighs them carefully in order to find out whether or not they are all compatible: Jimmy? A scoundrel? If Jimmy is a scoundrel is a proposition, the reprise is not, but consists only in a close examination of the material of a possible proposition; any question therefore as to which part is S and which is P is out of place.<sup>1)</sup> The

-----  
1) The following quotation shows how the reprise works:

Sie erkennt, dass Erec sie über alles liebte, nur an sie dachte, und dass sie ihn tief beleidigt hat. Aus törichtem Stolz:... Enide stolz? Sie die sanftmütige, geduldige, stille Frau, vom Dichter mit allen Tugenden weiblicher Anmut und Demüt geschmückt? Dennoch stolz. Ohne dass sie es wollte, waren stolze, hochmütige Worte aus ihrem Munde gekommen. Küchler in ZRPfH XL, p.87.

specific character of a reprise is clearly brought out in German, where the two elements are often linked by the coordinating particle und; especially if the question is turned into an exclamation: Er und unschuldig! Wer soll das glauben?, where das refers to the compatibility of the two coordinated terms.

In the same manner the famous saying Pas d'argent, pas de Suisses can be explained from a reprise: Est-ce que j'ai bien compris? Vous dites: 'Pas d'argent'? as a reply to the statement Nous n'avons pas d'argent, and the corollary pas de Suisses is clearly nothing but an echoed form; i.e. a form imitating another one which is already not 'primitive' but an isolated part of a verbal construction. Similarly are to be interpreted Froides mains, chaudes amours, only that we see here a disguised predicative relationship (Qui a les mains froides etc.) which, if anything, strengthens the impression that we are confronted with a derived structure and not with a 'primitive' one (cf. also tel maître, tel valet; FrISChe FISChe, gute FISChe and the like).

The origin of the monotomic type défense de fumer is different. It is akin with the use of names and titles. The title of a play or a poem is nothing but its significant name, and very often, almost normally, it appears in nominal form: Othello, the Moor of Venice etc. etc. In the same way we use labels: Rat-poison



and announcements such as Dubonnet, Scottish Ham displayed in shopwindows are nothing else, but the label-technique put to a special use. They do not mean originally and essentially that the article named is present, or a goal of the speaker's attention. They are just designed to evoke an image in the reader designed either to warn him (Ratpoison) or else to stimulate his wish to possess the thing mentioned by the label (Dubonnet, Scottish Ham). It is from this non-propositional origin that statements such as défense de fumer and similar ones are derived. This 'label-technique' is surely not what is meant by 'the primitive use of holophrases'. Where we find it to-day employed in statements it is often used in contrast to verbal constructions, the coexistence of which is therefore implied. If we read:

"Nuit dans la paille, Enorme ronflement de cinquante hommes terrassés par la fatigue. Puis le réveil, et, de nouveau, la boue liquide jusqu'aux chevilles. La grande voie étant interdit à nos fourgons, discussion nerveuse à l'issue de laquelle nous nous séparâmes: les voitures à la recherche d'un détour par les chemins de terre, nous, les piétons, arpentant les bas-côtés de la route sur lesquelles se ruaient, dans les deux sens, des files de camions automobiles pressés comme les wagons d'un immense train..." 1)

it is clear that such a style-télégramme is directly influenced by the way newspaper headlines are framed, i.e. a style derived from titles. This is certainly a relatively modern procedure comparable to those paintings the art of which consists rather in a technique of leaving out

1) quoted from an examination paper.

than that of putting in. In any case this sort of style strikes us as extraordinary just because it is used in contrast to our ordinary verbal syntax, ~~on~~ the reality of which it thus relies in an even more outspoken way than défense de fumer.

No doubt défense de fumer has a propositional character, but this is no original feature but a derived one; it may be described <sup>as</sup> ~~for~~ a nominal substitute ~~of~~ for verbal constructions, a short-hand expression of verbal constructions, but nothing that could have a claim ~~of~~ to greater historical primitiveness. The original function of such nominal expressions was that of naming, not that of judging.

But of course, once names functioning as <sup>at</sup> statements had been created in this way, new nominal statements could be made which cannot be directly related to 'labels'. This was all the more natural as these monotomic nominal statements offered <sup>and</sup> certain expressive advantages compared to verbal constructions. These advantages are to be found precisely in the fact that such nominal expressions allow a complete avoidance of personal modes of speaking, which becomes occasionally desirable. A good example of this and at the same time of a nominal statement which cannot be derived from <sup>a</sup> 'label' is se taire sur les rangs! We use such an expression if we wish to avoid a personal construction, if we wish to give to our request the most

general, absolute, form, a greater generality than that expressed by a personal construction. It is the same psychological motive which prompts us to chose the general on (on ne fait pas cela) or an objective construction (cela ne se fait pas) or an im-personal construction (il est défendu de fumer). These three constructions show a great affinity to the nominal type défense de fumer, in so far as they are not personal, but the nominal type has the additional advantage of absoluteness.

To claim that défense de fumer represents a more primitive type than il est défendu de fumer is methodologically the same thing as the contention that pluit was nominal before it became verbal. This means that one ascribes to pluit the value of ecce pluvia; similarly the greater primitiveness of défense de fumer can only be claimed by interpreting it in the light of il y a : défense de fumer. Such an interpretation, however, far from proving the greater originality of the noun, only <sup>presupposes</sup> ~~stipulates~~ the greater originality of the deictic verb (il y a, ecce) in respect of the descriptive verb.

Still, it could be argued that we find d i c h o -  
t o m i c n o m i n a l c o n s t r u c t i o n s in Latin and in Russian (as in Semitic languages), which are not derived, second-hand, phenomena, but obviously truly archaic. Now, as far as Russian (and Lithuanian)

~~is~~<sup>are</sup> concerned, such a contention can no longer be maintained. They are relatively modern features.<sup>1)</sup> - Remains the Latin type Paulus fortis without copula. The argument that this is at least as old as the type Paulus est fortis (with copula) has been developed by Delbrück, who says that the construction with copula is the result of a fusion of two constructions: Paulus est + Paulus fortis = Paulus est fortis; ergo, the type Paulus fortis must have existed independently of the verbal type. Ries has made an attempt to expose the fallacy of this argument. He writes: "Hätte es solche Sätze (i.e. of the type Paulus fortis) schon gegeben, so hätte es an dem Anlass zur Entstehung der Kopula gefehlt. Das gesteigerte Bedürfnis in gewissen Fällen genauer durch ein Nomen zu präzisieren, führte zur Hinzufügung eines Nomens zum verbalen Prädikat; dieses verlor neben jenem an Bedeutungswert und sank zur Kopula herab."<sup>2)</sup>

We come to a similar result ~~as~~<sup>to</sup> Ries' if we remember what we said before on subordination and coordination.<sup>3)</sup> According to our theory the predicative noun (i.e. fortis) was not originally a subordinating word but a coordinated one, and the 'copula' was a tertium comparationis, hence the grammatical concord of Paulus and fortis. If that is so, it goes to prove that the coordination of

- 
- 1) J. Benigny, Zum indogermanischen Nebensatz. Indogerm. Forschungen XLVII (1929), pp. 138 ff.  
 2) J. Ries, Was ist ein Satz? p. 163, note.  
 3) See above pp. 327 ff.

of the so-called predicative noun p r e s u u p p o s e s the existence of the verb, that tertium comparationis, and is therefore not older than verbal syntax. Bally was therefore right in supposing "sous-entente" of the copula in Paulus fortis,<sup>1)</sup> and the whole type reveals itself as a genetic successor of the type with copula, not as its contemporary, let alone predecessor.

There remains to be examined the question whether the noun in exclamations (Thex scoundrel!, Beautiful, the landscape!) is not more primitive than a corresponding verbal type of construction. It could be argued that we fall automatically into a state of primitivism, when under the influence of strong emotions. Exclamations are often a symptom of strong emotion. The typical form used in exclamations is the noun. Ergo, nominal syntax is primitive. Additional proof, the resemblance of these forms to those used by small children.<sup>2)</sup>

Such sweeping argumentation has all the merits of superficial brilliancy, but it is not difficult to show its limitations. Let us begin with the type beautiful, the landscape! Already the fact that the landscape is added,

---

1) Ch. Bally, Copule zéro et faits connexes, Bullet. de la Société de Ling. 23 (1922), pp. 1/6.

2) F. Lorey, Der eingliedrige Nominalsatz im Französischen, p. 19.



forms, but they are not primitive in the sense of p r e - syntactic forms.

As to the holophrases of children's language they can be interpreted either way, as is well known and resemble therefore in form <sup>already</sup> ~~to~~ the quoted phew! and frrrt! Bow-wow may as legitimately refer to the dog as to its actions, and this fact alone is sufficient to eliminate these utterances from any discussion on the genetic priority of this or that representational form.

The d i c h o t o m i c m u l t i w o r d sentence . - Let us now turn to the cognitional side of the question and ask how the dichotomic multi-word sentence may have come into being, where the expression 'dichotomic' refers to the analysability of the sentence into S and P.<sup>1)</sup> - The opinion that our primitive holophrases are normally predicates of a S represented by the referent or situation 'subjected' to our attention has often been proclaimed.<sup>2)</sup> In this way the compatibility of a monophrastic expression with the dichotomic structure of the judgment was saved. It is this assumption together with the other that the symbolization of coordinating relationships preceded that of subordinating

---

1) Cf. above p. 341.

2) H. Paul, Prinzipien<sup>5</sup>, p. 129; cf. above p. 139.

relationships, which forms the basis of most theories subordinating accounting for the multi-word sentence and its syntactic form.<sup>1)</sup> An expression such as coucou (S) frirt. (P)<sup>2)</sup> originated according to these assumptions from coucou! (P) frirt! (P). It follows from this that the word representing S in the subordinating sentence (i.e. coucou) has a double function: It is P with regard to the subjected referent and S in relation to frirt. This we can illustrate by the formula:

$$\begin{array}{c} (S) - P \\ \hline S - P \\ \hline \text{coucou frirt.} \end{array}$$

where the brackets round the first S indicate its extra-linguistic nature. In this way the bi-partite sentence (consisting of two parts of speech) is supposed to have come into being.

---

1) 'Coordination' and 'subordination' are to begin with terms belonging to the grammar of thought. Transferring them to formulational grammar they refer to syntactic structures reflecting the corresponding logical schemes. Now whereas in thought a relationship is either coordinating or subordinating, in formulation we find all sorts of intermediate degrees. This "unlogical" behaviour of formulation results from the fact of transvaluation and adjustment. A coordinating construction such as He fell. Dead! may be used to symbolize a subordinating relationship and be slowly adjusted to its new rôle: he fell, dead, he fell dead.



