The language sciences. An educational challenge?


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It is commonly asserted, with some justification, that the language sciences have developed with breathtaking speed in the last thirty years. How can the challenge of these developments be met? Can languages still be taught as they used to be? Should older methods be adapted or discarded . . . or preserved at all costs?

After two decades of over enthusiasm and resounding failures— but some intelligent applications as well—this book attempts to be both more serene and more demanding. Jean-Paul Bronckart, Professor at the Faculty of Psychology and Educational Sciences at the University of Geneva, presents an overview of the language sciences and their utility for education.
The language sciences: an educational challenge?

J.-P. Bronckart

Prepared for the International Bureau of Education
Since the end of the last century and the beginning of the present one, when Ferdinand de Saussure’s work opened the way to pure linguistics as an autonomous science, and laid the foundations of meaning as a structural discipline, the language sciences have developed continuously. This development, while not without deviations in ideology and doctrine, nonetheless bears witness to the characteristic state of perseverance of reflection on means of expression at a point in the scientific and technological evolution of human societies which has unceasingly nourished the most pessimistic outlooks on the future of languages in general and of means of expression more particularly, faced as they are with the pervasive influence of audio-visual media as well as the various computerized languages of today.

The proliferation of fields of study, schools, lines of research, theories and their educational applications – with all their political and economic fallout – that is to say the growing interest for that eternal “honour of men”, as Valéry called language, is an expression of our anxiety in a world where machine communication is continually encroaching on personal communication. It shows unfailingly that, however far science and technology may be developed – and perhaps even because of this development – the value of language today is on the increase, not only from the point of view of its intellectual and socio-emotional bases, but also from that of operational efficiency. Computer science offers us a daily reminder of this. In addition to the thesauri of standard terms designed to facilitate the content analysis and indexing of documents, without any risk of ambiguity, even computer software and programmes come in the form of a message which, precisely because it comes from nobody, proves to be highly effective for all. But this effectiveness is subject to the terms of the message being not only devoid of any redundancy or ideological or affective connotance, but also to their being unequivocal and perfectly explicit. The language sciences then find a field of application where, although they no longer have to cultivate flowers of rhetoric, they are nonetheless involved in interests which are vital to mankind.

These interests, to be sure, are economic. As far as language is concerned, they are also ontological. Whether the need is for readjustment of the personality in search of an identity or for communication and the desire for progress, language imposes itself on us with ever increasing density as both the point of departure and the ultimate aim of all our efforts. Bearing in mind the increase both in the ever growing speed of communication and of its outcome in the form of relationships between peoples and countries, language is taken on dimensions which it had perhaps never acquired hitherto in the history of mankind. And at the risk of stating the obvious by saying that any education begins with language and culminates in the mastery of it, we cannot fail to recognize that, by the diversity and multiplicity of the lights which they throw on the foundations of any social conduct, the language sciences emerge today, if not as “a challenge to teaching” at least as so many calls upon the institution whose
ultimate ambition has always been to make the child of man a speaking but also a thinking being, in other words a person for whom language is thought. It is not Professor Bronckart’s least achievement to have attempted — and indeed succeeded — in offering this broad vision of the various language sciences and so highlighted the directions in which they impel educational thought.

While renewing the expression of our gratitude for his most valuable contribution to our series of monographs on the educational sciences, we would point out that the ideas and opinions expressed in this work are those of the author and do not necessarily represent the views of Unesco. Moreover, the designations employed and the presentation of the material throughout the publication do not imply the expression of any opinion whatsoever on the part of Unesco concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitations of its frontiers or boundaries.

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### Foreword

It is commonly asserted, probably with some degree of truth, that the teaching of languages remains one of the most conservative of educational practices. It is a practice often diverted from its real objective (mastering and understanding a system of communication and representation such as a mother tongue) for vague historical and cultural purposes (transmitting recollections of an ideal language, reproducing the grammatical thought of classical Greece, immortalizing 'good authors', etc.). It is also commonly asserted, again with some degree of truth, that language sciences have developed with breathtaking speed in the last thirty years. Syntax, semantics, pragmatics, enunciation theories, text grammar – all of these areas have been inundated with new ideas which purport to be ambitious, if not revolutionary.

How can the scientific challenge of these developments be met? Can languages still be taught as they used to be? Should older methods be adapted, discarded, or preserved at all costs? Must we go from book to book, from recycling process to recycling process? Or must we admit that the teaching of languages and theories about language are two completely different worlds?

After two decades of over-enthusiasm and resounding failures, but also of intelligent adaptations, this book attempts to be both more serene and more demanding.

Language teaching is admittedly an area of profound contradictions. But these contradictions are above all educational and they can only be resolved by means of political and educational decisions. The aim should be to achieve didactic clarity first, then borrow from the language sciences. The language sciences have, of course, made progress, but not as much as is claimed, and by and large the theory of everyday language has yet to be formulated, particularly of everyday language in the classroom.

Thus, the language sciences pose a challenge to the teaching of languages. But the challenge is mutual! Educators have much to learn from the work of theoreticians and scientists have the major task ahead of them of isolating educationally relevant facts and incorporating them into theories.
CHAPTER 1

Language teaching
and its contradictions

INTRODUCTION

Human beings are naturally talkative. Whether or not this ability is considered to be secondary or essential, as the manifestation of an innate faculty or as the result of a long social evolution, it is the most clearly human characteristic. It marks the starting point of man's evolution and the dividing line between him and lesser species. In fact, it confirms his identity: all human beings talk, abundantly, and that seems very natural. Yet, paradoxically, language teaching is the most widespread educational activity in the world; it is also often the most demanding, the most thankless and the least successful. Why should an activity which is apparently so natural require such a momentous educational effort? Why is the effort itself so often unsuccessful? These are the kinds of questions we will try to answer in this introductory chapter, starting with an activity which appears to be the most obvious in this area, the teaching in a school context of foreign languages.

THE TEACHING OF FOREIGN LANGUAGES

In the usual classroom situation, learners already possess a sufficiently good knowledge of their mother tongue and the task of the teacher is to make them acquire a second, third, or nth language. To do this, the teacher has at his disposal a description (or model) of the language to be taught, in the form of his own acquired knowledge of the language, and a classroom grammar. He generally also selects a method, either explicitly, by using a particular manual, for example, or implicitly, by organizing and planning his lessons in a way he considers rational. Thus, he puts together a teaching approach which includes a set of attitudes and types of behaviour towards his students. Finally, he adopts technical procedures and instruments which he feels are the most adequate and the most effective.

As we all know, the way in which grammar is presented in schools, the 'logic' involved in various methods, the attitudes of teachers, and technical procedures periodically undergo revisions which reflect the desire to keep pace (sometimes belatedly) with the general evolution of ideas, fashions and techniques. The same cannot be said of the methodological approach, that is to say, the theoretical hypotheses underlying the choice of the objectives to be attained, the type of language description and teaching procedures. Here, conflicting points of view have confronted each other for centuries. For the sake of convenience, we will group them into three categories: traditional methods, modern methods and contemporary methods.
Traditional methods

In the first category we include the various methodologies which were derived mainly from the traditional teaching of Greek or Latin in the West. Indeed, for these languages we have a precise, static model (they are, in fact, 'dead languages'). The objectives involve producing or reproducing and understanding or translating sets of written utterances; [1] the method is characterized by the imposition of a strict order of learning, based on the teaching of gradually more complex notions. It requires the memorization of rules, followed by their application in the form of exercises, that is to say, the constant use of a metalinguage, [2] in this case the historical 'patchwork' (logic, semantics and morphology) of overrated traditional grammar.

Often transposed brutally to the teaching of foreign languages, this approach has long been the object of sharp criticism, summed up in the aphorism: 'Living languages cannot be taught as if they were dead languages.' Indeed, the written, classical target language sometimes bears very little resemblance to the spoken language (e.g. the use of Molière in contemporary French classes), the native language interferes with the foreign language, and, more importantly, the acquired language is often unusable in practical situations.

Modern methodology

Over the past centuries, the criticisms levelled by so-called 'moderns' that we have just summarized fell for the most part on deaf ears, even when they came from such scientific authorities as Michel Bréal. [3] For deep-rooted socio-political reasons which we will not dwell upon, the way in which foreign languages were taught remained fundamentally traditional until, on the heels of American behaviourism, there emerged the objective of communicative effectiveness. This new outlook found expression in the well-known direct method and in numerous audio-visual methods, where the essential principle was to put learners into contact with excellent speakers of the foreign language, in situations as close as possible to those in which normal exchanges take place. In its extreme form, modern methodology is characterized by its metalinguistic silence and by its abandonment of normative rules and the omnipotence of the written language.

As the promoters themselves agree, direct methods result in unquestionably better oral performances, but they prove to be limited as soon as any attempt is made to go beyond the level of imitation and instil basic, automatic speech patterns. Both passively and actively, the failure of the long utterance is evident, and it seems that students are unable to go beyond the threshold of everyday dialogues without the support of a strong model, that is, a system of grammar.

Contemporary methodology and its problems

Contemporary approaches are characterized on a whole by a departure from the sometimes simplistic empiricism of direct methods, and the explicit, rational utilization of a back-up metalanguage. This does not constitute a return to traditional methodology: the objectives involve increasing the capacity to communicate rather than acquiring book knowledge of the written norm; the description of the language to be acquired stems from contemporary scientific research; and finally, and most importantly, the teaching approach used takes into account (in particular, with regard to weighing the amount of metalanguage to be used) the psychological and sociological status of the learner. This means, however, that contemporary methodology finds itself in a permanent situation of borrowing, and this is where the following problems arise.

What metalanguage to choose? For nearly twenty years now, all respectable didactic works on languages have reminded us that linguistics has made enormous progress since the beginning of the twentieth century. Although certainly true, this should not hide the numerous difficulties that the discipline encounters. Some of these difficulties are related to the existence of different levels of the spoken language which some theories are unable to account for (cf. on this subject, Roulet, 1974). Other difficulties result from the prolific invention and dissemination of theoretical concepts (each as respectable as the other) which followed the breakdown of Chomsky's second model (Aspects, 1969). Is it necessary to choose? If so, how? Is it necessary to reconstruct a 'modern' classroom grammar? Such are the questions for which, at present, there are no perfect answers.

What psychological processes do learners put into play? As far as the analysis of errors and the description of interference phenomena are concerned, decisive progress has certainly been made in recent years (cf. Corder, 1967 and 1971, and Mackey, 1973). Moreover, with the introduction of the notions of interlanguage (Selinker, 1972) and of the piecing together of a 'second' grammar (Adamczewski, 1975), the conceptualization of the psychological processes in play has unquestionably improved in refinement and specificity. These works, however, remain fragmented and their exploitation for didactic purposes has only just begun.

What role is played by contextual factors? Bilingualism, diglossia, host language, biculturalism, dual semilingualism, linguistic hegemony, etc.: the appearance of these sociolinguistic or sociolinguistic concepts in the field of language teaching is indicative of the importance attached nowadays to the linguistic situation of the family, group, or even nation, to the social meanings carried by the language to be learned, and to the respective status of those teaching and those taught (in migration situations, for example). Pertinent as they may be, these notions are difficult for users to manipulate because of the rampant polysemic which characterizes them (reflecting the weak scientific backing of the reference disciplines) and also because of the complexity of the relationship between language as an institution and other social institutions and structures (cf. on the subject, Saussure, 1977, and also Berrendonner, 1982).

Even if it is legitimate and indispensable to conceive of the teaching of living languages in terms of developing communication skills, no didactic situation can escape from socio-political realities. This stems from the fact that a language, through the subtlety of its levels and modes of use, also functions as an instrument of identification, discrimination and advancement, in a word, as an instrument of power which is no less formidable because it is symbolic. Problems of this order, which both traditional and modern methodologies have always been tempted to sweep aside, resurface with greater acuteness where the teaching of the mother tongue is concerned.

TEACHING THE MOTHER TONGUE

'Teaching the mother tongue': this phrase, however banal, is the very quintessence of the paradox we mentioned at the beginning of this chapter. A normally developing child learns to talk rather well very early; according to the dominant concepts of modern developmental psychology (cf. McNeill, 1970), it is enough if those with whom he is in daily contact present a concrete model of the mother tongue for the child's
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The teaching of the mother tongue and its history

The history of a language is, of course, that of the natural evolution of speech habits (what are called ‘linguistic changes’), but it is also defined by official guidelines, educational choices and the attitudes and value judgements of society. We will not dwell on these topics here, as they will be dealt with extensively in Chapter II, but it would be useful to distinguish, as in the case of the teaching of foreign languages, between the traditional concept of the teaching of the mother tongue, which came first historically and remains firmly anchored in the minds of the majority of people, and the modern concept, which only really emerged in the twentieth century.

By its very nature, the traditional concept is normative and ‘elitist’; from the first half of the seventeenth century onwards, its primary objective was to bring learners (who, for a long time, constituted a social minority) up to the cultural norm established by authorities and ‘good writers’. Vaugelas is very explicit on this point: ‘This is how good usage is defined ... It is the manner in which the soundest members of the Court speak, in conformity with the manner in which the soundest authors of this time write’ (Vaugelas, 1647, Preface to Remarques, II, 3). During the nineteenth century, this normative objective was complemented by efforts to centralize the written language (stabilize spelling) and the spoken language (make speakers uniform and resist dialects). The methodology exhibited the characteristics described above. The language of authors was artificially stabilized and elevated as the unique model, and most language exercises, apart from those related to spelling and vocabulary, involved grammatical analysis, that is, the application of traditional grammar. In reality, because of its dual relevance (to Latin and the mother tongue) and its supposed objectivity, this grammar went imperceptively from the status of a tool to that of an end in itself; mastering it came to be regarded as the guarantee of sound, intelligent and ‘universal’ reasoning.

Modern concepts, which are both democratic and pedo-centric, are a digest of older non-conformist approaches for which there was no firm, homogeneous educational ground until the introduction of free, mandatory public education at the beginning of this century. Non-conformist criticism was first of all social, and in this regard was not devoid of contradictions. As long as distinct, non-intermingling school systems existed (primary schools and public schools on the one hand and public schools on the other), demand was for the introduction of one unique curriculum, namely, access by all pupils to the norm and to traditional grammar. Later on, when the systems became permeable, criticism centered on the discriminatory character (vis-à-vis underprivileged social classes) of the same subjects which had previously been demanded. Criticism also concerned the linguistic model proposed and traditional learning techniques (a living language is not taught like a dead language). Criticism also was directed against the grammar itself, the pre-scientific character of which is condemned by all contemporary linguists. Finally, and most importantly, criticism was aimed at objectives; the teaching of the mother tongue, rather than serving as a means of transmitting a cultural norm, should contribute to the development of means of expression, linguistic creativity and ‘liberation’ by means of written and spoken language.

Introduction of a didactic method for the mother tongue

Modern critics helped bring about a series of much-needed reforms that by and large were well received by educational specialists. Emphasis was placed on the child’s linguistic activities and on the need to develop them at school; stereotyped traditional
exercises were gradually eliminated and bold attempts were made to anchor grammatical thinking in the pupil's language rather than in the ritualistic sentences of the written norm. This removal had a positive impact on the life of both pupils and teachers, but, despite the improved learning conditions thus achieved, failures at school remained constant. This fact highlights the limitations of any system based on educational psychology. The real reason for this state of affairs does not lie with the means, but with the goals, the ends or objectives. If teachers have, indeed, accepted modern goals and apply a coherent teaching system to attain them, popular attitudes (and thus decisions in the political arena) still remain, consciously or unconsciously, attached to traditional objectives. Testing continues to measure success through analysis exercises or spelling, rather than the ability to express oneself; and the work of teachers in general is judged, not in the light of modern goals, but rather in the light of traditional, normative goals.

Educators only recently became aware of this situation of confused and contradictory goals, which for many years was a taboo subject in educational circles. This explains why, over the past several decades, educators, influenced by educational science specialists, have concentrated on up-dating their theoretical basis by borrowing from reference disciplines such as developmental psychology, linguistics and sociology, in the same way as their colleagues teaching foreign languages.

Ideas taken over from sociology and psychology especially concerned attitudes and processes (consolidation of the theoretical grasp of 'pedocentrism' and 'socio-centrism'), and only rarely resulted in significant changes in content (with the exception of the sometimes 'wild' use in psychoanalysis of 'free text' exercises). Such was not the case with linguistics, or the language sciences in general, which significantly affected the conception of the educational goal itself (the 'language'), as well as the description of that goal. A new discipline developed, applied linguistics, the express goal of which was to make language-learning benefit from progress made by the parent discipline. Following a period of enthusiasm generated by the success of this approach in describing taught languages (cf. Roulet, 1972, as well as Chapter III below), doubts and objections of both a theoretical and practical nature were raised.

At the practical level, as Galisson (1980) rightly observed, the rapid evolution of linguistics as a discipline rendered illusory any attempt at insuring the continuous training of teachers (cf. above). At a more fundamental level, it became clear that, whatever one has to borrow from linguistics can be made only after the purely educational objectives have been clarified. Depending on whether the objective is to develop oral expression, provide spelling aids, or give priority to written texts, the appropriate linguistic tools will vary, just as they vary according to the learner's level of development.

This realization, derived from applied linguistics, represents one of the clearest examples of the relationship between educational practice and the reference disciplines which is currently taking place. A trend can be observed which gives the word didactics (formerly limited to techniques and instruments for transmitting knowledge) new life, and which claims to be both well informed and independent with respect to psychology and linguistics.

Contemporary didactics is characterized first of all by a renewal of epistemological thinking on the act itself of teaching the mother tongue. This discipline deals with the problem of goals, not so much by means of macro-sociological analyses or calling for an extensive political debate as through a more concrete analysis of the status of language tasks required of pupils during their school years. In reality, didactics aims at 'creating awareness', in a practical sense, of the operative goals in the teaching of the mother tongue, and sets as its overall objective the reduction of the gap between the reality of the classroom and the ideal goals of official texts. With this objective in mind, it creates its own instruments for action by borrowing from language sciences and developmental psychology whenever necessary.

THE LANGUAGE SCIENCES AND EDUCATION

In the preceding several pages we have discussed the situation with respect to language teaching and the complexities and instabilities involved. This is not to deny the importance or interest of the problem of the relationship between language sciences and education, but rather to situate the problem correctly so as to enable the reader and the practitioner to make use of the information we provide in the following chapters as effectively as possible.

Although any classification of this kind will be arbitrary to some extent, we feel it is essential that we differentiate the various problem areas for each of which there is a distinct 'educational science' discipline.

The first area is the didactics of languages proper. As we have just indicated, a new, independent discipline is in the process of being created and has yet to achieve its own principles, hypotheses, methods and results. A second field of investigation is the relationship of the social context to languages, particularly the importance of individual variation in the choice of educational procedures and the functioning of languages gathered over the past twenty years. The last area, and the most classic, is that of the language sciences themselves, that is to say, the disciplines which contribute to the scientific description of natural languages and the elaboration of theories about languages. This means, of course, linguistics, but it also means semiotics, sociolinguistics and stylistics, as well as other domains such as the psychology of language (the synchronous aspect of 'models'), formal logic, history, philosophy and sociology, which have also made their contribution.

The following chapters will be devoted to this subject and will first present the theoretical formulations which constitute the main achievements of the language sciences since the beginning of this century (the status of current knowledge) and then provide an introduction to the principal trends and contemporary schools of thought in these same disciplines (current developments). We have chosen not to present the contribution of each discipline separately, which would mean presenting these theories in chronological order. The reason for this is that such reference works already exist and that kind of presentation would necessitate lengthy discussions which would be neither possible nor relevant in the framework of the present work.

Two chapters will be devoted to the basic achievements in the language sciences, from a diachronic point of view (Chapter II) and from a synchronic point of view (Chapter III). A bridging chapter (IV) will be devoted to exposing the necessary (and generally misunderstood) distinction between linguistic descriptions and linguistic theories. The three following chapters will be devoted to major problem areas concerning both theoreticians and practitioners. First, the difficult problem of the reference work and the acquisition of the status of linguistic objects, and the use of the term 'vocabulary' is investigated (Chapter V). Next, we take up sentence analysis, a technique inherited from logic (via traditional grammar) and renewed by the generative grammar school
CHAPTER II

Languages in history
and in society

INTRODUCTION

It is neither by chance nor by convention that we begin our presentation on the language sciences with an historical and sociological approach. The first fact that any reflection on the subject must begin with is the existence of natural languages, which are many and varied and serve as essential instruments of communication among specific social groups, and have throughout their history undergone constant modification or change. Of course, all human beings everywhere speak, and it is therefore possible to postulate the existence of a species-wide ability or faculty which we will call by the general term 'human speech'. It is important to bear in mind, as we will point out in Chapter IV, that this concept is essentially theoretical and programmatic; we never have access to a language as such, but only to utterances of a natural language at a given moment in its historical development. In languages, the sociohistorical aspect is primary, and the first thing that strikes the observer is its diversity and variety.

The diversity of languages is often underestimated by the layman; more than 4,000 languages exist in the world today, and present such differences of vocabulary, syntax, morphology and organization of discourse that the existence of real linguistic universals has yet to be demonstrated empirically (such as postulated by Chomsky, for example). Our failure to recognize the variety in languages is partly due to basic ethnocentrism, because of which we tend to perceive the structures of other languages from the viewpoint of the structures of our own. It is also due to the fact that the works written by the first grammarians, to whom we owe the majority of concepts used in linguistics today, were based on Latin or one of the Indo-European languages and their appropriateness for analysing linguistic phenomena in languages of other families is sometimes very tenuous. We can cite, for example, the various grammars based on Latin and applied to Basque; these attempts result, in fact, in disguising the specific characteristics of this ergative language (Lafitte, 1962). Early work in comparative grammar (see below) and later work undertaken at the beginning of this century on Amerindian languages by Boas (1911), Whorf (1964) and Sapir (1933), however, made it possible to do justice to this diversity. Contemporary linguistics schools, such as the 'Relational Grammar' movement, for example, are based essentially on the systematic comparison of languages of various types.

Linguistic change is also a phenomenon which is generally underestimated. First, because languages change very slowly, the speaker's primary impression is one of stability. Next and more importantly, for profound socio-historical reasons which we will analyse later, social groups introduce normative rules which are superimposed over the actual linguistic code and perpetuate a certain state (or a certain 'style') of the language, thus serving as objective resistance to change. The rate and significance

NOTES

1. By 'set of utterances' we mean what in language teaching circles are often called 'long utterances', that is, what contemporary linguistics calls text (either oral or written).

2. As noted by Henri Besse, even today 'the observation of a foreign language class shows that, whatever the exercise or approach used, the majority of sentences pronounced by either the teacher or the students are, to various degrees, of a metalinguistic nature' (Besse and Galisson, 1980).

of the evolution of languages are, of course, not determined by implicit or explicit decisions by the social body. Yet these factors come into play, to an extent we will attempt to determine later.

In the following pages, we will first provide an overview of the principles works in historical and comparative linguistics from the beginning of the eighteenth century to the present, underscoring the main discoveries in these disciplines. We will then show how studies on the evolution of languages led to the theory of the linguistic sign and, more generally, to structural linguistics as represented by the work of Saussure. This will bring us to the examination in greater depth of the relationship between language and society, in which we will evaluate the various theoretical propositions currently being made. Finally, we will present a case study of the evolution of the French language, before concluding with a redefinition of the notions of ‘natural language’, ‘mother tongue’ and ‘classroom language’.

HISTORICAL AND COMPARATIVE LINGUISTICS

As far back as ancient Egypt (and perhaps even before) we find evidence of human inquiry into language, its phonological characteristics, its status in relation to objects and its changes. Into these inquiries are woven, to varying degrees, religious, philosophical and scientific considerations. There is no precise date which marks the beginnings of the scientific approach to language and it is only for convenience sake that some scholars date the start of linguistics as a discipline from the Indian phoneticians, the Alexandrians, or even the Port-Royal Grammar (1660), which dominated the field of linguistics until the dawn of the eighteenth century. But for the purposes of this study, the question of the origins of the modern linguistic discipline is not relevant.

Like all grammars produced during the Renaissance, Port-Royal followed the Latin tradition (a ‘traditional grammar’ in the sense defined in Chapter III) and attempted to establish a correspondence between the structures of that language and those of the ‘vulgar’ language which was French. This process was, however, accompanied by two decisive innovations: the first was to think of language as a system of signs; the second was to lay the foundations for a syntactic approach. The signs of a language are words and clauses, corresponding to ideas which are organized in a logical way and correspond to external objects. Language thus involves two levels and the fundamental problem confronting the grammarian was to define the nature of the relationship between the organization of signs (linguistic units) and the underlying logical organization. The basic hypothesis defended in Logique ou l'art de penser (Arnauld and Nicole, 1662) was that the organization of ideas and judgments must first be understood before it is possible to analyse the sentences of the language: ‘... we cannot understand the diverse sorts of meaning contained in words, unless we have first understood what goes on with our thoughts, because words were only invented to express these.’ Syntax, meanwhile, was defined as the construction of judgement; the terms used in a sentence are not isolated, but constitute a complex whole, based on the noun-verb relationship, which becomes the subject-predicate relationship. This outlook paved the way for what was later to become sentence linguistics.

