LANGUAGE AND THOUGHT
IN THE THEORIES OF
PORT-ROYAL,
DU MARSAIS,
BEAUZEE
and
CONDILLAC

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for the degree of Master of Philosophy

by

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Language and Thought in the Theories of Port-Royal, Du Marsais, Beauzée and Condillac.

Summary.

This study considers the four best known French theories of general grammar with particular reference to the relationship which their authors postulate between thought and language.

The first part refers to the reasons for modern interest in such theories and to consequent modern discussion relevant to them. With the aim of placing them in historical perspective, a short account of the progress of the theme of universal grammar is provided. This includes a brief summary of the various theories which may be regarded as subscribing to the concept, and of the progression of the theme in France during the specific period of general grammar there.

In the second part, each of the theories is considered separately. Each section within this part has an introduction containing background information such as the role of the respective authors, the influences on their theories, details of their own publications and the main items in the secondary bibliography. In the case of the first section, on the Port-Royal theory, such details are more extensive, partly due to the volume of discussion on Port-Royal, partly to the historical position of the authors at the beginning of the era of general grammar in France. Most of the content in each of the sections is devoted to describing and discussing the conceptions of each of the authors on the nature of thought and its processes, and their accounts of the way in which these processes find their expression in language and affect grammatical theory. Attention is
particularly directed at the main aspects of the theories, notably, the features which are considered to be universal, the role of words as artificial signs, and the role of the judgment and its linguistic expression, the proposition.

The concluding part traces a certain progression in thinking which can be detected in the four theories and considers some of their relative advantages and disadvantages. Also noted are salient features likely to be of interest in the context of modern linguistics.
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Theories on language and grammar in France in the 17th and 18th centuries were largely dominated by the philosopher grammarians (1) who considered it possible to designate certain elements of grammar as being common to all languages, due to the universal nature of thought, and the close connection of thought and language.

The concept of universal or general grammar was neither new, nor limited to France. But it was in France that it became particularly important and flourished, though not always with the same intensity, over a period which is generally regarded as beginning with the publication of the Port-Royal Grammaire Générale et Raisonnée in 1660 and finishing at the end of the 18th or beginning of the 19th century. During this period, although the nature of the theories changed, they all postulated some form of universal thought linked to its expression in language.

No further theories of this type were produced in France after the beginning of the 19th century, and, with the emphasis on comparative and historical linguistics in that century they did not persist as a focus of interest. The theories are sufficiently rich in themselves as subjects of study, but they have also been largely ignored in the present century until relatively recently.

1. The term 'grammaire-philosophe' generally used in this context in the 18th century was first applied to the followers of Port-Royal who attempted to show that language is a direct reflection of man's rational processes. (B.E.Bartlett, Beauzée's Grammaire Générale, 2.5).
Re-awakened interest in them is due, generally, to the importance now attached to the history of linguistics and particularly, to Noam Chomsky's claims that, in some respects, the theories, especially those of Port-Royal, have features in common with transformational generative grammar. The strong stimulus which Chomsky's claims gave to the study of the history of linguistics is acknowledged by R.H. Robins' comment that he was "more responsible than any other single linguist for the change of direction and focus in the subject from the late 1950's to the present day."(2).

Much of the discussion and the controversy which followed the publication of Cartesian Linguistics was concerned with the historical validity of Chomsky's claims. The main works of this nature, which mostly relate to the theories of Port-Royal, are listed by Charles Porset in an extensive bibliography relevant to general grammar (3). He describes them as the principal ones among the "très nombreuses et vigoureuses réactions" against "l'idée d'une linguistique cartésienne qui, via Du Marsais, nous conduirait en droite ligne à Humboldt". Of the various topics covered by these numerous works, those of relevance to the present study will be introduced in context.

Although such publications resulted in a substantial contribution towards historical facts about the philosopher grammarians and the history of general grammar, they could not be regarded as providing a comprehensive picture of the theories discussed, nor were they intended to do so. However, in

addition to these works mainly produced in reaction to Chomsky's publications, there have been specific studies on some of the theories of the philosopher grammarians, namely those of Gunvor Sahlin on Du Marsais\(^{(1)}\), Roland Donzé on Port-Royal\(^{(2)}\), and Barrie E. Bartlett on Beauzée\(^{(3)}\). Other major works which include much of relevance to the theories and their history are J.C. Chevalier's Histoire de la Syntaxe, 1968, and G.R. Padley's Grammatical Theory in Western Europe, 1976. There are also indications in more recent works of a greater concentration on intrinsic aspects of the theories and on the considerations deriving from them, as, for instance in Sylvain Auroux's La sémiotique des encyclopédistes (Paris, 1979), Daniel Droixhe's La Linguistique et l'appel de l'histoire (1600-1800) (Droz, 1978), Ulrich Ricken's Grammaire et Philosophie au Siècle des Lumières (PUL, 1978) and André Robinet's Le Langage à l'Age Classique (Paris, 1978).

Together, all these studies and others which will be referred to in context, form a substantial contribution to knowledge of the theories and to discussion of their main features and of the implications deriving from them. Particularly in relation to criticism of Chomsky, the question of their antecedents has been well aired. On the specific topic of the relationship of language to thought, a fair amount has also been written, but, in general, though Bartlett's work is an exception in that it does provide a detailed account in regard to Beauzée's theory, this has not been considered comprehensively as a specific subject.

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2. La Grammaire Générale et Raisonnée de Port-Royal, Berne, 1967.
The present study aims to describe four outstanding theories of this type in so far as they attempt to relate language and grammar to thought, namely those of Port-Royal, Beuzée, Du Marsais and Condillac. By limiting the number of theories studied it will be possible more easily to appreciate the full context in which the relationship is considered. A more general consideration of the subject throughout the period would risk losing the full significance of the treatment within specific theories.

The four sources in question, the best known and therefore most discussed in the context of general grammar in France, may be considered as representative of the concept at their particular period, though not without qualification, for on the one hand, not only did each carry the author's own particular stamp; on the other, less well known personalities made notable contributions, from which they were able to benefit.

For practical considerations also, the study does not explore the phonological or the more purely semantic aspects of the theories, but is limited more to the basic principles and the processes postulated in accounting for the relationship of language to thought, and the effect of these on grammar.

This study is not concerned with antecedents as such, but, in order to attempt to place the theories in their appropriate historical perspective, and to give some idea of the heritage of ideas and traditions which contributed in some measure to the thinking of the French philosopher grammarians, a brief summary follows of the main theories and concepts which may be regarded as subscribing to the notion of universal or general grammar.

Also included at Chapter 3, to assist in indicating the respective position of the four contributors in the progress of the theme of general grammar in France, is a short account of its history there during the period from 1600 to the early 19th century.
Chapter 2. Universal and General Grammar.

Donzé noted in 1967\(^{(1)}\) as did Sahlin\(^{(2)}\) in similar terms almost forty years earlier, that "l'histoire de la grammaire générale reste à faire". Although more information on the subject is now available, a comprehensive major work is still lacking.

The term general grammar applies more specifically to those theories, such as Port-Royal's, which aim to consider elements of grammar common to all languages. The term philosophical grammar is probably more appropriate to some of the later theories which appeared in the eighteenth century. 'Universal grammar' appears to be used in a more generic sense to refer to concepts or theories relating language to some universal aspect of thought. It is consequently difficult to provide any definition of universal grammar which can apply, other than very broadly, to the various pronouncements, concepts and theories which can be related to the term. As Bartlett illustrates, universal, general, or philosophical grammar may be said to have developed from a long history of universal aspects applied to language\(^{(3)}\). Also, "The particular type of universal grammar in vogue is inevitably a reflection of the philosophical or logical system underlying it"\(^{(4)}\). One cannot therefore so much define it as describe its development, which authors writing on some aspect of it, or on some specific theory, tend to do, though with differing emphasis on the subject according to the context to which their account is related. Sahlin, in her work on Du Marsais, includes a short introductory account of universal grammar\(^{(5)}\), as does Bartlett\(^{(6)}\),

1. La Grammaire Générale et Raisonnée de Port-Royal, p. 35.
3. Beuzée's Grammaire Générale, Ch. I.
5. Ch. I.
6. Beuzée's Grammaire Générale, Ch. I.
who points out that from the times of Ancient Greece, universalism tended to be implicit if not explicit in language and grammar due to its association with philosophical aspects. François Thurot's Discours Préliminaire to the translation of James Harris' Hermes reviewed historical developments prior to the era of general grammar in Europe. A more recent commentary is included in Padley's Grammatical Theory in Western Europe 1500-1700, Ch. 4. Vivian Salmon provides a useful résumé of relevant works in the century preceding Descartes.

Drawing on these and other works more specific to the successive periods, the following commentary, necessarily simplified, traces the main landmarks in the progress of universal and general grammar.

Padley refers to the idea of universal grammar having already been mentioned in passing by Aristotle, who regarded the "mental affections themselves, of which these words are primarily signs", as the same for all races of men.

Also relevant to the universalism in early Greek thinking, and its conceptual influence on later linguistic theories, is Peter Salus' view that it is the Platonic notion of 'ideal form' realised in various (imperfect) ways in this transient world which gave rise to the theory of universals generally and universal grammar in particular. The universal grammar is the ideal abstract form from which the various (imperfect)

1. The dominant theme of this work is the Latin Grammatical Tradition. W.K. Percival's review (in Language, 1979, vol.55, pp. 679-684) commends Padley's analysis of some hitherto poorly known works, such as those of Scaliger and Caramuel, but refers to some inaccuracies of fact and interpretation in relation to other sources.


3. Grammatical Theory in Western Europe, p. 154. This was earlier noted by Vivian Salmon in Review of Chomsky, p. 174.
grammars of real language indirectly draw their morphological and syntactic notions (1).

The broad concept of a universal mental basis to language was thus already evident at an early period. But, as linguistic enquiries at this early stage were not autonomous but remained linked with the philosophical thinking of the time, it may be said that linguistic universals as such had not been explored, though they were implicit to a certain extent in the association of aspects of language with philosophy and logic. Thus, for example, the segregation of noun and verb by Plato, the first known explicit distinction of parts of speech, was not on linguistic, but on logical grounds, noun being that of which some action was predicated, verb what was predicated of it (2). Similarly, Aristotle's view of the sentence as affirming or denying a predicate of its subject (3) provided a logical basis for the sentence form (4). Robins notes that Aristotle did however introduce some formal, or intra-linguistic features into his scattered treatment of grammatical questions, but their mingling with extra-linguistic or 'notional' classifications 'seems to give rise to many of his difficulties in working out his doctrines and to many of ours in clarifying the lines of his thinking on grammar' (5).

3. Ibid., pp. 18-24.
4. Jean Stefanini (De La Grammaire Aristotélicienne, in La Grammaire Générale, PUL, 1977) comments on the lasting influence of this and other aspects of Aristotelian thinking in subsequent grammatical theory.
5. Ancient and Mediaeval Grammatical Theory in Europe, p. 25.
The nature of these early origins of European grammar was to continue to influence it through what may be described as two avenues of thought, though they were not always distinct. One led to traditional grammar, which developed via the Stoics; the Alexandrian School; the first Greek grammar of Dionysius Thrax and the later one of Apollonius Dyscolus; and the subsequent Latin grammars of the Romans, Priscian and Donatus, which followed the pattern set by Thrax(1). The other avenue, philosophical, saw a recurrence, or continuation in some form, of certain aspects of the early philosophy from which traditional grammar had developed, and from which it was hardly ever completely free, at least up to the 18th century.

The next period of significance to the theme of universal grammar was the later Middle Ages, when, stimulated by the influence of the 'new' philosophy, namely Aristotle re-discovered, theories were developed which brought together the two schools of thought affecting grammatical theory, traditional grammar and Aristotelian philosophy. The culmination of the thinking of that period lay in the theories of speculative grammar of the Modistae, the Mediaeval schoolmen. Their forerunners included Peter Abelard, with his influence in dialectic, William of Conches and his pupil Peter Helias(2), whose aim to provide a philosophical explanation to the rules of Priscian's grammar seems to have been the first systematic attempt to relate the ideas of the 'new' philosophy to the study of grammar(3). The Modistae were so called because their theories of speculative grammar (speculative in the sense of mirroring


2. Although Peter Helias has been generally assigned a leading role, more recent research suggests that his teacher, William of Conches, played a more significant part than was previously recognised. (R.W. Hunt, collected papers on the History of Grammar in the Middle Ages, Studies in the History of Linguistics, Vol. 5, Amsterdam, 1980).

3. Scholasticism is described as the result of the integration of Aristotelian philosophy, at the hand of such thinkers as St. Thomas Aquinas, into Catholic theology. (Robins, Short History of Linguistics, 2nd. Edn., 1979, p. 74).
reality)\(^{(1)}\) envisaged different 'modes' of signifying.

Roger Bacon, also an important forerunner of the Modistae\(^{(2)}\), pointed towards universal grammar in observing two aspects of every language, the first kind, proper to a specific language, could not become the object of scientific study, but the second, common to all languages, and concerned with questions such as what is a noun, verb, etc., could be taught as true learning because its object was universal\(^{(3)}\). Salus considers that the beginnings of universal grammar are most easily traced to Roger Bacon and that both Bacon and Kilwardby owed a great deal to Abelard, for the notion of grammar as a science grew out of his revival of dialectic\(^{(4)}\). Peter Helias, contrary to Bacon, considered that there are as many grammatical systems as there are languages\(^{(5)}\).

André Joly and Jean Stefanini justifiably emphasise "le rôle capital des Modistes dans l'élaboration de la grammaire générale."\(^{(6)}\). Their theories envisaged a universal grammatical structure, with the rules of grammar quite independent, as rules, of the particular language in which they happen to find realisation\(^{(7)}\).

Though in practice their system was not universal since it was allied to the Latin language, albeit of universal significance to them, it may be said to have provided a formula which allowed for the relationship, in distinct capacities, of reality, the way in which the mind grasps reality and the way in which it is expressed, in grammar. In potential, the formula provided laudable scope for analysis and for separate

1. G.L.Bursill-Hall, Speculative Grammars of the Middle Ages, p.31.
2. Arens, Sprachwissenschaft, p. 43 also mentions Robert Kilwardby in this capacity.
6. La Grammaire Générale Des Modistes aux Idéologues, p. IX.
consideration of the components. The potential was not however exploited by the Modistae for their theory was constrained by the traditional form of grammar and by the prevailing views on logic. They retained more or less intact the grammatical system of Donatus and Priscian but re-stated the parts of speech and their accidents in semantic terms deriving from contemporary logical theories. Their association of traditional grammar and logic led Robins to comment that many of the basic principles of scholastic logic were themselves based on the lexical and grammatical structure of some "favourite sentence forms" of the classical languages, so that when logic and metaphysics were used as the basis of grammar, language was, as it were, "getting its own back". The 'modi intelligendi', relating to the mind's apprehension, and the 'modi essendi' of things were just a reflection of the 'modi significandi', relating to grammar. Moreover, the modi essendi, intelligendi and significandi rested on the view of Thomist philosophy that the mind abstracts universals from real properties of particulars and considers them apart. Since the abstractions, the way of considering them and the way of communicating them were all on an a priori universal basis, the theoretical potential for distinction was not realised in practice.

Norman Kretzmann, in pointing to late mediaeval logic (14th-15th century) as perhaps the most promising of all possible antecedents to transformational grammar, comments that the mediaeval logicians of that time were engaged on what might fairly be described as philosophical grammar. Among the many topics in late mediaeval logic, Kretzmann considers that the exposition of propositions resembled concepts of deep and surface structure and of transformational rules. It may be that here, too, there is an implication of

1. Bursill-Hall, Speculative Grammars of the Middle Ages, p. 75.
an underlying universality to language, but, pending further information on the subject, it would appear that the theories of the Modistae offer the most explicit realisation, at that period, of a universal grammar, though with the limitations mentioned.

In so far as the earlier period of Humanist grammar is concerned, Padley sees an increasing tendency to use semantic criteria, to an extent which anticipated 17th century theory. "The semantic approach to grammar is not an invention of the 17th century, but the harvest from seeds set at the very outset of the new learning."(2) In spite of the reaction against Aristotelian logic, some of his doctrine, comments Padley, creeps into the grammatical theory of that time. The early Humanist grammarians upheld "the semantic primacy of the noun and verb", and "as early as 1481 the notion of the logical proposition, so important for seventeenth-century grammatical theory, is already being transferred from dialectics to grammar"(3). Against these remarks must be taken into account W.K. Percival's criticism to the effect that Padley's emphasis on semantic criteria is over-stated(4).

1. More publications have become available over the last 10-15 years on works of the Middle Ages relevant to language but Louis G. Kelly (La Grammaire à la Fin Du Moyen-Age et Les Universaux pp. 1-10 in La Grammaire Générale Des Modistes Aux Idéologues, 1977) refers to every bibliography of universal grammar in the Middle Ages being unfortunately incomplete and comments that we are only at the beginning of studies on mediaeval grammar. He lists the works which are available. The most recent and comprehensive bibliography appears to be that of Konrad Koerner, Mediaeval Linguistic Thought, A Comprehensive Bibliography, Historiographia Linguistica, Vol. VII, 1/2 1980, pp. 265-299.

3. Ibid., pp. 35-36.
The major Renaissance influences in relation to general grammar came later in the period. They were J.C. Scaliger, 1484-1558, Ramus (Pierre de la Ramée), 1515-1572 and the Spaniard, Sanctius (Francisco Sanchez de las Brozas), 1523-1601. Though their work related to Latin grammar, their emphasis on a philosophical or logical basis to grammar anticipated the later general grammars, as did some features of their theories. Both J.C. Chevalier(1) and Padley(2) discuss the work of each at some length and emphasise its importance to the subsequent progress of French grammar. Features singled out in particular in relation to Port-Royal theory are Scaliger's view of the sign and the proposition, and his use of the Aristotelian notion of substance and form(3) and Sanctius' use of ellipsis.

Described by Padley(4) as the first grammarian since the Modistae deliberately build a theory of grammar on elements of Aristotelian philosophy, Scaliger attempts in his De Causis Linguae Latinae, 1540 to apply Aristotelian methods of classification to language(5). Causa materialis is identified with phonetics, formalis with the semantic aspects of language, efficiens with the speaker and finalis with what is felt(6). He uses a similar concept to that of the Modistae in viewing words as signs of notions in the mind, mirroring reality(7). Port-Royal was to use a different interpretation of the application of reason to language, but Scaliger's approach may be said to have introduced the idea of a framework or method for grammar founded in reason. He aims to show that a language functions because it is a system of reason(8), comments Chevalier.

2. Grammatical Theory in Western Europe, 1500-1700, pp. 58-110.
3. Ibid., pp. 73-4.
4. Ibid., p. 62.
5. Ibid., p. 58.
6. Ibid., pp. 60-62.
7. Ibid., p. 73.
Ramus, strong advocate of delimitation of branches of learning, insisted that grammatical categories must be classified within a logical framework, though their grammatical meanings are determined formally by morphological elements\(^{(1)}\). Grammar was envisaged on two levels, functioning in parallel: a form of expression consisting of the order and form of its terms, and a form related to content, corresponding to logical analysis\(^{(2)}\).

The view of a logical basis to language is evident in Sanctius' use of ellipsis, applied extensively in his Minerva (1587) to demonstrate that each phrase can be traced back to a so-called logical type\(^{(3)}\). Chevalier sees this work as leading towards the formation of a syntax whose nature is other than that of morphology\(^{(4)}\).

Ellipsis is not a newly noted phenomenon. It had already been evident in Priscian's work\(^{(5)}\). It appears however to have been given a specific role by Sanctius and by the English Humanist grammarian Thomas Linacre, before him. Linacre envisaged a division of syntax into two varieties, constructio justa and constructio figurata. Justa is regarded as the statement in full of figurata in which all elements are not realised\(^{(6)}\). Padley describes Linacre as "the only early humanist to give ellipsis an extended treatment comparable to and even surpassing, that of Sanctius", though others, e.g. Despauterius also applied it\(^{(7)}\).