From this can be seen that in the explanation of the subordinating multi-word sentence the phenomenon known as constructio  $\pi\alpha\omicron' \kappa\omicron\lambda\upsilon\sigma\tilde{\iota}$  has to play a prominent rôle, since there is one part of speech common to the two propositions; it is the coucou of our example. And we find indeed that H. Paul<sup>1)</sup> and others make extensive use of this explanatory principle in their genetic account of the tri-partite, (consisting of three parts of speech) sentence. It is easily seen that Schuchardt's well-known contention to the effect that "in einem ursprünglichen, eine wirkliche Kette bildenden Satz jedes mittlere Glied eine Doppelfunktion ausübt, nämlich P = S, jedes Anfangsglied nur S, jedes Endglied nur P ist," says at bottom the same thing with the difference that he does not take into account the extra-linguistic S at the very beginning. <sup>2)</sup> Hammerich's analysis of Der Knabe schlägt den Hund into:

<u>Der Knabe</u>	<u>schlägt</u>	
+	<u>geschlagen wird</u>	<u>der Hund</u>
<u>Der Knabe</u>	<u>schlägt</u>	<u>den Hund</u>

follows the same pattern.<sup>3)</sup> It also shows, by the way, why the grammatical object, determining the idea contained -----  
 While it would be absurd to ask, if one refers to ideal relationships, whether coordination is older than subordination, the question is quite legitimate in the domain of formulation.

2) Coucou frrt 'the bird flies' has been used <sup>as an</sup> ~~for~~ exemplific-  
~~nation~~ by Bally in his Lingist. génér. et ling. française.

1) Prinzipien<sup>5</sup>, pp. 138/41.

2) Schuchardt-Brevier, p.<sup>1</sup> 281.

3) In: O. Jespersen, A Grammatical Miscellany, pp. 313/14.

in the verb, and thus being a (secondary) P, could be called by Schuchardt "ein in den Schatten gerücktes Subjekt",<sup>1)</sup> and we know already that Hammerich makes ~~SEX~~ use in this analysis of the fact that the active direction equals potentially the opposite passive direction. this however concerns the representational structure of the sentence rather than its cognitional structure. The latter, as a matter of fact, allows a certain latitude of representational ~~REF~~ interpretation without losing therefore its cognitional identity. Therefore the formula

Der Knabe            schlägt  
+        das Schlagen ist (gerichtet) gegen den Hund

Der Knabe            schlägt                            den Hund

fits equally well and, besides, illustrates the functional kinship between the object and the adverb. This interpretation has been adopted, among others possible interpretations, by Schuchardt.<sup>2)</sup>

1) Schuchardt-Brevier, p. 289.

2) I refer to Schuchardt's example A schlag- auf B (Brevier, p. 245). - It is in line with Büml's explanation of the accusative in Petrus pulsat Paulum as an old case with local connotation (Bereichskasus); Indogerm. Forsch. XXXIII (1913), p.1, XXXIV (1914), p. 285, XLIV (1927), p. 249, LIII (1935), p. 104; Sommer ibid. XLVI (1928), p. 27.- We disregard here Schuchardt's interpretation of the nominative (Petrus) as an old locativus-instrumentalis, which is in keeping with what we are going to say on Germ. mit dieser Feder schreibt sich's gut, p.396.

Professor Deutschbein's interpretation is slightly different. According to him the correct analysis would be:

Der Knabe      schlägt  
+ Der Knabe ist gegen den Hund  
Der Knabe      schlägt      den Hund.      1)

Here we see that the part common to the propositions is the S, but we find again the double S/P function of the middle term, which is to be explained by the fact that in the expanded sentence we have an old P of a two-term sentence changing into a (secondary) S of the three-term sentence.

To anyone who would consider the cited formulae of equal merit the temptation becomes very strong to explore in a systematic way whether it would not be feasible to construct other possibilities on the same principle and find out how many possibilities there are in theory. I think it would be interesting to yield to this temptation and see what we can find out in that way.

If we represent the parts of the sentence by numbers: 1,2,3; if we note the cognitional functions of the two relatively elementary propositions by small letters (s, p), and those of the proposition resulting from their fusion by capitals (S, P), we obtain the following possibilities of combination, provided we agree that no. 1

---

1) M. Deutschbein, *Satz und Urteil*, Göttingen 1919, p.

should always appear as an S:

(i)	s	p	(ii)	s	p	(iii)	s	p
S	1	2	S	1	2	S	1	3
P	2	3	P	3	2	P	1	2

In these formulae the reader will easily recognize (i) as one of Schuchardt's, (ii) as Paul-Hammerich's, (iii) as Deutschbein's hypothesis.

Now to this we may add three more formulae, which do not operate with the  $\lambda\pi\theta' \kappa\alpha\iota\kappa\alpha\theta\upsilon$  principle, but could illustrate all the same the transition from coucou! frrt! to coucou frrt, provided we are allowed to introduce a deictic expression as an auxiliary third term. We would then obtain something like this:

(iv)	s	p	(v)	s	p	(vi)	s	p
S	1	-	S	1	2	S	1	3
P	2	3	P	-	3	P	-	2

This may be read as meaning: (iv) A bird! There is flying!, (v) A bird is there! Flying!, (vi) A bird flying! There  
Is there!

It is not difficult to discover that these genetic constructions correspond closely to purely analytical possibilities. <sup>a</sup>Grammarians have long been accustomed - rightly or wrongly - to analyse a statement such as The king arrives in London in different ways: (The king)

S - (arrives in London) P, and they say that here the so-called grammatical and the psychological or logical ~~A~~ and P coincide. But we have only to stress in London and the analysis would be (The king arrives) S - (in London) P, ~~and they say that here the coincidence~~ where this coincidence is no longer maintained. These two interpretations correspond to our hypothetical constructions no. (iv) and (v) respectively. Now let us stress arrives and we get an analysis, which would be reflected by the formula no. (iv).

This correspondence between purely analytical findings and genetic reconstructions is no miraculous coincidence. It rather goes to show what the genetic reconstructions - a l l genetic reconstructions-really are, namely l e a r n e d p r o j e c t i o n s o f a n a l y t - i c a l f i n d i n g s i n t o a | g e n e t i c p e r s p e c t i v e , where the logical prius appears as a historical prius. To do this is as gratuitous and wrong as the genetic interpretation of terms such as 'transposition', 'analysis' and 'synthesis', of which we have disposed previously and seen that it is based on an error of perspective, and therefore methodologically<sup>e</sup> unsound.

This does not mean, however, that all these genetic reconstructions are necessarily wrong, it only means that they may not be correct; and they can be proved

only if thoroughly substantiated by historical material. And here the empiricist plays the stronger hand. We have only to look at the material produced by scholars such as H. Paul or A. Sommer 1) - to quote only two authors of widely read books - who are both deeply steeped in historical research, to find out that ~~indeed~~ subordinating constructions <sup>do</sup> evolve out of coordinating ones and that the constructio ἀπο κοινοῦ plays an important part in this development. But it must be clear that we can accept this only for those cases which have actually been proved by a historical method and that any generalization of the sort that all subordinating constructions have developed out of coordinating ones is inadmissible in spite of its prima facie probability.

If we put speculation aside and rely only on verifiable facts we shall find as often as not that historical development works in the opposite direction, namely that coordination genetically follows subordination. I should for instance be inclined to accept as the correct explanation that the Latin ablativus absolutus, being a coordinated part of a construction, has developed out of a subordinating construction. In other words that

---

1) H. Paul, Prinzipien<sup>5</sup>, pp. 138 ff. - F. Sommer, Vergleichende Syntax der Schulsprachen, pp. 105 ff.

the type hostem gladio destricto occisit is historically older than hostem, gladio destricto, occisit. But we need not venture into the past in order to observe this. The tendency to break up subordinating constructions into coordinated parts can be studied now, with all desirable distinctness. It becomes manifest under our very eyes in modern French as a few examples, chosen at random, will show. We read in Bloch (Féodalité, p. 13): ...avec, par surcroît, aux regards de Charles et de ses conseillers, l'avantage de se rattacher, par les liens de l'hommage vassalique et, en conséquence, l'obligation de l'aide militaire, une principauté, déjà, en réalité, toute formée..., and later on (p. 233): On le voit, en Angleterre et chez les Scandinaves, exprimer, indifféremment, des formes très diverses de subordination. - Other examples are: Ce sont celles-ci que, goguenard, Villon ira contempler (Champion, Villon I, p. 92). - Une petite qui était sur ses quinze ans, à peine, à ce moment là. (Giono, Un de Baumugnes, p. 13).

I think that a careful and critical examination of the available historical material would lead to the conclusion that it is impossible ~~to reduce~~ <sup>reproduce</sup> genetically hypotaxis to parataxis or the other way round, and I am inclined to ~~think~~ maintain that both constructional procedures in human languages are as old as the reflection of cognitional forms in linguistic material.

It may perhaps be useful to corroborate our thesis with the help of another test-case. According to a theory which considers all subordinating constructions as genetic successors to coordinating ones it would be only too natural to suppose that wherever we find a subordinating type instead of a coordinating construction, the former will have been evolved out of the latter by a 'natural' and 'self-explanatory' transition. And yet, ~~present~~ observation of present-day linguistic usage makes a different interpretation more likely. - To the question What caused your cold? we hear somebody answer: I think it was an open window.; in the same sense one says I can't stand open windows. In both cases the meaning of open window is 'the window's being open' or 'the fact that the window was (is) open'. In other words, we tend to use a logically wrong expression when the logical determinandum is abstract and the logical determinans a concretum; we prefer instead making the concretum the determinandum and the abstract the determinans. We follow thus the same tendency which makes us prefer Socrates is wise to wisdom is in Socrates, with the difference that in this last example there is no ~~logical~~ clash between linguistic formulation and logical structure.

Another helping factor seems to be that the construction: concrete noun + abstract adjectival attribute, is so frequent that it is <sup>more</sup> ~~easily~~ reproduced than the



the other one: ~~XXXXXX~~ abstract noun + concrete attribute; we therefore prefer the type which saves some psychical energy all the more readily, since we know how easy it is for the listener to adjust the meaning correctly. To employ the logically more correct expression would appear ~~x~~ clumsy and pedantic. - As a last, and by no means less, important factor we have to mention that language does not always provide an abstract noun for the logically more correct construction so that one would have to make use of circumlocutions with the help of empty words such as fact or nature.

B.B.C.

I heard ~~an~~ announcer saying: The advance of our troops has been made difficult by the mountainous country. This is much more fluent than the logically more satisfying by the mountainous nature of the country not to mention by the fact that the country is mountainous or, worse still, the country's being mountainous. - In the same way a German-speaking person would agree that Professor v. Ettmayer wrote in his Analytische Syntax<sup>1)</sup> Wenn ein fünfmal vollständig durch- und unredigiertes Manuskript eines wissenschaftlichen Werkes ein Masstab für die Güte desselben wäre... instead of Wenn die fünfmalige vollständige Durch- und Unredigierung des Manuskriptes eines wissenschaftlichen Werkes etc.