The major preoccupation of the Port-Royal authors, therefore, was logic, and it is to this that contemporary traditional grammars owe their ambiguity; the language is studied, not for itself, but as the expression of an underlying universal logic. This resulted in the creation of a conceptual construct which did not deal with the linguistic units it was supposed to define, but rather with the ‘logical functions’ which these units express: subject, object, complement, qualifier, etc. It also resulted in rather
later. Independently of (or in spite of) the hypothetical elaborations of Schleicher and the Neo-grammarians, work on historical and comparative linguistics was pursued by Meillet, Kuryłowicz, Labov and many others. For us today, this research generally achieved five results:

First, it made possible the classification of Indo-European languages into groups, namely Indo-Iranian (Sanskrit, Persian, etc.), Armenian, Albanian, Balto-Slavic (Russian, Bulgarian, Czech, Latvian, Lithuanian, etc.), Germanic (Danish, Norwegian, English, Dutch, German, etc.), Celtic (Breton, Gaelic, etc.), Italic (French, Italian, Catalan, Romanian, etc.) and Greek. Analogous classifications have been made for languages of other groups and at present this work appears to be nearing completion.

Second, it made possible the definition of types of languages depending on the syntactic and morphological processes used to express grammatical relationships. Whereas the original typology inherited from Bopp distinguished between isolating languages (such as Chinese), agglutinating languages (such as Hungarian), and flexional languages (such as Sanskrit), Sapir (1953) proposed a more nuanced analysis, based on three sets of ideas. He distinguished isolating languages, in which each linguistic unit is formally independent (and thus constitutes a single word), affixing languages in which the meaning of the root base is modified by the presence of one or several affixes (prefix, infix or suffix), and symbolic languages in which the meaning of the root is modified by internal changes (reduplication, shifting accent, tone, etc.).

The second group distinguishes between analytic, synthetic and polysynthetic languages.

An analytic language is one that either does not combine several concepts into single words at all (Chinese), or does so economically (English and French). In an analytic language the sentence is of prime importance, the individual word is of minor interest. In a synthetic language (Latin, Arabic, Finnish) the concepts cluster more thickly, the words are more richly chambered, but there is a tendency, on the whole, to keep the range of concrete significance in a single word down to a moderate compass. A polysynthetic language, as its name indicates, is more than ordinarily synthetic. The elaboration of the word is extreme (1921, p. 128).

The last distinction differentiates between inflected (or flexional) languages like Latin and Greek, in which the modifying elements are merged with agglutinating languages, in which distinct, invariable elements are affixed to the root.

Third, these historical and comparative studies made possible the discovery of certain laws governing sound shifts (see above), but also some morphosyntactic changes. Indeed, it seems that the different Indo-European language groups, as discussed above, largely underwent the same evolution as far as the type of language is concerned. In their prehistoric state, they were probably characterized by an extremely rich morphological system, with complex verb and noun paradigms. In their modern state, they are relatively poor morphologically, with this compensated for by the development of ordered structures and syntactic rules. This transformation, which characterizes the way in which Latin evolved into French, and also how ancient Greek evolved into modern Greek and ancient Chinese into modern Chinese, can be described as an evolution of synthetic types of languages towards analytical types, a shift which in the Romantic Period was considered decadent, but which, since Jespersen (1894), is considered an improvement.

Fourth, with respect to the causes of change, comparative studies highlighted the crucial role played by the phenomena of substratum, superstratum and adstratum. When a linguistic group finds itself obliged to abandon its language for that of another group (because of new political rulers, invaders, etc.), a more or less lengthy transition period ensues during which members of the first group learn to speak the new language, while retaining traits of their own language such as accent, syntactic constructions and inflexions. The original language substratum, which at first constituted a set of 'errors', gradually levels off, is accepted, and becomes the new language halfway between the original language and the superimposed language. For example, the influence of a particular Celtic substratum in northern Gaul was used to explain characteristics which distinguish French from other Romance languages. Various scholars have also identified traits in Spanish which are attributable to a pre-Roman Iberian substratum (Basque) and, in several South American countries, Spanish is spoken with a type of pronunciation inherited from the Indian languages. The word 'superstratum' refers to a similar phenomenon in certain historical situations, an outside language imposes itself on (or exists side by side with) the original language for a time and then the original language takes over again. This was the case with certain Germanic tongues spoken in northern Gaul after the invasion of the Germanic tribes. The temporary 'habitation' left traces in terms of vocabulary, morphology and syntax. Finally, the term 'adstratum' refers to the influence exerted by a neighbouring language beyond its natural boundaries, usually for socio-political reasons (e.g., French in Belgium as influenced by Dutch).

Fifth, the three causes of change mentioned above involve the general phenomenon of borrowing, that is, the interpenetration of two or more languages. In the context of the sociolinguistic approach, which has developed considerably in the past several decades, various authors, one of whom was Labov, attempted to analyse the internal causes of change, that is, independent of the influence of an outside language. This area of research, which is only just beginning, reveals the important role played by social subgroups (in particular, cultural minorities). It is within these groups that 'norm heterodox' forms, with respect to the dominant standard, become indicators of membership in a group and spread to general usage. It is within these groups that the mechanisms of hyper-correction, another source of change, find expression, as the result of both internal and external pressures. For a more detailed analysis of these problems, we refer the reader to a work by Labov, Sociolinguistic patterns (1973).

THE STATUS OF CHANGE IN GENERAL LINGUISTICS

Saussure is rightly hailed as the founder of general linguistics, whose true and unique object is "language studied in and for itself" (Course in general linguistics, p. 232). Unlike his predecessors, the Geneva linguist proposed analysing language as it exists at a specific moment in its history, without considering problems related to its evolution at high time. It would, however, be incorrect to think that the birth of this new discipline implied a rejection of the efforts and research of historical linguistics. Quite the contrary: Saussure first became famous for his remarkable work in comparative linguistics, in particular, his Essais sur les a en indo-européens, before extracting from his research the first constituent elements of a system of general linguistics published in his Course in general linguistics (hereinafter CGL). The latter work, although laying, inter alia, the foundations of an absolute methodological distinction between synchronic and diachronic linguistics, is the result of thinking about linguistic changes and their causes. Saussure's internal linguistics is organically linked to the historical problem, and implies a constant to and fro between the linguistics of lan-
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Guages (i.e. natural) and the linguistics of a specific language (i.e. the phenomenon of language generally).

All languages are permanently subject to change. Whether the change takes place slowly or quickly is a secondary consideration, for 'the stream of language flows without interruption' (CGL, p. 140), and the linguist has to take into account this fundamental fact which is very often obscured by the exaggerated importance attached to literary or 'normal' language (which, by definition, means 'resistance to change').

As we have seen, changes affect phonetic structures (disappearance of sound contrasts or the appearance of new ones), as well as grammatical categories (disappearance of case endings), or even the meanings of words. As comparative linguists have also shown, change results in the identical modification of all words containing the same phenomenon (CGL, p. 143). While Saussure confirms the importance of the phenomenon of change, and the fact that it is general, he disputes most of the explanations which were given credence in the nineteenth century, particularly the reliance on outside causes such as racial predisposition, soil and climate, the law of least effort, the general state of the nation, and even borrowing (substrata, superstrata, adstrata). Each of these factors can play a role, but, as Saussure points out, an absolute causal relationship between one or several of these factors and linguistic change has never been observed. These, therefore, secondary causes only, and the real cause of the change has to be sought in the very foundations of the system of language and in its relationship with society. The study of change shows that it is wrong 'to think that the word can only change up to a certain point, as if there were something about it that could preserve it' (CGL, p. 151). There is nothing about a language that can permanently retain or stabilize its sounds; they are not attached indefinitely to a meaning; a phonetic variation is limitless and incalculable, 'in that it affects all forms unequally and makes no distinction between radicals and affixes' (ibid., p. 152). Sounds evolve blindly because they are not guided or predetermined by content; in other words, languages change because the relationship between sound sequences and meaning is totally arbitrary.

The blind unpredictability of phonetic changes, however, has a destructive effect on the language. Phonetic changes alter certain apparent regularities (the Latin pair decem-undecim becoming dix-onze in French, for example), and they erase or obscure regularities in the composition of words (the Latin pair amicus-inimicus becoming ami-enemi in French), thus disturbing coherence. These are the pair homon-honorum result directly from the arbitrariness of the sign are, according to Saussure, compensated for by the intervention of another mechanism, positive this time, which is known as analogy. An analogical change consists of building a new form, or a new contrast between units, based on forms or contrasts already existing in the language. Thus, at one stage in the development of Latin, for a nominative form honor, there was a corresponding accusative homen (resulting from replacement of the s of the earlier form homen). By comparison with other contemporary nominative-accusative pairs which served as a model (orator-oratorem), for example, the pair homon-honorum fell into line' and became honor-honorum. This positive change cannot be explained by phonetic laws; there had been at that time a systematic change of s to r in that environment. It is a phenomenon which Saussure says is psychological and supposes an understanding - conscious or unconscious - on the part of the speaker of the regularities and possibilities of the system, and serves to restore greater coherence to places where it seems the system lacks it most.

This type of process is undeniably similar to the capacity for linguistic creation, suggested by Humboldt and taken up by Chomsky (1969). Starting with a comparison of apparent linguistic units, speakers induce general rules which they use in specific cases to create new units. The success of these creations, however, is not assured: 'Nothing enters language without having been tested in speaking, and every evolutionary phenomenon has its roots in the individual' (CGL, p. 168). In other words, speaking subjects propose (and innovate), and the community disposes (that is, accepts or rejects the innovation). The over-generalization in children's speech ('He ranne', 'He seed') are innovations the language does not generally retain, but it does retain more readily innovations coming from scientific or literary scholars, and it accepts more easily errors which lead to greater simplicity:

Consider what is happening to French dites 'you say' and faîtes 'you do', which are direct descendents of Latin dic-itis and fac-itis. Because they have no support from present-day verbal infections, the language is trying to replace them; dites and faîtes (on the pattern of platez 'please', lisez 'read', etc.) are heard today, and the new endings are already common in most compounds (contradites 'contradict', etc.). The only forms left untouched by analogy are of course isolated words like proper nouns, especially place names (cf. Paris, Geneva, Agen, etc.) which allow no analysis and consequently no interpretation of their elements. No rival creation springs up beside them (CGL, p. 173).

Saussure's approach definitively solved the problem of language and change. The sounds of a natural language are only raw material, capable of blind, limitless changes because they have no necessary relationship to their content, which would maintain them in a permanent relationship of meaning. In fact, because of this intrinsic neutrality, the raw material constantly changes under the influence of uncontrollable external factors. These changes are regular in that they apply to all analogous situations, but they disturb the network of patterns that existed previously. To avoid excessive grammatical cardinalities, therefore, the speaking community creates new contrasts, for example, by reusing abandoned archaic forms; analogical changes presuppose that speakers take into consideration the current (synchronic) laws of the language, the inventory of possible forms and the realisation of one of them.

Although it gives a globally satisfactory explanation of the basic mechanisms of linguistic change, Saussure's position has two shortcomings which have often been cited by contemporary socio-linguists. In his legitimate (and methodologically incapable) desire to set aside the literary norm and base himself on the actual, living (popular) language, he nonetheless, became to underestimate or even deny the effects which prescriptive norms really exert on the evolution of a language (see below). From a broader point of view, he failed to take into consideration deliberations (and therefore conscious) manipulations of the language by specific social groups. Such efforts, initiated by elite groups (scribes, grammarians and finally the French Academy) and then taken up by powerful institutions (schools, in particular), contributed effectively to the generalized use of certain forms (the 'harmonious' French of the 'smartest' members of the court, praised by Vaugelas, 1647) as well as the proscription of other forms which were nonetheless necessary to the natural evolution of languages. (Julius Beaucarne put it humorously when he said, 'No dites pas 'dix', mais ditez 'dites';). Take, for example, initiatives of minority and/or underprivileged social groups who demand changes in a language or certain of its structures and thus contribute to its evolution. Such has been the case with demands by English-speaking feminists, which have brought about significant changes in vocabulary and the use of pronouns.

The second of Saussure's shortcomings concerns the status of patois, dialects and other types of 'local speech'. The Course in general linguistics often makes reference to the language and to the 'collective consciousness' to which it belongs, as if there
existed only one French language and one homogeneous group who spoke it. Saussure's conceptual framework does not, in fact, allow for the problem of the status of non-standard speech forms and their relation to the official language, and it was not until the advent of contemporary socio-linguistics (in particular, the work of Labov referred to above) that these problems were taken up.

LANGUAGES AND SOCIETY

All analysis of the mechanisms involved in linguistic change rests on some theory about the nature of the relationship between language and the social group which speaks it. Three points of view seem to have dominated the works we have just introduced. We will describe them as follows: language as a living entity, language as a social institution, and language as an ideological apparatus of the state.

Language as a living entity

Linguists of the nineteenth century, strongly influenced by the revolution in the natural sciences, considered language as a kind of living organism, the evolution of which was governed by laws as imperative as those of biology. This principle culminated in the work of Schleicher. In his thesis Entle Darwinssche Theorie und die Sprachwissenschaft (1863) Schleicher defends the naturalistic hypothesis that languages, like plants and animals, are born, develop, age and eventually die. He even extends to languages Darwin's law of natural selection: 'In the present period of human existence, the winners in the struggle for survival are especially the languages of the Indo-European family; they continue to spread unabatedly, supplanting other languages.' In keeping with ideas borrowed from German Romanticism, Schleicher also thought that languages were richer in their earlier (undeveloped) existence, and that they become poorer with the progress of civilization and the elaboration of grammars. This idea was taken up by the Neo-Grammarians (Brugman, Paul, etc.) who, while rejecting the romantic aspects of Schleicher's work and attempting to lay the foundations of a positivist study of the laws governing change (that is, based on objective data), continued to consider language as a natural object, subject to necessary laws. Paradoxically, this position, which remains in the mind of the general public, could not explain many facts that comparative linguistics was discovering at the same period; language as a living organism could not transform itself into another organism, but could only die. It also presented language as a phenomenon independent of those who spoke it, that is, the particular social group concerned. Language was seen as a social phenomenon independent of society.

Language as a social institution

It is with Whitney that we find the first refutation of the naturalist conception of language. For him, the concepts 'life', 'deacy', or 'organism' are nothing better than poor metaphors; language is a social institution, one of the cultural products collected by the human race during its development. In fact, language is a concrete institution; it is a usage, an instrument of communication based on a covenant: 'Language is based on a primitive contract, agreed to by free men; it adapts to needs, meets new communication needs ... ' (1875). From this viewpoint, linguistics ceased to be a natural science and became one of the historical and sociological disciplines. This posi-

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The concept of the 'ideological apparatus of the state' was invented by Althusser (Positions, 1970) to designate institutions or organizations, both public and private, which, in contrast to the mode of coercion exercised by the state itself, insure the preservation of the conditions of capitalist production through the formulation of 'speech' and 'ideologies'. We agree with Balibar and Laporte (1974), as well as with Berrendonner (1982), in thinking that the term adequately describes language in its normative and grammatical aspects. The history of the building of the great European nations shows that the political effort of unification was always accompanied by an ideological effort aiming at the restoration of one and only one national language as a kind of moral and political ideal, safeguarding liberty and equality. As we will see in the following paragraph, such an effort requires the edification of significant social machinery, and ends up by making language a kind of permanent ideological instrument. As pointed out by Berrendonner, the linguistic norm perpetuated by grammarians and linguists ('normative discourse'):

... suggests to those to whom it is addressed 'ideas' which, organized into arguments and directives, appear to be determined by the need to incite in them genuine, substantive (linguistic) habits. The normative discourse is ideology insofar as it summons individuals as subjects (speaking subjects), and obliges them, if they subscribe to its message, to ordered (normed) linguistic practices. Its function is to say 'Hey, you, say this, say that... [It] formulates its arguments in such a way that, in submitting to its norms and accepting its directives, the target individual is given the opportunity to recognize himself as perfect, to consider himself 'a decent individual'. It is thus used as a kind of blackmail for recognition, so that individuals cannot be recognized as people of value unless they personally accept the rules of proper usage (1982, p. 83-85).

We only need to listen to the arguments employed, in the mass media particularly, against reforming spelling and grammar to be convinced of the validity of Berrendonner's analysis.
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NATIONAL LANGUAGE, CLASSROOM LANGUAGE AND NATIVE LANGUAGE: THE CASE OF FRENCH

In the pages that follow, we will not undertake to retrace, however briefly, the history of the French language; we refer interested readers to the admirable work by Marcel Cohen, *Histoire d'une langue: Le français* (1967). Our more modest ambition will be to single out the historical elements we feel are decisive for the explanation of the status of the French language (or languages) as it exists today. To this purpose, we will, as arbitrary as this might be, distinguish four main periods.

The first period begins with the emergence of 'modern French' (cf. Cohen, 1967) during the sixteenth century, and ends with the French Revolution. One of the most striking characteristics of this long period (nearly three centuries) is that, for the majority of the country's inhabitants, French was a foreign language. It was the language of the king, the nobility, the judicial and administrative system and of Parisian literature (Molière, Racine, La Fontaine, etc.). The people, for their part, spoke their own languages (Flemish, Basque, Breton, Catalan, Occitan, German, etc.) or their own patois, and it is estimated that, at the end of the nineteenth century, one Frenchman out of seven spoke French correctly. Prior to the French Revolution, therefore, there was no national language, in a quantitative sense (i.e. a language spoken by the majority of the French people), and dialects were numerous. French existed as the language of power and culture, thanks to which it was promoted and studied.

The promotion of the French language began during the seventeenth century. Before that time, as noted by Padley, 'living languages were held to be corrupt and ill-suited to regimentation' (1983, p. 71), and most grammarians attempted to establish a theoretical norm based on Latin, to the detriment of the language actually spoken by native speakers. Finally, Vaugelas appeared on the scene, and the determination to base the analysis of French on the usage of speakers. The Latin model was discarded in favour of an internal norm, namely, accuracy and refined speech. With Vaugelas and his famous *Remarques sur la langue française utiles à ceux qui veulent bien parler et bien écrire* (1647) a new breed of grammarian emerged. Unlike grammarians of antiquity or the Renaissance, they were no longer descriptive or speculative, but prescriptive. The aim was no longer to identify principles governing the functioning of a code, but to impose a code of utilitarian sense, which must be followed. In the preface to his *Remarques*, Vaugelas more or less clarifies the inherent ambiguity and contradiction of normative projects, and claims that the rules he establishes are not of his own making, but are based on usage 'recognized by everyone to be that of the Master and Sovereign of living languages'. He goes on elsewhere to define this usage as being 'composed not of the plurality, but the elite of voices', yet he considers that such usage is universal: 'usage will not always conform to the sense of individuals, but it is subject to the general law, if they do not wish to be the object of general censure'; it is proper to follow usage, and not Revolution's sense, which must always be held suspect in each individual in all things, whenever contrary to the universal feeling.' Thus, Vaugelas claims to base himself on usage, that is to say, the common or general way of doing, yet, for simple, obvious socio-cultural reasons, this usage is not that of the greatest number, but that of the sub-groups in power. 'Fine speech' is no longer defined according to its intrinsic linguistic characteristics, but according to the socio-political power of those who speak it. This ambiguity continued to characterize all normative discourses until our time (cf. *Le Bon Usage* by Grévisse or the writings of Etienne). The appearance of normative grammars, however, did not put a stop to works of a more scientific nature. During the eighteenth century, numerous authors attempted to formulate a theory of the French language. These efforts reflected two concerns. The first was of a descriptive nature; it involved applying to common languages methods applied previously to noble languages (Latin and Greek). This effort to concentrate on words and categories of French, however, was generally bypassed, implicitly or explicitly, by referring to these reference languages. Most grammarians attempted to squeeze French words into grammatical categories from Latin at whatever cost. For example, the subject category was created in this way, which obviously does not designate 'the person performing the action', but which clearly corresponds to the Latin nominative case. The same applies to direct and indirect objects, the classification of verb tenses, etc. In fact, contemporary grammars, whether traditional or based on modern linguistics, ultimately differed only slightly from the first grammars! The second concern of grammarians of this period was, as mentioned earlier, of a logical nature; it involved incorporating language into a theory of reason and dealing with it as the 'natural expression' of thought. This gave rise to concepts which systematically confused level of expression with message.

The French Revolution marked the beginning of the second decisive period for the French language which was characterized by the desire to institute French as a truly national language and to make public education mandatory. The revolutionary government perceived the disparity of languages spoken as an obstacle to the creation of a bourgeois democracy. Following a short-lived attempt to translate official documents into the local idiom, the Convention decided to combat the indigenous languages and to impose French as the language of the Republic. 'A free people should have one and the same language for all.' This statement by Barère, which dates from 1794, illustrates the political objectives of the revolutionaries with regard to language. The institution of an official language as the instrument and symbol of republican liberties was destined as some thought, to become the universal means of expression in all democracies. This objective was quickly attained at the level of the state and the administrative network, thanks to the appointment of 'language supervisors' (the 'institutors of the French language'), and the introduction of what could be called a 'linguistic reign of terror'. An elementary model of state-instituted French was thus elaborated, which presented notable differences from the French of the previous regime (cf. the often-cited interrogation of André Chénier on the 18 of Vendôme of the year XI in which the language of the judges and that of the accused were extremely different, and this is often held to be the reason for the death sentence which was handed down).

A century passed before the 'proposition of a common language' became the language of everyone. Despite numerous projects, the spread of French as the national language of all citizens was slow and the democratization of the means of verbal communication was even slower. A number of reasons explain both the slowness and the failure. The main reason was the absence of a school system compatible with the Revolution's objectives; public schools were virtually non-existent, and the educational structures inherited from the ancien régime retained their weight and prestige for a long time. This was especially so because the Convention made extremely 'conservative' choices in relation to the programme and methods of teaching French. Basically, it took over the two methodological pillars of ecclesiastical schools: on the one hand, a grammar, the function of which was to offer an analysis of the sentence in terms which were adapted to the analysis of Latin sentences, and on the other, a learning procedure for style and norms based on the ideology of 'good writers' developed during the previous century. Moreover, it decided to reserve grammar and
good writers for students at the higher level, and to introduce a simplified version of the analysis of French (an elementary grammar) in the lower levels. Finally, it recognized the gap between the linguistic habits of the majority of the people and the national language by introducing French as a subject. This set of circumstances had two consequences. First, since French failed to become the effective everyday language of the majority of the people, it remained an administrative or school language which was decreed and taught more than it was spoken; it became classroom French. Therefore, to disguise the political scandal represented by the chasm between linguistic reality and the Revolutionary government’s objectives, an ideological rhetoric gradually developed, the pernicious effects of which are still felt today: the French language as an unchangeable, immutable, perfect ideal and the symbolic reconstruction of the all-too-familiar eternal French considered to be the mother tongue of the entire French people, despite historical evidence to the contrary.

The activities of the Revolution in the area of language teaching took the form of an educational dichotomy which characterized the entire nineteenth century; on the one hand, there were the schools for the rich, which prepared students for entry into secondary school and university; on the other, there were popular schools, where reading, writing and arithmetic were taught and where it was not deemed necessary to ‘do grammar’ or read the ‘good authors’. Radicals and progressives combated this segregation during the second half of the nineteenth century. This struggle, with which the name of Jules Ferry is associated, defines a third period which gave birth to modern practices in the approach to and teaching of languages. By means of a package of economic and political measures, the radicals effectively put into place mandatory public schools and succeeded, at the price of sometimes violent conflicts, in having grammar taught in popular schools, thus giving access to secondary schools and higher education. Opponents considered this reform ‘equalizing from the bottom’ and feared it would impoverish the language, jeopardize culture and lead to the deterioration of spelling. Exponents of the reform, meanwhile, felt that the merging of the two schools should be accompanied by an updating of grammar and of teaching methods (cf. the position of Michel Bréal). The dispute ended at the beginning of the twentieth century by a sort of aggiornamento, preserving traditional grammar and classical teaching methods, but tending to make the latter less dependent on Latin and less spelling-oriented. Under the influence of the linguist Brunot, a revised system of terminology was adopted in 1911.

The renovation of traditional grammar preceded by only a short time the emergence of a second wave of reform which was markedly less radical than the earlier one, and which constitutes the fourth decisive period in the development of French. Influenced in particular by discoveries in psycho-analysis and child psychology, there developed greater interest, beginning in 1920, in the inherent characteristics of the learner, particularly with regard to his faculty for language and his ability to express himself. At the educational level, the psychological reorientation resulted in a series of reforms. Emphasis was placed on the child’s spontaneous linguistic activities and on the necessity of bringing them out in the classroom, overly-stereotyped exercises were eliminated, and attempts were made to base grammatical analysis on the pupil’s own language rather than on the ritualistic sentences of school French. From 1968 onwards, at the instigation of the Rouchete Commission, a vast rationalization effort was launched, proposing, in particular, an intelligent synthesis of expression activities as well as a conscious structure and a radical reform of grammatical concepts. It would be impossible to evaluate the results of this reform at present, but several comments can be made:

- Although innovations, thanks to educational psychology, have made life easier (at times considerably so) for pupils and teachers, they have not changed the overall educational results significantly: a significant portion of pupils continues to fail, at the primary school level, in particular.