1. Padley, Grammatical Theory in Western Europe, p. 93.
5. Padley, Grammatical Theory in Western Europe, p. 183.
6. Ibid., p. 54.
7. Ibid.
In the seventeenth century, the theme of a universal grammar typical of all languages became explicit in various works throughout Europe. Vivian Salmon comments that it was probably Francis Bacon's German contemporary, J.H. Alsted, who first used the term 'general grammar' in the modern period (1630), contrasting it with special grammar. Salmon also refers to Alsted as one of the logicians who attempted to equate logical categories representing mental discourse with grammatical categories representing the spoken expression. He also acknowledged the generative power of logic. Padley refers to the first self-consciously universal grammars having appeared in such works as Christopher Helwig's Libri Didacti, a treatment of four classical languages prefaced by a universal grammar, 1619. Important representatives of philosophical grammar with universal pretensions were Tommaso Campanella (1568-1639) and the Spanish bishop Juan Caramuel y Lobkowitz (1606-1682), both in many respects showing a return to scholastic views on universal grammar. Campanella's avowed aim was the reconstruction of scholastic philosophy. Defining grammar as a science, he distinguished between 'civilis', resting on the authority of the best authors, and 'philosophica', based on reason. (There is a similarity here with Bacon's view below.) Caramuel's Grammatica Audax (1654) defines speculative grammar as that which pertains to no particular region or people but whose 'meditationes abstractissimae' provide laws appropriate to all languages.

5. Ibid., pp. 161-2.
In England, Francis Bacon's pronouncements on philosophical grammar distinguished between a literary or popular grammar, and philosophical grammar which "should diligently inquire not the analogy of words with one another but the analogy between words and things, or reason"; not going so far, however as that interpretation which belongs to logic. Padley refers to Bacon's suggestion being echoed in Bassett Jones' Hermælogium, 1659, in which there is an attempt to classify words according as they denote being, notion or quality. He describes Jones' standpoint, a year before the Port-Royal Grammaire Générale, as that of a universal grammarian. "... the nations differing in vocality ... do nevertheless in point of syntax agree as one." Another English work, that of John Wallis, Grammatica Linguae Anglicanae 1653, is referred to, in a note to the 1780 edition of Arnauld's works, as providing a considerable contribution to philosophical grammar, earning the author a distinguished place among the founders of general grammar. The work was praised by Beauxée, but seems to have been unknown to Arnauld.

A. Richardson's 'Logician's Schoolmaster', 1657, is instanced by Padley as reflecting the growing tendency to regard grammar as the handmaid of logic, "reason can be clothed in diverse surface structures and remain the same".

Described by Padley as the first thoroughgoing attempt at a universal grammar after Wilkins, A.Lane's Rational and Speedy Method, 1695, appears to include a translation of the Port-Royal Grammaire Générale.

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2. Grammatical Theory in Western Europe, p. 156.
5. Ibid., p. 208.
Another stream of thinking, related to the question of universal grammar and partly arising from growing dissatisfaction with the use of an outmoded language, Latin, led to schemes for universal languages. The movement was most marked in England where John Wilkins is regarded as the most important of the 'language planners'. His Essay Concerning a Real Character and a Philosophical Language, 1668, is described by H.E. Brekle as representing the most highly developed work of its kind. Others associated with the movement include George Dalgarno and Francis Lodwick, in England, and abroad, Leibniz and the Moravian scholar Comenius. Interest in the subject appears to have flagged in the first part of the seventeenth century but was revived later due to the spread of Leibniz' ideas and to consideration of the question in France by the Idéologues, where interest in the problem was stimulated by discussion on problems associated with the origin of language.

The close incidence of the dates of these various works of the seventeenth century obviously makes it difficult to consider them in terms of precedents or influences. To a certain extent they had a common European heritage and must also have been influenced by the thinking of the day, though whereas in France the rationalist influence would be marked, in England, the lead came from Francis Bacon's empiricism.

The incidence and number of works in Europe subsequent to the appearance of the Port-Royal grammar indicate that the theme of general grammar was dominated by the French scene, especially in the eighteenth century. Padley refers to the influence of the Port-Royal theory on European grammarians being immense, but neither direct, nor undelayed. "It had no

1. Grammatical Theory in Western Europe, pp. 184-209.
3. Padley, Grammatical Theory in Western Europe, pp. 184-209.
4. James Knowlson, Universal Language Schemes in England and France, 1600-1800, Toronto, 1975. This work appears to be the most comprehensive source on universal language schemes.
appreciable effect in England before the publication of Brightland's grammar, 1711, nor in Germany until late eighteenth century, and by this time, the influence was no longer presented in its original form."(1). Christian Wolff's Vernünftige Gedanken von Gott, der Welt und der Seele des Menschen, relating to general grammar, appeared in 1729(2). Peter Salus refers to J.S. Vater's Versuch einer allgemeinen Sprachlehre (1801) as one of the most interesting non-English works after Hermes(3). In England the outstanding work of this kind was James Harris' Hermes, or a Philosophical Inquiry concerning Universal Grammar 1751(4).

Burggraff's Principes de Grammaire Générale appeared in 1863(5), but Salus refers to Sir John Stoddart's The Philosophy of Language, 1849, as the last truly universalist work. Stoddart describes universal grammar as a science, which is subject to the universal principles which govern the human mind; particular grammar as an art. He acknowledges his indebtedness to four sources, Sanctius, Vossius, the Port-Royal authors and Harris, and mentions Beauzée with praise, but, comments Salus,"the laurels throughout go to Sanctius and Harris(6)."

Attempts at some form of general grammar were evident in Europe earlier this century, namely L. Hjelmslev's Principes de Grammaire Générale, Copenhagen, 1928, and V. Brøndal's Les parties du discours, Copenhagen, 1948, in which the Aristotelian categories of substance, quantity, quality and relation were suggested as a basis of classification(7).

1. Grammatical Theory in Western Europe, p. 223.
5. Sahlin, César Chesnau Du Marsais, p. 5.
7. Padley, Grammatical Theory in Western Europe, p. 158.
Chapter 3. General Grammar in France.

Although the Port-Royal Grammaire Générale et Raisonnée enjoyed considerable prestige in the period following its publication, there appears to have been no notable attempt to exploit or develop the work during the remainder of the seventeenth century. Chevalier attributes this to the ambiguity of its dual tendency, logical and pedagogical, and to the diffused state of grammar at the time, with the diversity of models and aims calling for synthesis. He regards Père Buffier's Grammaire of 1709, some fifty years after the publication of the Port-Royal Grammaire, as the departure point for the philosophical grammar of the Encyclopédistes, and as the first among efforts to purify the state of grammar.\(^{(1)}\)

The development of general grammar in the eighteenth century is seen by Brunot\(^{(2)}\) as falling into three periods.

The effort of the grammarians of the first period was mainly aimed at freeing French grammar from subservience to Latin.\(^{(3)}\) The Port-Royal grammar had set the precedent for this, and for the mentalist basis which persisted in the thinking of the later grammarians.\(^{(4)}\) Duclos and Fromant, who added Remarques and Supplément respectively to the 1754 and 1769 reprints of the Port-Royal Grammaire Générale, are included among the grammarians of this period, as are those who produced treatises on grammar, among them Buffier, Restaut\(^{(5)}\), De Wailly\(^{(6)}\) and Regnier-Desmarais. Also included are D'Olivet and l'abbé Girard whose Synonymes français (1716), establishing his reputation as grammairien-

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3. Ibid., p. 902.
5. Les Principes généraux et raisonné de la grammaire française, 1730, not very novel according to Chevalier (Histoire de la Syntaxe, p. 615).
6. Principes Généraux et particuliers de la langue française.
philosophe, encouraged expectations that he would advance the penetration of philosophy into French grammar. Although Chevalier acknowledges his role in establishing clear rules of grammatical construction, it appears that his major work, *Vrais principes de la langue française* (1747), did not fulfil expectations.

Inclusion of the two main contributors on grammar to the Encyclopédie, Du Marsais, and Beauzée, his successor, in the second period of general grammar, is appropriate, not least in relation to differences in their conceptual approach from that of the earlier period.

Chevalier describes the attempt at a detailed formalisation of grammar linked to general principles as the work of several grammarians, writing at a time of intense intellectual activity around 1750. At the pedagogical level this was evident in new methods of Latin instruction such as those of Pluche and Chompré and by exploitation of the methods of Du Marsais, Frémy and d'Açarq. At the theoretical level the work consisted in the efforts centred round the Encyclopédie. Du Marsais appears to have been at the heart of this thinking "d'essence cartésienne et leibnizienne, mais qui a pour point de départ la Grammaire Générale de Port-Royal et les développements qu'en ont tirés des grammairiens comme Buffier et Restaut.".

Hans Aarsleff claims that there is strong evidence that universal grammar as a philosophical and theoretical discipline had lapsed during the first half of the eighteenth century, gaining fresh importance only after the stimulus from

4. Ibid.
discussion on the origin of language had, thanks to Condillac, created renewed interest in linguistic theory. In support he refers to the lack of new editions of the Port-Royal grammar between 1709 and 1754\(^{(1)}\).

Whether there was a fall in interest, or a gestation period, or whether, as Harnois suggests\(^{(2)}\), the very renown of the Port-Royal grammar had inhibited the development of further theories of general grammar (at least for some 50 years), the strong emphasis on the conceptual character of general grammar, very evident in the Port-Royal theory, is again obvious from the time of the grammar of the Encyclopédie. Harnois' view of language and thought being examined 'selon un parallelisme constant'\(^{(3)}\), valid for Port-Royal, applies also to the Enlightenment, though the nature of the relationship changes.

Indicative of this emphasis on the conception of grammar as a formulation of underlying thought are remarks such as 'Avec Du Marsais, la grammaire générale s'enfonce toujours davantage dans l'abstraction'\(^{(4)}\), and Sahlin's view (though coloured by her concentration on grammatical rather than philosophical aspects) that after Du Marsais, grammaire générale was to degenerate to the point of being nothing more than vague speculations on operations of mind with its objective as the analysis of thought by means of language rather than as the explanation of the facts of language\(^{(5)}\). This implies a paradox in view of the description of the philosopher grammarians in the later period as empiricist.

3. Ibid., p. 7.
5. Introduction, César Chesnau Du Marsais.
Brunot's third and last period of general grammar was dominated by the theories of Condillac and the Idéologues. The stimulus given to the question of the origin of language by Condillac's theory is recognised in Aarsleff's comment that it is 'characteristic that the late eighteenth century and early nineteenth understood the terms 'universal grammar' and 'grammaire générale' to include the problem of the origin of language in its Condillacian formulation'(1). The extended scope of linguistic enquiry was evident in such works as Président de Brosses' Traité de la formation mécanique des langues et des principes physiques de l'étymologie (1765) and Court de Gebelin's Monde primitif analysé et comparé avec le monde moderne (1774-1782)(2). The discussion on the origin of language was not confined to France(3).

Increasingly popular for a while, 'grammaire générale' became officially instituted in education at the time of the Revolution, but as an applied discipline it proved unsuccessful, due, apparently, to excessive zeal in the application of general rules(4). There was growing emphasis on philosophy and on the teaching of logic at the time, and it was predominantly with the aim of perfecting the art of reasoning that Destutt de Tracy and Dieudonné Thiébault, among others, published their grammars(5), among the last of the period.

1. The Tradition of Condillac, p. 94.
3. Parsons, Historical inquiries into the affinity and origin of the European languages, 1767, and Herder, Dissertation sur la première origine de langues, are instanced in Brunot, p. 910. James Burnett (Lord Montboddo) wrote a treatise 'Of the origin and progress of language', 1773-92, referred to by R.H. Robins, Short History of Linguistics, p. 158.
5. Ibid., p. 913.
Thiébault's Grammaire Philosophique, ou la métaphysique, la logique et la grammaire, réunies en un seul corps de doctrine, 1802, appears to be representative of the current move towards fusion of grammar and logic. Droz\(^{(1)}\) describes it as having lost all respect for frontiers. It is interesting to note that Thiébault, in his preface to the work quotes the Port-Royal Logique, in which Ramus' delineation of the arts is opposed, in support of his merging of the three subjects in one doctrine — "il n'y a pour toutes les trois, qu'un seul et même sujet à approfondir".

Condillac's and de Tracy's theories were still in fashion in 1815, but their popularity was subsequently affected by the philosophical and literary reaction of the Restoration\(^{(2)}\). Evidence indicates that the specifically French phase of general grammar may be regarded as having run its course by the beginning of the nineteenth century.

Some features of the late eighteenth century theories, however, foreshadowed those of nineteenth century linguistics. Droz\(^{(3)}\) refers, in discussing François Thurot, to the duality of a grammaire générale already looking toward comparative grammar, being common to almost all the Idéologues. Aarsleff considers that certain principles about thought and language, found in Humboldt's work, are similar to Condillac's ideas. He also sees aspects of Condillac's and de Tracy's theories as having some affinity with the two closely linked principles which permeate Humboldt's work, namely, the deep subjectivity of language, and its strongly social motivation\(^{(4)}\).

1. Introduction to the 1977 reprint, Stuttgart-Bad Cannstatt.
3. Introduction to Thiébault's Grammaire Philosophique.
Part 2. Section 1.

Port-Royal

Chapter I Introduction

The grammatical theory of the 'Messieurs de Port-Royal',\(^{(1)}\) attracted no noteworthy interest beyond the eighteenth century, and, on the whole, any comment in the intervening period up to recent times has tended to be unfavourable or unenthusiastic\(^{(2)}\). In contrast, particularly as Chomsky attributed an initiating role to Port-Royal in a "Cartesian approach to language"\(^{(3)}\), and even considered the developing theory of transformational generative grammar to be an essentially modern and more explicit version of the Port-Royal theory\(^{(4)}\), their work became the subject of considerable discussion following the publication of Cartesian Linguistics in 1966.

Current interest in the theories of Port-Royal and other philosopher grammarians has moved beyond the context of 'Cartesian linguistics', but, because so much discussion on such theories, and on that of Port-Royal in particular,

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1. A detailed history of the famous Petites Ecoles of Port-Royal and of the 'Messieurs' or 'Solitaires', as they are variously called, the community's leading educators, is to be found in Sainte-Beuve's work, 'Port-Royal', 3 vols., Bibl. de la Pléiade, Paris 1953-1955.

2. Dale A. Myers and Larry H. Hillman, in their respective dissertations, include summaries of comments by various authors in the pre-Chomsky period which illustrate the lack of enthusiasm for Port-Royal grammatical theory during that time, apart from a small number of exceptions, and the surge of interest thereafter. (Dale A. Myers, The Port-Royal Grammar, An Edition of the 1753 English Translation, University of Florida 1970; Larry H. Hillman, Vaugelas and the Port-Royal Grammar, usage and reason in 17th century French grammar, Cornell University, 1972).

3. Cartesian Linguistics, p. 33

4. Ibid., p. 39
arose from Chomsky's work, and since some of the points of argument are pertinent to this study, the following paragraphs briefly indicate the main issues raised.

Chomsky's claims of similarity between the theories of philosophical grammar and that of transformational grammar extended to various authors of the seventeenth and eighteenth centuries but were mainly related to the Port-Royal Grammaire Générale et Raisonné of Antoine Arnauld (1612-1694) and Claude Lancelot (1615 or 1616-1695), and La Logique ou l'Art de Penser of Antoine Arnauld and Pierre Nicole (1625-1695), the best known works of Port-Royal relevant to language (1).

Chomsky's conception of the 'creative aspect of language use' (2), man's ability to form stimulus free novel statements, is seen by him to be evident in Descartes' view of human language as free of the type of mechanistic stimulus operative with animals (3). Descartes' distinction between body and mind, which lay behind this view, was also reflected in an inner and outer aspect to language, the outer aspect appropriate to the sounds of the linguistic sign, the inner

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2. Cartesian Linguistics, p. 3.

3. Ibid., pp. 3-13.
one to the way in which it signifies thought. A sentence may be considered from its 'surface or its deep structure', and these need not be identical(1). This latter point, considers Chomsky, is "brought out with particular clarity in the Port-Royal Grammar, in which a Cartesian approach to language is developed, for the first time, with considerable insight and subtlety ..."(2). Chomsky also regards the Port-Royal Grammar as initiating the tradition of philosophical grammar(3).

Much of the discussion and criticism which followed the publication of Cartesian Linguistics was directed at contesting the initiating role attributed to Port-Royal both in philosophical grammar and in applying a form of 'deep and surface structure' to grammar. Also contested was the extent of Cartesian influence on Port-Royal and the representation as Cartesian of features considered to be either not specific to or not appropriate to Cartesian philosophy(4). As a result there have been useful contributions to knowledge of Port-Royal's antecedents, though to some extent, concentration, at least in the early stages of the discussion, on questions of historical validity tended to overshadow consideration of aspects more specific to Port-Royal's theory. The relative lack of discussion on the parallels drawn by Chomsky between Port-Royal theory and that of transformational grammar drew from Padley the comment

1. Ibid., pp. 32-33.
2. Ibid., p. 33 and Language and Mind, p. 16.
3. Language and Mind, p. 16.
4. H. E. Brekle, in his article on the Seventeenth Century (Current Trends in Linguistics, 13, pp. 335-347) provides a résumé of the reviews of Chomsky 1966 and of the main contributions to ongoing discussion of Port-Royal linguistics. Jacques Rieux and Bernard E. Rollin also provide a résumé of the challenges to Chomsky's picture of the Port-Royal Grammar in the introduction to their English translation of the work (The Port-Royal Grammar Janua Linguarum minor 208, Mouton, 1975).
"It is a great pity that the absorbing interest of the parallels Chomsky draws ... has been largely obscured by the furore aroused by his misreading of linguistic history, and by his attribution to Cartesian philosophy of concepts which had been common currency among grammarians and logicians for centuries"(1).

Chomsky's views on Port-Royal's work and another theories of general grammar have apparently been formulated in the limited context of comparison with his own theory, and there is evidence that, in addition to some historical inaccuracies, he has not fully penetrated the details of the former theories. But he appears to be the first modern author to have concentrated specifically on the Port-Royal theory in its role of linking the mental processes with language, a fundamental feature of its conceptual basis.

Apart from specific aspects of the theory itself, other matters such as its role, and that of its authors, and the factors which could be regarded as influencing their thinking, have received a fair amount of attention. Such factors will be the subject of chapters 2 and 3, the subsequent chapters of this section being devoted to features of the theory itself.

Roland Donzé's publication on the Port-Royal Grammaire Générale(2) is the only modern major work which concentrates exclusively on their grammatical theory. It is generally acknowledged, and justifiably so, as the most comprehensive and impartial work yet published on the Grammaire(3). The only adverse criticism appears to be by Brekle, who comments

1. Grammatical Theory in Western Europe, 1500-1700, p. 216.
2. La Grammaire Générale et Raisonnée de Port-Royal, Berne, 1967.
that Donzé might have paid more attention to recent developments in the fields of semiotics and linguistics, in which case he might have found it easier to cope with a number of theoretical problems (1). Though his emphasis is on the grammatical aspects of the theory, Donzé does to some extent take account of its conceptual nature. Other notable sources of pertinent comment on the latter aspect are J. C. Chevalier's Histoire de la Syntaxe, M. Foucault's Introduction to the Paulet edition of the Grammaire, 1969, G. R. Padley's Grammatical Theory in Western Europe, 1500-1700 and, more recently, Sylvain Auroux' La sémiotique des encyclopédistes, 1979 and André Robinet's Le Langage à l'Age Classique, 1978.

Chapter 2. The Main Works and their Authors.

However justified challenges to claims of originality on their behalf may be, there is general agreement that the Port-Royal authors were largely responsible for a trend in general grammar, certainly in France, which persisted through the eighteenth century. Although the later philosopher grammarians who subscribed to the concept of general grammar did not necessarily retain the same theoretical basis, or provide the same grammatical explanations, the Port-Royal authors continued to be generally held in high esteem during the seventeenth and eighteenth centuries.