---

1) Analytische Syntax der französischen Sprache, II, Halle a.d. Saale 1936, p. I.

because the former expression is more fluent than the latter.

In all these cases we have therefore primarily a s t y l i s t i c problem, not a genetic one. The attributive construction is not the successor of the corresponding predicative one, but simply one of <sup>several</sup> ~~one~~ coexisting possibilities of expression which, for a number of good reasons, is often preferred to ~~the~~ a predicative construction, although it is logically not quite satisfactory. And this explanation <sup>probably</sup> holds ~~pre-~~ bably also good with regard to post Christum natum and nach getaner Arbeit,<sup>1)</sup> which cannot therefore be considered as evolved out of a predicative construction.  
X Now it would again be wrong to generalize from this

- 
- 1) These constructions bear so much the character of being continuously formed spontaneously that it is strange to note that they have been looked upon as having ~~originated~~ <sup>as far as French is concerned</sup> originated in Latin. Cf. E. Lerch, Prädikative Participia für Verbalsubstantive im Französischen. Beihefte der Zeitschrift für Romanische Philologie XLII. Halle a.S. 1912; p. 100.

experience and to think that the type concrete noun +  
attributive adjective, is by itself, by some intrinsic  
virtue<sup>fluent and</sup> effort-saving. Each formula has to be investigated  
individually and to be judged on its own merit. In  
German for instance it is usually to describe the title  
of a picture by using the expression Die Vertreibung  
Athalies aus dem Tempel, where the French would say  
Athalie chassée du temple. Now it could be argued that  
the reason for this reflects a different attitude of the  
scholars who engaged in the business of classifying  
pictures with the help of descriptive titles. In German  
any the scholars imposed their clumsy mode of<sup>Speech with its</sup> pedantic  
<sup>use</sup> speech of abstract nouns on the public, in France they  
thought it more polite to use a type of expression the  
public themselves would have used. But it is probably  
more correct to say that in German the abstract noun is  
more descriptive than in French, it leaves no doubt  
that Athalie is not the agent but the victim of the action  
thanks to the sense of the pre-verb, this in turn is  
connected with the ease with which pre-verbs are used  
in composition, and with the fact that their descriptive  
character is felt in a more lively way, whereas the  
corresponding French word is more of an arbitrary  
abstract label: The rôle of the French noun in the  
attributive genitive is less clearly characterised as  
either agent or victim: l'expulsion d'Athalie. To

use Saussure's terminology, the German term is more motivé, the French more arbitraire. Hence <sup>a</sup> ~~the~~ lesser ~~great~~ <sup>and</sup> resistance ~~or~~ a relatively greater ease of formulation of the type abstract noun + attributive-genitive-of-a-concrete-noun here than in French.

\*

\*

\*

So we may sum up the result of our critical survey by saying: The question why the subordinating  $\delta\nu\nu\mu\alpha$  (S) -  $\xi\tilde{\eta}\mu\alpha$ (P) pattern and its variations has been adopted in Indo-European languages as the basic pattern can not be answered. We have to be content with the more modest task of showing how certain types created by tradition vary.

We thus renounce the temptation of venturing into a hypothetical prehistoric field and limit ourselves to the realities of historical linguistics. As appears already from the analysis of the type post Christum natum we find that formulation constitutes often a compromise between two forces: an ideal tendency towards correctness of an expression according to traditionally accepted standards and a practical tendency deflecting formulation from that ideal aim. In this practical tendency become manifest all the forces, causes or motives, which explain the deviation of formulation from the standards of ideal correctness, be it laziness, hurry, emotion, aesthetic tendencies

or physical inabilities. The ideal tendency needs no theoretical justification. The practical tendency does no harm <sup>as</sup> ~~as~~ long as there is a listener capable of understanding what is meant in spite of the incorrectness of formulation, and capable of automatically adjusting the faulty expression to its ideal aim.

Nothing shows more clearly the social nature of language than this continuous relying by the speaker on ~~the~~ intelligent cooperation on the part of the listener. Here is something we can observe again and again: an expression starts its career as a 'mistake', following the practical tendency of formulation, but - and this is no less important - through its constantly being adapted in interpretation to a sense to which it ~~did~~ not quite fit to begin with, it is being treated as if it were the correct expression, and finally the feeling of its non-conformity to a given sense disappears and a new 'correct' type has been created. This is the law governing the change of meaning in its most general forms. We know already examples which illustrate this swing of the historical pendulum: The reflexive, originally adapted to the reflexive construction proper, becomes the legitimate expression of the medium (or passive) voice. A form, now the correct symbol of the perfect tense (j'ai construit) has once been the sign of the present tense (habeo constructum) etc. etc.

Here are a few more examples: A Spanish friend living with me said one day to my wife El cuarto de baño está encendido. It is clear to the intelligent listener that he wanted to make a statement on the state of the bathroom, but chose<sup>o</sup> an expression (está encendido) which would rather fit the electric bulb in the bathroom, evidently because the burning light had attracted his attention and was still impressing him when he was formulating his statement. We have here what could be called a contamination of two constructions: el cuarto de baño está iluminado + la bombilla eléctrica en el cuarto de baño está encendida. Similar 'mistakes' account for el cubo se sale (instead of el agua se sale del cubo), the road is busy (instead of people move busily about the road), German die Bank sitzt voller Menschen (die Bank ist voll (besetzt) + Menschen sitzen auf der Bank), French les magasins ferment à cinq heures (instead of on ferme les magasins à cinq heures) etc. If the latter becomes the normal type of expression we would be entitled to speak of ferment as a medium voice.

The ideal tendency is a constant, it is the practical tendency which determines the variant aberration from the ideal norm and consequently the history of a linguistic formula. It is therefore quite correct to

say that grammar of formulation is historical grammar, wherever we try to explain why a certain formula has been introduced to fulfill a certain function. But inside the historical field <sup>we cannot</sup> explore the creation of a formula ex nihilo but only its adoption instead of another formula already existing. An unprejudiced historical grammar can only be relativistic. To operate with absolute 'origins' is a methodological mistake.<sup>1)</sup> All <sup>we</sup> ~~it~~ can do is to show how new norms develop out of readjustments of old norms to new purposes in the act of formulation. <sup>Historical grammar</sup> ~~It~~ starts therefore with the acceptance of a normal meaning of a form, which has to be assessed against the background of other forms of the same language (synchronistic analysis), because it is only in contrast to other forms that a certain form fulfills its specific function; it then shows by what features a given aberration from that norm is conditioned. In other words we have always to distinguish with H. Paul between the usual and the occasional functions of a given form. Hence the fact that in an act of formulation linguistic forms display often a divergence between (1) a traditional surface meaning and (2) an occasional new meaning resulting from an adjustment of traditional form to an individual requirement. That

-----

1) Cf. M. Sandmann, On Linguistic Explanation, Modern Language Review XXXVI (1942) pp. 202/03.

means that the ultimate meaning is often hidden under a more or less clearly exposed surface meaning, and has to be discovered by an interpretation which goes beyond the surface meaning and extends in depth.

G r a m m a t i c a l   a n d   c o g n i t i o n a l  
S u b j e c t   a n d   P r e d i c a t e . - Hitherto we have considered the interpretation of forms, where the listener had mainly to rely on his wits and those helps of a general character which may <sup>be</sup> derived from the speech-situation. But sometimes he receives from the speaker certain hints to guide him in his task of 'interpretation in depth' in a more systematic way, so that we may talk of a different number of levels through which interpretation is guided. An example will best show how this is done. Let us interpret the well-known Latin saying Fortes fortuna adiuvat.

First we may perhaps deal with certain features ~~index~~ of merely physiognomic significance, features lending to the expression a certain aesthetic form, which make the formula look well-coined and well balanced. Such features are the rhythmical sequence of long and short syllables, and the sequence, at the beginning, of two words with a rich alliteration f o r t e s and f o r t u n a, suggesting that the things named by these words belong naturally together, have a family air.



Turning now in the centrifugal direction we find at a first level of interpretation certain diacritica, semantemes and morphemes, exposing a grammatical meaning we are used to assess as noun, plural accusative; noun singular, nominative; verb, present tense, indicative, third person singular. These build up a representational picture of the type 'actor-action-thing(s)-acted-upon', to be mentally assimilated by an act of thought where the actor appears as the prius logicum or S, the rest as the posterius logicum or P. All this constitutes the traditional or surface-meaning 'Fortune favours the brave'.

But having arrived at this meaning we have to take into account certain significant features in our formula which indicate the intention on the part of the speaker that this surface-meaning should be readjusted in the direction of another, ultimate meaning. These features are the position of fortes at the beginning together with a meaningful stress on that word. This indicates that 'brave' is used in such a way that it not only creates a positive value but at the same time excludes the logical contrary. We therefore arrive at a second level of meaning: 'Fortune favours the brave, not the coward.'

Now we discover that even this second formula does not yet ~~p~~represent the ultimate meaning. Because if we now take into account the circumstances in which the Latin saying is used, we find out that the 'real' or ultimate

meaning is actually to be brought out correctly not by a simple statement of fact but by a hypothesis: 'If you wish to be favoured by Fortune, you must be brave, not cowardly'. We thus find that between the clearly exposed traditional surface-meaning and the ultimate meaning there is a very considerable gap: The hypothetical meaning is not exposed at all, and the contrast-meaning 'brave, not cowardly' is only hinted at with the help of para-syntactic signs: emphasis by word-order and meaningful stress.

This has an important bearing on the S - P question, for we may expect to find that to the S - P structure exposed in formulation may correspond another, hidden, order, again of an S - P structure, in which however the the material exhibited on the surface has to be re-arranged in such a way that what corresponded to a certain S or to a certain P in the first order fulfils now different cognitional functions in the second order. And that is indeed the case often enough, and ~~that~~ is also the reason why grammarians quite rightly have opposed to the 'grammatical' S and P, directly exposed in the linguistic formula, a 'logical' or 'psychological' or 'real' S and P hidden under the surface of formulation.

We have seen before how confusing and misleading such a terminology may be.<sup>1)</sup> We shall therefore be well

---

1) See above, pp. 157 ff.

advised to replace it by another one, which must have the double advantage of being less confusing and at the same time somehow in keeping with traditional terminology, in order to facilitate discussion on these topics. Keeping this in mind it will be clear that we shall have to retain the term 'grammatical' S and P for the thought-relation exposed in formulation, for the simple reason that this term has always referred to that phenomenon. In place of 'logical' or 'psychological' S and P we suggest saying 'cognitive' S and P. This term is not the best possible measured by ideal standards, since any S - P relation is of a cognitive nature, including the one exposed in formulation. To adopt the term 'cognitive' in contrast to the term 'grammatical' S and P can be justified only by the practical consideration that 'cognitive' may seem easily acceptable to those scholars who were used to either 'logical' or 'psychological' before.