- The emphasis placed on self-expression has had positive effects, particularly in terms of pupil motivation, but the transition from self-expression to grammatical work and/or stylistics proves to be problematical. In practice, the teacher is obliged to transform the statements pronounced by pupils into objects for ‘grammatical investigation’, in other words, they are obliged to move from the pupil’s mother tongue to a classroom language.

- The language used in the classroom has begun to be subjected to close scrutiny (cf. in particular Bain et al., 1982 and 1985); it takes the form of a kind of simplification of the ‘language of writers’ or a simplified narrative model (a novel). It thus presents marked technical differences from the pupil’s essentially “dialogue” type of discourse in his mother tongue and from administrative French texts, which are rather scientific in nature.

We will observe, in conclusion, that the unique, static, French language, the mother tongue of all the inhabitants of the French hexagon, is a fiction. The history of the language and of the institutions that promoted it allowed several distinct varieties to exist side by side: the French spoken in the family or maternal French (which the child ‘takes’ to school) is first and foremost a type of language based on dialogue discourse, the characteristics of which are still little understood, and of which there is probably a very broad variety because of the widespread existence of dialectical and foreign substrata; classroom French, which the institution of education chose both because of its suitability for grammatical analysis and its presumed kinship with the language of authors; the language used by the administration and by the business community (official French) which is derived, apparently, from the national French of the Revolution, certain characteristics of which it still contains; finally, the language of the media (newspapers, television), the characteristics of which are not well known but which is probably extremely influential (cf. however, Bronack, 1985).
CHAPTER III
Describing languages

INTRODUCTION

Describing a language appears at first sight to be an easy task. Verbal utterances are numerous and easily apprehensible and it would seem that they could be rapidly classified in relatively natural categories. In reality, most linguists have observed that, when it comes to language, everything is difficult, including describing differences between natural languages. As soon as we abandon the assumption of traditional grammar, identifying meaningful units, defining them and classifying them poses a set of complex problems which we will examine beginning with a passage of contemporary English.

She looked me over, apparently trying to decide whether I belonged in the front part of the house or the kitchen. I assumed my most respectable expression and got hidden into the library, as she called it. It was a beautifully panelled room with actual books on the shelves. The Trevors went in heavily for history, particularly Western Americas. (Ross MacDonald, The Wycherly Woman).

How can a passage of this type be analysed? We could start by focusing on objective, physical traces, that is, the succession of written characters in the printed text or the succession of sounds in the corresponding oral text. Orally, the sequence of sounds presents itself as a continuum, but the written text shows that this continuum can be split up into words, or basic units, separated by spaces or 'blanks'. Apart from this breakdown, the expressive sequence tells us nothing for a listener to whom English is completely foreign, it appears to be what it actually is: a succession of sounds which in themselves mean absolutely nothing (see Chapter II on the fundamental arbitrariness of linguistic raw material). Thus, we come to the essential problem: language can only be described with respect to its structure if its function is taken into account, that is, the basic fact that its role is to mean something. Any analysis has to include the phenomenon of meaning to some degree or other.

At the oral level, the first task consists of identifying meaningful sound units. This is called making a phonological description which singles out those sound units in the language which are distinctive. Thus, whether the final r in apparently is rolled or pronounced as by most English speakers, the meaning of the word does not change. These variants of the r are, therefore, not distinctive and we conclude as a result that there is only one phonological unit r in English, unlike other languages. In contrast, if we replace the o of for with the sounds a or u ('ou') in the passage we quoted, the word either loses its meaning or has another one. These three sounds can be considered, therefore, to constitute three distinct phonological units of English.

Although they contribute to the meaning, the phonological units are not meaningful in themselves; small entities having this capacity are called monemes. As our example shows, monemes can be words (kitchen, expression, into, etc.), but they can also be roots (books- from looked, or try- from trying), endings (-ed from assumed, or -s from books) or 'grammatical words' (the, for, on, etc.). From a diachronic point of view these significant units can belong to a set which is theoretically limitless and changing: they are the lexemes or 'complete grammatical forms'. In English, lexemes include nouns, adjectives, verb stems and certain adverbs. These meaningful units can also be part of closed, relatively stable systems, in which case they are called morphemes or the grammatical units which make possible the functioning of the utterance according to the language's particular code.

The description of lexemes is the goal of lexicography. In general, we can say that Saussure's analysis best applies to these lexical elements. The essential problem in their case is that of a frame of reference: the relevant concepts are those of signifié (which refers to the sound image of the lexical unit), signifiant (which refers to the idea contained in the unit) and référent (which designates the objects in real life to which the linguistic units refer). These notions are now nearly universally accepted and the main problems in lexicography currently concern the classification of linguistic units in languages which have yet to be thoroughly investigated.

Describing is the function of, at least, one of the functions, of grammar or, more precisely, of descriptive grammar. The problem here is no longer to set up a system of reference, but rather to elucidate the role played by these units in the organization and functioning of utterances. As Creissels notes, the problem is one of grammatical structure, which can be defined as:

...the set of patterns which, in a given language, govern the behaviour of meaningful units with regard to the construction of utterances. The aim of the grammatical description is to bring these patterns to light with regard to their specificity to the language in question, thus defining that language's identity in contrast to other languages (1979, p. 35).

The main task of linguistics is to identify and define grammatical notions by exercising various types of manipulation within a limited space, namely the clause or sentence (sentence linguistics). As was the case with phonological analysis, this work is done according to an overall criterion of contrast and distinctiveness: when we make a grammatical change, does a corresponding modification of the meaning of the utterance occur and, if so, is there a change of meaning or a loss of meaning? This principle of contrasts, which proves to be effective at the phonological level, remains essentially programmatical at the morpho-syntactic level. It is difficult to apply and, often, not sufficient for identifying genuine structural elements of the language. There are many reasons for this, partly because of the intrinsic complexity of language as an object and partly because of historical stumbling blocks hindering methods of description.

In the following section of this chapter, we will attempt to present the main accomplishments in the area of language description, highlighting in particular all the problems which this seemingly simple task continues to pose. We will first evoke some of the decisive moments in the evolution of descriptive efforts. These will point to an historical process of progressive purification: language description was first linked to religious considerations, then to lay preoccupations. Nowadays it is often detoured for the sake of universalist hypotheses. The task of analysing languages in themselves and for themselves is far from finished. Western thinking in this area remains profoundly marked by traditional grammar which continues to furnish the basis of the conceptual apparatus and which we will discuss in the next part of this chapter. We will then take up the first attempt at a truly scientific description, the
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phonological model proposed by N. Trubetzkoy. This will be followed by a discussion of efforts to transpose the phonological model to morphosyntax, within the framework of what is generally called European structuralism. As we shall see, the first morphosyntax-oriented attempt was a relative failure, and it was English and American distributionalism that paved the way for autonomous syntactic description. We will discuss this new school and explore its limitations before going on to deal with contemporary attempts to go beyond the strict, structuralist oppositional approach. We will conclude this chapter by stressing the importance of descriptive linguistics for the teaching of languages.

ON THE DIFFICULTY OF DESCRIBING A LANGUAGE: HISTORICAL OVERVIEW

It is generally agreed that linguistics of some form was first developed in India. It was elaborated in the form of analysis of sacred texts from the literary language of the Veda (Sanskrit), a language considered to be perfect, the rules of which therefore had to be 'rediscovered'. Hindu investigation concerned grammar on the one hand and phonetics on the other. In one of the best-known works (that of Panini, written approximately four centuries before Christ), the grammatical description is closely linked to religion. For example, the names of the cases correspond to aspects of religious rituals. The phonetic analysis, meanwhile, although retaining names of a religious character (for example, the word ṭaksara, 'syllable', comes from the religious text naksarati, 'the immortal basis of discourse'), constitutes the first investigation into the objective characteristics of sound units. Sounds are classified according to their type and point of articulation for consonants, vowels and diphthongs and, as Joyaux observed,

... a subtle theory of articulation, related to religious meanings and a complex theory of the human body, distinguished between different movements of the lips (opening or closing), of the tongue against the teeth (constriction), of the glottis, the lungs, nasal resonance, etc., as producers of phonemes (1969, p. 96).

However, it was in Greece that the grammatical notions were invented which dominated linguistics until the last few decades and, for this reason, are known as 'classical'. After the Phoenicians, the Greeks were the first to use a written alphabet, that is, a system of transcribing the phonetic units (the signifiers) of the language, a type of writing which would become widespread and replace ideographic systems (graphical transcription of the idea or the signified). The analytic approach to the sound sequence of a language made possible the understanding of the language as a formal system, with its own specificity. Following the atomists and materialists, who still considered language a part of reality in the same way as the atoms of the physical world, came the post-Socrates who saw language as a phonetic system controlled by the speaker, capable of being transposed into writing, but which was distinct from the real world, with which it enjoyed a specific relationship. Plato's Cratylos gives a kind of synthesis of Greek philosophical thought on the characteristics of this relationship and poses the question: are the names of things due to social convention or do they derive from their very nature (are names one of their properties)? Plato, as we know, struck a kind of compromise between these two hypotheses by affirming that language is man's own invention (and thus arises from social convention), but is nonetheless partially dependent on the nature of the things named. With Aristotle, grammar as the study of the main categories of discourse emerged. Aristotle distinguished noun from verbs (which have the essential property of expressing time) and conjunctions. Aristotle's work was continued by the Stoics who introduced modal or secondary grammatical categories such as gender, number, voice, tense and case. This work was brought to its zenith by the Alexandrian grammarians several centuries before Christ. These authors, Dionysius of Thrace and Apollonius Dyscolus, in particular, laid the foundations for most of the morphological categories we know today: noun, verb, participle, article, pronoun, preposition, adverb and conjunction.

In the Middle Ages, although interest in 'barbarian' languages began to develop, especially with respect to the creation of alphabets and writing, strictly grammatical investigations continued to focus on Latin. The refinement of the description of Latin was carried out essentially for didactic purposes, namely, to preserve and reproduce the 'noble' language. The educative argument most frequently put forth was the logical and, hence, natural character of that language. The interest in logic resulted in increased emphasis on describing relationships which grammatical categories have with each other. Scholars took into consideration the order of words as well as their form, and analysed the relationship of rection between the noun and the verb, as well as cases governed by verbs. While attempting to systematize their grammars, grammarians in the Middle Ages found it necessary also to take into consideration the actual, specific form in which thought categories must be assumed to fit into the linguistic 'mould'. This led to the first analyses in semantics. It is in this way, for example, that the functional value of the six cases was described and explained and the differences between the active and passive forms of verbs was analysed.

During the Renaissance, the first true grammars of vulgar language emerged, including the first French grammars. Initially, these new works also had an essentially didactic or even pragmatic purpose; they aimed at simply gathering and organizing patterns of functioning of the popular idioms, without theoretical or general considerations. This emphasis explains the development of many educational procedures, such as tables of conjugation, for example, inventories and numbered rules, together with their exceptions. These procedures continued to be used until the middle of this century and were accepted to such an extent that they were considered by some to be intrinsic elements of grammatical descriptions. These grammars were constructed according to the Latin model; for most authors, the aim was to demonstrate that French was not a language as poor or vulgar as was believed, and that it was constructed (nearly) as perfectly as Latin. Henceforth, the accent was placed on morphological aspects (to the detriment of specific syntactic characteristics). Sylvius, for example, asserts that French uses declensions:

we, like the Hebrews from whom we borrowed it, have a particularly easy kind of declension; to form a plural, we need only add 's' and be familiar with the articles, the number of which is very limited and which we borrow from the pronouns and prepositions (as quoted by Joyaux, 1969, p. 150).

As a rule, most grammars dating from this period until the mid-nineteenth century were bilingual, that is, they applied to both French and Latin or compared the two languages systematically. As the French language stabilized and its rules of functioning took shape, its resemblance to Latin dwindled and teacher-grammarians found themselves in an impasse. They had demonstrated the perfect nature of Latin structures and explained that they were based on logic, i.e. the 'nature of things'. How, therefore, could the structures of French, which were different, be justified?

This dilemma was to be solved by the Port-Royal Grammar which instituted a new
logic of reference, valid for French and based on the three operations of the mind: conceiving, judging and reasoning.

The judgment we make of things, as when I say ‘The world is round’, is called a PROPOSITION and any proposition necessarily contains two terms: one is called the subject, that about which the affirmation is made, such as world, and the other is called the attribute, that which is affirmed, such as round; the two terms are connected by the copulative is. Now, it is easy to see that the two terms belong to the first operation of the mind, because it is which which we conceive and that which is the object of our thoughts, and that the copulative belongs to the second, which we can properly call the action of the mind and the manner in which we think... It follows that man, needing signs to mark what goes on in his mind, also requires that the most general distinction between words be that some signify the objects of our thoughts and others the form and manner of our thoughts, although they often do not signify that alone, but together with the object, as we shall demonstrate. Words of the first sort are what we call nouns, articles, pronouns, participles, prepositions and adverbs. Those of the second are verbs, conjunctions and interjections. These are drawn according to necessary succession in the natural manner in which we express our thoughts, as we shall demonstrate (Grammaire Générale, II, I, Foucault, ed., p. 23-26).

The Port-Royal Grammar was the last systematic grammar attempted before the emergence of the scientific approaches of the nineteenth century (see Chapter II). Of course, new notions have been proposed and introduced since then, but the groundwork of a ‘traditional grammar’ had been definitively laid, which would spread throughout the world and which we will now discuss.

TRADITIONAL GRAMMAR

Traditional grammar contains numerous analyses, the richness and subtlety of which have been underscored by such eminent linguists as Lyons and Chomsky. It should not be categorically condemned without further examination. It remains, nonetheless, a poor tool for the description of contemporary languages, for several reasons which Roulet (1978) described very clearly and which we will briefly summarize.

Traditional grammars, because of their didactic orientation and the socio-political context of teaching the national language (see Chapter II), limited themselves to the description of one type of written language, the language of ‘good writers’, usually older writers, that is, producers of a previous language. In his Précès de grammaire française, Grévisse has no quibbles about abundantly quoting authors such as Racine, Corneille or La Fontaine, and giving examples such as the following:

Moï qui, grâce aux dieux, de courage me pique,
En ali prés la fuite de peur.
Eux de recommencer la dispute à l’envi.
A toi... je ne celerai rien.
(Grévisse, 1935)

Similarly, Wagner and Pinchon in their excellent Grammaire du français classique et moderne (1962) base themselves exclusively on ‘authors’: ‘Comment en un plomb v’il s’est-il changé?’ (How, into vile lead, was gold transformed?) or ‘Àprès d’un tel malheur, pour nous irremplaçable, ce qu’on nous promet pour l’autre est peu considérable’ (‘Beside such a misfortune, for us irreplaceable, what is promised for the other is of little worth?’).

This insistence on past authorities was not, of course, exclusive; in general the examples used were taken from sub-standard texts, i.e. classical written narrations, which are far from being representative of the French language effectively in use. The description excludes most theoretical or argumentative texts used in the administration, in business and in politics, as well as the totality of oral productions, which for the most part are composed of dialogues. As shown in a study carried out by Gougenheim and his associates on ‘basic French’, this approach excludes, in fact, almost a large portion of the language. Taking, for example, interrogative sentences constructed with où, we note that of the 307 forms produced by contemporary speakers, 168 are allowed by Grévisse (in sentences such as ‘Ôu va-t’il?’ and 139 are excluded, receiving neither description nor explanation (for example, ‘Il va où?’ or ‘Ôu il va?’).

Traditional grammars in general retain the Latin organization and hierarchy, rather than those of French; they give a prominent place to morphology and neglect syntax almost completely. As Roulet remarks:

‘To convince oneself of this, one need only note the place reserved in French grammars for noun and adjective morphology where the author does not hesitate to provide an exhaustive list of all idiomatic cases (adjectives which apply only to feminine nouns: ombre, dive, grège, pie, poulinière, sutile, théologale, triermre, roman, etc.), and to masculine nouns: aquilin, pers, surn, etc., whereas the use of the pronoun, though an extremely complex subject, is treated in a page and a half. The same observation applies to the chapter on the verb which devotes considerable space (around forty pages in Grévisse and in Mauger) to morphology, whereas syntactic information on verb objects, which are of prime importance to the construction of the utterance, is missing, (1972, p. 20-21).

Traditional grammars, for reasons mentioned above, fail to present rules which would make it possible always to construct correct sentences and their treatment of the phonetic and ethical aspects of the language is rudimentary.

The definitions, rules and explanations of traditional grammar sometimes contain an inextricable mixture of criteria related to logic, semantics and the apparent characteristics of linguistic units. Its treatment of semantics is extremely basic and not very rigorous. It also neglects the enunciative dimension and addresses only problems such as that of reference.

THE PHONOLOGY OF N. TRUBETZKOIJ

The successors to Saussure, in order to remedy the shortcomings of traditional grammar, attempted to extend the synchronic approach to the description of languages. The first achievements in the field of phonetics were realized by the Prague School and by N. Trubetzkoi in particular, who endeavoured to isolate relevant sound oppositions within the framework of a given system, that is, within a natural language. Adopting Saussure’s idea of the formal character of language, the Prague School held that relevant oppositions were not part of the objective speech sounds, but in fact existed only in the acoustic representations of speakers. They thus established a distinction (which became classic) between phonetics and phonology. The former discipline deals with the analysis of sounds in all languages, either on the basis of their articulatory characteristics (e.g. Indian phonetics), or on their acoustic features (pitch, frequency). The latter discipline deals only with certain acoustic images as distinctive elements in the system represented by the natural language of the speaker.

Trubetzkoi’s aim was to choose from among all the acoustic features of a language which ‘carry meaning’, that is, those which contribute to the meaning. The method he adopted was to contrast two sounds and to measure the impact of this contrast on
meaning. If the contrast makes it possible to distinguish two meanings, it is considered to be relevant, phonological or distinctive. Otherwise, it is considered to be non-distinctive. Moreover, the sounds of a language may or may not be substituted for each other in a given phonetic environment. If they can be substituted (decay/decay, for example) we call them permutable, otherwise they are non-permutable. If, in using this method, we isolate a speech unit which cannot be broken down into smaller phonological elements, the unit is a phoneme. A fact of language and not a fact of speech (as distinguished by Saussure), the phoneme is an abstract entity; it is the 'sum of phonologically relevant particularities contained in a sound image' (1949, p. 40). This abstract (theoretical) entity is materialized in actual phonetic events (sounds) which are the actualization of the phoneme. Each actualization necessarily presents features which define the phoneme, but may also display other features, which are not relevant within the particular language system involved (cf. the different ways of producing r in English). The various sound units actualizing the same phoneme are the variants of this phoneme; these variants can be combinatory, that is, they obey the laws governing phonemic combinations on the syntagmatic axis (influence of the preceding or following phoneme), or they can be free of any conditioning of this type. Often this involves individual characteristics or accents having a stylistic function. The concepts developed by Trubetzkoy made it possible to elaborate extremely precise descriptions of the phonological systems of languages, which it would be impossible to reproduce here.

EUROPEAN STRUCTURALISM

The structuralist approach, implicit in Saussure, developed in the framework of the Prague School, whose members adopted nine theses or general theoretical principles. Three of them concern us here:

— Language must be considered a 'functional system'. For the members of the Prague School, the terms system (or structure) and function are in a way inseparable; we cannot understand any linguistic fact without referring it to the overall system of which it is a part, for the system must, above all, be viewed as a coherent set of means for a purpose, that is, it must be viewed as a functional whole.

— The linguistic method must be synchronic and it must rely on the subject's intuition and his capacity for introspection.

— One of the goals of analysis is to develop a typology of language systems. To do this requires the implementation of a comparative method designed to bring out the structural laws of languages, that is, the means used by each of them to make human communication possible.

Drawing on these three principles, several authors proposed new descriptions of the morphosyntax of natural languages. Gougenheim, for example, in Le système grammatical de la langue française (1939), attempted a strict application of the principles of phonology to the study of syntax:

Our purpose is to isolate and define the strictly grammatical elements of the French language and to show what role they play in the functioning of language. . . . This study is founded on the examination and classification of the oppositions that grammatical elements have with each other. The interest of these oppositions has been revealed by F. de Saussure and Ch. Bally. Prince N. Trubetzkoy built his phonology on the classification of oppositions; we have applied an analogous method to the study of grammatical elements (op. cit., p. 8 and 9).

This method led the author to define three categories of syntactic oppositions: grammatical alternation, modelled after the combinatory variants of phonology, in which a speaker is bound to the exclusive use of a morpheme in given conditions; stylistic variations, modelled after individual variants, in which the use of two contrasting morphemes is possible, but with different social, emotional, etc., nuances of some degree or other; significant oppositions, in which two morphemes are possible, but there is a distinct difference of meaning between them. As observed by Arrivé and Chevalier (1970), the desire to establish a complete analogy between phonological and morphosyntactic systems gave rise to three types of difficulty. The first concerns the fact that phonological units are limited in number, whereas the significant units of a language are unlimited. The author is thus obliged to create two classes of significant units: morphemes (as defined on p. 31), grammatical forms, which, like phonological forms, are limited in number, and semantemes (lexemes, as defined on p. 31) which have lexical meaning and are unlimited in number. The study of the latter is outside the competence of morphology, but, as observed by many authors, the bases of the morpheme-semanteme distinction are fragile. The second difficulty is the fact that the distinction between combinatory, individual and relevant oppositions is not as clearly defined in syntax as in phonology. In many cases, it is difficult to distinguish clearly between variations in style (or in standard) and variations in meaning (the difference in French, for example, between 'Je vais chez le coiffeur' and 'Je vais au coiffeur').

The third problem results from the fact that morphological units, unlike phonological units, carry meaning and any strictly oppositional analysis neglects this characteristic.

Can we really study the system of a language without referring to the meaningful content of morphosyntactic units? Jakobson encountered difficulties of the same order in his work on Russian cases and the morphology of Russian verbs. To analyse the latter, Jakobson tried to transpose the phonological notion of correlation. In phonology, a correlated pair has one member which bears a specific mark (marked member) and one which is unmarked; this opposition, applied to Russian verbs, made it possible to define correlations of aspect, diathesis, tense, number and gender. With regard to aspect, for example, perfective verbs are marked and imperfective verbs are unmarked, iteratives are marked and non-iteratives are unmarked. Jakobson adds that unmarked linguistic forms are perceived as being 'primary'; they represent, in a way, the pair as a whole and are consequently less fragile than marked linguistic forms (which would disappear first in the event of aphasia, for example). As attractive as it might appear, this description of the verbal system is contradicted by a number of facts and, in a more recent article (1957), Jakobson revised it by introducing the enunciative approach, of which we will speak later.

We can cite numerous other attempts which characterize the beginnings of European structuralism, in particular the works of Tesnière (1969), Hjelmslev, Togeby and many others. All are characterized by their determination to apply to the study of syntax, methods that had already proved to be effective in the study of phonology. On the whole, the effort represented a failure, which can be attributed to the difficulty of reconciling an oppositive study of the morphosyntactic system with the meaningful character of the units of the same system. In most cases, the explicit principles of the author refer to phonological concepts, but the actual analysis relies on the 'semantic feeling' of speakers, which continues to be biased by characteristics of traditional grammar.
AMERICAN DISTRIBUTIONALISM

In the 1920’s, under the guidance of Watson (1925) and Weiss (1925), a new current of thought emerged known as behaviourism, which attempted to give a scientific explanation for the behaviour of human beings in strictly mechanical terms, that is to say, by rejecting all mentalist concepts. Bloomfield, who, together with Sapir, is the father of linguistics in America, resolutely associated himself with this current (the term ‘linguistic behaviourism’ was used when referring to him) and attempted to analyse linguistic utterances by abstracting the semantic (i.e. mental) categories which had crept into the work of the European structuralists.

Bloomfield adopted three basic principles of scientific analysis suggested by Weiss: take into consideration only events accessible in time and space to any observer; rely only on concepts and hypotheses which correspond to specific, substantive operations; use only terms which can be strictly defined and can be derived from a set of everyday terms which refer to physical events. On this basis, he suggests defining the utterances of a language as a chain of stimuli and submissive responses, comparable to chains of stimuli and response in other types of behaviour. There is the well-known example of Jack and Jill and the apple: the sight of the apple (Stimulus) provokes a Response (picking it), but this event can also result in a submissive response (r) on the part of Jill (‘Jack, I’m hungry, pick this apple for me’); r is a submissive stimulus (s) to which Jack responds by another utterance (‘OK, I will’), or by a non-verbal response (actually picking the apple). This mode of analysis is overly simplified, of course, and is justifiably criticized by most contemporary investigators. It has the merit, however, of initiating a process which effectively dissociates apparent (superficial) characteristics in utterances and the various semantic functions which these same elements can help express. This contribution definitively liberated morphosyntactic analysis and made possible great progress in contemporary linguistics (including Chomsky).

Bloomfield’s approach tried, on the one hand, to take into account the objective characteristics of utterances and, on the other, the objective characteristics of the speech situation in which they are situated. Like the phonological approach, it focuses on the opposition identical-different in a given context. Given the two following sequences,

(a) He is very pale this morning
(b) The leaves are still pale,

the linguist must only consider the vocal characteristics which are similar in both utterances and the stimulus-reaction characteristics common to both speech situations.