This continued regard is evident in the number and nature of references to them in the works of their successors, and in the number of editions of the Grammaire, and to a lesser extent of the Logique, which followed the first publication of these works.

The extent of their influence does not however go unchallenged. Daniel Droixhe, for instance, refers to the numerous volumes of "Remarques, Observations, Reflexions et Doutes", after 1660, testifying to the dominant persistence of Vaugelas' method, compared with the relatively few emulations of Port-Royal's work. André Joly, instancing Diderot's description of the Grammaire Générale as an 'essai superficiel', refers to their work sometimes being judged severely in the second half of the eighteenth century.

1. Robert A. Hall Jr. names the various authors who recognised that Port-Royal was a prime source of the Universal Grammar movement of the 18th century (Acta Linguistica Hafniensia, 1969, p. 207). G. Padley (Grammatical Theory in Western Europe, 1500-1700, Cambridge, 1976, pp. 222, 223) comments that it started a veritable vogue for general grammar.


Certainly the various works of general grammar which succeeded the Port-Royal Grammaire took issue on many points of detail, apart from differing in certain basic principles. On the other hand, the work of the Solitaires still appears to have been regarded as an inspiration a century later. In the context of education, Condillac was able to refer to them as being the first to introduce a new approach.

"Messieurs de Port-Royal ont les premiers porté la lumière dans les livres élémentaires. Cette lumière, il est vrai, était faible encore; mais enfin c'est avec eux que nous avons commencé à voir ..."(1). Guy Harnois refers to a new conceptual approach with Port-Royal. "Avec la Grammaire Générale de Port-Royal commence l'état métaphysique ou abstrait", the Middle Ages and the Renaissance being identified with an 'état théologique ou fictif' (2). The idea of a continuing conceptual approach, though an evolving one, is also implied by Sylvain Auroux. "La grammaire générale n'est pas au XVIIIe siècle un champ morcelé; c'est un champ en travail, et ce qui travaille en lui c'est encore le projet de Port-Royal; l'oeuvre de Beauzée est la maturité de ce qu'autrefois Lancelot avait proposé comme thème de réflexion: ...."(3)

An undisputed reason for the success of the Grammaire Générale is the fact that it was virtually the first work of its kind, with the exception of that of the Italian, Benedetto Buonmattei, to relate to a language other than Latin. Buonmattei's Della Lingua Toscana of 1643 is referred to as the earliest application of philosophical grammar to a modern

spoken language, but the Port-Royal work was generally more influential because of the prestige of France in Louis XIV's reign\(^1\). Donzé refers to the novelty of putting a philosophical essay within the reach of the non-Latin reader, a fact which must have given the Port-Royal Grammaire considerably more influence than the preceding Latin treatises of Scaliger, Sanctius and Campanella\(^2\).

That in itself seems unlikely to have been sufficient to ensure its appeal. The fact that it emanated from the Solitaires of the Petites Ecoles of Port-Royal, who, apart from their role as educators, were well known for their persistent adherence to Jansenism in the face of Jesuit and official opposition, must also have played a part in its success\(^3\).

It was usual in the 17th and 18th centuries for the Grammaire and the Logique to be considered together. As evidence for this, Donzé\(^4\) refers to the comments of François Thurot which also testify to the continuing esteem in which the works were held.

"Les deux ouvrages de ce genre auxquels il a eu part, feront à jamais époque, l'un dans la philosophie grammaticale, et l'autre dans la science du raisonnement. On sent que je veux parler de deux livres si connus et si généralement estimés ..."\(^5\).

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3. Robinet comments: "Si Port-Royal, sa Grammaire (1660) et sa Logique (1662), se composent et s'imposent dans les publications de cette décennie, la raison en est augustinienne (Le Langage à l'Age Classique, p. 9).
Lancelot's earlier works, the Nouvelle Méthode pour apprendre la langue latine(1) and similar Méthodes for Greek, Spanish and Italian, do not appear to have been associated with the Grammaire and Logique, but they were important pedagogically. The Nouvelle Méthode latine features in modern discussion because, in its 5th edition of 1656, it gives prominence to the use of ellipsis in converting figurative phrases to the simple underlying ones, Lancelot openly acknowledging a debt to Sanctius in this respect. R. Lakoff considers that it is in this work rather than in the Grammaire Générale, which appears to have an explanatory role, that a form of deep and surface structure is described(2).

Her views on the aims of the two works are echoed by Padley who considers it paradoxical, given Port-Royal's emphasis on the proposition, that the Grammaire contains so little on syntax, and inclines to the thought that the "Nouvelle Méthode latine is the best illustration of what is specifically linguistic in Port-Royal theory, the grammar being conceived as an accompanying explanatory manual"(3). Whereas Lakoff does not specifically refer to the Logique, and her views therefore do not appear to take into account the conceptual basis of the grammatical work, Padley more appropriately adds that if one treats the Nouvelle Méthode latine, the Grammaire and the Logique as one grammatico-logical work in three volumes, the result is an imposing and coherent body of doctrine and practice(4).

1. Nouvelle Méthode pour apprendre facilement et en peu de temps la langue latine, 5th ed., Paris, 1656. The first two editions of this work, first published in 1644, were written before the availability of the Sanctius' Minerva, following which Lancelot extended considerably his treatment of sentence construction. The additions, discussed by Lakoff (1969) and referred to by Donzé (La Grammaire Générale et Raisonnée, p. 3) were first noted by Sahlin. (César Chesnau du Marsais et son rôle dans l'évolution de la grammaire générale, 1928, p. 13).
4. Ibid.
Although the three works doubtless reflect the practices and the views of the Port-Royal educators as they had evolved, there is no indication that it was the express intention of the authors to plan the works as a complete body of doctrine, though each does complement the other in certain respects.

The well quoted preface to the Grammaire, ostensibly written by Lancelot, refers, in modest terms, to "ce petit traité" having been composed from the reflections dictated by Arnauld "à des heures perdues", and arising from discussion on the reasons why some things are common to all languages and some particular to a few (1).

The immediate circumstances which resulted in the compilation of the Logique appear to have been even more a matter of chance and are described in the Avis to the work (2) "La naissance de ce petit ouvrage est due entièrement au hasard et plutôt à une espèce de divertissement, qu'à un dessin sérieux". Following a chance remark by a nobleman to the young Duc de Chevreuse that in his youth he had, within a fortnight been taught a section of logic, Arnauld, who was present, undertook to set down, in four or five days, everything of substance in the subject. The task induced new reflections, and these, and subsequent discussions and collaboration with various sources resulted, through several editions, in a gradually extended work.

Evidence from the publications themselves indicates that even if the theory did not crystallise for some time, much of the thinking which went towards it was already current at the school. On the other hand, there are indications that Arnauld, the main proponent of the conceptual basis of the theory,

1. Grammaire Générale et Raisonnée, p. 3.
2. Logique, p. 29.
either had not taken it to its later stage at the time when Lancelot's earlier linguistic works were published, or had not discussed his more advanced thinking with Lancelot. By the time the Grammaire and the Logique appeared, although neither work in itself can be regarded as providing an account of the grammatical theory in its entirety, they complemented each other. Although the Logique appeared two years later than the Grammaire, there is evidence that they were compiled at the same time, if not jointly, at least complementarily. 

While the Nouvelles Méthodes are acknowledged to be essentially the work of Lancelot, the extent of each author's contribution to the Grammaire and the Logique seems open to some speculation. Donzé refers to the rule of anonymity at Port-Royal as an obstacle to knowing the details of collaboration.

That Arnauld was primarily concerned with the thought behind language and was chiefly responsible for the Logique is generally accepted, as indicated by Donzé. "Partant, en philosophe, de l'analyse de la pensée, il était inévitable qu'il s'intéressât, plutôt qu'à l'étude matérielle des formes linguistiques, à celle des concepts et des rapports qu'ils entretiennent avec les termes qui les expriment ..". Pierre Nicole, who has received the least publicity of the three, appears to be the author of the Avis, the Discours, and most of the additions to the Logique. Close collaboration between Arnauld and Nicole was

1. Donzé (Grammaire Générale et Raisonnée, p. 18) refers to a letter from Arnauld to Mme. la Marquise de Sable on a "discours que nous avons pensé de mettre à la tête de nos Logiques" (Oeuvres tome I, Lettre XCVI, p. 206) and also comments that even if the sudden decision to write a manual of logic was due entirely to chance, the rapid realisation of the project shows that Arnauld was not completely unprepared.
2. Ibid., p. 13.
3. Ibid., p. 15.
likely on the first three parts, but the fourth part, completely Cartesian in its inspiration, would be exclusively the work of Arnauld. "Quoi qu'il en soit, ce dernier paraît avoir été l'inspirateur de ce qui fit l'originalité de l'ouvrage, l'esprit qui le conforma aux idées nouvelles qui en imposa la réalisation."

Donzé and Lakoff urge that Lancelot's role should not be underestimated in the field of language and grammar. Donzé considers that although Lancelot modestly attributes the leading role to Arnauld, in his Preface to the Grammaire, the latter was apparently not well versed in grammatical tradition and Lancelot's own contribution, given the content of the Grammaire, must have been appreciable.

Brekle refers to l'Abbé Fromant's acceptance of Arnauld as the author (supplement to the edition of 1756, p. VII), but it is not clear whether this acceptance relies on anything other than Lancelot's acknowledgement in the Preface. Brekle also notes that Fromant proves indirectly that the essential definition of the verb, that of affirmation, is not Lancelot's. In the second edition, 1650, of his Nouvelle Méthode latine, Lancelot follows Scaliger and Sanctius in defining the verb as a word which signifies être, agir or partir. The 8th edition of the Méthode, 1681, however, conforms to the Grammaire in giving the essence of the verb as affirmation only.

1. Ibid., p. 17.
3. Donzé, La Grammaire Générale et Raisonnée, p. 15.
As the role of affirmation attributed to the verb is an important part of Port-Royal's conceptual theory, the verb representing the action of mind in affirming or joining, this is an indication that the Nouvelle Méthode latine had been compiled without Lancelot being aware of the conceptual basis of the theory which subsequently became evident from the Grammaire Générale and the Logique. Since the 5th edition of the Méthode also made no mention of the verb in its capacity of affirmation(1) and it was in this edition that Lancelot made extensive use of Sanctius' method of restoring elided elements to reconstruct the full form of the sentence, it follows also that Lancelot had not at that time associated this method with the conceptual basis of the Port-Royal theory. Lancelot himself provides evidence that the conceptual basis was due to Arnauld's thinking.

"... mes questions mêmes ont été cause qu'il (Arnauld) a fait diverses réflexions sur les vrais fondements de l'art de parler, dont m'ayant entretenu dans la conversation, je les trouvai si solides, que je me fis conscience de les laisser perdre, n'ayant rien vu dans les anciens Grammairiens, ni dans les nouveaux, qui fut plus curieux ou plus juste sur cette matière."(2).

1. The 8th Edition (Paris, 1681) contains, under the heading, 'De la nature et de la signification des Verbes', the comment "Le raisonnement de ces Auteurs (Scaliger and Sanctius) comme nous l'avons fait voir dans la Grammaire Générale, ch. 12, n'est venu que de ce qu'ils n'ont pas assez compris la nature essentielle du Verbe qui n'est pas autre que de marquer l'affirmation." (Ibid. p. 458). The corresponding chapter in the 5th Edition has as a commencing statement, "Qu'il n'y a que deux sortes de Verbes, Actifs et Passifs." (Ibid. p. 499).

A view, supported by evidence from the Port-Royal publications, of progress in three stages towards the Grammaire Générale, is provided by Robinet.

Lancelot approached general grammar through seeking a new method of language instruction. The first stage was exemplified by the first two editions of his Nouvelle Méthode latine, based on the method of the particularist grammarians. The third and subsequent editions, representing the second stage, were generalist in character through adopting the ideas of the earlier generalists, Scaliger, Sanctius (especially), and more recently, Scioppius and Vossius. Thanks to these authors, his new publication expounded grammar "selon les termes exprimés dans leur ordre naturel", répondant à des "maximes assurées", à des "règles stables", ayant "une entière certitude", faisant preuve "d'ordre, de liaison et de rapport, que les pierres doivent avoir dans l'ensemble de l'édifice", et où le principal thème devient celui de la "construction", "simple" ou "figurée". (1) Robinet's quotations are illustrative of the extent to which Port-Royal theory was indebted to the earlier generalist grammarians in matters of syntax.

The third stage, Arnauld's contribution, acknowledged by Lancelot in the Preface to the Grammaire (2) was achieved with the inclusion of the true bases of general grammar, novel to Lanclot. Port-Royal's grammar was therefore not new in the capacity of general grammar but in incorporating

1. Le Langage à l'Age Classique, p. 29.
2. "... mes questions mêmes ont été cause qu'il a fait diverses réflexions sur les vrais fondements de l'art de Parler..." quoted above.
the fundamentals of general grammar, "directement tirés de l'augustinismedominant(1) de la pensée d'Arnauld, très secondairement de son cartésianisme," and in its application to French as much as to Latin. The true bases were those expounded in the Logique, which brought about a change in the philosophy of the sign\(^{(2)}\).

1. \(\text{Le Langage à l'Age Classique, pp. 28-29.}\)
   This anticipates the question of Augustinian influence on the Port-Royal concept of the sign, dealt with in Chapter 7 of this section.

2. Ibid.
Chapter 3. The Formative Influences.

In addition to the acknowledged debt to the more immediate influence of Sanctius, Port-Royal grammatical theory, no less than any other of that period, owed much to the long heritage of Grammar\(^{(1)}\) and philosophy outlined in Part I of this study. The general question of Port-Royal's antecedents has been regarded as a matter of some importance. Donzé considered that the 'origines doctrinales' of the Grammaire would be of the greatest interest, but there were difficulties in undertaking a study of them at the then current state of research, and his own work examined the theory as a 'système clos'\(^{(2)}\). Jacques Rieux and Bernard E. Rollin\(^{(3)}\) commented that a full and definitive study of the historical antecedents and influences relevant to the work remained to be done, and, until accomplished, it was difficult to assess the originality of Arnauld's and Lancelot's contribution.

The most recent consideration of Port-Royal's antecedents appears to be that provided by Padley\(^{(4)}\), who emphasises that their grammatical works are derivative, the sources being mediaeval tradition, and the more immediate influences of Scaliger, Sanctius, Caramuel and Campanella. However,

2. Foreword, La Grammaire Générale et Raisonnée de Port-Royal.
4. Padley comments that: "In view of the importance of the Grammaire Générale et Raisonnée for eighteenth-century grammatical theory, it is curious that its historical antecedents have never been thoroughly investigated." (Grammatical Theory in Western Europe, p. 219).
the interest does not consist in demonstrating their antecedents, but "in the situating of the Grammaire Générale and the Nouvelle Méthode latine within a developing tradition which includes them". They used notions which had been known to Latin scholars for a long time, namely that "language is a rational phenomenon, whose underlying ratio can be stated, and whose causae are amenable to logical analysis".

Padley consequently has reservations about Chevalier's claims that Port-Royal showed a completely new approach in the way it applied logic to grammar, but agrees with him that, by the late seventeenth century, grammatical theory had reached an impasse. It faced the alternatives of the inherited mixed formal-semasiological approach, a rigid formalism of the type suggested by Ramus, or the mentalist type of approach pursued by Scaliger, Sanctius, Caramuel and Campanella.

While Chevalier acknowledges that Port-Royal had the benefit of several centuries of reflexion on grammar, and of progress made in grammatical theory by Ramus, Sanctius and their disciples, he also refers to influences on their theory which derive from the impact of modern language study and from progress in philosophical thought, notably the principles of Descartes' method.

1. Ibid., p. 257.
2. Ibid. pp. 258-259.
4. Ibid. pp. 503-505.
5. Grammatical Theory in Western Europe, pp. 258-9.
The developments in grammar arising from confrontation with modern languages, particularly French, are dealt with at some length by Chevalier\(^1\), whose conclusions include the comment: "... il est constant que les cadres d'analyse, élaborés au contact des langues anciennes ne conviennent pas aux langues modernes ..."\(^2\). The structure of modern languages indicated a need for more general principles than those prevailing in formal grammar\(^3\).

The determination of a limited number of principles, in the Cartesian sense, was incompatible with a system of heavily inventoried formal features such as had developed in Latin grammar. Ramus and Sanctius had taken formalism to its limits with some positive results, but with rules being established at the level of discourse, exceptions exceeded principles. Sanctius, through the use of ellipsis, made a notable attempt at determining an explanatory code, but there was no distinct medium for the code, ellipsis relative to a logical value not being clearly distinguished from ellipsis in rhetoric, because the medium applied to both was language\(^4\). Chevalier sees Port-Royal's version of a logical basis to grammar as an attempt to overcome such ambiguity, by using logic as the 'technical' language, or meta-language. The risk in this method is of an arbitrary linguistic analysis, but at least the problem took on a modern formulation\(^5\). The unsatisfactory state of grammar had also induced the thinker to look beyond language and concentrate on pre-existent meaning\(^6\).

1. Ibid., Troisième Partie.
2. Ibid. p. 478.
4. Ibid., pp. 502-3.
5. Ibid., p. 502.
6. Ibid., p. 504.
The Port-Royal authors, more especially Lancelot, the specialist in language teaching, were brought into direct contact with the kind of problems involved in applying grammatical rules to modern languages, through their adoption of the new method of teaching languages through the mother tongue. Both Chevalier and Michael Foucault see the importance of this pedagogic initiative in encouraging Port-Royal to concentrate on meaning and to look for general principles in language. Before Port-Royal, analysis of meaning was inserted into a formal framework; with Port-Royal meaning took priority and logical relations dominated the form. The preceding 'grammairiens philosophes' had laid the basis for such an analysis but "... il fallait décrire une langue moderne pour en tirer les conséquences..."

Foucault sees, as a consequence of the resulting concentration on general principles, a conception of language in two stages; the manifest one of sentences, words, and speech, and the underlying stage of principles which need to account for the observable facts. Language was also freed from questions such as the natural or conventional origin of words, the values of etymology and the reality of universals. The task ahead was to seek the reasons for usage.

The incentive to seek general principles is recognised by Lancelot in the preface to the Grammaire where he refers to his work with the grammars of different languages leading him often to enquire into the reasons why some features are either common to all languages or particular to a few.

1. Ibid. p. 491.
3. Ibid. p. 3.
Of contemporary influences, that of Descartes is the one more readily discussed in the context of Port-Royal grammatical theory, partly because of Port-Royal's endorsement of some of his theory and partly because of Chomsky's references to the Cartesian inspiration behind Port-Royal's doctrine.

It has been pointed out by, among others, Donzé, Droixhe and Zimmer (1) that Descartes said little of direct relevance to language. Apart from the context of Cartesian Linguistics, modern discussion (2) on his work in a linguistic context appears to have concentrated on his views, in the 5th part of his Discours de la Méthode, of language, as a tool of reason in human beings, distinguishing man from animals. This view is echoed in the Grammaire Générale.

"Il nous reste à examiner ce qu'elle (la parole) a de spirituel, qui fait l'un des plus grands avantages de l'homme au-dessus de tous les autres animaux, et qui est une des plus grandes preuves de la raison: c'est l'usage que nous en faisons pour signifier nos pensées, ...." (3).


It is difficult to deny that, even though Descartes himself had little to say about language, and even though aspects of his philosophy to which Port-Royal subscribed, for instance, the doctrine of ideas, the cult of reason and and the following of a method, were by no means original to Descartes\(^{(1)}\), the Port-Royal theory was directly influenced by Descartes.

It is in the Logique, rather than the Grammaire, that this influence is evident. Donzé refers to the Cartesian influence deeply penetrating the spirit and form of the work\(^{(2)}\). Although Arnauld, probably more influenced by the philosopher than were his colleagues, was not always in agreement with him\(^{(3)}\), he praises Descartes' clarity of mind and acknowledges him as a source of some of the content of the Logique. The material used is essentially in Part IV, De la Méthode.