If an occasional discrepancy between grammatical S and P and cognitive S and P is admitted in principle, the question arises how to distinguish them methodologically. Can one elaborate certain general criteria which permit us to identify a cognitive S - P structure different from and hidden by, a grammatical structure? There are doubtless scholars who would not hesitate

to answer this question in the affirmative: Whereas the grammatical analysis has to follow a morphological pattern such as noun in/nominative case for S, final verb governed by that noun for P - and its variations -, the cognitional structure can be found<sup>by</sup> taking into account the order of the sentence-elements in such a way that the foregoing element is the prius logicum or S to the following element, which is the posterior logicum or P; alternatively, S would be the relatively unstressed part of the sentence, P, as the more important part, would carry a relatively stronger stress. That is to say that we are guided to the discovery of the cognitional S and P by those criteria which helped us to establish different levels of interpretation in the example fortes fortuna adiuuat. But these criteria - whether taken singly or together - though not altogether useless, are only of a limited value, as experience soon shows.

~~As to the order in which significant parts are arranged in sentences, it is too well known that it is can~~

As to the order in which significant parts are arranged in sentences, it is too well known that it ~~it~~ can only be accounted for by considering the most disparate factors such as morphological differentiation (free order in Latin versus fixed order in French), rhythmical factors (proclisis and enclisis), differentiation of material meaning (enfant terrible versus terrible enfant) aesthetic tendencies

etc., so as to allow us to coordinate the sequence of sentence-elements with a cognitional sequence prius logicum - posterius logicum. That is why von der Gabelentz,<sup>1)</sup> who was inclined to interpret word order in a cognitional sense, has practically no modern followers.

Stress, on the other hand, has been regarded from Ph. Wegener and H. Paul to Strohmeier and Gardiner<sup>2)</sup> as a relatively reliable criterion for the distinction of the cognitional P from the cognitional S. This rule has been formulated by Gardiner in the following way: "It is probably true of most languages that vocal stress is laid on the word or words which function as predicate, while the subject is correspondingly unstressed."<sup>3)</sup> How this is to be understood becomes clear ~~by~~ from the examples he gives in support of his statement. In Mind you come e a r l y !, I called J o h n, not E m i l y, V e n i c e is my favourite among the Italian towns, the words early, John, Emily and Venice are supposed to be used predicatively. <sup>4)</sup> And this even applies in Professor Gardiner's view to a preposition (over) in the sentence she looked o v e r her spectacles.<sup>5)</sup> - This

---

1) See above p. 142, note 2.

2) Ph. Wegener, Untersuchungen über die Grundfragen des Sprachlebens. Halle a.S. 1885, p. 29. - H. Paul, Prinzipien<sup>9</sup>, p. 126, - F. Strohmeier, Der Stil der französischen Sprache, Berlin 1924, p. 61.

3) Speech and Language, p. 271

4) Ibid., p. 289.

5) Ibid., p. 259.

rule, although containing an element of truth, can easily be overstressed, and a few critical remarks are called for to reduce it to its correct proportions.

On the one hand it is a fact of common experience that P is as a rule relatively stressed in statements such as Two and two are ~~four~~ f o u r, He is w o r k i n g, To-morrow is S u n d a y. It is also true, that in doing so we follow a natural tendency, giving a dynamic prominence to that part of the sentence which has the greatest importance.

On the other hand there are instances where we again stress according to a natural tendency, but where the stress ~~is~~ quite evidently does not single out the most important part of the statement. Different cases may be distinguished:

(1) If somebody alleges that I have said something which in fact I did not say, it is quite natural for me to answer in German Ja, das hab' ich aber nicht g e s a g t! In this case the dynamic pattern of my sentence has the emotional significance of 'Entrüstung', but so predominant is the emotional urge that the cognitively important word nicht is almost swallowed up in the course of this ejaculation. Good English examples seem to me to be That is the very thing! or Such is not the case!

(2) In a second instance a word is stressed in order to hold our attention for a little while, until we come to a second word which has to be linked up with that

first but is separated from it by a number of other, interposed, words. I could give as an example of this a sentence I have just used in the foregoing paragraph: ... giving a dynamic prominence to t h a t part of the sentence which.... If my feeling for the language does not betray me, the possibility in English of stressing and in certain contexts belongs to the same category. It receives emphasis not for its cognitional importance but only in order to carry us over a gap on to the word to be linked up by and. That is to say, it was used originally either before a parenthesis or a corresponding pause: His life was beset by many troubles: Debts, disease, a n d - last but not least - the infidelity of his wife.

(3) Let us now turn to the examination of the case quoted by Professor Gardiner She looked o v e r her spectacles. The stress here is different in nature from the natural stress as we have it in He<sup>ls</sup> w o r k i n g, in that it is an artificially overlaid stress whose primary function it is to forestall a possible confusion with another word (or word-element) of the same category, which the hearer might expect. In our case over is stressed in order to forestall a normally expected through. It is therefore a pedagogical stress. We have observed its working already in the analysis of fortes fortuna adiuvat where fortes had to be analyzed as 'the brave, not the coward'. This pedagogical stress can fall on various xi significant elements in the same sentence. We have en-

countered an instance of this in the sentence The poem (not the prose) was by Longfellow (not by another possible author). - In other cases only parts of words may be stressed as in German Er hat zwar etwas zerbrochen, aber nichts verbrochen. Finally, the stress may not be intended at all to underline a sense-element but a formal element, <sup>as when</sup> ~~so if~~ the teacher says to a German learning child: Ich gehe nach Brot in order to forestall the tempting translation für Brot.

If we examine these examples we shall find that the immediate purpose of pedagogical stress is not to single out the P of the particular statement in which the stressed element occurs, but only to rule out a possible confusion. In our last example nach is the name defining the preposition to be used in this connection, but not the P of the formulated statement. The case of zerbrochen as against verbrochen is of a similar nature. By stressing the word over in She looked over her spectacles, the speaker wants to determine a material detail of a representational construct, but not to single out the P of his statement. Pedagogical stress may sometimes be the guide to very subtle sense-adjustments. Of this we have had an example already in Fortes fortuna adiuvat. Another interesting instance



of this is The Himalayas are as h i g h as the Ocean is d e e p. This has to be interpreted: 'the Himalayas extend as much in <sup>e</sup>hight as the Ocean extends in depth', where the expressions 'in hight' and 'in depth' define two ways of 'vertical extension', a concept which is merely implied but not formulated.

This does not rule out, however, that the u l - t e r i o r motive of pedagogical stress may also occasionally be to induce the hearer to formulate a statement in which the stressed element is indeed P in relation to the rest. Such cases are for instance: J i l l has done it = 'the doer of it was Jill', or The k i n g arrives in London = 'the person arriving in London is the king'. We shall have to say, therefore, that the immediate purpose of pedagogical stress is the forestalling of a possible confusion, and that one of the possible ulterior motives may be the singling out of the cognitional P of the formulated statement. But it is surely wrong to generalise and to see such an ulterior motive in any instance with pedagogical stress.

This artificially overlaid stress is an instance which proves how important it is to keep in mind the social aspect of formulation. In speaking we do not always simply formulate 'what we think' or experience, but we take also into account what we suppose the listener might think or expect us to say or simply understand.

And wherever the desire becomes manifest to forestall misunderstanding or confusion, we not only express what we wanted to say but also give some idea of what we want to avoid saying. We have only to step outside the narrow circle of short specimens selected and sometimes prepared to illustrate this or that point of grammatical theory and observe how a teacher or an orator places his pedagogical stresses in order to convince ourselves that it is often not possible to operate with ~~a~~<sup>the</sup> criterion that this sort of stress indicates the cognitional P of a given formulated statement.

It is interesting and important to observe that pedagogical stress may be laid on occasions on practically any element of a given statement and may be the key of sometimes very subtle sense-adjustments without however interfering with grammatical structure. The syntax of statements pronounced with pedagogical stress is the normal one measured by the grammatical conventions of a language. We shall ~~presently~~<sup>next</sup> consider a different kind of strong stress where this condition is not fulfilled.

<sup>this</sup>  
(4) ~~It~~ has a certain affinity to what we have called pedagogical stress, in so far as it ~~is~~ too is a stress stronger than the normal one. But whereas pedagogical ~~stress~~ stress was artificially overlaid the stress we are now going to consider is the natural reflex of emotion.

We find it for instance in B e a u t i f u l , the landscape! of which we have already spoken. We analysed it by saying that here we have two coordinated statements, out of which the listener is supposed to build up a third one, and the stress indicates precisely how this statement has to be built up. If we have the relatively stronger stress on the landscape we would have to interpret 'There is something beautiful'. 'The beautiful thing(S) is the landscape' (P). As it is, the speaker indicates by the lack of stress on landscape<sup>d</sup>, that he meant this word<sub>to be</sub> added in an après coup correction, to function as S, so that the statement should be understood as 'The landscape (S) is beautiful' (P). So, B e a u t i - f u l the landscape! presents itself as the debris of a sentence of the form The landscape is beautiful, broken up under emotional stress, but these debris<sup>s</sup> ~~are~~<sup>is</sup> still characterised in their cognitional function in spite of the fact that the parts ~~have gone~~<sup>are</sup> out of joint and have changed their ideal order.

Now if we apply the same sort of analysis to d o w n he went!, we arrive at an interpretation 'He went. His going (S) was down (P)', where 'his going' represents the P of the postremum logicum of he went. As in our previous example we have here two coordinated statements of which the unstressed one is<sub>to be</sub> considered as the S of the stressed one.

E m o t i o n a l s t r e s s a p p e a r s  
t h u s a s a d i s r u p t i n g f o r c e i n s o f a r  
a s t h e n o r m a l g r a m m a t i c a l p a t t e r n i s c o n c e r n e d : a  
s t r o n g l y s t r e s s e d P p r e c e d e s a n u n s t r e s s e d S a n d p r o -  
v i d e s t h u s a n e x a m p l e o f e m o t i o n a l v e r s u s i n t e l l e c t u a l  
(o r b e t t e r , p e r h a p s : i d e a l ) w o r d - o r d e r . F u r t h e r m o r e , t h e  
u n s t r e s s e d p a r t a p p e a r s i n f o r m u l a t i o n a s c o o r d i n a t e d  
t o t h e s t r e s s e d p a r t . - T h i s i s a c o n s t r u c t i o n a l p a t t e r n  
w e l l d i s t i n g u i s h e d f r o m t h e n o r m a l g r a m m a t i c a l p a t t e r n  
e x h i b i t i n g p e d a g o g i c a l s t r e s s .