Bloomfield defines: common vocal characteristics with identical or partially identical enunciations as forms, while the corresponding stimulus-reaction characteristics constitute a meaning; thus a form is a recurring vocal characteristic having meaning, and a meaning is a recurring characteristic corresponding to a form.

Clearly illustrates the originality of Bloomfield’s position; it takes into account the meaningful character of morphosyntactic units and even uses this function as a criterion for defining forms, while at the same time it ceases to analyse this meaning in terms of mental (semantic) categories and defines them in terms of behavioural chains associated to utterances. Meaning, according to Bloomfield, is ‘the set of practical events with which an utterance is associated’. Of course, as the author himself admitted, and as was shown later by Skinner’s analysis of language (Verbal behavior, 1957), detailed analysis of meanings is illusory, since it demands complete knowledge of the extra-linguistic world. This neutralization of semantic factors is

necessary and sufficient for bringing to light a series of morphosyntactic patterns. Two methods were developed to do this: the distributive method, which consists of segmenting the spoken chain into distinctive units which are defined only in terms of their relations within the chain, that is, their linguistic environment, and analysis by immediate constituents, which defines the possible combinations of each unit by breaking up the utterance into units ranging from those of a higher order (the largest constituents) to the ultimate constituents (those consisting of only one meaningful unit).

In the vocabulary of Bloomfield, forms which cannot be further divided into meaningful units are called morphemes: they can be free (pale, morning) or bound (-s). The word is defined as a minimal free form. Morphemes can be contained in more complex forms and then they are called constituents of the complex form. By applying these two methods, Bloomfield arrived at an effective classification of the basic linguistic units. This work was further pursued by Hockett and Harris, and would serve as the foundation for most of the subsequent works in contemporary linguistics.

BEYOND DISTRIBUTIONALISM

The classifications of morphosyntactic units achieved by Bloomfield’s approach (which is also called taxonomic linguistics) have the particularity of being used de facto by nearly all contemporary linguists, at the same time as they are criticized, with surprising severity at times (by Chomsky, for example). We consider them a first step which we can go beyond in a number of areas. It was precisely at this point that contemporary linguistics took over. Without pretending to be exhaustive, we will distinguish four main schools: functionalism, particularly that developed by Marient and his followers; the enunciative school, as represented by Jakobson and especially Benveniste; generative grammar and all the tendencies that came out of them; and, finally, textual linguistics, represented by numerous tendencies.

Functionalism

As F. François noted in his remarkable article Le fonctionnalisme en syntaxe (1977), functionalism, unlike strict structuralism, which claims to be able to describe the language in itself independent of psychology,

is characterized first of all by the concern not to consider the structure of a language as a reality in itself, but, on the contrary, to explain it on the basis of the equilibrium of communication needs as manifested by a particular community. … [H] seeks in the interactions between men (rather than in the psyche of each individual) the reasons which explain the organization of particular linguistic systems (p. 8).

Using this as the basis, two objections to distributionalism as defended by Bloomfield are formulated:

First, the distributionalist method and the analysis into immediate constituents are insufficient to reveal the effective syntactic status of units of the language. These two methods are transpositions of the phonological scheme to syntax and as such do not take into account the fundamental differences between units of the first articulation (morphemes organized into sentences) and those of the second articulation (phonemes organized into morphemes). Yet, these units differ in three ways. First, whereas
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This second type of analysis or enunciative method has two main aspects. The first is of a general nature: it involves studying the discursive behaviour of the language, that is to say, the application of the language in concrete situations via 'individual acts of utilization'. Each concrete production of a statement generates a global meaning, which cannot be reduced to the sum of the meanings of its individual signs, but depends as well on certain situational parameters (the speaker, the listener, the time and place of the utterance act), on the knowledge shared by the protagonists, on the social environment, etc. This topic of research was not developed extensively by Benveniste himself, but was the product of contemporary currents, like 'speech acts' or 'linguistic pragmatics', which will be treated in Chapter VII.

The second aspect concerns what Benveniste called the formal apparatus of enunciation or subsets of units, the morphosyntactic status of which can only be understood by taking into account extra-linguistic parameters. A speaker always specifies his position (that is, where he stands with regard to the content of his utterance and his interlocutor) through more or less specific indices. The main kinds of indices are the system of personal pronouns (t, he, she and their derived forms), the system of noun tenses and extensive indicators (this, here, there, now), I and you are easily definable from the oppositional point of view, but can only really be understood in relation to the situation-of-utterance, in this case, if we know the speaker and the interlocutor. Likewise, temporal indicators (the -ed of the past tense, for example) can only be understood if we know the time of the utterance, etc. Jakobson's analysis, Shifters, verbal categories and the Russian verb (1957) incorporates the same point of view: for this author, these units, which he calls indices, are characterized by the fact that 'they only take on their precise meaning in the framework of an existential relation with the object they represent, that is, with the enunciating subject'.

Generative grammars

Although their inventor presented them as a complete break with distributionalism, generative grammars also constitute offshoots of this movement. The innovation originated with the desire to account for two aspects of linguistic behaviour: creativity and ambiguity. Any speaker shows that he is capable of producing and understanding an infinite number of utterances, including utterances he never read or heard before. The objective of linguistics in such a situation cannot be to describe the entire corpus of existing sentences, but, rather, the rules enabling each speaker to construct new and use infinitely the finite means of the language. In addition, in utterances such as 'C'est ce qui est virulence', two meanings are possible (criticism by Bloomfield or criticism of Bloomfield) and the task of grammar is to bring these differences to light. The desire to account for the creativity and to explain ambiguities led to the distinction between levels of analysis (deep structure and surface structure) and to the definition of rules making it possible to go from one level to the other (transformations). These principles will be analysed in detail in Chapter VI.

Textual linguistics

The three currents we have just discussed belong, like the first structuralists, to what is called sentence linguistics. In this discipline, the sentence (or proposition) supplies the framework within which the manipulations are performed which isolate and define the constituent units. But some units are characterized by a status and function which go beyond the context of the sentence. Such is the case of the anaphoric...
pronouns (cf. she looked me over, or as she called it, in the passage on p. 30), as well as of various units, such as conjunctions and certain adverbs (suddenly, first of all), which organize propositions into larger entities (paragraphs, speeches, texts). This 'transpropositional' function led many contemporary authors to elaborate a system of textual linguistics, which describes the status and function of linguistic units in relation to the text in which they find themselves. This school will be dealt with in Chapter VII.

LANGUAGE DESCRIPTION AND EDUCATION

This chapter discusses the many difficulties afflicting the description of languages. It was only at the price of a long effort of refocusing and purifying that language description was able to free itself from the domination of religion and later from the concepts developed for Latin and Greek. In our own time, traditional grammar continues to weigh down analysis and bias certain concepts. The scientific method inaugurated by Saussure had as its objective the elimination of pitfalls by describing language in itself. He succeeded as far as the lexicon (the Saussurian analysis of the sign) and phonology (cf. Trubetzkoi) are concerned.

The same cannot be said about morphosyntax, and the great number of different approaches indicates the controversies over the best means of describing and defining grammatical units. It is important to realize fully the almost inevitable difficulties involved in morphosyntactic description. Structural linguistics attempts an internal analysis of morphosyntax, focusing on the number and neutralizing as much as possible the axis of the signified (cf. Bloomfield). This approach would have been sufficient if languages were exclusively made up of signs, that is, of units representing reality more or less univocally. But, as Benveniste and others have pointed out, language is not just an organized set of signs, it is actualized in speech acts directed at interlocutors and the status of most (or perhaps all) units is affected by the general communication function. Thus, language is also organized into texts and subordinated to certain factors of context, resulting in extreme complexity of the units and requiring complementary external analysis, such as taking into account the contextual parameters and the situation of utterance. Taking these external parameters into account is, of course, a delicate affair (What parameters should be chosen? How should they be defined? On what basis should the text unit be demarcated with respect to a given context?) and poses a dilemma for the linguist. He must either confine himself to the internal point of view centred around the sentence, which is relatively easy to do, or adopt the external, enunciative and textual point of view, which includes the communicative function of units, but which, because of the many complex factors it brings into play, is difficult to apply.

What are the lessons we can learn from this situation for the teaching of languages? One point immediately comes to mind. Even if it were legitimate for the scientist to elaborate a general theory concerning languages in general or language as a species characteristic, based on one or (preferably) several natural languages, the teacher is confronted with the task of teaching one specific language. He must therefore first make use of works which deal with the description of that language, rather than those whose objective is to elaborate a universal theory. As we have pointed out several times, traditional grammar must be rejected, because it deals only with the French language (or any other language) through the intermediary of Latin. But an analogous problem is posed by some contemporary scientific grammars which aspire to be univer-
CHAPTER IV

From describing languages to theories of human speech

The aspects of the language sciences that we have covered in the preceding chapters reveal a twofold shift: from analysis to synthesis on the one hand and from natural languages to human speech on the other.

With regard to the former, we observed that our predecessors either proposed an extremely piecemeal and technical analysis of the substance of language (the study of sounds or expressing substance and the study of the referent or expressed substance), or a syncretic approach, mixing logic, morphology, syntax and function (traditional grammar). Saussure's contribution is exceptional insofar as it represents the first genuine attempt to synthesize, placing the material, psychological and linguistic elements in their rightful place, and integrating their relationship in the notion of the sign. The shortcomings of Saussure's solution at the sentence level, however, stimulated various analytical methods focused on the signifier itself (for example, Bloomfield followed by various other attempts (the Prague School and generative grammar), the failure of which gave birth to the contemporary attempts at total integration of all aspects of language (to be discussed in Chapter VII).

With regard to the latter, grammarians and linguists, especially since the advent of general linguistics at the beginning of this century, often confused describing the characteristics proper to a given language (usually their own) with formulating the general principles of phonology, morphology or semantics as universal disciplines. This led not only to an 'empiricism of English' evoked by Martinet (1973) in the case of generative grammar, but also to utterly absurd descriptions of non-Indo-European languages such as Basque or certain African languages (cf. on this subject Creissels, 1979).

These two historical phenomena can be explained by the eminently complex character of human speech and by the multiplicity of points of view on how to deal with it. To avoid ambiguity in what is to follow, we think it worthwhile to provide precise definitions of notions which will serve as points of reference in the following chapters.

As we have already mentioned, the most readily apprehensible (observable) linguistic phenomena are natural languages, which are capable of description (see Chapter III) and the evolution of which can be retraced (see Chapter II). The adjective 'natural' opposes these systems to artificial forms of language (symbolic language, mathematics, road signs, etc.) designed by specialists at specific moments in history and not subject to evolution or spontaneous acquisition. Natural languages, obviously, are not limited to official languages adopted by a state or political entity. But the degree of confusion in this area remains high, as the following examples show:

**DIALECTE**: Variété régionale d'une langue ... Les dialectes normand, picard, Le dialecte de l'Ile-de-France, devien la langue française (Petit Robert, 1970, p. 476)

**PATOIS**: Parler, idiole local employé par une population généralement peu nombreuse, souvent

These examples show that, if we do not confine ourselves to a strictly linguistic analysis, there is a high risk of passing over normative stereotypes (the language of the majority is automatically more 'cultivated'), making errors of fact (picard, a French dialect?), and contradicting ourselves (dialect, regional language variety, becomes the language itself). Both older and contemporary scientific investigations have nevertheless made it possible to define and describe different languages satisfactorily and to analyse idiomatic or dialectical variations within the same general system (see Chapter II). This possibility exists only at the synchronic level, however, and we must bear in mind that languages change, by definition and on a permanent basis. One form of speech which objectively constitutes at a given time a dialectic variety can become, just as objectively, a different language several centuries later, by an accumulation of changes eventually affecting the system itself. Here we touch upon the problem of linguistic identity, fundamental on both the theoretical level and in its implications for teaching, which was brilliantly analysed by Saussure. Any linguistic phenomenon, including the language itself, can be considered identical to another only on a synchronic basis, meaning without regard to the factor of time. All normative methods (see Chapter II) suggest in fact an effort by society to deny this phenomenon and to impose diachronic traits, state languages and classroom idioms ('the French of all times').

By applying a scientific analysis of a taxonomic type (see Chapter III) to a natural language, we can identify different levels of linguistic units, such as phonemes (the language's relevant sound units), lexemes (nouns, verbs, adjectives and adverbs in the case of French), morphemes (articles, auxiliaries, pronouns, etc.), syntagmatic groups, types of sentences, paragraphs, or even texts. As we have already remarked, the identification of relevant units in a language requires a strictly linguistic, internal analysis, but this approach, which abstracts meaning and context, has limitations which can be neither ignored nor overcome.

Language is a concept which is hardly used anymore outside the Saussurian school and designates the characteristics common to all natural languages, analysed from an internal linguistic viewpoint. It is a theoretical construct, resulting from a process of abstraction of the other natural languages on the one hand, and of the behaviour of speaking subjects on the other (the idea of speech, parole). Language, as opposed to the notion of human speech in general, has a social dimension; language is above all an institution.

Whatever the characteristics of their natural language, whatever the geographical location, the point in history, the condition of existence and of learning, all people speak! Because of this obvious fact (which is, perhaps little more than a tautology), the conclusion was made that the human race possessed a faculty called human speech. For many years, however, this general concept expressed spiritual preoccupations (speech as the expression of the soul); nowadays it expresses biological preoccupations. According to Chomsky (1968) and many other contemporary authors, speech is an innate ability, based on specific genetic equipment which emerges in early childhood and underlies all linguistic performances by humans. According to this way of thinking, as the same author asserts, the vocation of linguistics is to elaborate, using its own methods, a model of linguistic competence which, once set up, will also constitute an asset for psychology (the science of behaviour) and biology.

All the concepts we have just outlined deal with the language phenomenon as a
system or according to its structural aspects; we will now take it up from the functional point of view. What is its purpose?

The most obvious function and the one most frequently mentioned is that of representation. The signs of all languages are complex entities which reproduce objects, actions or concepts with the help of a visual or acoustic substance. To designate this same function, the term denotation, expression of content, transmission of information, or quality as a frame of reference are used.

Just as obvious as the previous function is that of communication, which, borrowing from Jakobson's over-simplified diagram, is often defined as the transfer of information from the sender to the receiver. Communicating, in reality, is much more than that. Whereas the process of representation is an individual phenomenon (a person represents reality to himself), communication is a social process. In a given context (an institution) which sets the rules for exchanges, a linguistic act is undertaken by the sender with the goal of modifying one or several target persons. Sometimes this takes the form of transmitting information to the receiver, or of requesting information, drawing his attention, provoking him, etc.

As we have shown in detail elsewhere (cf. Bronckart, 1977 and 1978; Bronckart and Ventouras-Spycher, 1979; Bronckart, Gennari and de Weck, 1981) communication and representation are sufficient for characterizing a language on a functional plane. The many other concepts still introduced (expression, conation, regulation, translation, cognition, development of personal identity, etc.) are in fact consequences or subproducts of these two main functions. In addition, it would appear that natural languages, which are characterized by the merging of the two functions of communication and representation, are not to be found in any other type of animal behaviour. At the functional level, therefore, the veritable originality of human speech is established.

The structural and functional definitions we have just outlined are recognized by most specialists. That can serve as a reliable basis for work and make it possible to separate easily the spheres of internal linguistics (analysis of structures) and psychology (analysis of the main functions). This breakthrough was achieved, however, at the price of disregarding two problems: that of the existence of non-linguistic forms of representation and communication, on the one hand, and the threat of the methodology of reconciling structural linguistics (especially the impossibility of overcoming these limitations without resorting to extra-linguistic factors), on the other.

The first problem is mainly of an epistemological nature and can be expressed in the form of a paradox. On the one hand, it is admitted that the different modes of representation (images, signals, gestures, etc.) are the rightful objects of the study of psychology (as the work of Piaget shows), just as the different codes of communication are the sphere of social psychology. On the other hand, the theoretical formulations of linguistics are distinct from those of psychology and all attempts at reconciling them have failed; either psychology destroys the specificity of language (the work of Piaget) or it is challenged by internal linguistics (the evolution of psycholinguistics). The inverse attempt to integrate all these objects into a general theory of signs (semiology) has been at the project stage since 1916 and it is likely to stay there. We find ourselves, therefore, in this strange situation of interlocking objects of study (the sub-class of language in the general class of communication phenomena) and of complete divorce between disciplines dealing with these objects.

The second problem is of a technical nature. If we accept the principles of strict linguistic behaviourism, we will not be able to solve the problem of syntactic combinations of units such as verb tenses, for example. If we integrate semantic concerns into the description, we discover that large sub-groups of units (pronouns, deictics, tenses) are not analysable unless we take into account the situation-of-utterance (cf. Benveniste, 1946). Finally, if we continue with this semantic development, we discover that the meaning of any utterance depends on a vast set of extra-linguistic conditions (acquaintanceship with the interlocutor, assumptions, etc.) which are of a pragmatic order.

The difficulty of these two problems led most contemporary linguists to go beyond internal analysis and to see language as a discursive activity performed in a given context (situation of utterance), the material trace of which are the utterances of the natural language. This new approach is still experimental and integrates apparently very diverse conceptual points of view (cf. Schneuwly, 1985, for an overview of authors in German). It does, however, make it possible to begin to answer the two questions we posed.

Provided we are willing to accept all linguistic productions as the trace of discursive activity, the study of the latter becomes the common object of linguistics and psychology (the study rules of underlying rules, procedures and operations), and the description of material traces remains the object of internal linguistics, in which, it will be admitted, only the 'surface' of the language phenomenon is dealt with. Besides its intrinsic theoretical value, this clarification will enable us to distinguish effectively between the description of a natural language and the elaboration of a theory of human speech.

The description of a natural language involves both the description and classification of the different relevant linguistic units (see above) and the formulation of rules as the sole frame of reference for combining these units with the system of the language. Provided it limits itself to traces (which often reflect only imperfectly underlying operations), this approach will always remain limited, but within these limits it technical effectiveness is remarkable, as was shown in Chapter III. For a good many language-teaching activities, therefore, structuralist descriptions will largely suffice. But for the analysis of the mother tongue to reinforce the passage to writing and spelling proficiency, as well as for the development of skills in writing longer texts, and for an initial analysis of foreign languages, a type of conceptualization based on distributionalism or Martinet's functionalism will be more effective than formulae handed down by generative grammar, speech act theory, or textual linguistics. On this point, linguists should no longer be conservative.

The elaboration of a theory of human speech by definition implies the formulation of a general model, which, even if it is illustrated by analysing the utterances of a particular language, is supposed to apply to all languages. The generative model, for example, is not a description of the English language. Even if it makes use of English and can in return contribute to it, it is a theory of linguistic behaviour which should apply just as well to Algonquin, Chinese and Turkish and which should thus be based on numerous comparative descriptions. There is certainly much to be done in this field! The factor that most differentiates the description of a language and the theory of language is that the latter, insofar as it is a model of linguistic operations, must deal with the problem of the relation between linguistic units and extra-linguistic parameters. Thus, it is in the context of theories of language that the question of relations between 'words' and 'objects', between syntactic rules and cognitive processes, between organization of texts and enunciative parameters, etc., will be posed. Because of the complexity of these questions, theories of language (which we will describe in Chapters V, VI and VII) are relevant only in teaching related to the perfecting of knowledge, meaning the textual and syntactical questions, particularly with regard to the teaching of foreign languages, and in the delineation of the broad characteristics of discursive activities, to facilitate the acquisition of a solid mastery of text behaviour.
CHAPTER V

Words and objects: vocabulary, meaning and frame of reference

INTRODUCTION

As far as the general public is concerned, the relations between language and extra-linguistic reality are characterized first of all by their simplicity: language as a vehicle gives a faithful image of the outside world, sentences describe events and words translate ideas, feelings and objects. Better-informed persons will add that each natural language has at its base a contract concluded by the members of a social group to use certain arbitrary sound sequences for the purposes of communication. This dominant way of thinking presents language as a naming process (linguistic units are labels attached to reality), presupposing a contract at the level of the speech community. It is usually accompanied by an equally simple theory concerning the functioning of the speaker. Labels, which make up the vocabulary of a language, are learned by association and conditioning, then stored in the memory and called upon when necessary.

The obviousness of the relation between words and objects was questioned by sharp-sighted philosophers as far back as ancient times, but this has been by and large neglected by contemporary linguists since it gives little attention to problems of meaning. If there is one branch of linguistics devoted to the study of lexical facts it has, as Rey-Debeau remarks (1970), not yet found its true place in modern linguistics, due to the absence of sufficient theoretical foundations [our emphasis]. It is reduced to diachronic analysis (etymology in the broad sense), to the privileged study of conceptual themes (and in this it is onomasiological, whether or not it is admitted), or to the gathering of observations (in the sense used by Chomsky) extracted from the corpus, while its veritable sphere should be the description of the lexicon of a language... (p. 3).

At the more general level of semantics (seen here from the general and deliberately vague point of view of the 'meaningful effects produced by sentences'), an analogous observation can be made, the main effort of the structuralist movement having been precisely to neutralize the aspects of meaning. Despite recent progress, we can only admit 'the state of our ignorance' in this area, according to the terms used by Ariel Weinreich (de Mauro, 1969).

Teachers have shown little more interest in vocabulary and lexicon than linguists. A good many classical and/or modern grammars deliberately overlook this aspect of the language; likewise, Wagner and Pinchon take up semantic analysis only in a short introductory paragraph in which they point out that 'a grammatical analysis is naturally accompanied by a semantic commentary [our emphasis], since we express ourselves in order to say something, in order to be understood, and in order that the morphological and syntactic structures contribute to the formation of meaningful sets'. They quickly add, however, that 'these meaning values should not be overly split-up into arbitrary nuances' (1962, p. 25). Grévisse, meanwhile, in his Précis de grammaire française, devotes twelve pages to 'words', dwelling on their origins (etymology), their composition and the family to which they belong, and expedites in only nine pages the genuine lexical problems (homonyms, paronyms, synonyms and antonyms). Even if highly commendable efforts have been made in integrating the lexical point of view into certain contemporary textbooks (cf. for example, Besson, et al., 1979), practices in the teaching of vocabulary remain generally dissociated from grammatical activities. The process involves learning vocabulary at the same time as becoming acquainted with the outside world (the familiar 'lessons of things'), and the sole genuinely generalized instrument is the dictionary, regarded as an inventory of all lexical items in the language.

As can be seen, the questions of meaning and of the frame of reference are usually dealt with superficially in both scientific linguistics and in educational science, perhaps because they are probably the most difficult problem with which the elaboration of a theory of language is confronted. The idea of an agreed-upon nomenclature barely scratches the surface of the problem of semantics. Throughout the history of ideas, it has been associated with positions as diverse as that of Aristotle, for whom words were 'the faithful messengers' of the physical and psychological world, guarantors of the progress of human knowledge, and that of all 'semantic sceptics' (see below), for whom the basic arbitrariness of linguistic units renders communication impossible and reduces us to an endless chattering of inaccessible significance. Thus, the notion is justifiably criticized by authors who attempted to lay the foundation of general linguistics. Saussure states that

Some people regard language, when reduced to its elements, as a naming process only - a list of words, each corresponding to the thing that it names. . . . This conception is open to criticism at several points. It assumes that ready-made ideas exist before words. . . . Finally, it lets us assume that the linking of a name and a thing is a very simple operation - an assumption that is anything but true (1916, p. 97).

Martinet makes a similar remark half a century later:

The notion of language as a repertoire is based on the simplistic idea that before man, the entire world was ordered into perfectly distinct categories of objects, each necessarily receiving a name in each language (1960, p. 14-15).

We could produce numerous analogous quotations which criticize the simplistic psychological notions of learning and storage in the memory. They all agree on the complexity of the problem and bemoan the poverty of current knowledge.

Below, we will attempt to expose the main problems involved in the formulation of a theory of meaning, basing ourselves on a few historical points of reference. We will then analyze attempts that have been made to construct such a theory by linguists and philosophers, most of whom are contemporaries. We will briefly take up the new avenues opened by the psychological and experimental approaches to semantics before dealing with the educational and didactic aspects of these problems.

ASPECTS OF THE HISTORY OF MEANING

'In the history of culture, there is a moment in which what is today the "superficial idea of the general public" was the victorious conquest of an ingenious, innovative thought.' This remark by de Mauro (1969, p. 42) describes perfectly what the same
This conception of language as "an organized image of ordered reality" was an effective response to ancient animism and a rampart against the sceptical language of the defenders of "incommunicaibility". It also had certain less positive effects, however. Whereas the analysis of language provided a model of studying extra-linguistic phenomena, as set forth in the second and third postulates given above, the use of a language presupposed to some extent a thorough knowledge of reality (cf. criticism by Saussure and Martinet). Th e first of these two corollaries of Aristotelian thought gave birth to verbalism, which dominated science in the West until our time; the second is recognizable in the emphasis placed on logic in the majority of grammatical works (see Chapter II on traditional grammar). Indeed, languages were studied for their intrinsic characteristics (description of linguistic units) than for the real order they were presumed to express. Through the centuries, especially with the development of classroom practices, the logic-oriented aspects of Aristotelian thought were taken up again and underwent both radicalization and banalization. When rejected during crises in Western thought, they were sometimes "updated" (the Port-Royal Grammar and Chomsky's innateness, for example), but they have always remained dominant in the minds of the majority of people. They account both for the taking of the fact of meaning for granted and for the lack of interest on the part of linguists for a few years ago.