Padley considers that, given the importance of mental operations for Cartesian philosophy, it is no accident that the publication should be sub-titled 'L'art de penser', and describes it as "the manual of Cartesianism, the logic which Descartes should have written but did not .... the application of principles contained in the Discours"\(^{(4)}\).

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1. Padley, Grammatical Theory in Western Europe, pp76, 96, 239.
3. P. Nicole is said to have been less convinced of the value of Cartesianism, and Arnauld's disagreements with Descartes have been pointed out. (Padley, p. 10). Ste Beuve noted reservations in the application of his philosophy. Far from building "toute une philosophie sur un premier fait intérieur", Arnauld and Nicole were content with simply an application of his rules. (Port-Royal, LIV, Ch. III, ed. de la Pléiade, t. II, p. 480, referred to by Donzé, La Grammaire Générale et Raisonnée, p. 19).
He also notes that the educational practice of the Petites Ecoles de Port-Royal was based on Cartesianism, on pedagogic reform and opposition to the Universities, and that the application of the philosophy of Descartes in teaching was the subject of strong Jesuit opposition.

The opinion has been fairly frequently put forward that Cartesianism was accepted at Port-Royal only in so far as it was compatible with Augustinianism, a doctrine strongly supported by the Port-Royal Solitaires as fervent Jansenists. The main source for the argument is Geneviève Rodis-Lewis. It is also supported by Jan Miel who emphasised the dominant Augustinian influence in arguing that Port-Royal was more indebted to Pascal, strong supporter of the Jansenist cause, than to Descartes, than is generally recognised.

André Robinet also particularly emphasises the influence of Augustinianism on Port-Royal linguistic theory, even going so far as to say that without Augustine's De Magistro and De Doctrina Christiana there would have been no Grammaire, no Logique, and no Petites Ecoles.

Miel's claims that Port-Royal was indebted to Pascal in linguistics matters are considered by Brekle to be over-stated but he agrees, however, that Pascal had considerable influence on the Logique, except for the linguistic and semiotic aspects of this work, which rely heavily on the Augustinian doctrine of signs. The inclusion of material from Pascal's De l'Esprit géométrique is acknowledged in the Logique.

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2. Augustinisme et Cartésianisme à Port-Royal, in Descartes et le Cartésianisme Hollandais, 1950. W. & M. Kneale also took this view. (The Development of Logic, p. 316).
Cartesianism is also seen as coming together in the work of Port-Royal with another main current of thought, namely that traceable from the speculative grammar of the Middle Ages, through humanist philosophical grammar. Sahlin took this view\(^1\), but Donze, while recognising the combining of the two influences in Port-Royal theory, points out that she did so through misinterpreting Arnauld's attitude towards the two methods, analysis, advocated by Descartes in his *Recherche de la Verité*, appropriate to research, and synthesis, appropriate to demonstration and in sympathy with the scholastic deductive method. She erroneously saw the amalgamation of the two traditions arising from a stand by Arnauld in favour of the scholastic method\(^2\).

Donze rightly refers to Arnauld's recognition of the two methods as complementary, in the *Logique*, (Part IV, chs. II and III), and emphasises that it was not due to any misunderstanding on Arnauld's part that the scholastic influence on Port-Royal became combined with that of Cartesian philosophy.

He adds that, following the researches of Etienne Gilson on the role of mediaeval thought in the formation of Descartes' system, the meeting of these two traditions should come as no surprise\(^3\).

While the influences of Augustine, Descartes and Pascal may be regarded as fundamental to Port-Royal's theory, the more immediate seventeenth century characteristics of reason, in its contemporary clothing of 'bon sens', and usage were also evident.

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3. Ibid.
Reason, though not defined by the authors, is identified with 'bon sens' in the Logique. There is nothing more estimable in distinguishing truth and falsehood than 'le bon sens et la justesse de l'esprit'. Other qualities of the mind have limited uses but the exactitude of reason is generally useful in all aspects of life.\(^1\)

Normally associated more with Cartesian rationalism, Port-Royal's use of reason has tended to be seen in opposition to the principle of usage followed by Vaugelas. Padley, for instance, refers to the Grammaire Générale as representing in part a reaction against the contemporary pre-occupation with style and usage, and refers to the Port-Royalist polemics with Père P. Bouhours, a supporter of Vaugelas.\(^2\) Some authors, on the other hand, consider that the Solitaires were closer to Vaugelas than has generally been acknowledged.

Larry Hillman sees in the Port-Royal grammar a mixture of Cartesian rationalism and the more general reason of the salons which was the basis of classicism, and he provides evidence to illustrate that "in their brief history of persecution and dispersion, the Messieurs of Port-Royal were never able to isolate themselves from the world of Paris and honnêtes gens, nor did they try..."\(^3\). In support of his claims in respect of the influence of usage on Port-Royal, Hillman instances the number of references by the authors to Vaugelas, mostly implying acknowledgement of him as an authority, and mentions their concession to the role of usage in the interests of style, in cases where there are irregularities in grammar and therefore cases of divergence from rational patterns.\(^4\)

1. Logique, Premier Discours, p. 35.
2. Grammatical Theory in Western Europe, p. 220.
4. Ibid.
R. A. Hall (1), in discussing the common ground between Port-Royal and Vaugelas, considers the bases on which they operated were essentially the same. Their common approach to language included formulation in terms of rules rather than of descriptive statements; use of ellipsis as a grammatical technique; a belief in correctness, to be imposed by an authority, and the recognition of usage as one of those authorities. Differences sprang mainly from their divergent aims.

W. Keith Percival (2) challenges Chomsky's view that the new approach of Port-Royal to language was reaction against the pure descriptivism which had held sway prior to the appearance of the Grammaire. He sees common ground between Port-Royal and Vaugelas on the primacy of usage and the desirability of providing explanations, and in their acceptance that not all features of normal linguistic usage can be rationally accounted for, but considers that Port-Royal differed from Vaugelas in attempting to explain more facts and in the type of explanations. He concludes that Port-Royal did not repudiate Vaugelas, they transcended him completely, and in this process incorporated many of his ideas.

That Port-Royal recognised the importance of usage, though upholding the primacy of rational bases of language, is supported by references in the Grammaire. Expressions authorised by general and uncontested usage must be accepted as valid, even when contrary to the rules and the analogy of language, but they should not be a reason for casting doubt on the rules (3).

An important feature which permeates the thinking of Arnauld is his strong opposition, specifically directed against Ramus, to the delineation of the boundaries of the various disciplines. In the Premier Discours of the Logique he criticises Ramus and the Ramistes for restricting the jurisdiction of each science, commenting that everyone has the right to arrange knowledge according to need, and that if anything should be of assistance in forming judgment, it matters little to which science it belongs.

Vivian Salmon\(^1\) refers to the question of delimiting rhetoric, grammar and logic as one of the most important debates of the 17th century and earlier, in which the Port-Royal Logique explicitly, and the Grammaire implicitly, play a part.

She sees the three arts of language fused in the Grammaire. From grammar, Port-Royal took over the traditional description of sounds, parts of speech and grammatical markings; from logic, the distinction into two major word groups, those signifying objects of our thoughts and those signifying manner of thought\(^2\), as well as the three operations of mind and the reduction of complex sentences to simple subject/predicate propositions; and from rhetoric (Sanctius' Minerva), the concept of the ideal sentence on which various operations of ellipsis are performed to produce surface structures.

The way in which Port-Royal authors applied and interpreted features from earlier theory will become evident in the subsequent chapters.

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2. The definitions are based on Aristotelian distinctions, but, as will be indicated, the Port-Royal application of the distinctions is novel.
Chapter 4  The Conceptual Basis of Port-Royal  
Grammatical Theory

Padley justifiably comments that the operations of mind and the existence of mental concepts as ideas are basic to both the Logique and the Grammaire Générale\(^1\). But as the Logique is the dominant inspiration behind the mentalist basis of the theory, it is the source of most of the material in this chapter, which concerns the Port-Royal view of the nature of thought and its processes.

The relationship of the Logique to grammatical theory is not immediately obvious. Modern discussion of Port-Royal's grammatical work has more often concentrated on the Grammaire Générale et Raisonnée and the Nouvelle Méthode latine, though authors engaged in more extensive appraisal of Port-Royal theory\(^2\) take the Logique into account.

The Port-Royal approach to logic, shared by others of the period and subsequently\(^3\), was to regard it as the art of managing one's reason. "La Logique est L'Art de bien conduire sa raison dans la connaissance des choses, tant pour s'en instruire soi-même, que pour en instruire les autres."\(^4\) As well as Arnauld and Nicole, Descartes,

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2. Including Chevalier, Histoire de la Syntaxe; Donzé, Grammaire Générale; Padley, Grammatical Theory in Western Europe; and Robinet, Le Langage à l'Age Classique.
3. W & M. Kneale comment that the general conception of logic which it expounded was to continue to dominate the treatment of the subject by most philosophers for the next 200 years (The Development of Logic, p. 320, 1962).
Malebranche, Spinoza, Bacon, Locke and Condillac are included by Emile Charles among those who understand logic as the art of directing the operations of the understanding. Padley refers to Descartes' Rules for the Direction of the Mind, which advocated this view of logic. Descartes' condemnation of "traditional Aristotelian logics which presupposed a body of knowledge rather than being instruments of discovery..." is echoed in the Logique's criticism of Aristotle's categories, and Padley refers to the Logique as answering Descartes' requirements, as it is a theory of enquiry rather than a theory of communication. It has also been referred to as a supplement to Descartes' Méthode.

So, the Logique, as the extended title indicates, is about thinking. "La Logique ou l'Art de Penser, contenant, outre les règles communes, plusieurs observations nouvelles, propres à former le jugement." In discussing the use of the title, "L'Art de Penser" rather than "L'Art de Bien Raisonner" (which seems more appropriate to the purpose of the work) the authors say that the aim of the Logique is to give rules for all the actions of the mind, for simple ideas, as well as for judgments and reasonings, and the word 'pensée' includes them all, "... car les simples idées sont les pensées, et les raisonnements sont des pensées." "L'Art de bien Penser" is not necessary because 'L'Art' implies 'de bien faire quelque chose'.

2. Grammatical Theory in Western Europe, p. 228.
3. Ibid.
4. Logique, Pt. I, Ch. III.
5. Grammatical Theory in Western Europe, p. 229.
Ostensibly, the work therefore does not relate to language, but because language has been introduced for communication, through habit, things in the mind become associated with the words which represent them. So "il est nécessaire dans la Logique de considérer les idées jointes aux mots, et les mots joints aux idées"(1). It consequently contains much material which is relevant to the way in which thought is presented in language. This is not given in a comprehensive exposition, from the linguistic point of view, but interspersed, according to the context relevant to thought, throughout the Logique.

Guidance on the art of thinking comes from reflecting on the four main operations of mind, conception, judging, reasoning and arranging (concevoir, juger, raisonner and ordonner)(2). Although the more emotive concepts, e.g. wanting, commanding, are referred to in the Logique and the Grammaire, it is the four main operations of the mind which provide the framework of the Logique. The first two, which play a vital role in the Port-Royal view of the proposition and of the functions of words, are also particularly basic to the Grammaire. The Grammaire, in fact, refers to only the first three operations(3).

The first three parts of the Logique correspond to the customary divisions of treatises on logic, but the fourth part is an innovation(4). Clair and Girbal(5) note that the general plan, resting on the distinction of the four operations of the mind appeared common about 1660 and had been followed by Ramus and Gassendi.

1. Ibid., Preamble to Pt. I, p. 60.
2. Ibid., p. 59.
Similarities between the divisions in the Logique and those of Scholastic logicians and Ramus and Bacon are however regarded by Padley as purely superficial; Port-Royal were not in favour of Scholasticism or Ramistic logic (1).

The Port-Royal definition of the four operations of mind is:

'Concevoir' (2): the simple view of things presented to our minds, without forming from it any express judgment, and the form in which we present these things is called idea.

'Juger': the action which, joining various ideas, affirms or denies of one that it is the other.

'Raisonner': the action whereby a judgment is formed of several others.

'Ordonner': the arrangement of various ideas, judgments and reasonings on the same subject into the most appropriate form for imparting knowledge on the subject, otherwise known as method (3).

1. Grammatical Theory in Western Europe, pp. 228-229. The Logique includes some criticisms of these, in the Premier and Second Discours.
2. The term 'concevoir' is usually translated as 'to perceive' in the context of the Logique but this does not adequately convey the author's intention, which is the formation of ideas. Padley's 'concept formation' (Grammatical Theory in Western Europe, 1500-1700, p. 228) is more appropriate. The term 'conceive' will be used in this study.
That the operations are innate\(^1\) is indicated by the authors' comment that they are performed naturally: nature has provided the means to carry them out in endowing us with reason. The art of logic does not consist in finding the means to carry out the operations but to reflect on what nature causes us to do\(^2\).

The source of the mental operations is the soul, 'âme', the thinking substance. The Cartesian distinction between soul and body is evident. "Ainsi trouvant en nous-mêmes deux idées, celle de la substance qui pense, et celle de la substance étendue, il arrive souvent que lorsque nous considérons notre âme qui est la substance qui pense, nous y mêlons insensiblement quelque chose de l'idée de la substance étendue." The inspiration from St. Augustine's thinking about the soul is also acknowledged in this context\(^3\), in discussing the problem of identifying its true nature despite the intrusion of corporeal objects.

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2. Logique, Preamble to Pt. I, p. 60.

The term 'esprit' is also referred to as the thinking substance (1) and mostly appears to be synonymous with 'âme' in this capacity, but is sometimes associated specifically with the powers of the intellect, whereas 'âme' also experiences emotions and sensations received through the body (2). Whereas 'âme' is immortal (3), 'esprit' apparently, in the sense of limited intellect, is finite (4).

In general those subscribing to the dualist Cartesian conception of body and soul appear to have regarded 'esprit' and 'âme', the principle of thought, as one and the same (5).

It is implicit that each of the mind's operations depends on the previous one. To judge requires the conception of more than one idea; to reason requires two or more judgments, and arrangement into a method requires the material of the resulting facts and reasonings (6).

The interdependence of the mind's operations is referred to in the Grammaire, where it is pointed out that knowledge of what occurs in the mind is necessary

1. Ibid., p. 172.
3. Logique, Pt. I, Ch. XII, p. 120.
4. Ibid., Ch. IX, p. 102.
5. In his Notes Directed Against a Certain Programme, Descartes identifies Human Mind with Rational Soul. Haldane and Ross, vol. I, p. 431. For Géraud de Cordemoy, the terms were synonymous. "Qui dit Ame ou Esprit (car c'est ici la même chose ...)
to understand the bases of grammar, on which the diversity of the words which form speech depends. As the third operation is merely an extension of the second, it is sufficient in the context of grammar to consider the first two, or rather that of the first operation which is included in the second, for men rarely speak to simply express what they conceive but almost always to express the judgments formed from their conceptions\(^1\).

Donzé criticises this interdependence on two counts. The Port-Royal view of raisonner as an extension of the second operation, 'juger', inhibits the theory of reasoning from leading to consideration of the liaison of propositions between themselves. Secondly, to say that man only\(^2\) speaks to express what he affirms, not what he conceives amounts to saying that the concepts represented by words only concern the grammarian in so far as they become elements in an utterance. This could have undesirable results, but Donzé acknowledges that there is little trace of such consequences in the work\(^3\).

In itself, such criticism appears valid, but it is directed at points which are fundamental to the theory and which, if altered or eliminated would undermine the conceptual basis. For Port-Royal, as will become evident, the vital nucleus is the proposition, as a judgment. The authors, comments Chevalier, are concerned

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2. The actual words of the Grammaire are "... car les hommes ne parlent guère pour exprimer ce qu'ils conçoivent, mais c'est presque toujours pour exprimer les jugements qu'ils font des choses qu'ils conçoivent." (Grammaire, Pt. II, Ch. I, p. 23). (The underlining is mine).
3. Donzé, La Grammaire Générale et Raisonnée, p. 130.
to determine the constituent elements of the judgment, to provide a solid basis to the third stage of thought, reasoning\(^{(1)}\). "La Grammaire que contient la Logique est fondée sur la notion de proposition et de groupement de propositions ..."\(^{(2)}\).

The initiating role of the first action of mind, 'concevoir', which produces ideas, is acknowledged by the comment that as we have no knowledge of that which is outside ourselves except through the intervention of ideas within, the reflections on the subject of ideas form perhaps the most important part of the Logique because it is the basis of all the rest\(^{(3)}\).

Although the authors provide no definition of idea, considering it to be one of those so clear and distinct as to require none\(^{(4)}\), the extensive discussion on various aspects of the term indicates its importance in the authors' thinking, and provides ample evidence of their conception of its nature. This conception, which is also evident in the thinking of Augustine and Descartes, was to have important repercussions on the Port-Royal view of the word as sign\(^{(5)}\).

In discussing ideas according to their nature, a distinction is made between imagination, that is, consideration of images which arrive in the brain through the senses, and pure intellection, which produces true ideas. "Lors donc que nous parlons des idées, nous n'appelons point de ce nom les images qui sont peintes en la fantaisie, mais tout ce qui est dans notre esprit, lorsque nous pouvons dire avec vérité, que nous concevons

5. Discussed in Chapter 7.
The view that all ideas come through the senses is refuted. No idea in the mind has its origin through the senses, except in so far as movements caused in the brain stimulate the mind to form ideas which would not otherwise have occurred. But, almost always, these ideas contain nothing similar to what occurs in the senses and the brain, and many ideas which owe absolutely nothing to any corporeal image can in no way be attributed to the senses.

The common ground with Descartes and Augustine is indicated by Arnauld in Objections IV to Descartes' Meditations. "... I wholly approve of M. Descartes' teaching, relative to the distinction between the imagination and thought or intelligence, and of the greater certainty attaching to that which we grasp by reason than to what is perceived by the senses. For long ago, I learned from St. Augustine ...". This is also corroborated in Descartes' definition of idea in 'Arguments Demonstrating the Existence of God and the Distinction between Soul and Body'. "... nay to such images I here decidedly refute the title of ideas in so far as they are pictures in the corporeal imagination.".

Reference has been made to ambiguity and lack of clarity in Descartes' various pronouncements on 'idea', but it is generally accepted that essentially, the thinking of Port-Royal and of Descartes on the matter

2. Ibid., pp. 72-73.
4. Ibid., p. 52.
5. Sylvain Auroux, La sémiotique des encyclopédistes, pp. 25-26 (discussed in Part 2, Section 2 of this study), and Chomsky, Cartesian Linguistics, pp. 97-98).
coincides. Padley considers that Port-Royal's conception of idea is obviously from that in Descartes' Meditations III. "Of my thoughts some are, so to speak images of things, and to these alone is the title 'idea' properly applied; ... But other thoughts possess other forms as well. For example in willing, fearing, approving, denying, though I always perceive something as the subject of the action of my mind, yet by this action I always add something else to the idea which I have of the thing; and of the thoughts of this kind some are called volitions or affections, and others judgments."(1) Padley describes this as none other than the 'adaequatio rei et intellectus' of the Thomists, their view that the mind is by its nature predisposed to arrive at the truth(2). Chomsky refers to the usage of the term 'idea', evident in other references of Descartes, namely, anything that can be conceived (not merely imagined), as the one carried over to the Port-Royal Logique.(3) But he is also inclined to regard in this sense 'proposition' as an idea, and this goes beyond Port-Royal's restriction of the term, by definition, to the operation of 'concevoir'. Propositions introduce the further action of judgment, though, as will become evident, there is some justification for Chomsky's view since it seems possible to regard certain complex ideas as containing an underlying proposition.

The ideas resulting from the first operation of mind 'concevoir', are considered in relation to their objects, namely, what is conceived(4). Everything conceived is

2. Grammatical Theory in Western Europe, pp. 226, 240.
4. Logique, Pt. I, Ch. II, Des Idées Considérées selon Leurs Objets.
represented to the mind as substance\(^{(1)}\), manner of substance, or as modified substance. \(^{(2)}\)

Substance is conceived as existing on its own and as the subject of everything conceived in it, manner, or mode, or attribute or quality is that which, being conceived in the substance and not able to exist apart from it, determines it to be of a certain kind and to be named accordingly. Modified substance occurs when the idea of the manner or mode, e.g. rondeur, is joined to the substance, e.g. corps rond\(^{(3)}\).