A l t h o u g h i t i s e x p e d i e n t t o d i s t i n g u i s h p e d a g o g i c a l  
o r s e l e c t i v e s t r e s s f r o m e m o t i o n a l s t r e s s , i t m u s t b e  
r e m e m b e r e d t h a t b o t h a r e n o t m u t u a l l y e x c l u s i v e , T h e  
d i s c o v e r y , f o r i n s t a n c e , t h a t J i l l , o f a l l p e o p l e , h a s  
d o n e i t , m a y c a u s e a s t r o n g e m o t i o n . O n m i g h t t h e r e f o r e  
c l a i m t h a t i n J i l l h a s d o n e i t t h e r e i s a n e m o t i o n -  
a l s t r e s s o p e r a t i v e b e s i d e s a s e l e c t i v e s t r e s s . B u t ,  
n e v e r t h e l e s s , t h e e f f e c t o f e m o t i o n a l s t r e s s c a n o n l y  
b e a s s e s s e d , i f a n d w h e n i t h a s t h a t d i s r u p t i n g f o r c e  
w h i c h i s r e s p o n s i b l e f o r t h e c r e a t i o n o f a c o o r d i n a t i n g  
c o n s t r u c t i o n w h e r e a s t r o n g l y s t r e s s e d p a r t p r e c e d e s a n  
u n s t r e s s e d o n e . S u c h w o u l d b e t h e c a s e i n J i l l ,  
s h e h a s d o n e i t ! Y e t , m i x e d f o r m s m a y a p p e a r . S u c h a  
c o m p r o m i s e f o r m i s F r e n c h c ' e s t m o i q u i l ' a i f a i t ,  
w h e r e t h e r e l a t i v e c l a u s e s u g g e s t s s u b o r d i n a t i o n w h e r e -  
a s a i s h o w i n g g r a m m a t i c a l c o n c o r d w i t h m o i i n d i c a t e s  
c o o r d i n a t i o n .

Taking all this into account we arrive at the following conclusions.

In the case of abnormally strong stress we shall have to find out the nature of the stress. Cases such as Das hab' ich aber nicht ~~xxx~~ g e s a g t ! or the stressed a n d in English and kindred phenomena have no bearing on the S - P structure of statements. If these possibilities are ruled out, we have to find out, wherever possible, whether overlaid stress is artificially overlaid (pedagogical stress) or of an emotional nature. If we decide for the first alternative the stress may draw attention to a formal element (er geht n a c h Brot), to a material element (she looked o v e r her spectacles) ~~XXXXXX~~ or to a cognitional part of the statement (J i l l has done it!). Only in the last case does the stressed part represent the P of the formulated statement. If we decide for emotional stress, we have first of all a case of the stressed element being coordinated to the rest in view of being employed as P in the ultimate meaning.

P o s t s c r i p t . - It is important to <sup>realise</sup> ~~know~~ that in the preceding paragraphs 'stress' was taken not in its physiological but in its semantic aspect. Semantic-  
ally there may be stress even if there is not physical  
stress. Such an assertion seems at first sight artificial,

but will become more palatable if we consider certain French examples where enclitica are used in contrast to each other; they cannot receive a physical stress for rhythmical reasons, although they are clearly emphasised. So we read in the Galeran de Bretagne 1) (2157/8): Se les retrai puis les envay / Ne les doy pas blasmer, mes moy where les is semantically though not physically stressed. In the same way we find a contrast between the speaker and the listener expressed in the following lines of Piramus et Tisbé<sup>(2)</sup> (342 ss.): Tisbé, douce bele faiture: / oeuvre demaine de Nature, / Par l'ensigne de la ceinture / Sui ci venus offrir droiture / Que ne trouvai la creveüre. / Vostre en est bele l'aventure / D'apercevoir tel troveüre. Here the sense is: '...ce n'est pas moi qui ai trouvé la crevace. C'est à vous qu'est échu la chance de faire une telle trouvaille.' E. Lerch has <sup>drawn</sup> attracted our attention to similar examples in modern French: Pour un pas, je vous tue et me tue! (Hernani, 2,2) and Je fais souvent ce rêve étrange et pénétrant / D'une femme inconnue et que j'aime et qui m'aime (Verlaine, Mon rêve familial).

1) Jean Renart, Galeran de Bretagne, ed. L. Foulet (Les Classiques français du Moyen Age), Paris 1925.

2) Piramus et Tisbé, ed. C. de Boer (Les Classiques français du Moyen Age), Paris 1921.

3) E. Lerch, Historische französische Syntax

These examples also show that in this matter of (physical) stress not all languages have the same possibilities. It would hardly be possible to stress et in French, und in German in the same way as one can stress and in English. And this alone should be a warning to apply this criterion of stress for the cognitional structure of sentences with caution.

\* \*

\*

We are now free to examine the cases with normal stress. Studying the tension - detension curve accompanying the normal cognitional act,<sup>1)</sup> we have seen already that an act of thought is necessarily accompanied by feelings, and that we must accept therefore that there will be border-line cases, where it is difficult or impossible to distinguish between 'normal' and emotional stress. Only this much seems to be clear: since normal stress is necessarily the prelude to emotional detension it is only to be found towards the end of a statement. Any stress found at the beginning is ipso facto not normal. This goes to show already that the whole question cannot be debated without taking into account the order of sentence elements.

Let us agree that the two statements:

Many important people live in Rome and

In Rome live many important people.

exhibit both normal stress. If we admit a caesura before

1) see above pp. 182 f.

live in both our statements, we shall be able to say that they are cognitively different: In the first case I wish to assert of 'many important people' that they 'live in Rome'; in the second instance I want to say of 'Rome' that 'many important people live there'.

If that is so we would indeed be able to say that (normal) stress plus word-order give us the criterion for assessing the cognitive values of parts of statements wherever they diverge from their grammatical value. And there are enough cases to make this rule appear acceptable.

For a German for instance there is no difficulty in analysing mich (S) hungert (P) in the same way as ich (S) hungere (P), and the same applies to mich friert, mich düstet, mir kommt das komisch vor (cp. ich finde das komisch), mir tut der Zahn weh (cp. ich habe Zahnweh), mit dieser Feder (S) schreibt sich gut (P) (cp. Diese Feder schreibt gut), and Latin me piget, me pudet, me paenitet follow the same pattern. A Russian will easily recognize the first half of u menya dyenyri as S and the second as P. The much debated vetrom / slomila dva dereva exhibits the same cognitive structure <sup>a</sup> veter / slomil dva dereva.<sup>1)</sup> Latin mea / culpa

1) G. Neckel, Zum Instrumentalis, Indogerm. Forschungen XXI (1907), p. 188.



may serve as an illustration of the sort of syntax of certain so-called 'primitive' idioms, where they say 'my walk' for 'Iwalk'.

In all these examples the divergence from the morphological pattern is relatively slight. Although S, instead of being a nominative, appears, according to circumstances, as accusative, dative, praepositionalis or instrumentalis, it is still a noun, and P is in most cases still characterized by a verb.

But there can be no doubt that the finite verb must often be considered as cognitional S according to the same analytical principle. In this sense There~~i~~ lived in Rome / many important people exhibits the same cognitional structure as a \*Living in Rome (S) is done by many important people (P) would, if it were ever formulated in this way. Here belong instances such as French Il arri-  
vait<sup>(S)</sup> deux étrangers (P), German Es ritten ~~drei~~<sup>(S)</sup> Reiter (S)  
drei Reiter zum Tore hinaus (P), Es liegt ~~es~~ (S) eine  
Krone im tiefen Rhein (P). This latter example shows also the transition to cases such as Es ist / ein Schnitter,  
heiss~~e~~ der Tod, where the descriptive character of ist is very thin, so that we can understand how English there is, German da (das, es) ist, French il y a, c'est,  
voilà, voici, Spanish Hay, hé aquí, Italian c'è, ci sono, Greek ἴδοι etc. have become a sort of deictic particles, comparable in syntactic behaviour to Latin

ecce, Italian ecco, Russian vot etc., and we can also see why these deictic particles can be considered as proto-verbs.

Surveying these examples, ~~whose~~ <sup>of which</sup> list, may be prolonged at will, we get the impression, that the function of cognitional verbal S is intimately associated with impersonal constructions (which term we intend to cover both the types it is and there is); or, stated differently, that whenever we intend to make the verb a cognitional S we are inclined to choose an impersonal construction. It is thus clear that the impersonal constructions have a natural affinity to the noun through their common association with the function of S. And I should be inclined to think that in this circumstance may be seen the psychological motive for deriving the admittedly oldest impersonal constructions (die Witterungsimpersonalien<sup>1)</sup>) of the type pluit from nominal constructions.

Here is perhaps the place to mention d i s g u i s e d i m p e r s o n a l c o n s t r u c t i o n s. An example of this we find in French nous avons conservé deux manuscrits de la légende. This construction is remarkable in two ways: ~~ix~~ (1) because the morphological S is not active, but has the value of an indirect object or dativus ethicus of an impersonal construction, and (2)

---

1) Cf. W. Havers, Zum Kapitel "Syntax und primitive Kultur". Wörter und Sachen, XII (1929) pp. 161 ff.

avons conservé does not reflect a past but a present. This becomes quite evident if we find that G. Paris writes in the same paragraph: La Chanson de Roland est une de celles que nous avons conservées dans la forme la plus ancienne... and later on: En regard de ce poème il nous est parvenu deux rédactions latines...<sup>1)</sup> I have also found the same construction, this time in the present tense in Spanish: Conservamos las cartas de las arras que el Campeador dió a Jimena...<sup>2)</sup> I should not hesitate to declare that in *such* examples, ~~such~~ as il est conservé determined by nous represents the S of the statement and deux manuscrits de la légende represents P.

The substitution of an incorrect personal construction for an impersonal one is no isolated phenomenon. It seems to be particularly frequent in presentational expressions where the personal construction fulfills the functions of the ecce -, il y a -, hé aquí - type: Engl. There we have a different example. Span. Aquí tiene Ud. a mi hijo. - In English we find also an *i n t r a n s i t i v e* presentational personal construction in There you are! This is probably best explained in the light of the popular That's you!, which is an abridgement of That's you finished now, that's you said now etc. These forms are old coordinated constructions That is: you are (have)

---

1) Extraits de la Chanson de Roland (Hachette) p. VIII.

2) Menéndez Pidal, España del Cid I, p. 235.

finished now. D Similarly There you are! would represent the abridgment of an originally extended There: you are now in G. or There: you are now in a position to judge or anything similar.