Saussure and Wittgenstein, two extremely different scholars who were moved by a common desire to understand the nature of the relation between language and reality, strove to overcome the unquestioning acceptance of the phenomenon of meaning. 'A system of linguistics which analyses objects without first having assimilated the Saussuran experience, possibly correcting or rejecting it, but only after having thoroughly understood it, is to Saussuran linguistics what the neighbour's silly prattling on income is to economics.' The reader will have realized from the preceding chapters that we have made this affirmation by de Mauro in our own (1969, p. 127).

Saussure is the 'open sesame' of any serious study of language, in particular, any analysis of the problems related to meaning, even if an initial analysis shows it to be a failure in theoretical terms! One of Saussure's concerns in attempting to establish linguistics as a scientific discipline was to define its object, that is, to identify the specific and essential characteristics of linguistic facts. As we know (see Chapter II), Saussure's demonstration on this point proceeds by elimination: Saussure rejects all explanation which defines the linguistic unit by means of the identity or the similarity of the linguistic material of which it is made, or the permanent character of its signified (what makes a linguistic unit, the link of meaning which ties it to the 'object' it designates, as Aristotle thought). For Saussure, the linguistic unit is to be found neither in its acoustic material nor in its content, but in the formal tie between the two; the sign is not purely signifier, nor purely signified, but a synthesis of the two.

Once the limits of the sign have been defined, the problem of its identity presents itself. Why is it that a linguistic unit remains the same, while at the same time certain aspects of the signified (for example, 'gentleman' pronounced several times during a lecture with variations in intonation and phonetic differences) or the signified (the same examples, but from the point of view of the interlocutors) are modified? Saussure's well-known reply was that it was the system of the language. Signs can only be apprehended (in synchronic linguistics) negatively, that is, in relationship to the other available signs; according to Saussure, they constitute the relative values within the system.

An individual sign is dependent on a system of signs (a fact often overlooked); all signs are solitary. All magnitudes are dependent on each other; what is, for example 'judgement'? We can only define it by what surrounds it, either by saying what it is in itself or what it is not. The same applies if we want to translate into another language. Thus the necessity of considering the sign or word as part of a complete system becomes apparent. (Quoted by de Mauro, 1969, p. 20-21).

Identifying the sign by the place it occupies in the system, contained the seeds of a contradiction, however. Th e first was clearly expressed by Godel (1969). A linguistic form is what it is only because of its relationship to other forms in the same system, but at the same time it is impossible to define these relationships without referring to the forms among which they exist. Linguistic units and relationships (or systems) thus find themselves in a vicious circle. Th e second contradiction was pointed out by Lucidi (1950). From the Saussuran point of view, if an element is removed or added (a new word, for example, through lexical usage), all the units of the entire system change. Since the phonemic substance or the content cannot serve as criteria for identifying units, the system has no invariant and, consequently, no capacity for transformations. It is thus impossible to explain linguistic change, or, more precisely, the mechanism responsible for the evolution, modification, descent, etc., of languages. In other words, the Saussuran conception of a completely closed linguistic system does not allow us to define diachronic units, leaving an essential aspect of the phenomenon of language unexplained, or even 'mysterious', to use the author's own expression.

Wittgenstein's initial approach (that of the Tractatus) was an attempt to develop a fundamental philosophy of language in the same way as Saussure. Like the latter, who lamented 'the difficulty of writing merely ten lines of common sense with regard to the facts of language,' Wittgenstein attempted to lay the foundations of 'sound' philosophical analysis, by establishing clear and unequivocal definitions of concepts as simple as world, facts, things, representations and forms. This effort brought him to a kind of reformulation of the second and third Aristotelian postulates mentioned above:

'The representation is a fact', but a particular kind of fact which must have something in common with that which it represents. In other words, the signs of a language (among other things) are objective elements representing pre-existing facts and are themselves objective.
Vocabulary, meaning and frame of reference

The elaboration of a theory of meaning requires that we transcend the verbalism and logic of Aristotelian thought and avoid the pitfalls of tautological, closed systems or solipsism. Signs of progress of this kind first made their appearance towards the end of the Middle Ages. William of Ockham, for example, tried to impose a nominalist conception, according to which words should not be considered as images corresponding to pre-existing objects, but rather as forms through which the mind constructs logical sets of relations. Later, with the advent of the experimental sciences and the classifications of the natural sciences (Galileo, Linnaeus), it was held that increased knowledge was obtained through exploration, dialogue with the external world without the new elements thus brought to light having previously received a name in the perfect language postulated by Aristotle.

At the same time, the emergence of the vulgar languages made evident the diversity of linguistic processes and called into question the assertion that language was an ordered, univocal, immediate and simple image of a likewise logically ordered realm of concepts and things. In reality, each language appeared to be fundamentally tied to the culture and history of a group ('Germans bellow, Englishmen weep, Frenchmen sing, Italians buster and Spaniards speak'), and these social and historical bases need to be studied. This new way of viewing the relationship between language and reality culminated in the works of Bacon, Locke and Leibniz. But it was rapidly challenged and stifled by the revival of Aristotelian thought undertaken by Descartes and the Port-Royal Grammar on the one hand, and the historical and comparative linguists of the nineteenth century, on the other. As de Mauro critically observes:

... aloofness and indolence were such that, at the end of the century, the dominance of Aristotelian ideas over language was completely restored in European culture. Their penetration was greater than ever before, since never before in the West had there been such wide-spread accessibility of elementary schooling, the immense upsurge of 'common sense' becoming the linguistic conception of the 'general public'. A brilliant epoch is not only the philosophical, but also in the scientific, literary, social and political history of modern Europe appears to have been in vain: the advent of the experimental method, religious and literary polemics against the idea of a universally perfect language, the discovery of the internal semantic diversity of languages, and, consequently, interest in their profound historical character, the meditations of Bacon...
Vocabulary, meaning and frame of reference

The language sciences: an educational challenge

of Locke, de Vico, Leibnitz, Berkeley, Hume, Hamann. All of this, when we consider the language used at the end of the nineteenth century, seems never to have occurred. Facilitated by the inattentiveness of philosophers, absorbed and legitimized by common sense, accepted because of the lazy silence or stupid repitition of 'specialists', the Aristotelian conception, discoloured and corrupted by so many reappearances, seems destined to dominate unchallenged. (1969, p. 82).

It was this state of affairs that Saussure and Wittgenstein attempted to clarify, but with only partial success. They persevered nonetheless and if there was an official second philosophical position of Wittgenstein as presented in Remarks philosophiques (1975), there was also a 'second Saussurian position' that the editors of the Course in general linguistics had failed to recognize, but which became evident in certain courses given in 1908-1909. [1] 'The true and unique object of linguistics is language studied in and for itself.' Who is not familiar with this statement which ends the Course and constitutes the creed of official internal (or Saussurian) linguistics? We now know (cf. Godel, 1957) that this sentence was invented purely by the editors. In their extremely legitimate concern to present the thought of their master as a coherent whole, they not only made additions of this kind, but also expunged from Saussure's language traces of doubts concerning the notion of system and overtures towards another, more radically social conception. Indeed, in the 1908-1909 courses there appear, besides the conception of the value of a sign as dependent entirely on its place in the system, various remarks introducing a new variable, namely society.

Indeed, when a semiological system becomes the property of the community, it is pointless to want to appreciate it outside of what can happen to it as the result of this collective nature and it is sufficient, to grasp it in its essence, to examine what it represents vi-a-vis the community (or environment) and what the possible object of study in the species of the system (the study of its only deserved to be studied according to how it functions at sea). Thus, only this system belonging to the community is, and deserves to be, called a system of signs. Characters from before the advent of the community, that is, purely individual elements, are of no importance. The system of signs (which always tends towards this kind of environment, the only one in which it exists) is made for the community, just as a ship is made for the sea. This is why, contrary to appearances, at no time is the semiological phenomenon divorced from the fact of the social community. The social nature (of the sign), is one of its internal elements, and not external [our emphasis]. We consider semiological, therefore, only the phenomena which are characteristically a social product (Saussure, 1908-1909, quoted by de Mauro, 1969, p. 25-26).

In this way, the initial conception of the sign as a value finds itself considerably enriched and made more complex:

Value in general is a complicated subject, and ... the word is perhaps one of the most complex of values ... particularly because as soon as we speak of values, their relation with each other comes into play (no value exists alone), which means that the sign has no value of its own apart from its consecration by the community. There would appear to be two values in a sign: its value in itself and that which comes from the community—but basically it is one and the same. We are thus saved from committing certain errors. We now see much more clearly than before that it is only the social fact which creates what exists in a semiological system (op. cit. p. 27).

These remarks from the second course, which the editors did not include, are taken up again in the third course, and the new Saussurian position will lead to the introduction of the concepts of signifier and signified and to a re-evaluation of the arbitrariness of the sign, which de Mauro called radical arbitrariness (1969). As we have shown in detail elsewhere (Bronckart, 1977, p. 108-114), while the original notions of concepts and of acoustic images helped define the two faces of the sign according to the conception of it as a value within a closed system, the terms signifier and signified were introduced later to express the radically social character of the analyses carried out by the linguistic community with regard to form and content. The acoustic images and concepts that subjects elaborate with regard to linguistic sounds and reality as referent are not the constituent elements of the sign; they have to be reorganized and reanalyzed by the community. This procedure is at the very crux of arbitrariness. With this, the problem of the identity of linguistic units (particularly with respect to diachronic linguistics, see above) finds the beginnings of a solution.

It is necessary to recognize that, in this (the judgement on whether or not a linguistic element retains its identity), there is a subjective element, but one that is common to everyone. It is difficult otherwise to see where the identity lies. The phenomenon of identity is fundamental. The entire mechanism of language revolves about identity and difference (quoted by Godel, 1957, p. 139).

The invariant, with regard to which the question of a relation of identity will be posed, is not to be sought in the system of language, but in the community which founded it; it is within the social context that the values of signs are set and that judgments relative to the identity or difference are made.

Saussure, as we know, died young and his second position was left at the outline stage. No one can say with certainty what direction the Geneva author would have taken, but we are permitted to think that it would have been similar to that developed by Wittgenstein in the second part of his work. Drawing the conclusions from the impasse in which he found himself in the Tractatus, Wittgenstein reoriented himself in the Remarks philosophiques to base himself not on the essence of phenomena (facts, world, sign etc.) but on the conditions in which we have access to them, in particular, on what we can say about them. This new attempt led him, first of all, to reject one of the basic postulates of Aristotelianism, namely the existence of primary elements which are the simplest constituent elements of reality and on the basis of which the operation of designation or labelling with words is done. This rejection is of paramount importance when we consider that it attacks the very foundation of the idea of language as a naming process; from now on, language and meaning can no longer be thought of as the perfect image of a pre-established organization (or logic) of reality. Wittgenstein rejects this conception of language as a passive mirror-image of reality in favour of a more active one: language is an active constituent of human knowledge by which it is preserved and transmitted. He adopts a resolutely nominalistic position ('grammar tells us which kind of object anything is ... how do I know that this colour is red?') One answer would be: 'because I have learnt English.' This uses the analysis of 'language games' to show the significance of use in the process of meaning. Each unit of the language can, of course, be defined within strict and rigorous limits (the idea of 'horse', for example, applies to a specific, clearly delimited set of animals), but each speaker can also use this same unit without respecting its limits ('this woman is a real horse'). Any word, therefore, can be taken out of its original context and put to another use, which will define another meaning. Thus, as de Mauro observed:

It is incorrect to describe the signified of a form based on an object or concept we think it denotes, for the very use of the object is a component of the total object or concept as a unit. That is why semantic or syntactic analysis cannot rely only on the analysis of word usage. Wittgenstein himself drew this conclusion: 'For a large class of cases, though not all, in which we use the word meaning, it can be defined thus: the meaning of a word is its use in the language (1969, p. 179).
According to this way of thinking, defining a unit by referring back to its referent (which is the usual solution) represents only a limited case; we must first analyze forms and their use in sentences to define their value and only then ask what they refer to. For Wittgenstein, semantics must cease to be the science of the signified and become the science of the meaning-giving act: the effective object of the study of linguistics is not forms ‘in themselves’, nor the signified, but signifying behaviour: ‘Every sign by itself seems dead. What gives it life? — In use it is alive.’

This idea that the problem from meaning to values based on use could have led Wittgenstein to develop a new form of individualism (each person is free to use the signs of a language as he wishes and, thus, make communication impossible). But he goes beyond this position and insists rather on the social bases of use. On the one hand, use results from important social and cultural learning processes; without education and without the habit of the particular way words are used in a given social group, the use of language for purposes of communication is impossible. On the other hand, language is still, nonetheless, a system; it is composed of a set of sentences which can be identified and understood when they are put into relationship with other possible sentences.

But what does it mean to use one sentence in opposition to another? Do these other sentences come to mind? All of them? While we are pronouncing a sentence, or before, or after? No, they don’t. Even though we might find such an explanation attractive, a moment’s reflection will tell us that we are on the wrong track. We pronounce and use imperative sentences with respect to other sentences because our language contains the possibility of these other sentences. Wittgenstein’s signified presents itself ultimately as the signifying use of the speaker, within the framework of the rules of behaviour of the group and the possibilities of the system of the language. In our view, this position constitutes the point of departure of any serious attempt to understand meaning.

The extended version of Wittgenstein’s thinking (in particular with regard to ‘meaning-giving acts’) implies a complete re-examination of the methods of language sciences, which we will take up in Chapter VII. To conclude this section, we will simply reproduce, in homage, a general commentary by de Mauro — to whom we are deeply indebted:

The definition of the signified as use restores ... all the objective complexity of the phenomenon we set out to define. As we have seen, it declares, first of all, that the word itself is inert. Second, it enables us to understand and to situate an important fact in the relevant context required, that is to say, that most often the word functions and signifies in combination with others. It is precisely because of this characteristic that Mr. Lucidi (1950) proposed reserving the term ‘sign’ for the sentence (including sentences which are combinations of only one word; that is, holaractic expressions such as ‘Hello! ’Quiet!’) and adopting for the simple word a term which emphasizes its identity as a unit possessing semantic valency only when it is inserted in a sentence, or adopting a term which indicates its nature as a ‘sub-sign’ or, as he suggested, using the term hyposeme. Third, since sentences are realized within a system of alternatives to the sentence itself, the definition of the signified as usage implies that it becomes specific, for the speaker as well as the linguist, only when the word is related to the others which can alternate with it, as Saussure has always asserted. Through the mediation of the sentence and the system into which it is integrated, the hyposeme participates in the actualization of the reference to sectors of experience which it individualizes in combination with behaviours which, within a given community, qualify and determine this selfsame sector (1969, p. 190).

Until now we have taken up the problems of lexis and semantics from the formal (or semiotic) point of view of philosophers and linguists, but all meaningful units are made to function by speakers. They are the result of semantic activity which constitutes, in its extension and in its comprehension, a subset of the psychological activities of human beings. The problem of meaning is, to this extent, inherent in problems of behaviour that psychology has almost never treated in its own right. Psychology has only dealt with it indirectly, within the general framework of the problems of the acquisition of a language, on the one hand, and within the framework of the study of the structure and functioning of the memory, on the other.

Conceptions with respect to the acquisition of language are legion, but we will group them into four fundamental alternatives, based on precise epistemological postulates.

The first approach, which we will call logical interactionism was energetically developed by Piaget. This author’s central idea was that the development of language is posterior to cognitive development and that it is one of the consequences thereof, both on the level of the evolution of the species and the development of the child. The latter, in its interactions with objects of the outside world, ‘constructs meaning’ on them, that is, constructs its own ‘signified’ in the ordinary sense of the term. This process of construction is progressive, to be stabilized, conserved and exploited effectively, the signifieds are represented by concrete elements characterized by greater and greater differentiation (indices, mental images, symbols, verbal signs). In this conception, we first observe the creation of a pre-linguistic sense of the Aristotelian type, followed by the elaboration of a succession of semiotic or figurative instruments that Piaget also called ‘signifiers’. The mainspring of development is basically cognitive-logical, and no special place is accorded to the specifics of natural languages, or to the communicative role.

It is on this point that Piaget’s position differs most distinctly from that of Vygotsky (1962) and all the tenants of the second approach, social interactionism. Here, the appearance of language during the child’s second year is thought to be the result of the merging of two types of development: one of a socio-communicative nature, the other of a semiotic nature (cf. on the subject, Bronckart and Ventouras-Spycker, 1979). By interacting with his physical environment, the child constructs for himself logical representations (sensory-motor intelligence as used by Piaget), but, simultaneously, in his contacts with the social, speaking environment, he elaborates rules of exchange and use proper to the group. Dissociated during the pre-verbal stage, these two constructions become integrated when the child uses arbitrary units proper to the group (words) to represent reality and to exert an influence upon it. As may be observed, while Piaget’s concept is compatible with Wittgenstein’s position in the Tractatus, that of Vygotsky corresponds rather to the thought of the second position of Saussure and of Wittgenstein and, therefore, appears better able to deal effectively with the problem of meaning.

In our view, despite their differences concerning the role ascribed to social uses in the semantic development of the child, the two positions we have just discussed have a fundamental point in common: they introduce the problem of the interaction between man and his environment and thus explicitly take up the question of the construction and nature of meaningful units. Such is not the case with the third and fourth major epistemological currents, strict behaviouralism and Chomsky’s inativeness.
work, a distinction was made, based on the findings of Broadbent (1958) and Waught and Norman (1965), between 'short-term memory' and 'long-term memory', the first being limited in capacity and the determinant for the phenomenon of forgetting, and the second being theoretically unlimited, because of its high degree of organization.

The extensive empirical observations of Paivio (1971) in support of this, led him to postulate the existence of a dual system of encoding: verbal encoding and non-verbal encoding (imaged or eidetic). He insisted on both their interconnection and specialization; while imagery is an information processing system particularly well adapted to simultaneous situations, the verbal sphere is particularly adapted to the recording of sequential information. The dual encoding hypothesis is generally accepted today and it is believed that there exists a semantic memory. It seems, however, that non-verbal coding processes predominate in the memory of recognition, and that even in recall situations requiring a verbal response, performances are better when the material presented is of an image nature.

The hypotheses concerning the organization of memory were formulated fifteen years ago on an interdisciplinary basis involving data processing specialists, linguists and psychologists using programmes simulating certain aspects of linguistic activity. While most of the programmes carried out in the early 1960's were limited to automatic syntactic analysis procedures, the first trials involving question-answer simulation in a natural language made evident the need to store a certain quantity of information in the memory. After several attempts at programming these artificial memories using terms borrowed from the Chomskyan model (attempts which proved to be fruitless), a turnaround in thinking occurred and memory was considered to be basically semantic. Whereas the originator of this new approach, Quillian (1968), stayed close to the behaviourist model, which only considers the associative forces between words, the models suggested by Rummelhart, Lindsay and Norman (1972), Kintsch (1972) or Anderson and Bower (1973) postulated the existence of directed and ticketed links between the elements stored in memory. Moreover, they considered the basic storage unit to be the proposition (or concept) rather than the word. Associations between stored elements depend generally on the relationship between the verbal kernel and the nouns or classes of nouns defined according to Fillmore's theory of cases. These association procedures are only in their infancy, but they are not doubt one of psychology's most promising areas of inquiry in the study of semantic phenomena.

TEACHING VOCABULARY AND THE LEXICON

As we observed in the introduction to this chapter, educators attach little importance to problems of vocabulary and meaning in their textbooks or in their most theoretical writings, a situation which can doubtless be explained by the fact that the growth of general knowledge, including lexical knowledge, is such a central objective that it seems to require little specific attention. Is this relative disinterest justified?

We should first observe that the theoretical problems taken up in the first part of this chapter (the genesis of a theory of meaning) are too complex to have a direct impact on the teaching of vocabulary. We feel, however, that an initiation to the complexity of the phenomena of meaning is indispensable to the training of all primary and secondary-level teachers, if only to prevent the perpetuation of handed-down ideas and the scholastic notion of meaning, which are manifestly incorrect!

With regard to functioning processes and the mode of organization of the semantic
memory, it seems that current scientific knowledge is too limited and uncertain to be of any help in the teaching process. Attempts to implement scientific findings in teaching the lexicon (cf. Deleusile, 1974, and especially Besson et al., 1979) are still extremely experimental and present a system of lexical organization (hyponyms, antonyms, complementarity, etc.) based more on principles of logic than on strictly linguistic principles. Such presentations can no doubt help the teacher in the preparation of lessons and exercises, but these categorizations should not be projected on to the abilities of the child since we know absolutely or almost nothing about the processes used by the child in the acquisition of a lexicon.

Despite the theoretical importance of the problem of meaning and the promising nature of certain experiments, the data gathered by the language sciences do not provide a relevant, effective working basis for the teacher. He still finds himself confronted with the classic problem of teaching vocabulary, and a certain type of empiricism in the methods used seems inevitable. In this regard, however, we should mention the usefulness of certain psycholinguistic approaches which analyse the stages of thought of the child with respect to linguistic units (Berthoud–Papandropoulou, 1980 as well as more descriptive works, such as those of Ehrlich et al., 1978) and culminate in a sort of 'genetic dictionary' of the lexical knowledge of the child in primary school.

NOTES

1. The Course, it should be recalled, was edited after Saussure's death by two of his students, Bally and Sechehaye, based on their personal notes and those of several co-disciples from the three courses in general linguistics given by Saussure in Geneva from 1906 to 1911 (cf. Bronckart, 1977, p. 85–86).

CHAPTER VI
Theories of syntax

INTRODUCTION

The elaboration of theories of syntax is rightfully considered one of the fundamental achievements of the language sciences, especially of formal linguistics, in the second half of this century. These theories are, therefore, recent. As we have repeatedly emphasized, the approach adopted by grammarians of ancient times and of the Renaissance was centred on the analysis of language as the translation of the logical organization of reality. This logic-oriented, universalist and mentalist conception gave evident priority to conceptual categories and their lexical or morphological translation, and thus neglected the genuinely syntactic aspects of natural languages. The nineteenth century marked a turning point with the Neo-grammarians who were the first (see Chapter II) to confront the problem of linguistic diversity, but it was not until the beginning of the present century that the necessity of elaborating a theory of syntax was recognized.

The treatment of syntactic phenomena has, however, taken two quite different epistemological and methodological paths: on the one hand, an approach inspired by behaviourism took as its starting point the description and classification of units and apparent grammatical relations in natural languages; on the other hand, a functionalist approach attempted to formulate general rules of syntactic organization. The first school is often called, for convenience sake, the structuralist school; it includes the works of Bloomfield, Harris, Peck and many others, some of whom we mentioned in Chapter III and who dominated the linguistic scene until the 1950s. The second school is represented by authors such as Sapir, Jespersen, Greenberg and Tesnière, but remained relatively unknown until the emergence of Chomsky's generative and transformational grammars, which was the first explicit, exhaustive theory of syntax.

It would not be within the scope of the present work to present a complete panorama of contemporary work on syntax. We refer the reader, therefore, to the works of Chomsky (1957, but especially 1969), Lyons (1970), Nique (1976) and Berrendorfer (1983), as well as our introductory critique (Bronckart, 1977). Here we will focus on the essential characteristics of generative grammar, before going on in the next chapter to discuss several more contemporary schools. Problems related to the use of theories of syntax in language teaching will be taken up in our final chapter.

GENERATIVE AND TRANSFORMATIONAL GRAMMAR

The work of Chomsky constitutes to date the most important contribution to the field of syntactic phenomena; it marked a decisive turning point in the evolution of
linguistics and, in this way, was truly 'revolutionary'. As we have emphasized already, it is a difficult body of work, not only because of its highly technical and formal quality, but also and especially because of the diversity of successive models that have been proposed and the interpenetration, at times difficult to digest, of considerations drawn from philosophy, psychology, politics and linguistics. We could, therefore, choose to restrict ourselves to the strictly linguistic aspects of the work and to present it in its successive phases, as Berrendonner does in his excellent Cours critique de grammaire générative (1983); we could also choose to analyse the initial epistemological objectives and their practical relationships, as we have done already in Théories des langues (1977). In either case, the model which represents them would be long and extremely technical! Consequently, in the following pages we will present a somewhat artificial and simplified reconstruction of generative grammar, analysing, first of all, its main objectives, independently of their historical evolution (which is nonetheless important!) and presenting, thereafter, the main models in Chomsky's Syntactic structures (1957/1969) and Aspects of the theory of syntax (1965/1971).

The general aim of Chomsky's work is to account for the competence manifested by every human being in linguistic activities, especially an aptitude which was overlooked by the majority of the previous schools, creativity. Every speaker, instead, reveals himself capable of producing and understanding and infinite number of sentences, using a finite number of linguistic elements (phonemes, morphemes, lexemes) and, with the exception of certain sequences which are nearly automatic ('Hi! How's it going? 'All right, and yourself?'), most utterances made or received are 'new', meaning they have been created or re-created by the speaker or listener. This creative capacity assumes the existence of an underlying mechanism and it is this mechanism that Chomsky's grammar attempts to represent, using a method characteristic of modern human sciences, namely simulation.