To judge is to affirm that a substance which we conceive is or is not so, as when, having conceived 'la terre' and 'rondeur'\(^{(4)}\), it is affirmed of 'la terre' that it is 'ronde'. In the expression, 'terre' and 'ronde' belong to the first operation of mind, 'concevoir' because they form the object of thought. The liaison 'est' belongs to the second, 'juger', the action of the mind, the manner in which we think\(^{(5)}\). Chevalier refers to 'terre' and 'ronde' as the elements of judgment, with the verb as the means of establishing the judgment\(^{(6)}\).

1. The Aristotelian categories of substance and form persist. (Padley, Grammatical Theory in Western Europe, p. 244).

2. Logique, Pt. I, Ch. II, p. 73.

3. Ibid.

4. This contrasts with the earlier reference in the Logique, p. 59. "Lorsqu'ayant l'idée de la terre et l'idée de rond, j'affirme que ... " The replacement of 'rond' by 'rondeur' allows for the separate perception of the quality of roundness, which, when joined to the substance, modifies it and becomes the attribute 'rond'.


There is an apparent anomaly here in that, whereas modified substance, 'corps rond' is an object of perception, 'le corps est rond' would be a judgment. It is moreover acknowledged, in considering complex terms(1) which in this case would be 'corps rond', that they may equally be expressed by using the relative pronoun and incidental proposition without changing the meaning, and that, moreover, the relative is always in some way understood, even if not expressed. 'Un corps rond' would thus be 'un corps qui est rond'. Furthermore, the description of a modified substance includes a reference to 'joining'(2) the mode with the substance; the 'joining' could, it seems, therefore be taken as affirmation.

Given the importance which the Port-Royal authors attach to the judgment(3) and their distinction between the mental operations which produce 'un corps rond' and 'la terre est ronde', they obviously intend, however, to discriminate between the two forms of expression.

The specific role attributed to the judgment by Port-Royal, and its distinction from conception has been the subject of some comment. Louis Marin mentions that the

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1. Logique, Pt. I, Ch. VIII.
2. Ibid., Ch. II, p. 73.
3. The assertive nature of the judgment in Port-Royal theory appears to be not without precedent. W. & M. Kneale comment that the word 'iudicium' was not commonly used in the Middle Ages for the mental counterpart of assertion, but the phrase, 'actus indicativus' had been used by Ockham in this sense, and the word judgment may perhaps have seemed less strange in a seventeenth century book on logic than idea"(The Development of Logic, p. 317).
Port-Royal Logique places the centre of gravity in the judgment, and not in reasoning, as in former logic. The judgment is the nucleus, the act of speech and of thought, by which man not only conceives things, but judges and affirms them. The judgment does not occur until the 'liaison-action', the verb, introduces the verbal distinction between judging and conceiving. This leads to a certain ambiguity in that if it is not possible to judge without first conceiving, one can question whether it is possible to conceive something without the objects of conception, and their terms, already having a propensity for judgment. "... le sens est-il dans le terme ou dans la relation." Marin regards this as the fundamental problem of the Logique. In analysing the judgment "... en décomposant cet acte de pensée et de parole que Pascal pose au contraire comme indivisible, ..." Port-Royal necessarily gave priority in order, to the terms of conception, while at the same time affirming that the meaning viewed as true or false could only rest in the relationship, i.e. the judgment(1).

That the Port-Royal authors regarded the judgment as distinct from compound terms is endorsed by Arthur C. Danto, who refers to a compound idea being merely a conjunction of its component conceptual parts, themselves ultimately uncompounded, while a judgment has to be more than conjoined concepts, as a sentence is more than a conjunction of terms. This he considers is brought out by Port-Royal's insistence in the Grammaire Générale on the difference between nouns and verbs and by the authors' explicit apology in the final avertissement for their neglect of compound terms, which they regard as more appropriate to analytical lexicography(2).

1. Introduction to the Logique, pp. 9-11.
Chevalier emphasises the novelty of the Port-Royal conception of the judgment. It results in language being not merely a process of association, but an organisation and a creation, with the verb and conjunctions as the operators which enable the formation of a communicable thought, in contrast to the other elements which are pure facts. Moreover, the division of the judgment into two, subject and attribute, with on the one hand the object of thought, which in grammar is the subject, and on the other the form and manner of thought, the verbal grouping, cuts across the traditional Aristotelian view of the parts of speech, which identified subject and verb as the main elements, others being ancillary.

The distinction between object of thought and form or manner of thought is described in the Grammaire Générale as the major one in relation to the mind's operations, and, of the form or manner of thought, the main one is judgment, others being "conjonctions, disjonctions, et autres semblables opérations de notre esprit, et tous les autres mouvements de notre âme, comme les désirs, le commandement, l'interrogation, etc." (2).

This division is carried into the word classes by regarding nouns (substantive and adjective), articles, pronouns, participles, prepositions and adverbs as those relating to the objects of thought, and verbs, conjunctions and interjections as those expressing the form or manner of thought (3).

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1. Chevalier, Histoire de la Syntaxe, pp. 504-5. Chevalier considers that this division which appears fundamental has not been sufficiently appreciated and instances comment by l'abbé Fromant as an example of inadequate comprehension (Histoire de la Syntaxe, p. 505).


3. Ibid.
While the simple qualitative form 'la terre est ronde', which is limited to terms relating to the main actions of mind, conception and judgment, is easily reconcilable with the two Port-Royal criteria of operations of mind, and object and form of thought, more complex expressions containing other word classes do not conform so readily to this formulation.

That Port-Royal's differentiation between substance and form of thought does not rest too easily with grammatical considerations is illustrated by Donzé in his criticism of their formula.

He considers it feasible to classify nouns, substantive and adjectival, pronoun and participle as objects of thought since they express in differing degrees autonomous concepts, forming in themselves the terms of a proposition, but it is stretching the category too far to apply it to the article, the preposition and the adverb. These three parts of speech would not apply to objects perceived independently by the mind nor be able to form in themselves the subject or attribute of a proposition. They could be associated with subject or attribute in the capacity of determination, (article), a relational particle (preposition) or a modifier (adverb), which is apparently the reason for including them in the first category of words, but this would be more on grammatical than logical grounds since it would depend on whether they were part of the material terms of a judgment(1).

Donzé also criticises the inclusion under form of thought of mental operations as diverse as the main one of affirmation and those of wanting, ordering, interrogation. It is true that they have in common with affirmation a negative property, that of not expressing an object perceived

1. Donzé, La Grammaire Générale et Raisonnée de Port-Royal, p. 63.
independently, but their association in the same category is questionable\(^{(1)}\). By including them under the description 'form of thought' the authors have moreover given this term a scope it cannot have in relation to the theory of the logical proposition, since judging is only one of three forms of thought\(^{(2)}\).

To Donzé, it seems that the ambiguity of the classification rests on a faulty basis, in that the two criteria are drawn from two points of view which are logically complementary, for the decomposition of the judgment into terms and liaison implies the assimilation of the terms to objects of thought and that of liaison to manner of thought. While the first distinction, between terms and liaison, absorbs the second, between object and form of thought, in so far as logical concepts are concerned, the Port-Royal analysis of the judgment implies that it also does so in the case of parts of speech, and this does not necessarily follow.

For certain types of words such as noun and substantive verb\(^{(5\text{fr})}\), the criteria are reconcilable, but with other kinds the assimilation is inconceivable. Even if it is conceded that the adverb and negative particle express respectively the object of thought and the view of mind, the first could not alone constitute the subject or attribute and the second the liaison. It is therefore by virtue of the second criterion that word classes are distinguished, but this does not lead the authors to dissociate the two aspects of the principle on which they base the division of parts of speech\(^{(3)}\).

1. Ibid., p. 65.
2. Ibid., p. 64.
3. Ibid., pp. 65-66.
In his criticism, Donzé appears to be assuming that individual parts of speech should each be separately reconcilable with the specific terms of the judgment, but this does not appear to be the intention of the authors, at least in so far as the terms are considered logically. Within the Port-Royal definitions it seems that, for instance, would be classed as manière de chose, and would not exist on its own, but accompany choise, both together, depending on the context, forming object of thought. Similarly, the negative particle would not, as form of thought, exist on its own.

Nevertheless, Port-Royal's dual formula, which appears to be aimed at representing the mental functions directly in the expression, could benefit from amplification and clarification. The ambiguity appears to be due in some measure to the difficulties in successfully identifying mental operations with terms other than noun and verb and to the failure to make a distinction between logical and grammatical levels.

The lack of a clear distinction on these aspects makes it difficult to segregate discussion on the mental operations from their expression, but the emphasis in the following chapter will move to the latter.

The operations of conception and judgment are the only mental processes linked directly to the structure of the proposition, but certain other processes, which relate more to semantic aspects of language and which could, it seems, precede the operation of judgment, since they concern the formation of ideas, are discussed in the first part of the Logique, containing reflections on ideas.

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1. A thought need not necessarily be a single idea (Logique, p. 48).
Of these, abstraction\(^1\) (abstraction de l'esprit) is discussed in considering ideas according to their composition or simplicity\(^2\). Because the mind's capacity is limited, it can only understand complex items properly by separate consideration of their parts, generally called 'to know by abstraction'. A distinction is made between firstly, knowledge of parts which are truly distinct, such as parts of the body, which do not really involve abstraction; secondly, consideration of a mode or manner separately from the substance, while continuing to associate the two; and thirdly, the application of an attribute which is contained in a substance to other substances to which it is common, without relating the attribute to the substance from which it is abstracted. As examples, for the second, the authors give the length and breadth of an object, and for the third, the derivation of the idea 'all persons who think' from the reflection that 'I think', of 'all triangles' from an equilateral triangle, (three sided figure) and of 'rectilinear figures' from a triangle (straight lined figure). In these examples the progress is from the inferior degree represented by 'I who think', and the 'equilateral triangle', to the superior, which, being less determined than the inferior, can represent more things, namely 'all persons who think', 'all triangles', 'all rectilinear figures'. The inferior includes the superior with some particular determination\(^3\).

Through abstraction, ideas can be considered according to their generality, particularity and singularity. Although all things which exist are singular, through abstraction several kinds of ideas are possible; some, singular ideas, representing individuals, are marked by

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1. The abstraction of universals from real properties of particulars was a feature of Thomist philosophy. See Pt. I, Ch. 2, p. 10.
2. Logique, Pt. I, Ch. V.
3. Ibid.
proper nouns; some representing several, namely universal or general ideas, are marked by common nouns, e.g. 'homme, ville, cheval'. Both the universal ideas and the common nouns which represent them can be called general terms.

Words are general in two ways. They are 'univoque' if the same word applies to several objects, with the same sound representing the same idea, as with 'homme'. They are 'équivoque', when the same ideas expressed by the same sound have no connection with each other, as 'canon' which represents both a weapon and a Decree in Council, and in cases where there is some resemblance, as of cause, effect, or sign, e.g. 'sain' refers to air, animal or food. By general words, the authors mean the unequivocal ones joined to universal and general ideas and it is these which are the subject of their further consideration of universal ideas, which the authors classify into five kinds, 'genres, espèces, différences, propres, accidents'.

The authors distinguish in universal ideas 'comprehension' and 'étendue'. The comprehension of an idea is defined as the attributes it contains and which cannot be removed without destroying the idea, as the comprehension of the idea of triangle includes extension, figure, three lines, and the equality of three interior angles to two right angles. The extension of an idea is defined as the subjects to whom the idea applies, also called inferiors of a general term which is superior in relation to the subjects. The idea of triangle, for instance, applies to all the different species of triangles. Whereas any one of the attributes contained in a general idea, i.e. its comprehension, cannot be removed without destroying it, its extension can be restricted by only applying it to some of

1. Ibid., Ch. VI, p. 86.
2. Ibid., Ch. VII.
the subjects, without thereby destroying the idea. This restriction can be effected in two ways. The first is by joining to it another distinct and determined idea, as when to the general idea is added that of a right angle, thus restricting the idea to one species of triangle. The other is by joining to it some indistinct and undetermined idea signifying a part, as 'quelque triangle'.

W. and M. Kneale point to some lack of clarity in the concepts. By referring to the inferiors of a general term it is not clear whether the inferiors are supposed to be species or individuals. If, as the Logique says, the extension of a term, unlike the comprehension, might be cut down without the destruction of the idea, this is not true of the set of species falling under a genus. Triangle must include the possibility of a right angled triangle, though the absence of an individual triangle would not invalidate the term. Almost certainly, Port-Royal, if pressed on this point, would have said that by 'extension' they meant the set of individuals to which a general term applies.

Although the two terms, comprehension and étendue are distinct, in Port-Royal's definition, there appears to be risk of confusing them due to the lack of precision in regard to the nature of the general term and the attributes it contains vis-à-vis the less general terms.

When related to their preceding account of abstraction, the definitions are more intelligible. The comprehension of the idea of triangle consists of the attributes it contains, which are attributes abstracted from, say, the equilateral triangle, these attributes being three lines,

1. Ibid., pp. 87-88.
2. The Development of Logic, p. 317 et seq.
three angles, and three angles equal to two right angles etc. (1). One assumes that by 'etc' the authors imply only general qualities for, through abstraction, they would exclude the property of equilateral. But though the general idea extends to all the subjects to which it applies, this is indistinctly. The application or extension can be made specific, that is, restricted, by the addition of another idea, distinct and determined, such as that of a right angle (2). This, in effect, would restore to the particular idea e.g. the inferior, the right angled triangle, the general attributes which were extracted from it, and the terms extension and comprehension appear consistent with Port-Royal's explanation of abstraction.

The notion of universality and particularity is also linked to that of extension in the rules for syllogisms. The attribute of an affirmative proposition, not having more extension than the subject, is always taken particularly (3). Kneale (4) refer to this as translating into their own terminology what mediaeval logicians said of 'termini non completi distributi'.

There have been various references to earlier, though not necessarily similar notions of this kind. Salmon (5) refers to the notion of extension and restriction going back to the Middle Ages and possibly earlier, and discusses various instances of restrictive relative clauses in works of Port-Royal's immediate predecessors. Peter Salus (6) notes that Petrus Hispanus, later Pope John XXI, was

1. Logique, Pt. I, Ch. VI, p. 87.
2. Ibid., p. 88.
3. Ibid., Pt. III, Ch. III, p. 239.
4. The Development of Logic, p. 319.
primarily concerned with the difference between significatio, the meaning of a word, and suppositio, the acceptance of a term as denoting something. Pinborg\(^1\) relates significatio and suppositio to approximately sense and reference and describes it as one of the two most important mediaeval distinctions. He adds that this distinction was developed within logic and formed the core of what was known as the 'logica moderna'. W. and M. Kneale consider the Port-Royal notions as possibly intended to replace significatio and suppositio but the correspondence is not exact, since the comprehension and the extension of a term are not properties of it, but rather sets of entities to which it is related in certain ways\(^2\). This may be true of extension, but is doubtful in relation to comprehension which contains the attributes of the objects to which it relates.

Pursuing their notions of comprehension and extension, the Port-Royal authors regard the addition of a term in the case of 'termes complexes' as being of two kinds, 'explication', and 'determination'.

Explication merely develops that which is included in the comprehension of the idea of the first term, or that which is appropriate to it as one of its accidents, providing this applies generally and to all of its extension. As examples, the authors quote 'l'homme qui est un animal doué de raison', 'l'homme qui désire naturellement d'être heureux', and 'l'homme qui est mortel', which do not change the idea of man or restrict it to one part of man\(^3\). All

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2. The Development of Logic, p. 317.
3. Logique, Pt. I, Ch. VIII.
additions made to nouns which distinctly mark an individual are explicative, because, always taken in their full extension, they are already determined as far as they can be (1).

Determination occurs when the addition to a word restricts its meaning and results in it no longer being taken in its full extension, only part of it, as in 'les hommes savants', 'un animal raisonnable'. Such additions can sometimes make a general word individual, as 'le Pape qui est aujourd'hui' determines the general word 'Pape' to be the individual Alexandre VII (2).

Complex terms are distinguished according to whether they are complex in expression, or only in the meaning, when the addition is understood.

1. Ibid., p. 97.
2. Ibid., p. 96.
Chapter 5.  The Proposition.

The Port-Royal definition of a proposition is related to the simple form of the judgment, described by Chevalier as "canonique"(1) e.g. "La terre est ronde, Dieu est juste, Dieu n'est pas injuste".

'Having perceived things through our ideas, the ideas are compared, and finding that some are appropriate to each other, and others not, we join or separate them, otherwise known as affirming or denying one or the other, in general judging. This judgment is also called proposition, which has two terms, the one of which one affirms or denies, the subject, and the one which affirms or denies, the attribute or predicate. There is also the liaison between the two terms, 'est'"(2).

The authors do not make it clear how they view the operation of comparison. It is not mentioned separately as an operation of mind, so is presumably regarded either as a subsidiary one, not directly reflected in language, or as part of the process of judgment. Neither do they pursue, in relation to the process of forming a judgment, the problem of how one knows which ideas to compare. In this connection, their discussion in the Logique on ideas considered according to their composition or simplicity, where things become known through the process of abstraction, appears relevant, but there is no mention of direct involvement of this process with the judgment.

The specific importance to Port-Royal of this form of the proposition, both as a nucleus from which thought can proceed to its further operations of reasoning and ordering, and as the basic structure in language, to which all linguistic expressions can be reduced, is particularly

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emphasised by Chevalier(1). With Port-Royal, the proposition appears as the module of analysis, and, at the same time, as the first element in forming the synthesis. Richer than the Method of Ramus, that of Arnauld and his colleagues had benefited from contact with Descartes and the sciences, in learning how to develop the double movement of analysis and synthesis(2). At the basis of all grammatical construction is the grouping of subject and predicate which forms the proposition, which, from the time of Port-Royal, was to be the core of syntax. The point of departure was no longer the formal grouping of subject and verb, of which variations, substitutions etc. were studied, but the relationship between subject and predicate. Behind all the Port-Royal initiatives was the reasoning that the art of thinking is at the centre of all the sciences(3).

It is this view of the Port-Royal definition of the proposition ("définition inconnue dans la grammaire jusqu'alors ...")(4) as a formative element which leads Chevalier to regard the authors as having founded an autonomous syntax(5). Contributing to the 'revolution' brought about by Port-Royal was their formulation of a hypothesis which would account for the fundamental criteria of formal grammar, and the basing of this hypothesis on thought. "C'est la détermination des formes du contenu qui est le premier devoir du grammairien"(6).

2. The method is defined in the Logique, Pt. IV, Ch. II and III.
4. Ibid., p. 490.
5. Ibid.
Padley, less convinced about the novelty of Port-Royal's approach, considers that Chevalier was led to regard Port-Royal as the founders of modern syntax by the emphasis which the authors put on the sentence as the grammatical unit; on its coincidence with the logical proposition containing subject, affirmation, and attribute. To speak, as does Chevalier, of the "revolution of Port-Royal insights concerning underlying logical structure is to treat them as original when they form part of a developing tradition, and also to ignore the semasiological trend of Humanist grammar which readily regarded formally divergent structures as semantically identical".\(^1\)

To some extent, the differing appraisals of Port-Royal syntax appear to be due to difference in emphasis, arising from the differing contexts in which the respective authors consider the question. There is no doubt, however, that the simple form of the judgment, or proposition was dominated by Port-Royal's emphasis on the thought content, and that it provided the nuclear syntactic element. The Grammaire can be regarded in some measure as an explanation of the various applications of this element and of deviations from its ideal form. In this they had the benefit of Lancelot's Nouvelle Méthode latine, with its numerous examples of 'construction figurée' reconciled with 'construction simple'.