'L o g i c a l' and 'i l l o g i c a l' c o n - s t r u c t i o n s . - There are doubtless a very great number of 'illogical' constructions due to the accidents ~~fm~~ of formulation. And the more instances we collect of such 'illogical' constructions the stronger the conviction may grow in us that the so-called 'logical' constructions are statistically in a minority, that the reality of language is much better reflected in the 'illogical' ones. The so-called 'logically correct' constructions on the other hand appear almost as precarious accidents, whose importance has been artificially exaggerated by academies and schoolbooks in the name of a logical system, in itself only a second-hand product, abstracted precisely from these same linguistic forms; and it is just a trend of argument like this which leads to an undermining of 'logical' grammar in the name of 'psychology' and finally to the postulatum that we should build up a grammar without S and P.

Such an opinion is entirely justified as long as one selects one type of expression as the only one conformable to logic. <sup>E.g.</sup> ~~so~~ if one claims that the logical judgment should be represented by the substance - property relation.

as exemplified by Socrates is wise. - But according to our theory the substance - property relation is not a thought relation but an objective relation, and, besides, not the only objective relation which may be integrated into a judgment. The 'thing-emplacement' picture, the 'actor-action' pattern, the 'possessor-possession' pattern and others are logically<sup>ly</sup> as satisfying as the substance - property relation.

Thus, in the the framework of our theory, the field. of logically legitimate formulations is vastly increased and less barren than that suggested by traditional logic. If we ~~turn~~ in turn claim that all these constructional patterns can be <sup>scaled down</sup> ~~reduced~~ to a representational term-relation pattern, we wanted to show by this merely how linguistic forms refer to the categories of space, time and quality. But we do not claim therefore in any way that the basic scheme O-R-G is logically more legitimate than any of its variations; on the contrary, they are logically legitimate just because they can be derived from that basic scheme. So for us a l l c o n - s t r u c t i o n s a r e l o g i c a l l y a c c e p t - a b l e w h i c h a r e w e l l a d a p t e d t o t h e i r m e a n i n g a n d n e e d o n l y a m i n i m u m o f a d j u s t m e n t o n t h e p a r t o f a n i n t e r p r e t e r . In short

they are linguistic means well adapted to cognitional aims, measured by social standards.

This leaves as possible 'illogical' formulations (a) parasyntactic signs and (b) those forms which need a marked adjustment of the surface-meaning to the more or less hidden ultimate meaning.

As to the former, they are really not 'illogical' but logically indifferent, since they refer merely to cognitional contents and do not exhibit cognitional form.

With regard to the latter we should like to argue, that even if statistics could prove that ~~the~~ 'illogical' constructions were almost the normal thing and so-called 'logical' constructions in a minority, this is a case where we <sup>may</sup> legitimately be distrustful of statistics. It is just because logical patterns, i.e. patterns well adapted to cognitional forms are so strongly entrenched in our linguistic memory, that we can afford to deviate from them as often as we do. Statistics can only disclose the frequency of this or that type of formulation; it cannot show the guiding power of the ideal patterns which are a necessary help in interpretation and make their influence felt even, or rather, precisely there where they do not appear on the surface. Nobody would probably ever say D o w n he went! if he did not possess the pattern he went down. French il arrivait

deux étrangers appears as deux étrangers arrivaient with a reversed S - P order. Exclamations such as <sup>My</sup> A kingdom for a horse!, Meinen Hut, bitte! etc., formulae such as Pas d'argent, pas de Suisses, reveal themselves as debris of constructions and are interpreted against the background of constructions which are logically more satisfactory.

The coexistence of logically satisfactory constructions with illogical constructions facilitates greatly the process of interpretation and the presence of well adapted constructions in linguistic memory is one of the main conditions for the quick adjustment of illogical forms to logical ends. Have we now to think that the listener really 'translates' a logically less satisfactory expression into a more satisfactory one? Note quite; but it is probably safe to say that in him there goes on a certain process of adjustment of 'illogical' forms to logical ends, and that in that process logically more satisfactory patterns play an important rôle. Likewise the speaker in using ideally imperfect forms relies constantly on the corresponding adjustment on the part of the listener and therefore on the effective working of ideally better adjusted patterns. This is why we claim that the very existence of 'illogical' forms is an indirect proof of the vigour with which the ideally more satisfactory forms assert themselves.

## C o n c l u s i o n s .



C o n c l u s i o n s . - As the explorer of unknown territory draws up a map at the end of the journey which provides an easy and simple orientation and gives a schematic description of the newly discovered land, it may be useful for us, after having journeyed through the densities of analytical argument, to map out our way in a simplified and schematic form~~s~~. This will enable us to see in retrospect how the different parts of ~~speech~~ our essay are knitted together, and this in turn will allow us to formulate our conclusions in a more convincing manner.

At the beginning we found that three sciences, different from each other and yet intimately connected, namely logic, psychology and grammar operate each with the terms S and P. But this fact in itself was not favourable to a comprehensive determination of these terms: In the measure that these three sciences, badly distinguished in some of their most vital aspects up to the 18th century, differentiated themselves in a more comprehensive way, each one elaborating its own methods, the centre of interest shifted away from the S - P question to new problems, and the old distinction between S and P was carried along only in a traditional way. Soon the sciences of the mind could claim that the very distinction ~~between S and P~~ was 'really' a grammatical one, and grammar in turn

could contend that it was 'really' a logical or psychological distinction.

It was this state of methodological uncertainty which prompted us to investigate the matter anew from the point of view of the grammarian. It seemed advisable under the circumstances to start with a characterization of the logical, the psychological and the linguistic points of view. This led to a conception of linguistics as a functional science and of language as an (artificial) instrument for communication., a metaxy both speaker and listener have in common, consisting of signs (in the sense of diacritica and symbols) and their semantic values (material and formal meanings). We had then to point out that the adequate interpretation of signs, their understanding, was necessarily based on the understanding of the thing meant, or cognition, a term which should comprehend both representation and thought. We had thus arrived at a conception of language and a conception of cognition as clearly distinguished entities. This non-identity of language and cognition on the one hand, and their factual entanglement on the other hand, is really the cornerstone of the whole argument.

After this, the next step would be to see, to which sphere the distinction between S and P can be ascribed; and there we found that they should be considered as the logically related phases of the cognitional act and belong therefore to the domain of thought. After having thus fixed S and P in their proper sphere and explained the meaning of these terms in that sphere, we had to explore how far the factual entanglement of thought and language justifies the adoption of the terms S and P in grammar.

In this investigation we proceeded by way of elimination. We found that there is a parasynthetic linguistic sphere in which there is no room for the distinction of S and P. It remained to test the domain of construction. Here we found that construction has three different aspects: that of representation, that of thought and that of formulation.

In theory we might now expect that it would be possible to eliminate the representational aspect from our discussion, since the proper sphere of S and P is thought. This, however, was not advisable in practice for the following reasons: (1) Since Aristotle it was recognized that between the cognitional category of S, the representational category of *ὁρμή*, and the linguistic category of *ῥήμα* was some kind of connection, and the same holds

good with regard to P, action-process and  $\sigma\eta\mu\alpha$ . Representation, thought and formulation are so closely interwoven that they ~~have~~ have often been badly distinguished in the past; it is therefore justified for any new theory which is based on a criticism of past beliefs to show up the proprium of S and P in connection with both representation and formulation. (2) We found that the linguistic form of S and P and the whole mechanism of transposition, analytical and synthetic forms cannot be understood without a clear understanding of representational constructions. Hence the necessity of dealing with the analysis of representational grammar and its integration into cognitional grammar and of both into the grammar of formulation at some length. In this attempt we had to rely mainly on distinctions not made in a systematic way by previous investigations. This explains why we gave so much space to representational grammar in this essay. A shorter exposition, we felt, would not have been sufficient to give the necessary degree of solidity to our new analytical doctrine.

So much for the way along which we had to travel. It will appear from this retrospective account, we hope, that the construction of this essay follows a logical plan and that it is adequate to the nature of our problem and to its ultimate importance for so many things which might seem at first sight not directly connected with it.

And now a word on the results.

Here we have to stress the fact that we consider the cognitional act as a reality and its analysis into S and P as legitimate. In so far we accept Aristotle's doctrine. But we do not accept, therefore, the metaphysical foundation on which it is built. It is not true, as Aristotle's theory implies, that the structure of thought <sup>necessarily</sup> reflects the structure of reality. Much of the criticism levelled against Aristotelian logic is justified in so far as it is directed against this point. It is however ill-directed in so far as it tries to withdraw recognition <sup>from</sup> ~~to~~ the cognitional act or judgment on the ground that the dichotomic structure of the proposition is insufficient ~~to~~ account for the infinite complexity of objective relationships. It cannot be denied that the representational structure of reality is infinitely more complex than the dichotomic structure of Aristotle's proposition. But this should logically lead to a theory of representational constructs compatible with, and integrated into, the dichotomic cognitional structure, but not to the acceptance of the one <sup>as involving</sup> ~~under~~ exclusion of the other. We have <sup>e</sup> ~~therefore~~ distinguished between the ideal forms of representation and those of thought. In the domain of the latter we have

striven after a purely formal definition of S and P which appeared in their theoretical aspect as prius logicum and posterius logicum respectively; both are characterized by a specific form of modality, which in turn represents the practical context necessarily belonging to that theoretical structure. This definition is free from metaphysical implications.

In trying to answer the question how far and in ~~what~~ which form a S - P structure is reflected in language it is important ~~nt~~ to point out that the primary need in speaking is the communication to a listener of material meaning. Form is only an instrument to achieve that end, and since the speaker can always to a certain extent rely on the intelligence of the listener, the latter will be able to grasp this meaning, even if the instrument of communication is imperfect and clumsy, by intelligent guessing, by taking into account extra-linguistic factors such as are offered by the 'situation' in the widest sense. The more both speaker and listener are familiar with these situational factors the less elaborate the sign needs to be. In certain well-known, ever-recurring situations, language may be reduced to mere hints. It would be in vain to look for a S - P structure in such signs.

But even very elaborate signs may lack such a structure. The vanquished enemy who throws himself into the dust at the conqueror's feet in order to signify his submission, a long-drawn lament to express sorrow, are instances of a pictorial language by which the ultimate meaning is constructed by a technique similar to that used in the pictorial or plastic arts; it is an intuitive technique, which easily dispenses with S - P structures.

The range, however, of such an intuitive and sensorial language is relatively limited. It may be enlarged by metaphorical extension. By it the relation of the sign to the ultimate meaning becomes complicated: instead of referring directly to it, it is related to the ultimate meaning by a roundabout<sup>route</sup>, the sign acquires a mobility, a degree of arbitrariness, unknown to non-metaphorical sensorial language. Through the double process of conventional abridgement and fading of the metaphor, the first diacritica are born and the operation with 'inner forms', abstract mental symbols associated with arbitrary diacritica, created. These mental symbols are apt to do the work of representing material meanings in a more subtle fashion and on a higher plane than sensorial symbols. But still, they are essentially picture-building, and in so far as they are, they may be ~~realized~~ analysed without reference to a S - P structure. In this sense I may say that the hunter kills

the deer is simply an 'actor-action-thing-acted-upon' picture, the tree stands in front of the house a 'thing-emplacement' picture etc. An analysis of pictures thus constituted leads to the recognition that they are *made* up out of elements called 't e r m s' and 'r e - l a t i o n s' which ultimately refer to q u a l i - f i c a t i o n s in the r e p r e s e n t a t - i o n a l f r a m e - w o r k o f s p a c e a n d t i m e .