The grammar is conceived as a sort of formal machine simulating procedures (or rules) which make the creativity at work in the language possible. The first step in describing this grammatical machine will consist of differentiating between correct utterances and incorrect utterances in a language, in other words, dissociating sentences which belong to the language from those that do not. The structuralists approached this initial step by basing themselves on corpora of examples considered to be representative of the language being studied (spoken or written). Chomsky rejects this method, preferring instead to examine a set of sentences considered by speakers to be grammatically correct and to project the results of this analysis onto the infinite set of utterances in the language.

This methodology requires some clarification: Chomsky believes that there exists in each speaker a specific and effective intuition as to what belongs or does not belong to the language, that is to say, an intuition of grammaticality. This intuition is based neither on normative value judgments in force in a given society (levels of language), nor on the meaning produced by the sentences. Any French speaker will recognize that an utterance such as 'El sibigneur de marchet bignotra sur la faceette' is constructed according to the grammatical rules of French, even if it means absolutely nothing and would be rejected and censured by the norm. On the other hand, the same speaker would not accept a sentence such as 'altra une sur de avec sibigne faceette la' which corresponds to no imaginable sentence structure. By thus making use of grammatical sense, the linguist eliminates the need for a corpus; he need only work on several manifestly grammatical sentences, elaborate a model which represents them and then check whether the model is valid for every other type of grammatical sentence encountered.

Chomsky's model is called generative, a term which covers both its explicit and projective characteristics. We have already mentioned the concept of projection. The concept of explicitness refers to the generation of numbers in mathematics. In mathematics, for example, we can describe the series of numbers generated by 2 (2, 4, 6, 8, 10, etc.); a simple rule enables us to produce the series of the multiples of this number and we can then decide whether any number whatsoever belongs to the series. In the same way, Chomsky's grammar proposed a finite number of rules which will generate the entire set of possible structures of the language, corresponding to the infinite set of actual sentences. If the grammar is well constructed, it should generate all the correct sentences in the language and only correct sentences.

Another characteristic of linguistic activity that Chomsky's model seems to represent was its potential ambiguity. Indeed, a good number of sentences can be understood in two (or several) very different ways; for example, the statement 'cette présentation de Chomsky est tendancieuse' can be interpreted by a French speaker as 'Chomsky is the author of a tendentious presentation' or 'X is the author of a tendentious presentation about Chomsky'. To account for this difference (which in classical terms is referred to as objective and subjective generative) we need only distinguish two levels of analysis: a deep level in which the analysis of these two utterances would be different (the difference in the relations between 'Chomsky', 'présentation' and 'est tendancieuse') and a surface level recognizing apparent similarity between the two statements. To go from the deep level to the surface level, he proposed specific rules called transformations.

Chomsky's grammar is a simulation model of human linguistic activity which presents itself in the form of rules making it possible to generate all the grammatical sentences in a language. Some of the rules (rewriting rules, see below) describe relations at the deep level (deep structure) and others (transformational rules) translate deep structures into actual utterances in a given language (surface structure). To these general principles of linguistics, Chomsky added a set of epistemological and psychological considerations:

- mentation: generative grammar is considered to be a model of the internal abilities of the individual, who 'possesses' the rules (his competence) and puts them into practice in concrete situations with a greater or lesser degree of success (his performances).
- intransitiveness: this grammar is part of the genetic code of each human being; provided he is exposed to a minimum of verbal stimuli (that is, provided people speak around him), the child will put his grammar to work relatively quickly, and the rapidity of this acquisition cannot be accounted for by the classical laws of learning.
- universality: all human beings possess the same grammatical rules, which they apply to the processing and mastering of the mother tongue spoken around them; this implies that all languages are based on universal linguistic structures.

These assertions by Chomsky are not organically linked to the 'technical' models proposed (these could have been elaborated within the framework of another epistemological system), [1] but they added greatly to the fame of their originator and, consequently, to his impact on teaching methods.

The strictly syntactic model

The elaboration of the first generative grammar (Chomsky, 1957) relied on two achievements from Anglo-American distributionalism. On the one hand, it relied on a list of linguistic units defined by means of their formal characteristics only (i.e. independent of any consideration of their meaning): article, noun, noun phrase, preposition,
verb, auxiliary (as the 'modifier' of verbal lexemes), predicative phrase, etc. (For the sake of simplicity, we are using here the notion of auxiliary as it appears in Chomsky's theory; it is rarely used in this way by structuralist linguists, however.) On the other hand, it relied on a form of analysis specifying the hierarchical relationships between these different units within a sentence. With the help of these tools, we can describe the sentences of a language as a succession of rules, which we will call syntagmatic rules. We will use two examples:
1. A big spider climbed slowly up the wall.
2. For him, the potato remains an excellent meal.

Sentence (1) can be described by the following sequence of rules:
(a) Sentence breaks down into a noun phrase and a predicative phrase.
(b) Noun phrase breaks down into article, adjective and noun.
(c) Predicative phrase breaks down into verb phrase and prepositional phrase.
(d) Verb phrase breaks down into verb stem, auxiliary and adverb.

This analysis can be illustrated in various ways (parentheses, boxes), but the best known is the tree diagram shown in Figure 1.

Sentence (2) can be described using similar rules:
(a) Sentence breaks down into prepositional phrase, noun phrase and predicative phrase.
(b) Prepositional phrase breaks down into article and noun.
(c) Noun phrase breaks down into article and noun.
(d) Predicative phrase breaks down into verb phrase and noun phrase.

This sequence of rules is shown in a tree diagram in Figure 2.

Chomsky drew upon these syntagmatic rules, modifying them objects and certain technical characteristics. With regard to the objectives, rather than attempting to describe each sentence of a language, the aim was to formulate general rules, that is to say, rules that apply to all the sentences in the language. Whereas the structuralists

FIGURE 2. Structural analysis of sentence (2), shown in a tree diagram.

've described for the sake of describing', Chomsky uses descriptive rules as a first approach for the formulation of explanatory rules. Take, for example, the case of the noun phrases described in our two sentences. In sentence (1), the noun phrase (NP) presented itself in the form Art – Adj – N; in sentence (2), NP, has the form Art – N, and NP2 is Art – Adj – N. The transition from the descriptive side to the explicative side requires giving a common general formulation to the analysis of the NP which we will call the rewriting rule of the NP. Using our two examples, such a rule would be expressed thus: 'NP is rewritten Art + (Adj) + N + (Adj)', but the analysis of other noun phrases ('John' or 'the little hat of my sister-in-law' or 'the lawyer who has rage'), obliges us to suggest a more complex model, such as the following:

NP → Art + N + (Adj,P(2)) + (Prep,P)

The symbol → in the rule means 'is rewritten', and the symbols between parentheses indicate optional elements. The rewriting rule for the noun phrase thus has two mandatory elements, the noun and the article, and three optional elements, the adjective, adjectival phrase and the prepositional phrase. These three optional elements are also repeatable: there can be several adjectives, several prepositional phrases, etc., in one noun phrase. The rule of the NP requires, as we know, the presence of an article, which disagrees with concrete examples ('John is eating'; 'he's coming'). This involves a technical decision, too complex to comment upon here, but which has a specific meaning. For Chomsky, the deep structure of any noun phrase is made up of an article and a noun plus other possible elements. If, in some cases, the article does not appear on the surface of the sentence, it is because it has been 'deleted', and this deletion is explained by transformational rules (see below).

By thus comparing a set of grammatical sentences of a language and attempting to give optimal form to rewriting rules, we arrive at a limited stock of rules, which could take the following form [3]:

RR1: S → NP + Pred,P + (Prep,P)
RR2: NP → Art + (Adj) + N + (Adj,P) + (Prep,P)
RR3: Pred,P → VP + (NP) + (Prep,P)
RR4: Prep,P → Prep + Art + NP
sentence, but a structural pattern, containing indications of 'lexical entries'. At this point we can either apply the mandatory transformations and arrive at surface sentence (3) or apply the passive transformation, followed by the obligatory transformations, and arrive at sentence (4). Like any optional transformation, the passive transformation presupposes that we first make a structural analysis of the derivation (of the tree diagram), in the present example and that we locate four elements, NP - Aux - V - Z (cf. Figure 3), to which we give the labels X1 - X2 - X3 - X4. The rule, strictly speaking, consists of transforming this labelled sequence into a new sequence of the form X4 - X2 - be + Past Participle + X3 - by X1. This sequence produces a phrase marker and derived sequence of terminals to which the obligatory transformations are applied.

FIGURE 3. Common derivation of sentences (3) and (4) and application of the passive transformation (pass T).

Figure 4 shows a general outline of the strictly syntactic model we have just presented. We can readily see that it is composed of two levels. The first is the deep structure; it contains rewriting rules on the right which are univocal, the function of which is to make a symbol explicit. These rules are independent of the context (linguistic environment) insofar as the form taken by the rewritten symbol remains the same no matter what the linguistic environment is. All the rules used define the derivation, which produces an SI. After lexical insertion, the SI becomes a TS. Transformational rules bring the string from the deep level to the surface level; they are based on
FIGURE 4. Outline of the strictly syntactic model.
a structural analysis of the derivation (optional) or on the analysis of the relationships between surface units (obligatory) and are, therefore, dependent on the context.

According to the Chomskyan view, rewriting rules and obligatory transformations are universally valid and we should be able to express them in a form which could explain the syntactic irregularities in every language.

The standard theory

Introduced in Chomsky's central work, *Aspects of the theory of syntax*, (1965, 1971), as well as in the more technical article entitled 'The formal nature of language' (1967), the standard theory is a second model resulting from a major modification of the initial objectives and from the selection of new solutions for achieving former goals.

The main ambition of *Syntactic structures* was to construct a model 'machine' capable of generating the sentences belonging to a language, and to reject all those not belonging to it. The objective was to describe a decision-making process concerning grammaticality. As several intermediary publications indicate (cf. Degrees of grammaticality, 1964), this objective was gradually abandoned, due to the radicalization of Chomsky's mentalist views which we analysed in a previous work (Bronckart, 1977, p. 217-225). The intuition of the speaker, which at the outset was to be a *means* of choosing the utterances to be analysed, gradually became a *goal*, that is, a mental object to formalize. Chomsky wanted generative grammar to represent this aspect of competence and, in particular, the hierarchy (or degrees) of grammaticality which it enabled us to establish. The standard theory model was to account for the fact that only English speakers, for example, are capable of judging that the utterances from (5) to (8) are 'progressively more grammatical'.

5. Of the look with calendars with themselves around.
7. The hay eats the donkey with the size of a ladder.
8. Mary is the most beautiful and the most intelligent.

The main problem requiring new solutions was semantic interpretation. At the end of his 1957 work, Chomsky already expressed the desire that his syntactic model might 'serve as a basis for semantic description' and, in intervening articles, he added that the semantic description should be done beginning with the deep structure alone, or, more specifically, without taking into account the transformational component. From then on, the operations represented by optional transformations (simple or generalized) of the first model were considered to be 'meaning invariant' and thus changed status. As we will see further on, all the transformations involved in the standard theory thus become obligatory.

As in his previous writings, Chomsky continued to present grammar as 'a system of rules which can be iterated to engender an infinitely large number of structures' (*Aspects*, p. 31). To reflect his new preoccupations, Chomsky's new model henceforth included three distinct parts or *components*; syntax, semantics and phonology. The syntactic component is central; it codifies the fundamental patterns of the language and supplies an organized lexicon. The two remaining components are of a secondary or interpretative nature; the semantic component handles the elaboration of meanings and functions of the deep structure, while the phonological component governs the 'putting into phonetic form' that is, participates in the phonological interpretation of strings produced by transformational rules.

Compared with *Syntactic structures*, the central component underwent modification with respect to three main points: rewriting rules, transformations and lexical insertion.

In order that the elements required for semantic interpretation be situated in the deep structure, Chomsky reformulated rewriting rules to include elements of meaning previously carried by optional transformations. He proposed distinguishing, using the starting symbol P, a syntactic kernel (described according to previous rules) and constituents which indicate the modality according to which this kernel will be instantiated in surface structure (affirmative, negative, passive, etc.). This modification concerns mainly the first rules of generation. Thus, for sentence (4), the sequence of rules would be as follows:

RR1: P → Const + Kernel
RR2: Const → (AFFIRM) (PASS) (DECLAR)
RR3: Kernel → NP + Pred.P
RR4: NP → Art + N
RR5: Pred.P → VP + NP, etc.

This sequence of rules will generate a syntagmatic indicator of the type: AFFIRM + PASS + DECLAR + Art + N + Aux + V + Art + N + Prep + Art + N, to which the transformations will be applied.

The constituents of the sentence (PASS, AFFIRM, etc.), which appear in the basic phrase indicator constitute sufficient indices to trigger the corresponding transformations. Thus, no transformation can be considered optional; they are all obligatory. The connection between rewriting rules and transformational rules thus modified, produces the desired effect. From now on the base of the syntactic component contains the necessary and sufficient elements for expressing the fundamental relationships of the sentence and, consequently, for providing a basis for semantic interpretation. But the transformations lose much of their importance and interest as a result; their sole purpose is to bring the elements into agreement to reorder them, to eliminate them, etc., and as a result they lose their recursive power, that is, their ability to represent the creativity at work in a language.

In *Syntactic structures*, lexical insertion takes place through semantic-like rules which provide a lexical item in the category represented by each symbol appearing in the indicator. This makes possible the generation of sentences such as:

10. Colourless green ideas sleep furiously.

To take into account the feeling of grammaticality of speakers and the relatively acceptable character of these two utterances, it was necessary to remodel the operation of lexical insertion. To do this, Chomsky proposed new forms of rules and another conception of the lexicon.

Lexical items will be represented by a matrix of distinctive phonological, syntactic and semantic traits (example: *John*: + N - common + human; or *Horse*: + N + common - human). The insertion of these lexical units will take place in three stages (generation of substitute symbols, contextual sub-categorization, lexical insertion proper); generally speaking, before inserting a unit, we must take into account the limitations (selection restrictions) imposed by the presence of certain types of symbols in the neighbourhood of the phrase indicator. In this way, rules involving the lexicon become dependent on the context and take on the status of transformations.

The standard theory is outlined in Figure 5.
OTHER SYNTACTIC APPROACHES

After nearly ten years of unchallenged domination (from 1957 to 1968), transformational theory became the object of increasingly serious criticism, from within the generative movement itself, as well as from the outside. The controversy within the movement concerned essentially the status of semantic representations and opposed the tenets of generative semantics (a dissident movement) and orthodox believers in the 'extended standard theory'. External opposition took on more diverse forms such as new semantico-logical outlooks ('case grammar') closely resembling neo-functionalist currents (cf. Dik's theory, for example) or comparative strains ('relational grammar').

The problem of the autonomy of syntax

In the model presented in Aspects, Chomsky introduced a semantic component attached and subordinated to a syntactic component. The syntactic component was considered to be autonomous, that is, its formalization was based on strictly formal criteria (without considerations of meaning). This position quickly gave rise to a dissenting movement, led by authors such as Lakoff, McCawley and Postal. For them, syntactic phenomena are much more complex than Chomsky seemed to think, and many of these are subordinated to semantic constraints. It is thus not a matter of describing the deepest rules of grammar in strictly syntactic terms, but rather, in logico-semantic terms. Although the positions of the generative semantics school have never been assembled into as complete a system as the theories of Chomsky, they can be summarized as follows:

- Generally speaking, grammar is composed of semantic representations subordinated to conditions of right formation, and of surface representations subordinated to the same conditions. Transformational rules serve as a means of linking these two types of representations.
- Syntax cannot be considered to be entirely autonomous in relation to semantics.

- Most of the syntactic categories which appear in the generative rules of the standard theory should be abandoned; the underlying structures should only contain some logico-semantic rules.
- The constraints on lexical insertion are exclusively semantic in nature and they appear at the sentence level.

In reaction to the criticism of generative semantics, Chomsky formulated principles of an 'extended standard theory', which is characterized by the abandonment of the postulate which stated that all the elements needed for semantic interpretation were contained in the deep structure. From then on, interpretation takes place at two levels: at the deep level, essential relations such as subject, object, etc., in addition to meanings, will be defined with the help of rules already formulated in the standard theory; at the surface level, new rules for the semantic component will have as their function interpretation of logical operators (quantifiers, modalities, etc.) and definition of their field of extension. This new conception has been further modified, but this topic is beyond the scope of the present work.

The breakdown of syntactic models

One of the first radical breaks with generative grammar was the formulation of case grammar. According to Fillmore (1968), the deep relations described by Chomsky reproduce only the surface relations described by classical grammars: the first NP of the derivation is in the position of subject, the post-verbal NP is the object, etc., and this term-to-term correspondence does not appear to be justified. For Fillmore, subjects, objects and adverbials on the surface of sentences are merely neutralized functions which can express (correspond to) diverse roles (or cases) which are different in the deep structure. This position relies on the comparative analysis of utterances such as:

11. The policeman pushed the student
12. John built a wall
13. Mary received a slap
14. The hearse crossed the square, etc.

In these utterances, we notice NPs in subject and object positions, but the relations these NPs have with the verb are of very different nature. Fillmore's objective is to describe the deep-structure relation of these NPs with the verb in terms of cases (agentive, locative, dative, factitive, instrumental, etc.), and to describe the mechanisms by which these underlying relationships are expressed by the neutralized structures in the surface of the language.

The description of deep structure in terms of cases constitutes the common characteristic of the majority of non-generative contemporary schools of linguistics. Such is the case of Functional grammar by Dik (1978), who adds a pragmatic component to the semantic and syntactic components, and especially relational grammar, which attempts to develop a method which is both functional and comparative. (cf. Givon, 1984.)

NOTES

1. We should point out in this connection that Syntactic structures was written in a spirit closely resembling (despite statements made by the author) linguistic behaviourism, and that the mentalist statements were made after 1960. (cf. Chomsky, 1964, 1966, 1968 and 1969.)
CHAPTER VII

Language as discursive activity

INTRODUCTION

Utterance, text, topic, discourse, theme, presupposition, language acts, pragmatics: for nearly twenty years new concepts (which often have a long history) have resurfaced in the language sciences and then spread into the different fields of teaching applications. Many times poorly defined, usually polysemous, these terms are proof of the existence of theoretical outlooks, which admittedly are new, but are also diverse, complex and sometimes unclear. Without going so far as to qualify this movement as the wastepaper basket of pragmatics like Bar-Hillel (who is nonetheless one of its initiators!), we must acknowledge the fact that we have before us an absolute theoretical maze. The presentation we are about to make will be an attempt at clarification and the choices and categorizations we will make will undeniably suffer from the twin defects of a lack of both theoretical and temporal perspective.

It seems to us, however, possible to isolate outlooks common to these currents; all have as their objective going beyond the syntagmatic and syntactic options (see Chapters III and VI). This effort consists of taking into account aspects of the extralinguistic context and, consequently, is a functional approach to linguistic organization, challenging the sentence as a basic unit and substituting the notions of utterance, text and discourse as forms of human activity.

Some of these solutions have already been mentioned in previous chapters, in particular Martinet's school, the approach of which was recently resurrected by Dik (Functional grammar, 1978). We will not comment upon this effort since, despite its name, it does not constitute a break with the structuralist approach. Its basis for analysis remains distributional and the concepts of functionalism are ad hoc most of the time, in the absence of a sufficiently developed theory about the relationship between language and context. Our choice will be based on the criterion of sufficient theory and we will analyse three groups of theories:

—those which are based on the concept of utterance-acts (enunciation), already discussed above, and which we will take up here with respect to their most recent developments (Culioli's theory of the lexis);

—those which, adopting a communicative conception of the utterance (Prague School, second style), use a pragmatic approach to language (theory of speech-acts and pragmatic linguistics);

—finally, those which revive the old approach of narrative or argumentative stylistics and thus attempt to describe the semantic and syntactic behaviour of the text as basic unit (textual linguistics).

In the latter part of this chapter, we will briefly present approaches characterized by the desire to integrate enunciative, pragmatic and text linguistics into a regenerated system of general linguistics.
The act of enunciation

The structuralist approach (including Chomsky) is based entirely on Saussure’s basic principles and the corollaries developed by the Prague School (see Chapter III); the central concept is that language is a formal theoretical construct, resulting from a process of abstraction and generalization (in relation to the social context, individual mechanisms of functioning and changes over time). Language is seen as a set of context-free sentences, organized according to a series of rules which make up the code. Because it rejects this outlook, speech-act theory, as well as the theories described in the remainder of this chapter, can be defined as a return to concrete facts, as incorporation of the very mechanisms that the Saussurian approach set aside and as the analysis of the product of linguistic activity in all its complexity.

What is the precise meaning of the terms ‘utterance-signal’ (énoncé) and ‘utterance-act’ (énonciation)? An exhaustive reply to this question was given by Kerbrat-Orecchioni (1980), to whom we refer the reader. We will limit ourselves here to several introductory remarks:

1. An old distinction, but one adopted by Jakobson (1963), opposes utterance-signals to sentences based on the size or rank of the unit; the utterance-signal in this case would be ‘a set of sentences linked by certain principles of coherence – yet to be determined – which result in their being immediately perceived as an autonomous whole’ (Kerbrat-Orecchioni, 1980, p. 7). We will not use this definition which is in the process of being abandoned in favour of the concept of text.

2. According to the distinction we will use, sentence and utterance differ as ‘points of view’ on the same material element; the sentence is the propositional unit described in the Saussurian approach (formal and internal); the utterance-signal is the unit of the same size seen from the point of view of its actualization, that is, its implementation by an individual, concrete act.

3. The utterance-signal is the product of an act carried out by the speaker, in the presence of other possible interlocutors, in a given context; these elements define the framework or situation-of-utterance. It should be noted, however, that some authors (Bakhtine, for example) use the term ‘énonciation’ (utterance-act) to designate the product. It is therefore a synonym of utterance-signal in the sense we have just defined.

4. The utterance-act leaves specific traces on the surface of the utterance signal; some units, especially morpho-syntactic units, can be considered utterance constituents; these are the ‘embraceurs’ of Jakobson or deictics or, again, shifters whose paradigm constitutes in language what Benveniste calls ‘the formal apparatus of utterance’.

5. The phenomenon of utterance-acts can be envisaged in a strict sense or in a broader sense, depending on the scope assigned to the situation-of-utterance. In the strict sense, the situation is only defined by the physical parameters involved in the very act of actualization (speaker, allocutors, time and place of the utterance). There is an even stricter sense, not adopted here given its obvious psychological implications, which reduces the situation to the characteristics of the speaker (an expression of the subjectivity of the language). In the broader sense, the situation is defined not only according to its physical parameters, but by a set of other contextual parameters as well (social, emotional, cognitive, etc.), which are likely to leave traces at the utterance level. We will limit the concept of the utterance to its strict sense (but not its strictest sense), since we feel that the phenomena (which, incidentally, are indisputably connected with the concept of the utterance in the broader sense need to be integrated into a broader pragmatic approach, which we will discuss later.

The aspects of the utterance easiest to describe are the traces. Humboldt had already distinguished the most obvious of them (the pronomes I and you, as we have shown in Chapter III) and their systematic study was taken up much later by Jakobson (1957) and Benveniste (1966). The most difficult questions, however, concern the analysis of the speech-act itself and it is here that Culíoli’s contribution was valuable.

Professor at the University of Paris VII, Antoine Culíoli is a relatively unknown author for the simple reason that he published very little; the most complete exposés of his position were made by his students (cf. Fuchs and Le Goffic, 1975 and Fuchs and Léonard, 1979), and can also be found in a work we authored in 1977. In the next several lines we will present Culíoli’s main innovations. We will then briefly outline the grammar he proposed, before going on to present our critique.

Culíoli’s methodological and epistemological choices can be summarized in four points:

1. The linguist’s task is to work on utterances of all kinds, whether expressed in popular or literary language. Strings such as ‘I’ve got my sister who had a baby yesterday’, or ‘John, his bicycle, it got the brakes that don’t work’, deserve the same consideration as ‘The field was covered with a heavy blanket of snow’. In fact, the use of these utterances should be explicated by an analysis of the various paraphrases possible. Finally, the linguist should compare sets of utterances belonging to different languages.

2. The status of these utterances is threefold: as shown in Figure 6, the units of which they are made refer both to external events (referent) and to an enunciation situation (in the sense defined above). This process of reference is organized by the rules of a grammar.

![Figure 6](image_url)

**FIGURE 6.** The relationship between utterance and the extra-linguistic dimension according to Culíoli (G = grammar, Sit = situation-of-utterance).

3. As Sausserian analysis of the signified showed, utterances do not refer directly to the extra-linguistic situation; they link up with mental (semiotic) cognitive, to use Culíoli’s term) constructions, specifically, to meaning on the event side and to referential values on the situation-of-utterance side (see Figure 7).

4. A theory of language consists of the formulation of a grammar as a set of operations which incorporate into the utterance a relationship to the meaning and to referential values; but it must also have some minimal conceptualization of these two extra-linguistic entities. Culíoli thus described the elements of meaning as motifs and primary relations, the role of which resembles that of concepts in Piaget’s theory. At the level of the situation-of-utterance, he proposed three parameters
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![Diagram showing the relationships between utterances, meaning, grammar, referent values, cognitive-cultural discovery instruments, and the situation of utterance.]