A key feature in the Port-Royal proposition is their distinctive interpretation of the role of the verb 'est', and for this reason, the verb is considered in this chapter. The definition of the verb is given in the first instance as "un mot dont le principal usage est de signifier l'affirmation", that is, to indicate not only that the speaker simply perceives things, but judges and affirms

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1. Grammatical Theory in Western Europe, 1500-1700, p. 258.
The authors distinguish affirmation in this sense from the meaning it has with certain words, indicating the perception of an affirmation, e.g., affirmans, affirmatio\(^{(2)}\).

The only verb which has this main signification is the verb 'être' and then only in the third person present, and in certain cases. Because of man's natural inclination to curtail speech, affirmation is almost always combined with other meanings in the same word. Hence, 'Pierre vit' is equivalent to 'Pierre est vivant', the attribute, 'vivant', being included in one word with the verb 'est', a fact which, consider the authors, accounts for the great diversity of verbs in each language. Other variations on the basic form of the verb are illustrated by 'sum homo, je suis homme, and vivo, sedeo, je suis vivant, je suis assis', forms which result in different marking for person in verbs. The aspect of time can also be combined with affirmation, e.g. 'coenasti' signifies that 'I affirm the act of dining in relation to the past'\(^{(3)}\).

The inclusion of various meanings in the one word is, say the authors, the reason why various persons, Aristotle, Buxtorf, Scaliger, have not appreciated the essential nature of the verb\(^{(4)}\).

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1. *Grammaire Générale*, Pt. II, Ch. XIII, p. 66. Virtually the same content of Ch. III of the Grammaire is included in the Logique, Pt. II, Ch. II.

2. Ibid.

3. Ibid., pp. 67-69.

4. Ibid. Lancelot himself followed the definitions of Scaliger and Sanctius on the verb, prior to the publication of the Grammaire (see p. 34 of this study).
The inclusion under 'manner of thought' of all other 'mouvements de notre âme (1) comme les désirs, le commandement, l'interrogation, etc.', affects the interpretation of the role of the different modes of the verb, which are regarded as expressing these emotive operations. The conditional or subjunctive are described as expressing more distinctly what is experienced in the mind; 'aimâât, aimerait', for instance, therefore represent modified affirmations. The action of the will is represented through the optative, the subjunctive and the imperative(2).

The various explanations aimed at reconciling the different forms of the verb with its principal role of affirmation in the judgment tend to cause a certain amount of confusion, and are not always clearly stated.

Donzé comments that in the case of propositions using moods of the verb which express desire, command, etc., the 'mouvements de notre âme', the authors do not say whether these include the same constituent elements as those in which affirmation is expressed. They may have thought about it, but, in the absence of an explanation the 'theory of modes' remains disjointed from that of the expression(3).

1. Donzé mentions that the operations of 'juger' and the other 'mouvements de notre âme' recall the classical logical distinctions between l'oratio enunciativa, the operation joining or separating the subject and attribute to achieve a judgment which is true or false; and oratio ordinativa, expressing what is to be done. (La Grammaire Générale et Raisonnée, p. 13.).
2. Ibid., pp. 78-79.
3. Ibid., pp. 131-132.
There is also lack of clarity in that the authors tend not to mark the transition between regarding the expression in terms of a judgment, and the application to it of their theory on the verb. "La théorie du verbe interfère en effet, sur ce point, avec celles des termes du jugement, et ces Messieurs passent constamment de l'un à l'autre point de vue sans pour autant marquer nettement les transitions"\(^1\). Thus, when the verb adjectival is regarded as adding an attribute to the fundamental signification of affirmation, this can be understood as a separate notion, e.g. of action, passion, or quality, or as containing the predicate\(^2\).

Donzé's comments perhaps illustrate the risk of confusion which can arise through attempting to provide an explanatory theory for grammar at the same time as expounding grammatical principles. Such confusion might be mitigated by a distinction between the proposition considered logically and the proposition considered grammatically, but it seems possible that, since the authors envisaged a direct representation of the logical operations by grammatical categories, they would see no call for such a distinction.

On the same topic, Donzé considers that Port-Royal's division of the proposition into subject, copula and attribute is appropriate to the form now called attributive, (la terre est ronde) and more in conformity with the

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1. Ibid., pp. 134-135.
2. Ibid.
verbal structure than the version comprising two terms, specified by Du Marsais. He concedes that this kind of analysis was perhaps necessary at the time, because no other way had led to a more or less organic conception of the proposition. But deduction of the basic form of 'Petrus est affirmans' from the surface structure 'Petrus affirmat', not simply to isolate the sign of affirmation but to indicate a fundamental structure of language to which all other forms of expression can be reduced, is to stray dangerously from the facts. The same criticism applies to impersonal propositions. "... cette confusion est dans Port-Royal, et tout entière dans l'extravagante théorie de propositions impersonnelles auxquelles la Grammaire, toujours soucieuse de retrouver dans l'énonciation des trois termes constitutifs du jugement, attribue, contre toute vraisemblance, un sujet réel."(1)

Given the fundamental role of affirmation which the verb has, in generating the structure of the proposition, it cannot really be considered in isolation from it, and Donzé appears therefore to be criticising the entire explanatory concept, at least, in its application to grammar.

The Logique contains essentially the same content in respect of the essential features of the verb as does the Grammaire but the further chapters in the Grammaire, which consider the additional forms of verbs, are not included in the Logique. Robinet attributes this omission from the Logique, notably in respect of the various modes of the verb, to an intention to reinforce the theory of the main role of affirmation(2). The reason could however be simply contextual. The detailed exposition of the Grammaire could

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1. Ibid., p. 135.
2. Le Langage à l'Age Classique, p. 39.
be inappropriate to the more strategic thinking in the Logique, which does, in fact, refer to the different moods of the verb, without expanding on them.

Explanations of other verb forms are:-

Participles: These are true nouns (adjectival). In the example, 'Pierre est vivant', 'vivant' is the attribute\(^1\). The essential reason for this definition is that they do not signify affirmation\(^2\) and cannot therefore form a proposition without the addition of a verb, i.e. by replacing what has been removed in changing the verb into a participle\(^3\).

Infinitive: This is referred to as a substantive noun, as used in 'le boire', 'le manger', but it is conceded that it can also be used in the role of affirmation, e.g. 'Scio malum esse fugiendum, je sais qu'il faut fuir le mal'. Its function in comparison with other modes of the verb is likened to that of the relative among pronouns, in that in addition to its affirmatory role, it can join the proposition in which it features to another, 'scio' in the above example being one proposition, 'malum est fugiendum' another. By using 'esse' instead of 'est', the second proposition is only part of the first, as happens with the relative pronouns\(^4\).

Adjectival verbs (verbes adjectifs) are those which have an attribute joined to the general signification of the affirmation. As a verb can, according to man's wishes, have any attribute added, it is a mistake to believe that all verbs signify either action or passion. Such verbs are those which signify an action to which the passive is opposed, e.g. 'battre' is opposed by 'être battu'\(^5\).

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2. Ibid., p. 70.
3. Ibid. pp. 89-90 are also relevant.
4. Ibid., pp. 80-81.
5. Ibid., pp. 83-86.
Impersonal verbs: The infinitive is most properly the impersonal since it marks affirmation without number or person. But grammarians tend to call certain defective verbs impersonal, which are usually found in the third person only. Since certain parts of the construction are omitted but understood (reference is made to la Méthode Latine, Remarques sur les verbes, ch. V), they are not true impersonals. In illustration, 'pudet me', is extended to 'pudet tenet', or 'est tenens me'; 'libet mihi' to 'libido est mihi'. It is noted that 'est' in such cases signifies also existence (1).

The Port-Royal authors also relate complex propositions to the basic form of the proposition as a judgment. The terms joined in a proposition may be simple, as in 'Dieu est bon', or complex, e.g. 'un habile magistrat est un homme utile à la république' (2). Whether the proposition containing complex terms is itself complex, depends on whether it contains more than one judgment, i.e. affirmation, including any which may be present in the mind, but unexpressed. 'La valeur d'Achille a été cause de la prise de Troie' is regarded as containing only one judgment, but from 'Dieu invisible a créé le monde visible', the three judgments, 'Dieu est invisible, il a créé le monde', and 'le monde est visible' are deduced, the first and third being merely incidental propositions to the main one, of which the first is the subject and the third the attribute (3).

If the complexity of a proposition is regarded as dependent on what is present in the mind, it might be argued that 'la valeur d'Achille a été cause de la prise de Troie' (4).

1. Ibid., p. 86.
2. Ibid., Ch. IX, p. 49.
3. Ibid., p. 50.
4. Robins comments that "it is hard to follow the authors' reasoning, as, in modern transformational terms, this proposition would be treated very similarly to the other" (Short History of Linguistics, p. 125). The point is also noted by Kretzmann (Transformationalism and the Port-Royal Grammar, in the Rieux and Rollin edn. of the Grammar).
also contains the proposition 'Achille est valeureux'.
This example is admittedly different in construction and
in the type of content, from that of 'Dieu invisible' etc.,
but it does raise the question of how one distinguishes
from the various possibilities which may be regarded as
in the mind, prior to the actual expression, the form
which lends credence to the postulated generic structure.
The authors choice is of course subjective, influenced
by their a priori view of the nature of thought.

In the examples quoted, the authors are concerned in
demonstrating the role of the relative pronoun. If the
three judgments are expressed, the relative pronoun is
used; 'Dieu, qui est invisible, a cree le monde, qui
est visible'. From this it is deduced that the relative
pronoun, in addition to having in common with other
pronouns the property of being a substitute for a noun,
has its own characteristic of always referring to an
antecedent, expressed or understood, and is part of an
incidental proposition, which in turn forms part of the
subject or attribute of the principal proposition. The
relative is also implied when two nouns are in apposition,
e.g. 'Urbs Roma', or when one is an adjective, e.g. 'Deus
sanctus'. Syntactic rules for forming the full construction,
using the relative pronoun, are given\(^{(1)}\), which Chomsky
regards as equivalent to modern transformational rules
for converting deep to surface structure\(^{(2)}\).

The different grammatical roles attributed to the
relative pronoun (as pronoun it can take the place of a noun,
but it can also act as a conjunction\(^{(3)}\), transcend the
division of parts of speech into objects and manner of
thought, for pronouns fall in the first category and con-
junctions the second\(^{(4)}\). The authors do not comment on
this point.

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An inconsistency is also apparent between the Grammaire and the Logique in that whereas in the example "Je suppose que vous serez sage", the Grammaire regards 'que' as denoting liaison, having lost its role of pronoun (1), the Logique maintains its role of relative pronoun by providing an extended form, "Je fais une supposition qui est que vous êtes sage" (2). This chapter was added in the 1683 edition, so it appears that the authors had second thoughts on this particular example. On the other hand, a proposition of similar overt structure is considered differently. In "Je soutiens que la terre est ronde", included in the Logique under propositions which are complex according to affirmation or negation, "je soutiens" is described as an incidental proposition which should form part of either subject or attribute in the principal proposition. It does not because it changes nothing; it simply results in affirmation being expressed in two ways, one normally, with the verb 'est'; the other more expressly, by 'je soutiens' (3). Obviously the separate treatment of similar structures depends on semantic considerations (4).

Propositions are considered further in the Logique according to their content and the property of being true or false. They are first classified into four categories, universal affirmative, universal negative, particular affirmative or particular negative, depending on whether they affirm or deny something of a subject which is universal or particular (5). In so far as the criterion of true or

1. Ibid., Ch. IX, p. 54.
2. Logique, Pt. II, Ch. I, p. 147.
3. Ibid., Ch. VIII, p. 174.
4. Chomsky relates the earlier version included in the Grammaire to the modern terminology that each term generated by the underlying base (phrase structure) does not necessarily underly a possible kernel structure (Cartesian Linguistics, pp. 39 and 99). He might have found the example 'je soutiens que' more appropriate to this comparison.
5. Logique, Pt. II, Ch. III, pp. 156-159.
false is concerned, the authors, significantly, say that there can be no propositions which are neither true nor false, since every proposition marks the judgment we make about things. The proposition is true when this judgment conforms to the truth, false when it does not\(^{(1)}\).

The form of complex propositions, considered in the Grammaire Générale in the context of relative pronouns, is defined in the Logique. A distinction is made between simple propositions, those having only one subject or attribute, 'composées', those having more than one subject or attribute, and 'complexes', those containing more than one proposition, i.e. judgment, whether expressed or understood. The additional proposition in complex forms can relate either to the subject or attribute\(^{(2)}\).

Chevalier summarises the various types of logical proposition formulated by Port-Royal, the first being fundamental to the remainder:

simple: la terre est ronde\(^{(3)}\).

apparently compound (composée), in effect complex:

Celui qui fait le volonté de mon Père qui est dans le ciel, entrera dans le royaume des cieux\(^{(4)}\).

implicitly complex: Dieu invisible a créé le monde visible and

Brutus a tué le tyran\(^{(5)}\).

compound: Alexandre a été le plus généreux de tous les rois, et le vainqueur de Darius\(^{(6)}\).

simple, apparently complex: Il y a des craintes qui sont raisonnables\(^{(7)}\).

C'est une folie que de s'arrêter à des flateurs\(^{(8)}\).

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1. Ibid., p. 159.  
2. Ibid., Ch. V.  
5. Ibid., pp. 164-165.  
6. Ibid., p. 164.  
7. Ibid., Ch. XIII, p. 201  
8. Ibid., Ch. XI, p. 192.
With these different forms, comments Chevalier, the importance of knowing whether the proposition is simple, complex or compound is to ascertain whether affirmation or denial is to be applied to all or part of it. Port-Royal is not seeking to demonstrate the functioning of language but to determine the constituent elements of the judgment and so provide a firm base for reasoning\(^1\).

Of interest is the illustration that all propositions composed of active verbs and their régime can be called complex\(^2\). 'Brutus a tué un tyran' being equivalent to 'Brutus a tué quelqu'un' and 'celui qu'il a tué étoit tyran'. Thus the proposition could be contradicted either by saying that Brutus had not killed anyone or that the one he killed was not a tyrant. (One could also add the one he killed was not the one regarded as a tyrant).

The validity of the conclusion deduced from the analysis of 'Brutus a tué un tyran' is questioned by Chevalier. The analysis is of importance at the level of logical argument since it permits the separate consideration of the facts, but to apply the conclusion that all propositions consisting of active verbs and their régime can be called complex is to generalise a particular case to others which are dissimilar. For instance, there would be no need to imply a proposition such as 'Quelqu'un est César', from an analysis of 'Brutus a tué César'. This would be on a par with the mediaeval propositions of identity. The flaw in the reasoning is due to the fact that the notion of régime of the active verb is not clearly explained, and it is not clear what relation is involved.

Port-Royal mention sometimes régime of object, sometimes of subject, indiscriminately\(^1\).

This example again raises the question as to what structure, if any, is regarded as underlying the expression, and whether this can be deduced according to syntactic principles only, or whether semantic aspects need to be taken into account. The Grammaire appears to concentrate on cases which are amenable to purely syntactic analysis. The contexts in which the Logique considers propositions go beyond syntactic issues.

Chomsky includes examples from the Logique, such as the above quoted one, as illustration of 'deep structure'\(^2\) but, while obviously aware of the specific context in which they are used in the Logique, does not appear to deduce any fundamental distinction between cases requiring knowledge of semantic content or context and those where the underlying structure can be deduced according to syntactic criteria.

The need to take into account the semantic content of the proposition in order to define its nature is also evident in considering the distinction between incidental propositions which are explicative, which refer to the term in all its extension, without changing it, and those which determine it or restrict its application\(^3\). The definitions originate from the Port-Royal concept of comprehension and extension and have already been explained\(^4\).

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3. Logique, Pt. II, Ch. VI.
4. See Ch. 4.
In the case of explicatives, the subject of the total proposition can be substituted for the relative pronoun referring to it without invalidating the sense. Thus 'les hommes qui ont été créés pour connoître et pour aimer Dieu' can be replaced by 'Les hommes ont été créés pour connoître et pour aimer Dieu'. But with determinatives this would make the proposition false. 'Les hommes qui sont pieux sont charitables' presented as 'les hommes sont pieux' forms an 'idée totale' which wrongly implies that 'pieux' is compatible with (all) men. The authors acknowledge the need to have more regard to the meaning and intention of the speaker than to the expression itself in order to judge the nature of these propositions, and to determine whether they are 'explicatif' or 'déterminatif'\(^{(1)}\).

The Logique instances complex propositions which are ambiguous in that they can be taken according to the sense in which the speaker intends them. In the example 'Tous les Philosophes nous assurent que les choses pesantes tombent d'elles-mêmes en bas', the first proposition is incidental if the intention is to show that heavy things fall etc. But if the intention is merely to relate the opinion of the philosophers without necessarily approving of it, the first proposition is the principal one. The context usually indicates in what sense such propositions are intended\(^{(2)}\).

Compound propositions are classified into those which are overtly compound, the copulatives, disjonctives, causales, conditionnelles, relatives and discretives and those where the composition is covert, the exponibles, which comprise the 'exclusives, exceptives, comparatives,

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1. Logique, Pt. II, Ch. VI, pp. 167-168.
2. Ibid., Ch. VIII, pp. 174-5.
inceptives or desitives\(^{(1)}\). All these imply something in addition to that expressed by the proposition. Exclusives, for instance, by noting that an attribute is appropriate to a single subject, imply that it is inappropriate to others\(^{(2)}\). Although the unexpressed element in the covert forms instanced by Port-Royal may be regarded as a form of deep structure, to do so would seem to include other thoughts or sentences which may not be parts of the same structure, and may not even express what is 'in the mind'. In other words, where does one structure end, and another begin\(^{(3)}\)?

The reliance on content for discerning the structure of a sentence is also indicated by the authors' view that the only true rule for discerning which is the subject and which is the attribute in irregularly expressed propositions is to observe by the meaning that which is affirmed and that which is affirmed of it (the attribute)\(^{(4)}\). Sometimes to indicate the true subject the active of the verb needs to be changed into the passive. The same attention to meaning and change of mood is required to identify incidental and principal propositions, where the order is irregular. In the example 'Dieu commande d'honorer les Rois; Louis XIV est Roi.' from which 'Donc Dieu commande d'honorer Louis XIV' is deduced. The main intention here is to affirm something of Kings, from which one can conclude that Louis XIV is to be honoured. The phrase

1. Ibid., Chs. IX and X.
2. Ibid., Ch. X.
3. This would appear to present difficulties in attempting to relate exponibles to transformational rules, a possibility mentioned by Kretzmann (Pt. I, Ch. 2, p. 10).
4. Ibid., Ch. XI, p. 191.
regarding 'Dieu' is an incidental proposition which confirms the affirmation 'les Rois doivent être honorés'. Rois is the subject of the principal proposition, Louis XIV that of the conclusion (1). Chomsky comments on the fact that this analysis is thus used to develop, in effect, a partial theory of relations, since from it, the final conclusion can be thus reduced from the argument (2). 'Re-inforced' may be a more appropriate description than 'reduced', particularly as the analysis is dependent on the person's understanding of the meaning of the argument, not on independent syntactic standards.

Constructions in French such as 'C'est de la grêle qui tombe' can also be reduced to their natural arrangement by placing the subject before the attribute, 'Ce qui tombe est de la grêle.' Various similar examples are provided by the authors "pour faire voir qu'on en doit juger par le sens, et non par l'ordre des mots" (3).

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1. Ibid., p. 192.
2. Cartesian Linguistics, p. 44.

The surprisingly limited attention given to syntax in the Grammaire Générale, given the importance of the proposition, has already been noted in referring to Padley's comment on the more extensive treatment of this subject in the Nouvelle Méthode latine(1). Padley also refers to Chevalier's association(2) of this limited treatment with the authors' failure to exploit the analysis of the proposition at the linguistic level(3).

Apart from matters which may be regarded as relevant to syntax, namely the various constructions of the proposition, and case relations, which are dealt with elsewhere in the Grammaire, the short chapter devoted to it (which is also the last one in the work) is limited to the notions of 'convenance' and 'régime'; to the five maxims referred to as generally applicable in all languages, and to figures of construction which entail deviations from the natural order.