It is only by probing further that we discover that the specification of relations such as in front of, to the right of, kills or is killed etc. are in functional dependence on the choice of one of the terms as prius logicum and thus in f u n c t i o n a l d e - p e n d e n c e o n t h e c o g n i t i o n a l a c t . - It is therefore wrong to think that we first represent and then integrate representation into thought and both into formulation. One of the most important results our essay has to offer is precisely to point out that the task of the linguist cannot be to follow up the <sup>process</sup> ~~way~~ from sensorial impressions to their integration into representation and thought and finally to their expression in language. The very pursuit of such a task is methodological Don Quixotism. The linguist is only interested in possibilities of interpret-



ation of linguistic forms. Only by getting rid of a pseudo-psychological perspective can we determine with any clarity the import of transposition, periphrases, analytic and synthetic expressions. In all these are revealed principles of interpretation rather than psychical events.

With regard to the representational and cognitional constructions revealed by language operating with mental forms, we may repeat what we said about linguistic form and its relation to ultimate meaning, namely that in the practical task of formulation the speaker can rely on the intelligent collaboration of the listener, i.e. he may allow himself to use expressions which are ambiguous or even faulty, measured by ideal standards. That is why we find in formulation all sorts of complications, which show that besides formulae well adapted to representational and cognitional structures, we find others which are merely adaptable to those structures by an additional effort on the part of the listener. Among them those are of special interest<sup>in</sup>, which the exposed structure disguises another, hidden one, which leads to the terminological distinction between grammatical and cognitional S and P. The development may finally lead to post syntactic forms,

which again resist ~~the~~ interpretation in terms of S and P, and behave in that respect exactly as presyntactic forms.

All this may seem disconcerting, and raise the ~~same~~ suspicion that cognitional analysis is only an artificial creation of a grammatical school unduly impressed by epistemology and logic. Against this we may point out that inconsistencies of linguistic formulation would defeat the very purpose for which language has been created, namely understanding between individuals, if they were not constantly corrected and intelligently adapted by the listener. To recognize this is no false idealism but eminently realistic. We have even seen that certain hints such as stress and word-order (in certain circumstances) have no other raison d'être but to help the interpreter in that task of adjustment. This always works in the direction of better adjusted formulae. In this way we are led back to those basic patterns in which a cognitional (and representational) order is clearly revealed.

-----

# B i b l i o g r a p h y .

A. Alonso (Ch. Bally, E. Richter, A. Alonso, R. Lida),  
El impresionismo en el lenguaje, Buenos Aires  
1936.

K.W. Asbek, Das unpersönliche Medium im Französischen,  
Berliner Beiträge zur Romanischen Philologie,  
~~VIII~~, 2. Leipzig, Jena.

Ch. Bally, Copule zéro et faits connexes. Bulletin de  
la Société de Linguistique de Paris XXIII  
(1922), p. 1/6.

Ch. Bally, Linguistique générale et linguistique fran-  
çaise. 1st ed. Paris 1932.

H. Bergson, L'évolution créatrice. 43rd ed., Paris 1934.

A. Binet, La psychologie du raisonnement, Paris 1911.

L. Bloomfield, Language, London 1935.

R. Blümel, Einführung in die Syntax.

R. Blümel, Der Ursprung des griechischen Bereichsakkusa-  
tives und anderes, Indogerm. Forschungen  
XXXIII (1913) pp. 1 ff., XXXIV (1914), pp.  
285 ff., XLIV (1927), pp. 249 ff., LIII  
(1935) pp. 104 ff.

[J. Benigny, Zum indogermanischen Nominalsatz. Indogerm.  
Forschungen XLVII (1929), pp. 124 ff.]

F. Bodmer, The Loom of Language. Edited and arranged by  
Lancelot Hogben, London 1943.

C. de Boer, Introduction à l'étude de la syntaxe du  
français. Principes et applications. Paris  
1933.

C. de Boer, Les temps "surcomposés" du français. Revue  
de linguistique romane, III, pp. 283 ff.

B. Bourdon, L'expression des émotions et des tendances  
dans le langage. Paris 1892.

~~F. Brunot, La pensée et la langue. Méthode, principes et  
plan d'une théorie nouvelle du langage appli-  
qués au français. Paris 1932.~~

- W. Brandenstein, Über die Annahme einer Parallelität zwischen Denken und Sprechen. Germ. Rom. Monatsschr. XII (1924), pp. 321 ff.
- M. Bréal, Essai de sémantique. Paris 1897.
- V. Brøndal,
- V. Brøndal, Le système de la grammaire. In: A Grammatical Miscellany Offered to Otto Jespersen, Copenhagen, London 1930.
- K. Brugmann, Die Syntax des einfachen Satzes.
- K. Brugmann, Verschiedenheit der Satzgestaltung nach Massgabe der seelischen Grundfunktionen. Ber. der sächs. Akad. d. Wiss., Phil.Hist. Kl. 70,6, ~~1918~~ Leipzig 1917.
- K. Brugmann, Der Ursprung des Scheinsubjektes "es" in den germanischen und romanischen Sprachen. Ibid. 69,5, Leipzig 1917.
- L. Brun-Laloin, Interjection. Langage et parole. Rev. de philologie française XLII, pp. 209 ff.
- F. Brunot, L'expression et la langue. Méthodes, principes et plan d'une théorie nouvelle du langage appliquée au français. Paris 1922.
- K. Bühler, Sprachtheorie. Die Darstellungsfunktion der Sprache. Jena 1934.
- C.A. Campbell, In Defence of Free Will. Glasgow 1938.
- A. Carnoy, La science du mot. Traité de sémantique. Louvain 1927.
- E. Cassirer, Philosophie der symbolischen Formen. Erster Teil: Die Sprache. Berlin 1923.
- J. Cook-Wilson: Statement and Reference
- B. Croce, Estetica come scienza dell'espressione e linguistica generale. Bari 1922.
- H. Delacroix, Le langage et la pensée. Paris 1924.
- H. Dempe, Was ist Sprache? Eine sprachphilosophische Untersuchung im Anschluss an die Sprachtheorie Karl Böhlers. Weimar 1930.

- M. Deutschbein, Satz und Urteil. Cöthen 1919.
- O. Dittrich, Die Probleme der Sprachpsychologie und ihre gegenwärtigen Lösungsmöglichkeiten. Leipzig 1913.
- R. Eisler, Wörterbuch der philosophischen Begriffe. 4th ed. Berlin 1927/29.
- Th. Engwer, Vom Passiv und seinem Gebrauch im Französischen. Berliner Beiträge zur Romanischen Philologie, II,1. Jena 1931.
- Edmann, Logik*
- K. v. Ettmayer, Analytische Syntax der französischen Sprache, I, II. Halle a.S.
- K. v. Ettmayer, Das Ganze der Sprache und seine logische Begründung. Ein Beitrag zum sprachwissenschaftlichen Kritizismus. Berliner Beiträge zur Romanischen Philologie, VIII,1, Jena 1938.
- K. v. Ettmayer, Über die Kriterien der syntaktischen Interpretation. Zeitschr. f. franz. Sprache u. Literatur LVII (1933), pp. 385 ff.
- H. Frei, La grammaire des fautes. Paris 1929.
- F.N. FINK, Der angeblich passivische Charakter des transitiven Verbs. Zeitschr. f. vergleich. Sprachk. 11 (1907), pp. 209 ff.*
- O. Funke, Englische Sprachphilosophie im späteren 18. Jahrhundert. Bern 1934.
- G. v. der Gabelentz, Die Sprachwissenschaft. 2nd ed. Leipzig 1901.
- G. v. der Gabelentz, Ideen zu einer vergleichenden Syntax. Zeitschr. f. Völkerpsychol. u. Sprachwiss. VI (1869), VIII (1874/75).
- J. van Ginneken, Principes de psychologie linguistique. Essai de synthèse. Paris, Peipzig, Amsterdam, 1907.
- C-P. Girault-Duvivier, P.-A. Lemaire, Grammaire des Grammaire. 21rst ed. Paris 1979.
- E. Glässer, Das Weltbild des indogermanischen Satzbaues. Wörter und Sachen IXX (1938) pp. 94/115.
- A. Goedeckemeyer, Das Wesen des Urteils. Archiv f. systemat Philos. IX (1903), pp. 179/94.
- H. Gomperz, Zur Psychologie der logischen Grundtatsachen. Leipzig, Wien 1897.
- M. Grammont, Traité de phonétique. Paris 1933.

- O. Jespersen, Logic and Grammar, London 1924.
- O. Jespersen, Philosophy of Grammar, London 1924.
- L. Jordan, Les idées, leurs rapports et le jugement de l'homme. Biblioteca dell'Archivum Romanicum, Geneva, 1926.
- L. Jordan, Wort und Begriff - Satz und Beziehung. Archivum Romanicum VIII (1924).
- Th. Kalepky, Neuaufbau der Grammatik, Leipzig, Berlin 1928.
- Th. Kalepky, Sind die "Verba Impersonalia" ein grammatisches Problem? Die Neueren Sprachen XXXV? pp. 161 ff.
- I. Kant, Kritik der reinen Vernunft. Text der Ausgabe 1781 mit Beifügung sämtlicher Abweichungen 1787. Hersg. v. Dr. Karl Kehrbach, Leipzig 1877
- H. Keniston, Verbal aspect in Spanish, *Hispania* LXXIX (1936), pp. 163/26.
- H. Keyl, Zweigliedrige prädikative Nominalsätze im Französischen. Diss. Marburg 1909.
- E. Koschmieder, Zeitbezug und Sprache. Ein Beitrag zur Aspekt und Tempusfrage. Wissenschaftliche Grundfragen XI, hersg. v. R. Hönigswalt, Leipzig, Berlin 1929.
- L. Kramp, Das Verhältnis von Urteil und Satz. Bonn 1915.
- G.A. de Laguna, Speech. Its function and development. London 1927.
- L. Lange, Das System des Apollonios Dyskolos. Göttingen 1852.
- S.K. Langer, An Introduction to Symbolic Logic. London 1937.
- G. Le Bidois and R. Le Bidois, Syntaxe du français moderne. Ses fondements historiques et psychologiques. 2 vols. Paris 1935.
- E. Lerch, Historische Syntax des Französischen, Leipzig, 1925-19
- E. Lerch, Der Aufbau der Syntax. German. Roman. Monatschrift VII (1914/19) pp. 97 ff.
- E. Lerch, Hauptprobleme Prädikative Participia für Verba substantiva im Französischen. Beihefte zur Zeitschrift für Romanische Philologie XLII, Halle, a. S. 1912.