FIGURE 7. Complex diagram of the relationships between the utterance and the extra-linguistic dimension, including cognitive constructions.

combined in one formula: $\text{Sit} (\xi, \tau)$, where $\xi$ designates the speaking subject-speaker (including possible co-speakers) and $\tau$ designates the time (or moment) of the speech act. Sit designates the place of utterance, as well as any other parameters of the situation.

Culioli's grammar has two main levels. The first is that of the lexia, a sort of grammatical kernel expressing relations which are common to a para-propositional whole, that is, the basic verbal expressions. A lexia is itself the product of two operations: instantiation of a lexia schema and the introduction of a verbal orientation. The lexia schema is a sort of mould which reflects the constraint of linearity in the language (the units must come one after the other); Culioli represents it as a space containing three empty places, one for a relation and the two others for the source and target of the relation. The pattern becomes a lexia by instantiation by projecting notions into the empty places (together with their primitive relations). If we take as an example the three notions /construire/, /maçon/ and /mur/, and the primary relationships attributing to /maçon/ the role of agent, and to /mur/ that of object, we arrive at the lexia depicted in Figure 8, in which /maçon/ is the source, /construire/ the 'relator' (relateur), and /mur/ the goal.

/construire/

[maçon] → [mur]

FIGURE 8. Illustration of a lexia.

To become a genuine predicative relationship, the lexia has to be oriented, that is, one of its elements has to be chosen as the point of departure for the operations which will produce the actual utterance. In our example, if the orientation is towards /mur/, the utterances resulting from the base lexia could be the following paraphrases:

15. Le mur, il a été construit par un maçon.
16. C'est ce mur qui a été construit par le maçon.
17. Le mur, le maçon l'a construit, etc.

Achieving these concrete utterances requires going to the second level, that of linking operations (opérations de repérage) between the lexia and the situation-of-utterance. These operations are too complicated to be described here. We will, however, distinguish three types: determinative operations, which have the value of argument (and differentiate between, for example, 'a maçon', 'this maçon', 'the maçon', etc.); strong utterance-building operations, which directly relate the lexia with respect to the parameters of utterance (they take the form of units of time, person and deixis in general); weak utterance-building operations, which relate only indirectly to the parameters of utterance (these take the form of units of emphasis, aspect, modality, etc.).

The application of various referencing operations to a directed lexia results in an utterance formula (equivalent to the terminal string in generative grammar) which Culioli describes as 'emancipable'. The transition from this 'utterable' entity to the actual utterance is subject to certain constraints imposed by the speaking situation, as well as the morpho-syntactic restrictions of the particular language concerned.

The theory of the lexia is an indisputable success with respect to the integration of ordinary-language utterances into the linguistic corpus, on the one hand, and the formalization of strong utterance operations, on the other. It remains unsatisfactory, however, on two counts. First, as the distinction utterable-utterance suggests, the product of Culiolian grammar is a kind of sentence schema, similar to that of generative grammar. Even if the initial analysis deals with utterances of all complexities, the Culiolian approach reconstructs them from an internal point of view (the language) which ultimately only integrates a few physical parameters of the utterance. This is why we have qualified this grammar above as essentially phrasal. This paradoxical retention of a structuralist attitude was only possible – and we come now to our second criticism – by reducing the situation-of-utterance to a few easily identifiable parameters. We are not criticizing the strict definition of the situation-of-utterance (on the contrary, we feel that this is the only definition possible), but we are criticizing the assertion that the entire context is crystallized in the utterance-act. In our view, the situation-of-utterance is only one aspect of the context, the other aspect being the socio-institutional parameters. It should, therefore, be possible to expand upon solutions such as Culioli's by formulating a theory about this other aspect of context and by showing how certain linguistic units are dependent upon it. In short, the enunciative outlook needs to be integrated into a pragmatic outlook.

From speech-acts to pragmatics

From the very first grammatical inquiries, authors suggested analysing utterances by distinguishing between 'what is said' and 'that about which we are speaking'. The Port-Royal Grammarians used this type of distinction to confer more universal status to the subject and the predicate, respectively. For the Neo-Grammarians, this distinction was not a surface phenomenon, but an underlying psychological process: 'It expresses the necessary presence in any speech-act of two separate moments, one in which the speaker identifies what he is talking about and the other in which he provides new information on the question' (taken from Ducrot, 1972, p. 5). The op-
position is thus a functional one, which the language can express in various ways, as
the following examples show:
19. Campari, nothing else!
20. That morning, our hero reached the foot of the mountain.
21. Seeing is believing.

Setting aside the study of the system of language, Mathéïs', and his successors
attempted to perform systematic analysis on word strings and introduced the dis-
tinction between the theme (‘Campari’, ‘our hero’, ‘seeing’) and the rhyme (the
remainder of the utterance). Mathéïs', defines the theme as ‘that which is known or is
most evident in a given situation, and upon which the speaker will build his utterance’
(quotations by Firbas, 1964, p. 268). This definition, which is based on the distinction
between known and new information, was taken up and further developed by Firbas
and Danès. The latter proposed an approach to language which distinguished three
levels: the syntactic structure of the sentence, the semantic structure of the sentence
and the organization of the utterance. The third level (the only one in which we are
interested here)

... tells us how syntactic and semantic structures function in the actual speech-act. ... The
conditions shaping this speech-act are defined by the general character and patterns of the linear
materialization ... of the utterance, on the one hand, and by the extra-linguistic content of the
message, the context, and the attitude of the speaker vis-à-vis the message and his interlocutor,
on the other (1964, p. 227).

These parameters enabled Firbas to define what he called the communicative
dynamism of the utterance. For that author, various linguistic units in the utterance
contribute to program in the act of communication (the furthest of the dialogue) to
different components, which are only partly defined by the amount of new information
provided; from this point of view, the theme is defined as the utterance-unit having
the least communicative dynamism and it is generally to be found at the beginning of
the utterance.

This outlook is of a general nature and essentially programmatic. We would not
have mentioned it if the concepts it introduced had not enjoyed such great success. It
was adopted by Halliday (1967) in an analysis which distinguished between three
systems. Thematicization is an extra-propositional system which separates the first part of
its representation in extra-linguistic reality; the system of moods, which accounts
for relationships between interlocutors (question, orders, statements, etc.); and, finally,
the thematic system, which deals with the organization of the information transmitted.

At this level, as Danès also pointed out, units are apprehended not as representations
of events, but as components of a message, linking up with the preceding units of
speech, thus creating a genuine speech-act. The thematic system, in reality, can be
divided into two sub-systems, the actual process of thematicization and the informational
focus. Thematicization is an extra-propositional system in our in our
theme, designating 'what is being spoken about' from the subsequent rhyme, de-
signating 'what is being said about it'. The informational focus, meanwhile, defines
structural units which link it to what precedes (or follows) in the speech-act by isola-
ting the known item of information or the topic and emphasizing the new item of
information or the focus. Although many other definitions have been suggested for
the pairs theme/rhyme, topic/comment and known/new, we will adopt Halliday's
scheme which, in our view, is the clearest (or, in any case, the least obscure).

The theme/rheme distinction is related to the notion of implicitness in language.
Indeed, the theme is that upon which it is agreed there will be an exchange of in-
formation, and anything about which there is agreement usually contains an implicit
element. As Ducrot observed, systems of linguistic exchange require, in fact, the exist-
ence of processes of implicature, either because some subjects are taboo or, for
various socio-cultural reasons, the explicitation of a fact is not relevant to the exchange
underway. In his remarkable work Dire et ne pas dire (1972), Ducrot distinguishes
between three major types of implicature processes: there is, first of all, the implicit
element of the utterance which 'leaves unexpressed an affirmation which is obviously
necessary to the completeness and coherence of the utterance and the absence of
which gives it a particular type of presence (p. 8). The typical example is an advertising
slogan of the type 'Promise her anything, but give her Chanel'. Next, there is the
implicit (or unexpressed) element of the utterance which provokes the speech-act itself
and/or the underlying situation. A typical example of this type of sentence is 'The
faculty meeting is about to begin' which, said during a conversation, signifies
implicitly - that it is time to put an end to the conversation. Finally, the third type of
implication, presupposition, is literal, that is, it is contained in the primary meaning
of certain units. Let us take the following utterances:
22. John did not manage to open the can of peas.
23. John thinks he can do it with his teeth.

In (22), the explicit information contained in the utterance is that John did not open
the tin, but the use of the phrase 'did not manage to' indicates that John wanted to
open the tin. The first item of information is said to be asserted and the second
presupposed. Similarly, in the case of (23), the asserted information is that John is
confident about the success of his undertaking, a presupposition contained in the use
of 'thinks', but in reality he will not succeed. The phenomenon of presupposition
is an important one, because it reveals the fact that linguistic acts not only reflect
meaning (or designate), but also can indicate a literal judgment (in this case, about
the truthfulness of what is expressed), or an act.

Thus, some units of the language are an expression of an act in the full sense of the
term; this is the conclusion also reached by English analytical philosophers as an
extension of the conclusions of Wittgenstein's second position (cf. on the subject,
Bouveresse, 1971). The system developed by Austin (1962) and Searle (1969) is known
as the theory of speech-acts. We will summarize it in four points.

First, in his main works in the 1950s, Austin draws a distinction between performative and
constative utterances. Examples of performative utterances are sentences (24) and
(25); what characterizes them is the fact that the speech-act is an (other) act of a non-
linguistic nature. In (24), it is the fact of saying 'I promise' which constitutes the act
of promising; in (25), saying 'I ordain you' constitutes the act of ordination itself.
Utterances (26) and (27) are simply constitutive; they relate an event without consti-
tuting a promise or an ordination.
24. I promise to write the letter tomorrow.
25. I hereby ordain you priest of the Church.
26. Yesterday, John promised to write a letter.
27. The bishop ordained John yesterday.

As in the case of presuppositions, 'performativity' is included in the very meaning
of the verb, but functions only in certain linguistic (the pronoun I and present tense, for
example) and extra-linguistic contexts (the ordination is not effective unless performed
by a qualified person, in a specific place, and directed towards a person meeting the
appropriate requirements). Although there may exist a category of potentially per-
formative verbs, performativity is determined by social conventions, just as the
equivalent, non-linguistic acts are.
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Second, extrapolating from the concept of performativity, Austin developed the notion of the illocutionary act. Besides its literal meaning, every utterance carries illocutionary force which defines (for the interlocutor) how the utterance should be received (as a statement, a request, a desire, an order, etc.). The illocutionary force can be explicit, as in examples (28) and (29), or implicit, as in example (30), said by an alcoholic boss for the benefit of his secretary (this is another formulation of the phenomenon of implicitness mentioned above).

28. MARCHING ORDER: the infantry will take position on the hill at 15:00 h.
29. If that is the case, I declare your initiative ridiculous.
30. This air conditioning makes my throat frightfully dry.

Third, the theory of speech-acts distinguishes three aspects in the production of utterances: the locutionary act, involving the syntactic, semantic and pragmatic construction of an abstract sentence; the illocutionary act, which, depending on social conventions, turns the sentence into a promise, a threat, an advice, etc.; and the perlocutionary act is its effect on the addressee, which is not always the effect intended by the speaker. For example, an utterance, the illocutionary force of which is that of a question, could be perceived by the addressee as a threat or an order.

Fourth, Searle's contribution to the theory of speech-acts was to analyse the underlying patterns in the functioning of illocutionary acts. He, thus, identified two types of rules, normative and constitutive.

[The former] govern the forms of pre-existing behaviour or that which exists independently. Rules of etiquette, for example, involve interpersonal relations which exist independently of these rules. [The latter] create or define new forms of behaviour. The rules of football or chess, for example, do not tell us how to play football or chess, but actually make it possible to play these games (1969/1972, p. 72).

Thanks to the contribution by Searle, the functional, enunciative and communicative concerns of Mathéus, Halliday, Benvéniste and Austin were solidly integrated into the field of pragmatics. Originating in philosophy, this concept was applied to language by Peirce in 1931, and then, more extensively, by Morris, inventor of the famous tripartite division of the field of semantics into syntax, semantics and pragmatics. Although conceived in a minimalist fashion at the outset (to complement the classic studies of syntax and semantics), linguistic pragmatics quickly evolved towards a maximalist conception, considering speech-acts as the basis of all linguistic behaviour (cf. Morris, 1946). Hanson (1974) developed this concept by drawing a distinction between first-degree pragmatics (the study of the behaviour of utterance units), second-degree pragmatics (the study of the relations between the sentence and its literal meaning), and third-degree pragmatics (the study of the structure of speech-acts in terms of the theory of action – goals, strategies, means, etc.). Contemporary authors (cf. the very important work by Parret, 1980), see pragmatics not as a new form of linguistic ontology – it is not merely another theory on universal linguistic competence – but rather as an approach or an alternative discovery procedure.

We can therefore consider that there are two possible approaches to language as object: that of formal (or Saussurian) linguistics which analyses signs and sentences as abstract or potential notions, or that of pragmatics, which examines the phenomenon of incorporation into the utterance (mise en énché) or actualization. In other words, there appears to be a formal science of linguistics which studies language as potential, and a pragmatic science of linguistics which studies languages in use. Such a position can be found with Bertrand (cf. in particular, Éléments de pragmatique linguistique,

1981) who, rejecting Austin's trichotomy (locutionary, illocutionary and perlocutionary) proposes viewing language from a representationalist outlook, as 'a set of denotative virtualities' and studying the speech-act process within the general context of the communicative event including gestures and social norms. As the reader will learn below, we agree wholeheartedly with his project to 'integrate a restrictive conception of language (as a system of signs with a representational function) into an extensive theory of the utterance (as a global process of communication)' (p. 30-31).

The current of ideas we have just described had the merit of exposing a number of relevant problems and introducing some useful notions (such as theme, topic, presupposition or speech-acts). It must be said, however, that the theoretical frameworks elaborated remained vague and were often ad hoc: 'communicative dynamics', 'illocutionary force' and even the theory of 'speech-acts' are frames of reference doomed to disappear and/or be integrated into a broader perspective. This situation has implications with respect to applications to teaching. Attempts at transposition of these theories to classroom situations are premature and wrong (we have in mind, in particular, the many attempts to replace the former 'sentence types' or 'utterance modalities' with four (!) speech-acts, indicating a serious lack of understanding of the theory itself). Some concepts can, of course, be borrowed, but on the condition that they are redefined to fit the logic of the didactic system in place.

The textual dimension

In this third section we will take a number of approaches, some of which are quite different from each other, such as text linguistics, discourse analysis, text semiotics, text typology, etc. All of them begin from the same premise, namely, that there exists a large number of facts of language which can be satisfactorily described and explained as long as the analysis is limited to the relations within the sentence. Let us take, for example, utterances (31) to (34), taken from an oral dialogue:

31. Hi! John. Have you seen Rita lately?
32. First of all, I don't want to see her.
33. Second, if I did see her, I'm not sure I'd tell you about it.
34. Thanks a lot! Nice friends I've got!

It is clear that the articulation between the different turns at speaking (questions/answers), the functioning of anaphoric units (her, it), and the use of certain tenses (33) and certain adverbs (first, second) are phenomena which can be only partially analysed within the framework of each individual phrase. Indeed, they would appear to be dependent upon patterns situated at an inter-propositional level, that is to say, at the level of the discourse or text which this dialogue as a whole represents.

A similar observation could be made with respect to extracts from scientific manuals, novels, tales, etc. Thus, there is a level of linguistic analysis higher than the sentence; all the authors we are about to treat agree on this point. But what is the theoretical status of this level and how can it be analysed? The answers to these questions are many, complex and sometimes confused.

Two historically important authors have, however, proposed categorical (and divergent) answers to these questions which define to some extent the two poles between which the majority of researchers in this field gravitate.

Harris, in his work Discourse analysis (1952) proposed extending to texts the principles of distributional analysis applied until then to sentences. Restricting himself to the principles of descriptive, internal linguistics (abstraction of extra-linguistic re-
actualization and communication, the theoretical object will be discourse, composed of utterances (as defined above) and words. Discourse is the text-corpus seen from the point of view of the mechanisms of actualization which condition it.

As Slatka observed, we thus obtain two series of parallel concepts corresponding respectively to either point of view: text-sentence-phoneme, on the one hand, and discourse-utterance-word, on the other. As defined here, discourse is a form of linking of the linguistic dimension to the historical, social and cultural dimensions; it is the verbal trace of discursive formations at work in society. We can, as a result, consider that to be studied, the corpus must be both linguistic and extra-linguistic, in the way that Firth (1968) employed the term text-corpus. Some of the uses we will not dwell on are: the rejection of the notion of text and the indiscriminate use of the term discourse (cf. Guespin, 1971); the use of the word ‘utterance’ for text, a formal linguistic unit (see above); the use of the word ‘discourse’ to designate a particular type of text as opposed to narration.

As proposed by Slatka (op. cit.) we will use the term cohesion to designate the inter-propositional patterns analysed from the internal point of view; there exist linguistic units guaranteeing cohesion at the same time as thematic progression (cf. the notions theme and rhyme defined above). We will use the term coherence to analyse the same linguistic units from the point of view of their interactive and communicative behaviour, that is, from the point of view of discourse.

Within the conceptual framework we have just defined, let us now examine the three main directions taken by the study of actual texts: analysis of narratives, analysis of rhetorical procedures and analysis of the structure of conversations.

The structure of narratives

Like the word and the sentence, the narrative is one of the linguistic notions taken to be self-evident. Everyone will agree that narratives include not only a number of literary genres such as the tale, novel, history or biography, but also various less notable productions such as written accounts of everyday experience (speech reports or newspaper reports) or oral reports on any experience whatever. These narratives, whether literary or ordinary (according to the expression used by Adam, 1981), have been defined by Labov as ‘a method of recapitulating a past experience which consists of relating a succession of (supposedly) real events to an identical succession of verbal propositions’ (1977 p. 295).

This definition (which we consider sufficient for a first approach) indicates straight away the angle from which theoreticians have approached the narrative, namely, from its mode of semantic organization. Except for the trend inspired by Benveniste (1959), which we will take up later, the majority of investigators, in fact, have dealt with the manner in which the succession of events was organized, rather than with the semantic means (types of morphemes) utilized to this effect. All in all, we can regard these efforts as having made possible two significant distinctions.

The first opposes in each narrative the sequential and the configurational orders. The sequential order is the chronological or episodic dimension, or the basic elements (sometimes called motifs) which must be ordered in time. The configurational order concerns the simultaneous dimension, with the overall semantic effect the producer of the narrative wishes to achieve (amuse, instruct, warn, etc.), in particular, by more or less explaining the causal relationships between events. As Adam noted, there are two conflicting and complementary dimensions in any narrative, ‘the sequence which arranges the elements one after the other and the figure, which arranges them one
beside the other (1984, p. 19). The second distinction contrasts story and narrative as defined by Genette (1972). The story concerns the casual and temporal organization of events independent of, or previous to, the drafting of the text. We are dealing here with a theoretical level of cognitive representations (the events as the speaker sees them), equivalent to that of Saussure's concepts or mental images. The text itself is the construction or reconstruction of the story in, and by means of, the text, with the possibility of movement backwards and forward, insistently dwelling on some event or rapidly passing over others. The level here is relative to the choice of significant and their arrangement in the textual chain. With a few inevitable differences of nuance, we consider the tandem story-narrative to correspond to that of inventio-dispositio of classical rhetoric, to that of faîle-subject of the Russian formalists, and that of narrated-narration by Fayol (1985). For the sake of terminological convenience, it is the last pair we will use in our discussion of the dominant trends in narrative analysis.

Three main trends in the analysis of narrative structure can be distinguished. The first originated at the beginning of this century with a group of Russian formalists, Eichenbaum, Tomachevsky, Propp and others set as their objective the analysis of literary works in themselves, and not as the material of history, sociology or psychology. Using the concept of form, at that time at its height in human sciences, they developed the notions of rhythm, as the constituent element of the poem, and of plot, as the general structural entity in relation to which each individual linguistic unit finds its motivation. They adopted the same internal outlook with respect to the narrative of the text, in the sense defined above. Tomachevsky drew a fundamental distinction between the motifs (or the propositional units of narratives), the faîle (or narrated) and the subject (narration). In his famous Morphologie du conte russe, Propp (1970) analyzed the fable in terms of functions, which he defined as the action of a character from the point of view of his significance in the development of the plot (p. 31). The function is, in fact, a kind of typical action, which can be supplied by various agents and reappears in the most diverse narratives. In the case of the Russian fairy tale, Propp identified thirty-one functions (of the type going away-abstinence, pursuit-persecution, victory, etc.) and demonstrated that they fall logically into spheres of action corresponding to the characters who carry them out, themselves endowed with relatively constant attributes, bearing a precise meaning.

Propp's linear schema was debated a half-century later by the French 'narrative semiotic' school, by Brémond (1973) in particular, who opposed organizing functions into different levels of generality. This served to show that the art of narrative consisted also of building up and complicating levels as well as function. Genette (1972), Barthes (1968) and others examined differences in the two orders of the narrated and the narration, distinguishing with respect to the latter, the elements associated with doing (functions or narrative kernels) as opposed to being (indices or narrative expansion). This distinction is similar to the more classic opposition between the narrative and the descriptive-commentative aspects (cf. Weinreich, 1973). The investigations of this school culminated in the integrative theory of Greimas, which we will discuss further on.

The second trend took as its object the non-literary narrative, such as that produced in conversational interaction situations. Apart from the theoretical fact that they tend to be less normed than literary texts, these productions are bound to carry traces of the dialogue environment from which they come. The standard works on ordinary narratives were written by Labov (cf. Labov, 1972a; Labov and Waletsky, 1967; Labov and Fanshel, 1977). This author proposed, as a first step, distinguishing four types of propositions on the basis of distributional criteria: those able to be moved within the narrative without resulting in semantic disturbances (free propositions); those linked to a temporal connector preventing them from being moved (fixed propositions); and, finally, those whose movement in the text is either limited or coordinated. The second step consisted of reconstructing the narrated of the narrative by grouping the propositions according to type; in this way five phases or parts of the structure of the narrative become evident:

- the orientation (exposition or framework), which is made up of a set of free propositions describing the initial situation of the narrative;
- the complication, which consists generally of the introduction of an unexpected event or character, upsetting the equilibrium of the initial situation;
- the resolution, which presents the solution adopted to re-establish equilibrium;
- the evaluation, which consists of a final (optional) expression stating a link between the result of the sequence of events and the moment of the narrative;
- the conclusion, which consists of an (optional) terminal formula linking the outcome of the sequence of events and the moment of enunciation.

Even if difficulties often arise in accurately separating the individual sentences, Labov's notions are widely accepted nowadays. They were discussed and reorganized by Isenberg (1970) and adopted (or adapted) by the majority of investigators interested in the everyday narrative (cf. Fayol, 1985).

The third method of analysis of narratives was introduced by Benveniste in his article entitled Les relations de temps dans le verbe français (1959). Interested especially in the 'historical description' involved in the narration of past events, Benveniste attempted to identify the specific paradigms of linguistic units it contained:

The historical plane of discourse is characterized by the imposition of a particular demarcation between the verbal categories of person and tense taken together. We will define the historical narrative as the mode of expression which excludes all 'autobiographical' linguistic forms. The historian will never say 'I, you, here, or now because he will never use the formal system of discourse, which consists primarily of the personal t-you relationship. We will find, in the strictly adhered-to-historical narrative, only forms of the 'third person'. The temporal dimension is similarly restricted. The historical narrative has three possible tenses: the aorist (simple past or preterite), the imperfect ... and the pluperfect (1966, p. 239).

This mode of analysis will later be incorporated into markedly more typological (Simons-Grumbach, 1975) and/or integrative theories (see below).

Argumentation in the text

The notion of argumentation refers to a complex set of phenomena and, for this reason, has been given many definitions. We will adopt that proposed by Oleron: 'a process whereby the person - or group - undertakes to bring an audience to adopt a position by means of presentations or assertions - arguments - which aim to demonstrate its validity or soundness' (1983, p. 4). This definition presents the two basic characteristics of the phenomenon: on the one hand, argumentation always forms a chain of reasoning, it articulates the position, arguments and conclusion in a logical way; on the other hand, argumentation is the action of attempting to influence the addressee, to have an impact on his behaviour or knowledge, and it is closely determined by the target-interlocutor (it is fundamentally didactic). In other words, argumentation is a form of reasoning or, more precisely, the form taken by reasoning in discourse. Thus, we can approach an argumentative text from the logical angle of reasoning (the classic
The language sciences: an educational challenge

The structure of conversation

This direction of investigation, like the first two, focuses on the study of a relatively specific sort of text, the everyday oral conversation.

One of the pioneers in this area was Grice (1979) who examined the 'logic of conversation' and hypothesized that dialogue-type exchanges were governed by maxims such as be clear or be brief. Apparently inspired by the principle of economy, these rules are in direct contrast to those formulated by theorists of 'modern communications' for whom social interaction is governed by the concern on the part of participants not to lose face. Carrying on after Goffman (1973, 1974), Brown and Levinson (1978) distinguished between a negative face, which focuses on the defense of the ego, and positive face, which is characterized by the desire to be recognized and appreciated by others. Utterances such as (37) and (38) are, in fact, very frequent in dialogues, and attest to the fact the Grice's maxims are often violated for the sake of 'oratory precaution', that is, being neither aggressive nor the object of aggressiveness.