Syntax is described as the construction of words together. Construction is generally subject to 'convenance', or agreement between words, and 'régime', whereby a variation is caused by one term on another. Convenance is mostly the same in all languages as it is a natural consequence of the practice of making the expression more distinct. It governs the agreement of substantive and adjective, and of verbs with nouns and pronouns. Régime is almost entirely arbitrary, and therefore differs from one language to another, some relying on case (e.g. Latin), others on prepositions, as in French, Spanish and Italian(4).

1. See Ch. 2 p. 31.
4. Grammaire Générale, Pt. II, Ch. XXIV.
Chevalier points to the influence of Latin on this conception of syntax, an influence also indicated by the analysis of the genitive, which conforms to that in the Nouvelle Méthode latine (1).

Of the five general maxims, the first three are obviously in conformity with the Port-Royal view of the elements of the proposition, though they appear to have ante-dated this (2). A nominative is always related to a verb, either expressed or understood, and the converse, a verb is always accompanied by a nominative, expressed or understood; and there can be no adjective without a substantive. The fourth, that the genitive must be governed by a noun because this case marks the possessor, is described as difficult to apply to the vulgar languages because of the use of the particle de. According to the fifth, the régime of verbs is dependent on the various kinds of relations implicit in the cases; the case relations are constant but the usage differs (3).

The foregoing (i.e., the remarks on syntax of 'convenance' and 'régime' and the five maxims) comment the authors, is sufficient to understand natural order, whereby all the parts of speech are simply expressed, with no superfluous or elided words, and conform to the natural expression of thought. But when, due to men following more often the meaning of their thoughts, than the words they use to express them, or with the aim of shortening speech, they omit some words, or in the interest of style include superfluous ones, natural order is reversed.

1. Histoire de la Syntaxe, pp. 519-520.
2. Sahlin comments that these maxims are not the result of personal observations but an extract from twelve maxims from Scioppius' Syntaxe (César Chesnau Du Marsais, p. 34).
'Syllepse' or 'conception', in conformity with thought rather than with the words of the expression, is illustrated by 'il est six heures', instead of 'ils sont six heures' which would be grammatically correct (1). 'Ellipse' or 'défaut' is the figure which mostly appears in Port-Royal's reconstruction of the natural forms of expression. 'Pléonasme' is the inclusion of unnecessary words, and 'hyperbathe' the reversal of the natural order of speech. The reader is referred to the Nouvelles Méthodes for Greek and Latin for fuller illustration of all the figures of speech (2).

French is referred to as the language which uses figurative expressions particularly sparingly, aiming at clarity and the closest possible adherence to natural order while at the same time maintaining style (3).

Ricken comments that the views in the Grammaire Générale on 'ordre naturel' had earlier been evident in Lancelot's claims of a natural order of construction in French. In the Nouvelle Méthode latine of 1650 Lancelot had spoken of the obscurity of Latin due to abandonment of natural order while in French this order, which should be common to all languages, could be observed. This latter reference was not repeated in the Grammaire Générale, but since the Grammaire aimed to find in language the universal laws of thought and thus use reason as a principle for explaining an apparently inexplicable usage, this lent force to an explanation of natural order based on Cartesian rationalism. Subsequently, other authors were to provide a more studied rationalist basis for natural order (4).

1. Ibid., p. 107.
2. Ibid., pp. 107-108.
3. Ibid., p. 108.
4. Ulrich Ricken, Grammaire et Philosophie au Siècle Des Lumières, PUL 1978, pp. 16-18. The question assumed greater importance with Du Marsais, Beauzée and Condillac, and is discussed further in the sections dealing with their theories in this study.
It is noteworthy that in dealing with case relations, the Grammaire refers to the relationship as being between words. In spite of the importance attached by Port-Royal to mental operations, there is no reference to relations between ideas, as was the case with certain later theories.

According to the Grammaire, if things were always considered separately, only the two modifications of nouns, namely number and gender, would be necessary, but because nouns are often considered according to the different relations between them, additional markings are needed. One of the inventions used in some languages for this purpose consists of case endings. Without cases, the 'liaison du discours', called construction, would not be understood.

Case endings, or the use of prepositions to serve the same purpose, are explained in terms of the kind of relationship which they express. Nominative is not really a case, but the base from which case endings are formed by the different modifications to this first ending. Its first use is to be placed before all the verbs, as subject of the proposition. Vocative marks the person to whom one speaks; genitive the relation of a thing to another in whatever manner this may be; dative the relation of advantage or disadvantage. Accusative indicates the object of verbs signifying action. It is recognised in French by the natural order, which places it after the verb. Ablative, the sixth case in Latin, has not been invented for any one particular relation, but to be joined to prepositions which mark relations for which the other cases do not suffice. The authors provide illustrations mainly in Latin and there is some discussion on the different means in each language of expressing the same relation.

1. Grammaire générale, Ch. VI, p. 33.
2. Ibid., Ch. VI.
The possibility of ambiguity, which requires knowledge of the context to resolve, is discussed in relation to the various specific cases falling under the general purpose of the genitive case. In 'vulnus Achillis', the genitive Achillis can signify either relation of the subject and be taken in the passive sense for the wound received by Achilles, or the relation of cause, the wound Achilles has caused\(^{(1)}\).

Consistent with the emphasis in the Logique on the main operations of mind, which are reflected in the proposition as a judgment, consideration of word classes in this work is limited to nouns, pronouns (described as words which take the place of nouns), and verbs. These are referred to as the main parts of the proposition and the three kinds of words mainly invented for the four operations of mind\(^{(2)}\).

Consideration of other aspects affecting nouns, and of other word classes, falls to the Grammaire. Although all words are regarded in this work as signifying either object or manner of thought, apart from the main classes, noun and verb, little or no substantiation is given for this classification, the reasons for the words and of grammatical features being given in terms such as the purpose for which they were invented, their manner of signifying, their usage.

Thus, for instance, the sub-division of substantive nouns into proper and general is explained by their representation of particular and general ideas respectively\(^{(3)}\). Singular and plural markings are manners of signifying\(^{(4)}\).

\(^{1}\) Ibid., p. 35.
\(^{2}\) Logique, Pt. II, Ch. I.
\(^{3}\) Grammaire Générale, Pt. II, Ch. III.
\(^{4}\) Ibid., Ch. IV.
Gender was introduced with adjectives to make the expression clearer through distinguishing between male and female, and its use was generally extended, sometimes being applied with a particular reason, sometimes by chance\(^{(1)}\). Articles are particles invented to determine the vague signification of common nouns in a way additional to that of number\(^{(2)}\). Adverbs are explained by man's inclination to shorten speech. Most adverbs express in one word what would be signified by a preposition and a noun\(^{(3)}\).

Of particular interest are the further criteria applied to nouns, which appear to be aimed at reconciling conceptual, semantic and syntactic aspects.

In addition to the first distinction between nouns, of substantives, signifying substances, and adjectives, which signify their accidents, corresponding respectively to the subject and attribute of the proposition, the further notion of manner of signifying is introduced. Because substance exists by itself, substantives exist by themselves in the expression, without the need of another noun, even if they signify accidents. Adjectives, on the other hand, are those which by their manner of signifying need to be joined to other nouns\(^{(4)}\).

Padley comments that this Aristotelian-based distinction, and the philosophical terms of the signification of substance and accident, followed mediaeval and much Humanist practice. The syntactic criterion appeared with Linacre and Colet; the combined philosophical and syntactic definition with Campanella and Vossius, the latter specifically referring to Aristotle as an authority\(^{(5)}\).

1. Ibid., Ch. V.
2. Ibid., Ch. VII.
3. Ibid., Ch. XII, p. 65.
4. Ibid., p. 25.
5. Grammatical Theory in Western Europe, pp. 244–245.
But Port-Royal experienced the same difficulties in application as did the Modistae in that lexical signification did not necessarily agree with the syntactic distinctions\(^{(1)}\). Such cases are reconciled by Port-Royal through use of the mediaeval distinction between denotation and connotation\(^{(2)}\).

The reason given for a noun\(^{(3)}\) not being able to exist on its own is that in addition to its 'signification distincte' it has a 'signification confuse'. 'Rougeur' is the 'signification distincte', or precise denotation of 'rouge' but it connotes imprecisely ('signification confuse') what it is that is red. Hence rouge cannot exist on its own in the expression; it must have a noun expressed or understood, which it connotes. When the connotation is removed from words signifying accidents they become substantives, as 'rouge' becomes 'rougeur'. Conversely, when added to words signifying substances they become adjectives, as from 'homme' one derives 'humain'. When such adjectives lose their connotation, they in turn form new substantives, e.g. 'humanité' from 'humain'\(^{(4)}\).

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1. Ibid., pp. 245-246.
2. Padley gives Port-Royal's most immediate grammatical source of their doctrine of connotation as Scaliger, though it had long been a theme of logic and is found in Ockham's Quodlibeta (Grammatical Theory in Western Europe, p. 247).
3. Donze traces the development of the theory of the noun in the texts of the Logique and the Grammaire. The first edition of the Logique, 1662, appears to represent an earlier stage in Arnauld's thinking, which distinguishes substance from adjective according to the nature of the operation by which the mind grasps the object or mode (Donze La Grammaire Générale et Raisonnée, p. 69). The later edition of 1683 includes an additional chapter 'Des Mots Par Rapport aux Propositions' (Logique, Pt. II, Ch. II), in which the theory appears to be presented in a way which reconciles the logical interpretation with the final version which appears in the Grammaire.
The signification of the accident is indirect, though distinct, whereas that of the subject is direct, though indistinct\(^{(1)}\).

Words such as 'roi, philosophe, soldat', though taken for substantives, are really adjectives since they signify accidental forms and mark a subject to which this form applies. They are regarded as substantives because they normally only relate to man and the substantive to which they are joined can be omitted without risk of confusion\(^{(2)}\).

The syntactic 'manner of signifying' applied by Port-Royal, together with their use of connotation, fall into place with the view of subject and attribute as objects of thought, appropriate to the operation of mind conception, the joining of the two forming the proposition. In, for example, 'la terre est ronde', the mind can perceive 'la terre' and 'rondeur' separately\(^{(3)}\). 'Rondeur' thus lacks connotation, but when the quality of 'rondeur' is affirmed of 'la terre', it connotes 'la terre' and becomes the adjective 'ronde'.

Words, in addition to nouns and verbs, which the Port-Royal authors relate directly to the mental operations, are conjunctions, signs of interrogation and interjections.

Conjunctions are described as the second kind of word signifying form of thought (the first being the verb), and they comprise 'et', 'non', 'ou', 'si', and 'donc'. They come within this category because they signify the very operation of mind which joins or separates things, which denies them, considers them absolutely or conditionally.

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1. Ibid., p. 27.
In illustration, the authors point out that there is nothing outside the mind which corresponds to the particle 'non'\(^{(1)}\). By inference, all the kinds of words included under 'object of thought' should have a counterpart outside the mind, but this point is not pursued by the authors in relation to such words, apart from nouns and adjectives.

The interrogative, marked in Latin with 'ne', similarly had no equivalent outside the mind, since it simply marks the 'mouvement de notre âme' by which we wish to know something. Various means are used to mark this 'mouvement': voice inflexion, interrogation marks in writing, reversal of the order of pronoun and verb. The Latin interrogatives quis, quae, quid are pronouns to which the signification of 'ne' is joined\(^{(2)}\). As with the relative pronoun, the authors allow these to belong both to 'objects of thought' in their capacity of taking the place of a noun, and to 'manner of thought', in their added capacity of interrogation.

Interjections similarly signify nothing outside ourselves. They are expressions which are more natural than artificial, marking the 'mouvements de notre âme': 'ah, heu, hélas', etc. \(^{(3)}\).

Words and word classes are considered further in the following chapter in relation to their role as signs.

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1. Grammaire Générale, Pt. II, Ch. XXIII.
2. Ibid., Ch. XXIII, p. 102.
3. Ibid., p. 103.
Chapter 7. The Theory of the Sign.

The role of words as signs of thought is important in Port-Royal theory, but it is made quite clear in the Logique that thought itself has no need of language, for the authors state that if our reflections on thought merely concerned ourselves, there would have been no need for words. But, once having had to clothe thoughts with external signs to communicate them to others, the habit of using words results in their appearing in the mind with the thoughts they represent. So, it is necessary to consider, in the Logique, "les idées jointes aux mots, et les mots joints aux idées".

It is the concept of 'idea' which dominates the Port-Royal view of the way in which words express thought. The idea must already exist in the mind for the word or words to be understood. The point is emphasised in Arnauld's criticism of Hobbes' reference to the possibility of reasoning being nothing more than the linking together of nouns by the word 'est'. The very allocation of signs depends on the pre-existence of ideas which the signs are to represent. If reasoning depended on words, the diverse languages of the world would produce different reasonings on the same truths.

The view that thought requires no need of language, which is only necessary for communicating with others, was a dominant feature of St. Augustine's thinking on language. The Logique introduces frequent references to Augustine, and the extent to which the Port-Royal philosophy of the sign, both in inspiration and detail, was indebted to his influence, is particularly emphasised by Robinet.

1. Logique, Preamble to Pt. I, p. 60.
2. Ibid., Ch. I, p. 67.
3. Ibid., pp. 68-9.
In tracing Augustine's reflections on the sign, Robinet instances points of similarity between these and the theories of the classical era. Most of these find an echo in Port-Royal's thinking on this subject. Thought has its source in communion with the 'Verbe', (the Word, which was in the beginning ...). Through this, perfect knowledge is possible without the need for images or signs. The Word, which is above all language, takes on signs merely to become intelligible to others. Speech, necessarily purely conventional, is a lengthening and slowing down of thought. Language is analytical. Words are not the idea, merely the sign of the idea. Language is the most important of the signs because it is a monitor of truth: memory, in re-calling words, brings to mind the things of which the words are signs.

The common ground between the Cartesian concept of thought and the idea and that of Augustine has already been noted above. Robinet comments that the level of thought 'which only concerns ourselves' is what Descartes, Malebranche and Augustine call 'reflection', not a function, but an essence, which produces the 'idea' of Descartes and Arnauld, in its strict sense, equivalent to Augustine's knowledge of the thing itself. The representation of the object by the sign is a resemblance which is less that of the original purity of thought or idea. "Représenter est second: penser c'est présenter dans la participation

1. It seems that Augustine also made certain intuitive observations about language, not directly dependent on his theological convictions about the purity of thought in its relationship with the 'Verbe' though in sympathy with them. Robinet refers to his frequent remarks to the effect that what he says no longer corresponds with what he knows and that what he has just learned disappears as soon as he wants to communicate it (ibid., p. 25).
2. Ibid., pp. 13-19.
3. Ch. 4, p. 57.
4. Le Langage à l'Age Classique, p. 21.
intuitive\(^{(1)}\). This is a vital distinction affecting Port-Royal; what one calls 'penser' is not the same at all as what is called 'parler'. "La pensée donne la réplique exacte et muette de la vision du savoir dans la participation sans écart au Verbe. La communication n'est pas participation; elle manifeste l'exclusion"\(^{(2)}\).

The theological convictions of Port-Royal, continues Robinet, evident in the texts of the Logique and the Grammaire, incline the Solitaires to the intuitive and authentic nature of thought, deriving eventually from the Deity. But this purity of thought is compromised by the need to communicate and to use signs. Through the habitual use of signs with ideas, thinking is no longer in its isolated pure state of meditation, but is identified with logic, and it is this which makes it necessary to consider ideas joined to words and words joined to ideas\(^{(3)}\). The four main operations of the mind, concevoir, juger, raisonner and ordonner, on this interpretation, are related to thought in alliance with language, in less than its pure state. Robinet refers to the objective of these operations being to depart as little as possible from the purity of an idea "qui donne la Lumière dans l'intuition instantanée et sans lieu"\(^{(4)}\).

Consistent with their view of the idea, Port-Royal emphasise that, although the joining of a certain idea to a certain sound is arbitrary, ideas are not, and they do not depend on our imagination, at least those which are clear and distinct\(^{(5)}\).

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1. Ibid., p. 22.
2. Ibid., p. 19.
3. Ibid., pp. 22-23.
4. Ibid., p. 25.
Chapter IV of the Logique, Des Idées des Choses et Des Idées Des Signes, contains the essence of the Port-Royal theory of the sign. A distinction is made between considering an object in itself, apart from what it can represent, as one has an idea of the earth, or the sun, and merely regarding an object as representing another, as one would consider a picture or a map. So that with the sign there are two ideas, that of the thing which represents, the other of the thing represented, and the nature of the sign consists in arousing the second by the first (1).

Robinet refers to the word 'exciter' as being intended in the sense of 'occasion'. That the signs are invented by men is the indication of their contingency. It allows the linearity of the expression and the simultaneity of thought to happen at the same time but independently (2).

The Logique anticipates criticism of associating spiritual thought with corporeal sound by emphasising that the two are distinct. "Car cette image du son de pensée que nous nous imaginons, n'est point l'image de la pensée même, mais seulement d'un son, et elle ne peut servir à nous la faire concevoir qu'en tant que l'âme s'étant accoutumée quand elle conçoit ce son, de concevoir aussi la pensée, se forme en même temps une idée toute spirituelle de la pensée, qui n'a aucun rapport avec celle du son, mais qui y est seulement liée par l'accoutumance." (3). The formula thus avoids compromising the spiritual nature of thought.

1. Ibid., Pt. I, Ch. IV, p. 80. Robinet comments that Augustine's De Doctrina said as much. In fact the main lines of Chapter IV are expounded in his work (Le Langage à l'Age Classique, p. 42).
2. Le Langage à l'Age Classique, pp. 32-33.
Port-Royal thinking on the subject is not restricted to signs in language: these are introduced into the context as one of various variables of signs. The Logique continues by referring to various divisions of signs, of which three are described, "qui sont de plus grande utilité". These are between 'signes certains', such as breathing is a sign of life in animals, and 'signes probables', for example, pallor in a pregnant woman: signs joined to things, as symptoms accompany illness, and signs separated from things, as sacrifices of the ancient law are separated from what they represent: and the third division is between natural signs which do not depend on man's fantasy and those of institution and establishment, whether they have some connection with the 'chose figurée', or whether they have none at all. "Ainsi les mots sont signes d'institution des pensées, et les caractères des mots ..."(1). Thus, words are artificial signs of thoughts and written symbols are artificial signs of the words.

The Port-Royal approach to the sign is seen by Foucault to have important consequences for subsequent philosophical and linguistic theories, essentially because it invested the sign with a representational nature and therefore that which it represented was brought within the scope of man's thought. The Renaissance theory, in contrast, which postulated that which is signified, 'the sign', and resemblance, allowed for the postulation in the sign itself, of what it signified(2).

1. Ibid., pp. 80-82.
2. Les Mots et Les Choses, pp. 77-79.
He points out that, in contrast to the preceding sixteenth century conception which linked the sign closely with the object signified, whether by resemblance, affinity, or divine origin, none of the three variables described by Port-Royal necessarily implies similarity with the thing signified, not even natural signs, for though spontaneous, the latter are not analogous. Because, according to the first variable, the sign is certain or probable, it is located in consciousness; there is nothing unknown about it. For the sixteenth century, it was the language of the things themselves which were regarded as giving signs their signifying function, and a certain secrecy and divine origin were ascribed to them.

The Port-Royal distinction between signs inherent in things and those separated from things allowed, in contrast to the sixteenth century dependence of the sign on what it signifies, for separate consideration and arrangement of knowledge.

The third variable, allowing for conventional signs, presented the possibility of choosing them for their simplicity and practicability, in contrast to the rigid view of signs as natural and therefore beyond the scope of direction.

This opening up of the sign through its representational nature, to man's own powers, favourable to analysis and conducive to ideas of artificial and universal languages, is seen by Foucault as contributing to the thinking of Hobbes, Berkeley, Hume, and Condillac.