- E. Lerch, Vom Wesen des Satzes und von der Bedeutung der Stimmführung für die Satzdefinition. Archiv f. d. gesamte Psychol C (1938) pp. 133/97.
- M.M. Lewis, Infant Speech. A Study of the Beginnings of Language. London 1936.
- A. Lombard, Les constructions nominales dans le français moderne. Etude ~~de~~ syntaxique et stylistique. Uppsala, Stockholm 1930.
- A. Lombard, Les ~~membres~~ membres de la proposition française. Essai d'un classement nouveau. Malmö 1929.
- F. Lorey, Der eingliedrige Nominalsatz im Französischen.   
 Diss. Marburg 1909.
- H. Maier, Die Psychologie des emotionalen Denkens.
- S. Mansion, Le jugement d'existence chez Aristote. Louvain/Paris 1946.
- A. Marty, über die Scheidung von grammatischen, logischem und psychologischem Subjekt, resp. Prädikat. Arch. f. systemat. Philos. III (1897) pp. 174/90, 294/333.
- P. Matthes, Sprachform, Wort- und Bedeutungskategorie und Begriff. Halle a.S. 1926.
- B. Maurenbrecher, Die lateinische Ellipse, Satzbegriff und Satzformen. In. Streitberg Festgabe, Leipzig 1924.
- A. Meillet, Linguistique historique et linguistique générale. Paris 1921.
- W. Meyer-Lübke, Einführung in das Studium der Romanischen Sprachwissenschaft. 3rd ed. Heidelberg 1920.
- W. Meyer-Lübke, Grammatik der romanischen Sprachen III, Leipzig 1899.
- W. Meyer-Lübke, Vom Passivum. In: Festschrift f. Karl Luick. Neusprachliche Studien. Marburg 1925, pp. 158 ff. *f. also Neuen Sprachen LXXIV, pp. 161 ff.*
- J. S. Mill, System of Logic I,II. London 1856.
- E. Morgenroth, Sprachzeichen und Gegenstand. Die Sprache als Instrument der Logik. Diss. Giessen 1935.

- A. Nehring, Anruf, Ausruf und Anrede, in: Festschrift Th. Siebs, 1933, pp. 95/144.
- A. Nehring, Zur Begriffsbestimmung des Satzes. Zeitschr. f. vergl. Sprachf. LV, pp. 238 ff.
- A. Noreen, Vart Sprak = A. Noreen - H.W. Pollak, Einführung in die wissenschaftliche Betrachtung der Sprache. Halle a.S. 1923.
- CK. Ogden, I.A. Richards, The Meaning of Meaning. 4th ed. London 1944.
- L.R. Palmer, ~~Inter~~ An Introduction to Modern Linguistics. London 1936.
- H. Paul, Prinzipien der Sprachgeschichte. 5th ed. Halle a.S. 1920.
- W. Porzig, Wesenhafte Bedeutungsbeziehungen. Beitr. z. Gesch. d. dt. Spr. u. Lit. LVIII (1934), pp. 70 ff.
- M. Regula, Das Problem der Impersonalien in gegenstandstheoretischer und stilistischer Beleuchtung. Indogerm. Forschungen LII (1934).
- M. Regula, Der Satz und seine Arten im Lichte der Gegenstands- und Erfassungstheorie. Zeitschr. f. franz. Spr. u. Lit. LIX (1935), pp. 257 ff.
- E. Richter, Grundlinien der Wortstellung. Zeitschr. f. roman. Philolog. XL (1920), pp. 9/61.
- E. Richter, Wie wir sprechen. Aus Natur und Geisteswelt No. 354. Leipzig, Berlin 1925.
- J. Ries, Was ist ein Satz? Beiträge zur Grundlegung der Syntax III, Prag 1921.
- J. v. Rozwadowski, Wortbildung und Wortbedeutung. Eine Untersuchung ihrer Grundgesetze. Heidelberg 1904.
- M. Sandmann, On Linguistic Explanation. Mod. Lang. Rev. XXXVI (1941) pp. 195/212.
- M. Sandmann, On Neuter Adjectives Determining Verbs. With Special Reference to French and Spanish. Mod. Lang. Rev. XLI (1946) pp. 24/34.
- M. Sandmann, Substantiv, Adjektiv-Adverb und Verb als sprachliche Formen. Bemerkungen zur Theorie der Wortarten. Indogerm. Forschungen LVII 81/112.



- E. Sapir, *Language. An Introduction to the Study of Speech*. Oxford 1921.
- F. de Saussure, *Cours de linguistique générale*. 3rd ed., Paris 1931.
- H. Schuchardt, Hugo Schuchardt Brevier. Ed L. Spitzer, 2nd ed. Halle a.S. 1928.
- A. Sechehaye, *Essai sur la structure logique de la phrase*. Paris 1926.
- A. Sechehaye, *La méthode constructive en syntaxe*. Rev. des Langues Romanes (LIX) 1916 pp. 44/176.
- C. Serrus, *Le parallélisme logico-grammatical*. Paris 1933.
- F. Sommer, *Vergleichende Syntax der Schulsprachen*. 2nd ed. Leipzig, Berlin 1933.
- B. Sonneck, *Der Satz als Einheit und die Satzarten*. Arch. f. d. ges. Psychol. 2 XCIV (1935) pp. 446/77.
- E. A. Sonnenschein, *The Soul of Grammar. A Bird's-Eye View of the Organic Unity of the Ancient and the Modern Languages Studied in British and American Schools*. Cambridge 1927.
- H. Steinthal, *Geschichte der Sprachwissenschaft bei den Griechen und Römern*. Berlin 1863.
- H. Steinthal. *Grammatik, Logik und Psychologie. Ihre Prinzipien und ihr Verhältnis zueinander*. Berlin 1855.
- H. Steinthal, *Abriss der Sprachwissenschaft I: Die Sprache im Allgemeinen. Einleitung in die Psychologie und Sprachwissenschaft*. Berlin 1881.
- J. Stenzel, *Sinn, Bedeutung, Begriff, Definition*. Jahrb. f. Philolog. I. München 1925.
- G. F. Stout, *Thought and Language*, *MIND* XL, 1931.
- F. Strohmeier, *Der Stil der französischen Sprache*. 2nd ed. Berlin 1924.
- Sütterlin, *Das Wesen der sprachlichen Gebilde*. Heidelberg 1902.
- C. Svedelius, *L'analyse du langage appliquée à la langue française*. Uppsala 1898.

- G. Guillaume, Temps et verbe. Théorie des aspects, des modes et des temps. Paris 1930.
- J. Haas, Französische Syntax. Halle a.S. 1916.
- J. Haas, Kurzgefasste neufranzösische Syntax. Halle a.S. 1924.
- G. Hagemann, A. Dyroff, Logik und Noetik. Freiburg i. Br. 1924.
- J.L. Hammerich, Nexus. Subjekt und Objekt. Aktiv und Passiv. In A Grammatical Miscellany Offered to Otto Jespersen. Copenhagen, London, 1930, pp. 299 ff.
- W. Havers, Handbuch der erklärenden Syntax.
- W. Havers, Primitive Weltanschauung und Witterungsimpersonalia. Wörter und Sachen XI (1928), pp. 78 ff.
- L. Hjelmslev, Principes de grammaire générale. Det Kgl. Danske Videnskabernes Selskab. Historisk-filologiske Meddelelser XVI,1. Copenhagen 1928.
- Hoeffding, La base psychologique des jugements logiques. Revue philosophique, 1901, t.2,
- E. Hoffmann, Die Sprache und die archaische Logik. Tübingen 1925.
- R. Hönigswald, Die Grundlagen der Denkpsychologie. Studien und Analysen. 2nd ed. Leipzig, Berlin 1925.
- R. Hönigswald, Philosophie und Sprache. Problemkritik und System. Basel 1937.
- W. v. Humboldt, Die sprachphilosophischen Werke Wilhelm's von Humboldt. Ed. H. Steinthal. Berlin 1883.
- E. Husserl, Logische Untersuchungen, 2 vols. Halle a.S. 1913/21.
- I. Iordan, J. Orr, An Introduction to Romance Linguistics. London 1937.
- W. Jerusalem, Die Urtheilsfunktion. Eine psychologische und erkenntniskritische Untersuchung. Wien und Leipzig 1895.

- H. Sweet, Words, Logic and Grammar (1876). In: Collected Papers of Henry Sweet. Arranged by H.C. Wyld. Oxford 1913.
- H. Tiktin, Rumänisches Elementarbuch. Heidelberg 1905.
- Travaux du Cercle Linguistique de Prague IV. Prague 1931.
- S. de Ullmann, Language and Meaning. Word II,2, pp. 113/26.
- W. M. Urban, Language and Reality. London 1939.
- H.V. Velten, Sprachliche Analyse und Synthese. Indogerm. Forschungen LIII (1935) pp. 1/21.
- K. Vossler, Über grammatische und ~~psychologische~~ psychologische Sprachformen. Logos 1919, Bd.8.
- K. Vossler, Das Passivum eine Form des Leidens oder des Zustandes? Neuere Sprachen XXXVIII (1925), pp. 401 ff.
- K. Vossler, Über grammatische und ~~linguistische~~ ~~Sprachformen~~ psychologische Sprachformen. In: Gesammelte Aufsätze zur Sprachphilosophie, München 1923, pp. 152 ff.
- J. Wackernagel, Vorlesungen über Syntax mit besonderer Berücksichtigung von Griechisch, Lateinisch und Deutsch. Philolog. Seminar d. Univers. Basel, I (1920), II (1924).
- Ph. Wegener, Der Wortsatz. Indogerman. Forschungen XXXIX, pp. 1 ff.
- Ph. Wegener, Untersuchungen über die Grundfragen des Sprachlebens. Halle a.S. 1885.
- L. Weissgerber, Das Problem der inneren Sprachform und seine Bedeutung für die deutsche Sprache. German. Roman. Monatsschr. XIV (1926) pp. 241 ff.
- E. Winkler, Grundlegung der Stilistik. Bielefeld, Leipzig 1929.
- E. Winkler, Sprachtheoretische Studien, Berliner Beiträge z. Roman. Philologie III,2, Jena, Leipzig 1933.
- Wl Wundt, Völkerpsychologie. Eine Untersuchung der Entwicklungsgesetze von Sprache, Mythos und Sitte. 1. Bd. Die Sprache. 1. Teil Stuttgart 1921. 2. Teil Leipzig 1900.
- W. Wundt, Logik I, 3rd. ed. Stuttgart 1906.