37. Don't you find it's maybe a little warm in this office.
38. Hello, umm, sorry to disturb you, but . . . umm . . . I really need to ask you something.

According to Goffman, all social interaction constitutes a threat, and it is to neutralize the threat to the personal dignity of the participants that complex processes of figuration are developed (cf. 'schematization' above). As Roulet noted, Being ambiguous is the best means of avoiding imposing, to leave to the other person the choice of the interpretation that best suits him, but it also means running the risk of being misunderstood. . . . The speaker thus finds himself faced with a choice between two strategies: guaranteeing the understanding of the illocutionary function, 'being clear', at the risk of damaging the self-esteem of the interlocutor, or being tactful with him, 'not to impose oneself', by being ambiguous, at the risk of being misunderstood (1981, p. 13).

The choice is rarely clear-cut, however, and most conversations are characterized by the concern to maintain these two contradictory objectives in equilibrium, which often gives rise to extremely complex exchanges.

One of the first to elaborate a system of analysis in this area, Sinclair and Coulthard (1975) defined hierarchically organized structural levels. Their work was taken over and adapted by Roulet (1980, 1981), who distinguished four levels of structuration in dialogues:

- incursion, the highest unit, is determined by the absence or presence of protagonists in a place and is signalled by greetings or specific units such as psst, hey, excuse me, etc.;
- transaction, second in rank, is defined as a negotiation involving one transactional object (offer to purchase, order, advice, etc.);
- exchange, the smallest unit of cooperation, constitutes the actual act of conversation (bilateral or multilateral);
- the act, designates any and all illocutionary utterances.

Current work by Roulet and his team focuses on the detailed analysis of conversational structures, in particular, different types of exchange and the explicitation of the organization of the surface text by means of conversation structuring marks.
Some Integrative Approaches

Whereas the structuralist and generative approaches tend to elaborate a unified theory of languages and language, the emergence of pragmatic, contextual and discursive considerations resulted in the splintering of directions of investigation and theoretical propositions, as the preceding pages have shown. There is a need for a new unifying approach, therefore, and various integrative solutions have been suggested in recent years. Since none of them has to date been presented in the form of a system, we will mention only those conceptual frameworks we feel are most promising.

First, with respect to a semiology of reasoning, Grize and his colleagues have analysed logical-discursive operations involved in schematization (see above). They were thus led to distinguish within texts: cognitive elements relating to the object of the utterance (theme or thought content); argumentative elements relating to the position of the speaker with respect to the problem of explaining the purpose, as well as the relationship between that position and other ones; rhetorical elements relating to the communicative process, that is, its specifically discursive aspects such as explicitation of the goal, explicitation of the plan and reference to other texts. This analysis gave rise to a general distinguishing proposition in each type of text: a dictum (cognitive plane) and a modus (argumentative and rhetorical planes). For further information, cf. Grize (1984).

Second, Greimas (1970, 1973, 1976) extended to all types of texts the analysis based on Propp's narrative schema; the narrative and discursive semiotics he proposes tries to identify narrative programmes, that is, the 'actantial' syntax specific to each type of discourse. These programmes bring into play a semiotic subject, endowed with competence, that invests an object with descriptive or modal values (performance).

The work of Bakhtine represents a third promising approach (cf. Bakhtine, 1977 and Todorov, 1981). Although written mainly before the Second World War, it has been rediscovered in the last ten years and constitutes the foundation of integrative work based on the dialogical character of all verbal productions. Bakhtine considered that the concept of language as a formal system was only an intellectual abstraction which could not take into account the concrete reality of linguistic activity. The latter is of a fundamentally social and interactive nature: 'No utterance in general can be attributed to a single speaker; it is the product of the interaction of interlocutors and, more importantly, the product of the entire complex social situation whence it sprang' (as quoted by Todorov, 1981, p. 50). This conception led many authors to examine the interactive conditions in which utterances are produced and to analyse traces of dialogical activity in surface texts.

Fourth, from a point of view diametrically opposed to the preceding, Van Dijk (1973) and various other authors attempted to elaborate a grammar capable of generating all types of 'well-formed' texts belonging to a particular language. Clearly inspired by Chomsky, this generative textual grammar tries to characterize the system which underlies the infinite set of possible utterances (real productions). In a word, it attempts to formalize the textual competence of the speaker. This is probably the only (and last) attempt to explain the functioning of texts from an internal point of view, rejecting situation-of-utterance, contextual and discursive aspects:

The relations between sentences in a text are purely formal and grammatical in nature and are dependent upon contextual factors alone. These are precisely the problems which held the stage in recent discussions and which are the natural aspects of inter-propositional relations:

Anaphoric expressions, pronouns, emphasis, presuppositions, implicature, etc. An adequate description of these and many other linguistic phenomena can only be given by a grammar explicitly specifying sequences of sentences (1973, p. 183).

The two main concepts utilized by this trend are those of macrostructure and text coherence, the heuristic value of which seems extremely limited.

The fifth approach, the elaboration of general typologies based on criteria applicable to all textual productions, appears to be a much more promising solution. We will distinguish three categories of typology. The first is based on criteria involving linguistic units distributed on the surface of texts. Harweg (1968) suggested, for example, distinguishing scientific texts from other types of texts on the basis of differences in the substitutional chaining. Wehrlich (1975), meanwhile, distinguished five forms of utterance creating a textual origin and defining a set of possible connections, which, taken as a whole, define five types of texts: descriptive, argumentative, expository, narrative and instructive. This linguistic classification is combined with a conceptualization of the cognitive processes in operation. The differences observed at the surface are compared with dominant types of cognitive processes: time continuum in the case of narrative texts, relaying of concepts in the case of argumentative texts; space continuum in the case of descriptions, etc. The second category of typology is characterized as analogous cognitivo-functional. For example, Schmidt (1979) thought of all texts as the realization of a communicative intention, which can take one of three forms: transformation of objective reality into ideal forms, construction of an internal model based on information taken from the external world, or cooperative transformation of the world. Each form constitutes a type of fundamental text: text of clarification, text of information, text of activation. The third category of typology is based on the hypothesis that the text is a product of the situation in which it was uttered. Halliday, for example, defined three categories of situational parameters (field or sphere of linguistic action, tenor or the roles played by the interlocutors, and mode or status assigned to the text in the social situation), which define three discursive functions: ideational, interpersonal and textual. These functions are materialized directly in the structure of the text (cf. Haan, 1978). Steger et al. (1973) defined a set of parameters describing the speech initiation situation: the number of speakers, type of relationship between interlocutors, temporal relations, text/situation interpenetration, fixedness of the theme, etc. By combining these parameters they were able to define six typical constellations of 'prize de parole' producing the different types of texts: discourse, narrative-report, journalistic report, public debate, conversation and interview.

Finally, the work undertaken by the present author in Geneva for several years is a continuation of the proceeding approaches and systematizes the interactive aspect from a psychological viewpoint. For us, a typology, if it is to be effective, must first of all formulate specific hypotheses concerning the extra-linguistic parameters likely to have significant effects on texts. It must also possess the means of analysing textual units distributed in surface texts, and, finally, it must formulate hypotheses on the constituent operations of textuality, that is, on the processing of extra-linguistic parameters and on the insertion of the end product in the fabric of the text.

Our current work (cf. Bronkart, 1983b, 1985; Bronkart and Schnewly, 1981, 1984; Bain et al., 1982, 1985) deals with theoretical options, a model of which we will briefly describe as follows:

Verbal behaviour, the focus of the psychology of language, is a complex activity,
CHAPTER VIII
Effective use of the language sciences in education

INTRODUCTION

Our presentation, although rapid and necessarily incomplete, has pointed out the complexity, the diversity and the continuous evolution of the language sciences. The question arises: "What do we do now?" Anyone who is confronted with the practical necessity of teaching a language has no doubt asked him or herself this question. It is a legitimate question, to be sure, to which we will attempt to give an answer, which, although personal, is directly in line with the present current of didactic renewal mentioned in Chapter I.

THE DIDACTICS OF LANGUAGE

We have written that this contemporary movement was characterized by an inversion of the relationship between teaching practices and the reference disciplines, on the one hand, and, on the other, by renewed analysis of all aspects of language teaching. "Inversion of the relationship" is the critical side of the coin, and "renewed analysis" is the positive, programmatic side. Let us examine these one after the other.

The approach we are criticizing is the one which consists of going from the scientific disciplines towards teaching practices, an exercise generally known as application. Over the past decades it has taken two extreme concrete forms: educational psychology of languages and applied linguistics.

Originated as the result of discoveries and theoretical proposals by child psychologists during the first half of this century, educational psychology has tried to substitute for the traditional approach (totally committed to the transmission of content and the effectiveness of learning methods) a 'modern' method, oriented towards the child: his needs, motivations, activities and language. Piaget outlined in a very explicit manner the foundations of this approach.

The general change in ideas about the human personality forced those with open minds to look at childhood in a different way, no longer (as was the case with Foucault) on account of preconceived opinions on the natural goodness of man and the innocence of nature, but because of the fact, quite new in history, that science, and right-minded people in general, had at their disposal a method and a system of ideas capable of providing an account of the development of consciousness and, in particular, of the development of the infantile psyche. Only then did the true activity, that all great educational innovators had dreamed of introducing into the school and of allowing to unfold and flourish in their pupils in accordance with the internal process of psychic growth, become an intelligible concept and a reality susceptible of objective analysis, so that new methods were thus effectively constituted simultaneously with child psychology, and have remained closely linked with progress in that science (1971, p. 147).
Like educational psychology, applied linguistics was the late culmination of a goal which moderns have claimed as theirs for centuries: adapting the programme and methods of teaching languages to the discoveries of the language sciences. Here again, it was not until a scientific approach (American behaviourism and its extension with Chomsky) succeeded that applications in teaching were begun to be implemented. This was done with the same confidence in ‘brighter horizons’, as can be seen in the following comment by D. Girard:

Teachers of modern languages, those of French as a foreign language, in particular, benefit from the constructive collaboration which has been established between educators and linguists. Rigorous linguistic analyses show them the elements which their courses must include and suggest a way of spreading these elements out, following a progressive scale which also takes into account psycho-pedagogical necessities. Inventories of structures of the language show on what specific items the effort of assimilation or memorization should concentrate. The ‘trick’ exercises of bygone days which served as a means of emphasizing the shortcomings and gaps in the knowledge of pupils rather than facilitating learning, have been replaced by much more systematic exercises which foster automatic manipulation of the main phonic and grammatical structures and are called structural exercises (in Preface to Réquédat, 1972, p. 5).

This text is particularly illustrative of the illusions of applied linguistics, not only because its unprecedented enthusiasm comes as an introduction to a method (structural exercises) which is universally rejected nowadays, but especially because it seems to assume that linguistics is capable, in itself, of solving all the problems related to the choice of a programme and a grammatical model, as well as to the choice of exercises. This is an over-estimation of the possibilities of linguistics and an under-estimation of the complexity of the teaching challenge. As the splintering of the treatment of the problem posed in Chapter VII indicates, the language sciences find themselves in a phase of complete restructuring in which syntactic problems are being relativized, and semantic and pragmatic aspects are being re-evaluated. It is still impossible to predict what shape or form a satisfactory, general theory of language will take. Moreover, as we pointed out at the beginning of the present work, the main questions related to the teaching of languages are of a ‘why’ nature, and the answers to them questions will make it possible to orient choices when borrowing from linguistics.

We might add that the applied linguistics approach often evokes psychological imperatives which must be taken into account. But what are these imperatives and, above all, how, in practice, can they be taken into account? It is evident that structural exercise techniques and programmes applying generative grammar, on this score, content themselves with beginning at an apparently simple level in order to attain an apparently complex level, and the reference to child psychology, most of the time, is no more than an alibi for a fundamentally analytical progression. In fact, what can the educational and psychological orientation suggested by Piaget contribute?

Generally speaking, it can be said that the psychological reorientation of teaching methods was by and large well accepted by teachers and political decision-makers, and that it has resulted in a number of positive innovations. At the elementary-school level, in particular, methods have become less rigid and mechanical, and emphasis on self-expression, action and motivation on the part of the child has spawned more liberal educational practices. But the performance of pupils has improved, and the hopes placed in the reform! Rather than the rate of failure at school decreasing, it is apparently increasing, and studies have shown the selective role language teaching continues to play, in particular, the teaching of grammar. Teaching conditions have improved, but the failure rate has survived. How can we explain this paradox? Let us go back to Piaget’s Principles; it contains two clear epistemological postulates. The first concerns the status of the child’s development, for Piaget, an essentially internal process, a kind of natural development of the ‘self’ in which social factors such as the environment apparently do not play a specific role. The second postulate concerns the teaching process itself which consists of allowing ‘the true activity of the child to develop in tune with his growth’. This pedocentric orientation and its non-evocation of society explains the failure of educational psychology, especially with respect to languages. The reformers seem to have believed that by focusing on the child’s ‘true activity’ they could spare themselves the effort of reflecting on the role of traditional goals. In so doing, they under-estimate the existence and force of objectives that are contradictory to the approach they are proposing. Indeed, society has never ceased, via the teaching of languages, to pursue objectives related to norms and their perpetuation in society; to preserve ties with a traditional philosophy of the world (see Chapter V), to stay in touch with literary texts (see Chapter II), to contribute to the preservation and reproduction of the spelling system, etc. These objectives remain intact today and most of us have made them part of ourselves more or less definitively. In these circumstances, new goals, related to the child and his needs, are only grafted on to old ones, without the necessary choices being made and without even questioning the compatibility of these two types of concern. This unconscious lumping together has taken on the aspect of a naturalization of all these objectives. Pupils nowadays work on the language (they ‘do grammar’) not only to remain in touch with Western thought and culture and to safeguard spelling, but also to communicate orally better and give free expression to their needs and their personalities!

This, of course, is not without a demand of one subject and we can only conclude that it is this excessive burden and this confusion that result in the arbitrariness which society needs to reproduce itself and to make preferences.

As can be seen, if we criticized applied linguistics and educational psychology, it is because they were primarily and above all linguistics and psychology. The dichotomies of language, on the contrary, proposes restoring teaching to the centre stage, analyzing the social goals being pursued, at the level of official idioms and of linguistic practices in the classrooms, and complementing this analysis with a reformulation of programmes and teaching methods. We will illustrate this approach by means of two classical themes: teaching grammar and developing self-expression.

With very few exceptions, all educators recognize the necessity of ‘having pupils reflect’ on the language, that is, helping them acquire a grammar or giving them a theoretical representation of linguistic behaviour. The fact of this unaniity reflects a permanent desire on the part of society which the educator must take into account. The first question to arise, then, is what image of the language should the pupil be given? In turn, this question gives rise to two more questions: why or, better yet, what for? and how can linguistics help to define it?

It can be said that there is similar unanimity on the subject of linguistic behaviour: the teaching of the language must foster the development of the pupil’s oral and written expression. If, in agreement with educational psychology, we accept the belief that the educative methods implemented to stimulate such development must be based on the child’s own productions, two questions need to be answered: What are the characteristics of the language used by the child and how can it be analysed? Furthermore, what are the specific characteristics of the model the school wants the pupil to acquire? The reply to these two questions requires a genuine effort to analyse linguistic practices in classroom situations.
A LANGUAGE IMAGE FOR THE CLASSROOM

And what if grammar were useless?, asked Freinet nearly sixty years ago. This question is no longer applicable today since all or nearly all didacticians agree on the necessity of 'doing' grammar. But we must ask why and how? These two questions are intimately connected. It is only useful to learn grammar if a particular type of approach is proposed. First of all, we can reasonably believe that language, even if it is not a subject like the others, constitutes a topic of reflection which is intrinsically interesting and upon which pupils can exercise their talents of analysis and discovery. This investigation of language cannot fail, in turn, to have an influence on the child's linguistic expertise, that is, his abilities in oral and written expression. In the last decade, scholars have challenged the validity of the spillover effect of grammatical work onto linguistic practices (Tordoir and Wesor, 1979). Despite the experimental rigour of the investigations, generalizations cannot be made about the results. They show that a rigid, grammatical approach, based on the traditional parts of speech is not very productive, but this is not to say that another approach would lead to more positive results.

In reality, with relation to reforms currently underway (the introduction in French-speaking Switzerland of Maîtrise du français, for example), a noticeable improvement in aptitudes in written expression has been achieved at the end of primary school. This result is common to most innovations in teaching methods; in an initial phase of implementation, the results obtained are positive, whatever the theoretical source chosen. This phenomenon gives a significant indication and we will interpret it as follows. At the initial phase when new conceptualizations are being introduced, the receptiveness of the training of school teachers naturally accentuates the heuristic aspect of the theories adopted; these are presented and perceived as methods or channels in the description and explanation of the object. Later, when habits set in and programmes become stabilized, the concepts introduced become naturalized and the accent slides imperceptibly towards a static presentation of the language.

Consequently, it would appear necessary to introduce, already at the elementary level, as a model (or image) of the language, a conceptualization which permanently incorporates the heuristic aspects, perhaps an essential functional conceptualization. The introduction of this metalinguage, of course, should be carried out according to a schedule going from the most simple to the most complex. The evaluation of complexity should not be based on linguistic criteria, which are not relevant in this area, but on psychological criteria. It is at this level that psycho-educational considerations recover their full legitimacy; the graduated scale of concepts can make use of the extensive body of data gathered by child psycholinguistics with respect to the procedures used by learners to master the structure of their language. It would be useful, then, to give priority to a conceptualization which is based on functionalist theories and which, for this very reason, would be capable of discovering the procedures the pupil necessarily uses to acquire the language.

With this in mind, how can we make use of the discoveries of the language sciences, particularly those we have presented in the present work? Three general considerations can be cited in this connection.

The first consideration, though indirect, is nonetheless extremely important: the language sciences have not progressed as much as was expected in the euphoria following Chomsky. If we except the elaboration of effective methods for the description of surface structures in the language with respect to the sign, syntax and text, the bulk of the work remains to be done. Linguistics essentially enables us to criticize inadequate solutions (such as traditional grammar) and to formulate correctly the main problems involved in the elaboration of a theory of language, but there does not exist a general, satisfactory model upon which we can rely with the same confidence as we can justifiably, on mathematical theories. Accepting this state of affairs need not have only a negative character; this situation even further justifies the inversion of the relationship between reference disciplines and practical disciplines of which we spoke at the beginning of this chapter. From among all the acceptable theories proposed by the language sciences today, the teacher must make choices based on his objectives and on his knowledge of the level of the linguistic development of his pupils. If necessary, he can create and adapt the conceptual or methodological instruments he needs. The belief that there exists one (or even several) correct models for application in the teaching of languages must be discarded for good.

The second consideration concerns the training of teachers, or, more specifically, the principle to adopt in providing information related to theories of language. We feel, contrary to the current training approach which consists of successively naturalizing fashionable theoretical concepts (traditional grammar, European structuralism, distributionalism, generative grammar, speech-act conceptions, pragmatics, etc.), that it would be wiser to develop three theme areas. The first would focus on the history of languages and linguistic thought (see Chapter II): show how languages evolved, how norms emerged and the position of classroom languages evolved, how norms emerged and the position of classroom language; study the bases of traditional grammar and compare them to the goals of scientific grammars (rather than simply rejecting the traditional bases because of their age and accepting the latter because they are more recent); and finally, discover in this way, the kinds of goals society teaches currently through language teaching. The second theme would focus on the problem of describing languages (see Chapter III): show what techniques make it possible to identify and to define, at an internal level, the main linguistic units of a natural language; apply these instruments experimentally to the various corpora of language actually used; and give evidence of the difficulties and absolute limits of such descriptive efforts. The third theme should involve theories of language themselves: the objective here would be to endow school teachers with a metalanguage of universal value which would enable them to conceptualize a number of important problems, on the morphosyntactic level, in particular. We do not think it impossible to initiate teachers in great detail to the problem of the description of the sign (Chapter V), imsofar as the philologic interrogation to which it refers does relate directly to practical questions in teaching vocabulary. The areas of textuality, speech-acts and pragmatics should be introduced since they alone can genuinely explain the status and behaviour of the majority of linguistic units, but much work remains to be done in this field before a homogeneous and effective conceptual apparatus will be achieved.

This problem, in fact, brings us to our third consideration. What metalanguage should be used in schools? Or, put differently, what conceptualization are we going to choose for the pupil? At present, even in the case of modern methodologies (e.g. Maîtrise du français), strictly syntactic concepts are first introduced (noun and verb phrases, types of sentences, constituent elements of groups, optional and obligatory elements, etc.), after which speech-act considerations are taken up (analysis of verb tenses as forms of expressing the relation between the moment of the utterance and the moment of the event expressed), and, finally, textual and contextual considerations are dealt with (a distinction is drawn between text and context, with the influence of the latter on the former at various levels, and the organization of the text, pronouns, etc.). A conceptualization based on syntax has one apparent advantage: it makes...
possible rapid generalization to a second language, provided it is sufficiently similar to the mother tongue and that the method of teaching remains traditional (from rules to examples). In this way, we can easily make the transition from French noun phrases such as subjects and direct objects to the nominative and accusative cases in Latin and German, for example.

But starting out from a syntactic approach in grammar has a much more serious disadvantage: the notions thus introduced quickly lose their relevance as soon as we go from the analysis of sentences to texts. Given that the production of texts (oral or written, we should recall) is one of the major objects of linguistic investigation, it seems to us indispensable to introduce from the very outset a more functional image of the language. We feel that the concepts developed by the Prague School (theme, rheme, topic, focus, etc.) could be adapted and thus become tools for analysis of the language by the pupil. So far this has not been done; it is not within the scope of linguistics and, in our opinion, constitutes a major task for didactics.

**LINGUISTIC ANALYSIS AT SCHOOL**

If there remains much to be done in the area of grammatical conceptualization, the essential task of pedagogy concerns, to our view, the analysis of linguistic practices in classroom situations, for it is on such an analysis that the teaching of expression and, consequently, of the text can be based. Four important questions need to be asked in this regard:

- What are the specific characteristics of the target to be attained, that is, what types of texts do we want to create or re-create?
- What are the specific characteristics of the input materials, that is, the textual productions made by the pupil at the various grade levels?
- What are the current teaching practices in relation to texts? What directives are given? What are the criteria used to evaluate productions?
- How can we promote a new way of teaching textual expression?

To answer these questions, we have undertaken the lengthy process of first creating analytical instruments adapted to classroom situations, then applying them in experimental situations conducted by teachers themselves.

**Preparation of analytical instruments**

Drawing upon distributionalist principles for describing linguistic units, we first made an analytical grid of French texts. This is a complex instrument which makes it possible to isolate and quantify the distinctive characteristics of any type of oral or written production (cf. Bain et al., 1982 and 1985). Next, using the principles of social interactionism described in our discussion of the psychological model of language (Chapter VII), we defined conditions for the production of text prototypes and gathered the texts thus produced. After applying this method four times successively (we cannot enter into more detail here) we were able to identify three 'polar' conditions of production (that is, particularly contrasted) which gave rise to three nodal types of text: situation speech-acts, theoretical speech-acts and narrations. We were able to identify satisfactorily the traits specific to each of these types (syntagmatic density, distribution of pronominal markers, distribution of verb tenses, text organizers, types of sentences, etc.). We were also able to show, by refining the analysis of social parameters of the context, that other types of text could be defined (argumentative, didactic, autobiographical, historical, etc.) which functioned as satellites. This first investigation thus enabled us to develop a detailed description of the different types of texts produced in contemporary French. We then subjected pupils' texts to the same type of analysis, which now allows us to formulate hypotheses on the stages of their progress through each type of text.

The thrust of this basic work made it possible, finally, to elaborate a simplified version of the text analysis grid (Commission-Pédagogie du texte, Geneva, 1984) which is available to teachers wishing to analyse the texts they submit to their pupils, as well as those produced by them.

**Investigations and activities in text education**

The team of which we are a part in Geneva has taken this work in two main directions: the analysis of conditions of written productions at school, on the one hand, and experimentation with new methodological approaches, on the other.

Investigations of the first type clearly indicate that the execution of compositions in the classroom generally is done under implicit conditions, both with regard to the type of text to be done and to the specific directions likely to orient the pupil's work. Of course, a title is given, as well as indications - sometimes in some detail - as to the topic to be developed (referential content), but hardly any guidelines are given with respect to contextual and interactive aspects of production. Only in exceptional cases is the goal of discursive activity, its addressee and its originator, specified. The pupil must, therefore, decide inductively what type of text is wanted, based on his classroom experience, and his familiarity with the teacher. It is hardly surprising that, in this context, the literary type (narration) is by far the most frequent. It is likewise striking to observe the extent to which teachers are skimpy on indications concerning the criteria to be used for evaluating the texts.

New methodological approaches have as their primary goal remedying the shortcomings which have been observed: giving explicit information on directions and expectations, indicating the main focus and evaluation criteria and, above all, diversifying the conditions of production to prepare pupils to manipulate all types of texts possible in the language. Attempts at innovation have also aimed at making pupils aware of the mechanisms which underlie the organization of texts and of the subsets of linguistic units which express this organization, with regard to the particular type in question. There is no doubt but that the investigations of teachers and didacticians in this direction will continue to benefit from the theoretical formulations of contemporary language sciences.
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[Special number, in press]