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1. Ibid., p. 72.
2. Ibid., pp. 72-73.
3. Ibid., p. 75.
4. Ibid., pp. 75-76.
5. Ibid., pp. 75-77.
It is noteworthy that the idea of the sign is contained in the part of the Logique which deals with the first operation of mind, 'concevoir', and that all references in the specific chapter devoted to it, 'Des Idées des Choses et Des Idées des Signes', Ch. IV, place it in the context of 'idea' and 'object', or 'chose'. Any examples used to illustrate the authors' points are nouns. However, the subsequent chapters, including Chapter V, 'ideas according to their composition or simplicity', where the abstraction of parts or qualities is discussed, and Chapter VIII, dealing with complex terms, indicate the intention to include under 'idée', modified nouns, and modes as expressed by adjectives.

There is no attempt in either the Logique or the Grammaire to provide a comprehensive account of how the authors' concept of the sign is followed through in associating the operations of mind and the 'substance and form of thought' with the various word classes, so that one is left to draw inferences from the evidence available.

In so far as the sign is linked with the substantive noun, the position might be presented as follows:

Through the use of a sign for an object, the idea of the sign, as representative of the object, becomes identified with the idea of the object itself, and the mind associates the sign with the specific object, thus giving the word meaning, which, in Port-Royal terms, would be the representation of the object. As definition, one might say that the meaning of a sign is the idea of the object which it arouses in the mind, through its role as
representative of the object conceived. One might give a shorter definition, e.g. the meaning of the sign is the representation of the object conceived, but this would not take account of the fact that it is only endowed with this meaning because it arouses in the mind, the idea of the object it represents.

It would thus appear that the word 'soleil' would arouse simultaneously in the mind the idea of the sun, or, in other words, having become accustomed to associating words with ideas, man, on perceiving the sun would have the idea of the sun and, associated with it, the idea of the word which represents it. In terms of conception, it seems that the only additional operations involved through the use of the sign are the idea of the sign, and its association with the idea of the object conceived.

In the case of the second operation of mind, juger, or affirmation, the action represented by the verb 'est', the position is less clear. Whereas, without language, the idea of an object is produced by the action of mind in 'concevoir', the action of 'juger' is purely an internal mental operation, not in itself producing an idea. For it to be expressed by an external sign, or word, the word would either have to be joined directly to the action, with an association which would presumably go against the Port-Royal principle of keeping corporeal sound distinct from the purity of thought, or, alternatively, in order to conform to the idea of the sign occasioning in the mind the idea of the object, the mind would need to observe its own action. In this case the idea of 'est' would occasion in the mind the idea of affirmation. The 'idea of affirmation' as against the direct action of the mind in affirming, is therefore an additional mental operation brought about by
the use of language. This interpretation appears to be supported by Port-Royal's reference to the fact that the expression of a proposition requires two ideas, one for the subject, the other for the attribute, and another word to mark the union which our mind observes.

_Il est certain que nous ne saurions exprimer une proposition aux autres, que nous ne nous servions de deux idées: l'une pour le sujet, et l'autre pour l'attribut, et d'un autre mot qui marque l'union que notre esprit y conçoit._(1)

Although adjectives are regarded as words expressing objects of thought, i.e. subject to the operation of mind 'concevoir', their role in relation to the theory of the sign does not appear to be completely clear. Since they are described as nouns signifying things as modified, marking directly the thing though confusedly and indirectly the mode though more distinctly, and since a mode or attribute does not exist without a subject(2), it would seem that for the idea of an attribute, say red, to be related to the idea of its sign, the idea would be conceived as 'having the property of connoting redness'.

For the functioning of the sign to apply in the same way to other parts of speech, it seems that the mind would also need to regard the mental concepts which the sign represents as objects, and, as with the verb 'est', the implication is that to do so the mind observes its own operations. On this basis, the functioning of a sign is a principle which operates in the same way, irrespective of which type of word is involved.

On the other hand, Foucault's interpretation, described below, appears to merge the functioning of the sign with the question of what the sign represents in terms of grammatical categories.

2. Ibid., Ch. II, p. 73.
Foucault considers the inclusion of the theory of the sign, not in the Grammaire Générale, but in the Logique 'au coeur de la réflexion sur l'idée'\(^{(1)}\), to be entirely appropriate since the analysis of signs forms part of the analysis of the relations of the idea with its object. To give a sign to an idea is to give oneself an idea whose object represents the object of the first idea. He sees the relation of the idea to its sign as opening up the relationship of the original idea to its object. It is in so far as representation is always representation of something that it can accommodate a sign. 'Le langage ou plutôt le mot-signe se loge dans l'espace ouvert par l'idée qui représente son objet'\(^{(2)}\).

This interpretation, which places the idea of the sign between the idea and its object, appears to be inconsistent with Port-Royal's intentions in that it compromises their aim to segregate the spirituality of thought from the physical sign (see p. 100 above), and, by attributing to the idea of the object a representational value similar to that of the sign, devalues the nature of the 'idea'. It is true that the Logique, in referring to the idea of an object says that it is "the form in which we represent to ourselves the idea"\(^{(3)}\), but it is doubtful whether Port-Royal would regard 'idea' as having the same representational nature as the sign, namely the lower value of a map or picture\(^{(4)}\).

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1. Introduction to the Grammaire Générale, pp. XVI-XIX.
2. Ibid., p. XVIII.
4. Logique, Pt. I, Ch. IV, p. 80.
Marin, well aware of the problems involved in the Port-Royal distinction between thought and language, distinguishes between representation in the idea of the object and in the sign by describing the idea of the object as a presence, the form of presentation of it to the mind, that of the sign, as a repetition of the presence (1).

Pursuing his interpretation of the Port-Royal theory, Foucault envisages two general principles at two separate levels, with the sign in its capacity as object, as the point of departure. These principles govern the specification of the different categories of words.

The two principles are contained in the following formula, which again, does not seem to respect the Port-Royal distinction between the idea of the sign and the idea of the object.

\[
\text{idée} \quad \rightarrow \quad (\text{objet}=\text{idée} \quad \rightarrow \quad \text{objet})
\]

\[
\text{A1} \quad \rightarrow \quad \text{A2} \quad \text{B1} \quad \rightarrow \quad \text{B2}
\]

The word (A2) is the object which functions like the idea (B1) of the object (B2) and which has the idea (A1) as its representative form in the mind. The first level is that of the idea, (B1), represented by the sign, (A2); the second that of the object, (B2) represented by the idea (A1) but through the intermediary of the sign. Ideas (B1) can be of conceptions or affirmations and words representing affirmations are verbs. At the second level, (B2), objects can be substances, designated by substantives, or accidents, designated by adjectives. Variations occur

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1. La critique du discours, Paris 1975, p. 60.
between levels one and two, according to the number and extent of the ideas, reflected in manners of signifying. Beyond level 2, prepositions are manners of signifying relations between objects\(^{(1)}\).

It is noticeable that Foucault relates ideas to 'affirmation' as well as 'conception', but it is not clear whether, in so doing, he is regarding the mind as observing its own action.

Foucault's table demonstrating the position of the different categories of words in relation to the two levels is reproduced below.

<table>
<thead>
<tr>
<th>Niveau</th>
<th>Différentiation par Catégories grammaticales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logique</td>
<td></td>
</tr>
<tr>
<td>Idée (a)</td>
<td>0</td>
</tr>
<tr>
<td>Objet-signe (a)</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>1/2</td>
</tr>
<tr>
<td>Idée (b)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>1 1/2</td>
</tr>
<tr>
<td>Objet (b)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>2 1/2</td>
</tr>
</tbody>
</table>

1. Introduction to the Grammaire Générale, XIX-XXII.
Though recognising that this table does not cover the whole field of grammar, Foucault considers the other facts of grammar to be mainly modifications using this first analysis as a starting point. He classifies the modifications under the headings of those which are analogous, those made for reasons of clarity, those made in the interests of brevity, and changes in word order, and draws attention to the fact that these four procedures are similar to the four figures of construction described at the end of the Grammaire, 'syllepse, pléonasme, ellipse and hyperbate' (1).

Foucault therefore concludes that there is no heterogeneity in the Port-Royal analysis and classification of words. Three strata constitute the entire edifice of grammar. The first, that of the proposition with its main elements, verb, substantive and adjective, at which level logic and grammar are in unison; the second includes marking for number, the articles, the distinction between proper and common nouns, and prepositions. Taken to this stage the structure of language is adequate for expression: correlation between grammar and logic are maintained but do not correspond exactly. The categories of generality, singularity, particularity, complexity and simplicity are both included in the Logique and the Grammaire, but in different forms. The first two levels form 'la couche déductible et absolument indispensable de la grammaire'. The third stratum includes genders, personal and relative pronouns, adverbs and verbs other than the verb 'être'. It is the 'figurative' stage which manifests the fulfilment of particular languages, in reality formed from the basic elements transformed (2). Apart from its apparent inconsistency with the Port-Royal conception of the sign, mentioned above, Foucault's interpretation is supported with evidence from

1. Ibid., p. xxiii.
2. Ibid., pp. xiii-xxv.
the Grammaire and the Logique, though neither work provides an explicit formulation of such a plan.

Donzé provides a useful synthesis of all the material in the Grammaire Générale and the Logique, which is associated with signs\(^1\). In so doing, he stresses the importance of the theory of the linguistic sign in the Grammaire as well as the Logique, a fact which, he remarks, historians considering the two works have overlooked. He also sees the theory as one of the aspects by which one can best judge the extent of collaboration between Arnauld and Lancelot. The doctrine conceived in the Logique was applied by Lancelot in the Grammaire, but only Arnauld would have had a comprehensive view of the theory and his thinking would have had considerably greater impact had it been presented in coherent form\(^2\).

Among the points summarised by Donzé which have not already been referred to in this study, at least, in the context of the sign, are the role of the written sign and the various references to the reasons for which words have been invented.

In general, discussion of the sign in the Logique does not distinguish between the written and the spoken sign, but it can be assumed that unless there is any indication to the contrary the doctrine appropriate to the spoken sign applies. The physical aspect of the sign, namely the sounds which compose it and the written characters

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1. Donzé, La Grammaire Générale et Raisonnée, Pt. II, Ch. I.
2. Ibid., pp. 58-59.
which are their equivalent are described in the first part of the Grammaire, the 'spiritual' aspect, the use made of them to signify thoughts, forming the subject of the second, and major part of the work.

As noted by Donzé, the sound represents the thought directly, writing being only a reproduction of the sound, which alone has the truly signifying function. But in usage this character of the sound is sometimes overlooked, and the written word is regarded as a direct sign of the object of thought. Written language thus achieves a certain degree of autonomy relative to the sounds it is intended to denote. In certain cases it has an advantage, for in 'champs' and 'chants' one sign applies to both in the spoken language, whereas two distinct signs are provided in the written language. It therefore supplements the sound and, adopting the symbolic function in the same way as does the sound, comes directly into contact with the thing signified\(^1\).

In bringing together the numerous references which occur in the Grammaire to inventions of words, Donzé, though criticising recourse to the theme as inept, mentions that one should not be taken in by the apparent naiveness of it; it is highly unlikely that the authors had in mind some precise historic event. Words were invented by men: 1) sometimes to satisfy the expression of thought: prepositions and cases to express the relations between things\(^2\); modes, to express distinctly what is in the mind\(^3\). 2) Sometimes the reason given is ease of communication: pronouns, to avoid repetition\(^4\); adverbs, to shorten speech

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1. Ibid., p. 58.
2. Grammaire Générale, Ch. VI.
3. Ibid., Ch. XVI.
4. Ibid., Ch. VIII.
by saying in one word what would need a preposition and a noun\(^{(1)}\) 3) Sometimes for clarity and grammatical distinction of the expression: gender to make the expression less confused; rules of agreement. 4) Lastly, for reasons of good taste: the pronoun of the first person, to avoid the bad taste of naming oneself\(^{(2)}\); the genders to embellish the expression by the variety of endings\(^{(3)}\).

Donzé also refers to the following considerations discussed in the Logique on the nature of the sign.

Arnauld's recognition of ambiguity in the arbitrary nature of the sign leads him to discuss the possibilities of confusion deriving from this, confusion which is not present in the ideas to which the words are attached\(^{(4)}\), for although words are arbitrary, thoughts are not. Confusion only arises if the arbitrary character of the words is associated with the thought.

The theory of definitions\(^{(5)}\) leads Arnauld to give some definitions relating to the nature of the link between the idea of the sound and the idea of the thing. The definition of the word 'proprement dit' is that by which, without any consideration of usage, a certain idea is attached to a certain word\(^{(6)}\). But the authors also allow for the definition of the word according to what it signifies in usage\(^{(7)}\). The first corresponds to the original arbitrary institution of the sign; the second reflects the constraint by convention on the individual needing to communicate\(^{(8)}\).

1. Ibid., Ch. XII.
2. Ch. VIII.
3. Ibid., p. 50.
5. Ibid., Pt. I, Ch. XII-XIV.
6. Ibid., Ch. XII, p. 120.
7. Ibid., Ch. XIV.
8. Donzé, La Grammaire Générale et Raisonnée, pp. 53-54.
Also influencing the use of words are the 'idées accessoires'. These comprise firstly, those expressing, together with the 'chose', the opinion, passion or emotion of the speaker and can include mere gestures or voice tonal changes, and secondly, those which the mind draws from the circumstances of speech to add, to those precisely signified by the words, a more general idea. The demonstrative pronouns are used in this sense.

A final topic of interest consists in the comparisons of the Port-Royal concept of the sign with the theories of the Modistae.

While Chevalier sees the Port-Royal theory as drawing to some extent on that of the Modistae, Padley concentrates on the differences between the two systems.

The greater propensity for analysis in the Modistae system is illustrated in the following short summary based on Siger de Courtrai's system.

Things (res) have properties (modi essendi), which the mind apprehends by the active modes of understanding (modi intelligendi activi), to which there correspond the passive modes of understanding (modi intelligendi passivi), the qualities of things as apprehended by the mind. The mind confers on vocal noises, active modes of signification (modi significandi activi), by which they become words (dictiones) and parts of speech (partes orationis), and signify the qualities of things, these being represented by the passive modes of signification (modi significandi passivi).

1. Logique, Pt. I, Chs. XIV and XV.
2. Donzé, La Grammaire Générale et Raisonnée, pp. 53-54.
3. Histoire de la Syntaxe, pp. 496-497.
4. Grammatical Theory in Western Europe, pp. 241-244.
parts of speech (partes orationes) also have modes of signifying, divided into essential and accidental. They have the capability of co-signifying, i.e. of signifying syntactically and to do so acquire the modus consignificandi, the syntactic mode of signifying\(^1\).

Major differences between the above and the Port-Royal concept are the allowance in the Modistae system for the separate existence of reality, and the distinction between the meaning of a word and its grammatical function, a distinction favourably regarded by Donzé\(^2\). Padley, in addition, refers to the specific recognition of vox, the formal component of the word, and of the mind's action in grasping the reality, in the system of the Modistae\(^3\).

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1. The description of Siger's system is given by R. H. Robins in his Ancient and Mediaeval Grammatical Theory in Europe, London, 1951, p. 82. Siger also has a Modi Signandi between the Modi Intelligendi and the Modi Significandi. The voces are words (dictiones) by virtue of the Modi Signandi and the parts of speech signifying the qualities of things by virtue of the Modi Significandi. Robins comments that Siger's account anticipates de Saussure's theory of the word as a sign uniting a concept and an acoustic image. (Ibid.).


3. Grammatical Theory in Western Europe, pp. 241-244.
Chapter 8. Summary.

Port-Royal grammatical theory tends to suffer by comparison with what has been claimed for it rather than with the authors' own stated aims, which appear to be relatively modest. Although the three main works, the Grammaire Générale, the Logique and the Nouvelle Méthode latine, between them contain obvious elements which contribute to a comprehensive theory of language based on an a priori conception of thought, the authors do not claim this for their work.

The emphasis of the Grammaire Générale is, as Donzé points out, simply on consideration of what is common to all languages. The eventuality of common principles was only exceptionally envisaged and materialised in the five maxims said to be widely used in all languages\(^1\). The Grammaire, in effect, went further than its ostensible aims in that the association of mental operations with grammatical features, in sympathy with ideas considered in the Logique, provided a universal mental basis for such principles, but there was no declared intention in either work to construct a theory of language.

That their work has sometimes been judged in relation to more sophisticated standards is largely due to the consequences of Chomsky's Cartesian Linguistics, and doubtless the repercussions from this publication stimulated the exceptional interest in Port-Royal's antecedents.

As the question of antecedents is not a basic issue of this study, the various comparisons with earlier theories have been noted but the validity of the inferences which may be drawn from them has not been pursued. The large number of references to similar aspects in earlier theories certainly indicate the extent to which Port-Royal drew, intentionally or not, on the tremendous heritage of thinking about language, grammar and philosophy which was available to them. As far as philosophy is concerned, the point is particularly brought home

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1. La Grammaire Générale et Raisonnée de Port-Royal, pp. 35-36.
by Clair and Girbal's comment that the notes to their own edition of the Logique read like a history of the philosophy of the Western world\(^{(1)}\). Among others, Lakoff, Padley and Salmon have amply illustrated the Port-Royal debt to previous grammarians.

Compiling their works at the time they did, the Port-Royal authors would have found it difficult to ignore the long heritage to which they, and others of the period were heirs, and to avoid being influenced in some way by the powerful philosophical and theological thinking of the time.

That Port-Royal theory may appear as a hybrid complex of inherited elements need not in itself detract from its value. That such elements were welded together into a body of doctrine which had some cohesion and which bore the authors' own stamp is in itself an achievement. In effect it appears as a synthesis of numerous features inherited and contemporary, and as such may have eased the way for those who followed.

The potential components for a theory of language, which can be identified from the Port-Royal publications, may be described as:

A belief in the universality of thought which is reflected in common features of language.

An a priori conception of the nature of thought.

A formula for translating thought into language. This consists of the equation of the logical operations with parts of speech, and their direct presentation in the proposition.

The reduction of figurative expressions to the form of proposition which presents the logical operations.

The theory of the sign, governing the representation of ideas by words.

The concept of natural order.

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1. Clair & Girbal, Ed. critique of 1683 ed. of La Logique, p. 3.
These components do not appear to be novel in themselves but the Port-Royal authors' application of them results not simply in an expression of thought in the proposition, but in a means of explaining how thought is translated into language. It seems that in this, too, they may not have been innovators, but they certainly provided an example of a psychological theory (1).

While Padley's description of the three Port-Royal publications as an "imposing and coherent body of doctrine and practice" (2) appears to be largely justified, the term 'coherent' is not entirely appropriate if one expects the consistency and exhaustiveness of a fully developed theory. Although a certain amount of co-ordination is evident, there are instances of lack of clarity in definitions and of inadequacy in explanations. Illustrative of these are the reflections in the Logique on the nature of thought, and the signifying role of language, which are open to interpretation (3). The criteria of object and manner of thought are insufficiently convincing in their application to word categories (4). The distinction between the mental operations of conception and judgment appears to be inadequately explained in relation to complex terms (5).

That the Port-Royal authors' thinking did not mature into a more fully developed and consistent theory appears to be due partly to the fact that the theory oscillates between the influence of Lancelot, who concentrated on grammar, and that of Arnauld, whose pre-occupation was with thought, and whose

1. Karl Zimmer comments that Sanctius may also have had a psychological theory but has the impression that the Port-Royal theory is more insightful than that of Sanctius, and can be legitimately claimed to represent a new development. (Review of Cartesian Linguistics. International Journal of American Linguistics, Vol. XXXIV, 1968, p. 291.
2. Grammatical Theory in Western Europe, P. 256.
3. Chapter 7. of this section.
4. Chapter 4 of this section.
5. Ibid.
deliberations were much influenced by his theological convictions as well as by features of contemporary philosophy. Such oscillations are noted by comments such as Chevalier's that "Les Auteurs ne voient pas comment exploiter sur le plan linguistique cette analyse de la proposition. L'attelage d'Arnauld et de Lancelot est tirailé entre les soucis d'un logicien qui recherche un art de penser et les alarmes d'un pédagogue très scrupuleusement attaché à son ouvrage ..."(1).

This comment perhaps does not do justice to Lancelot, for the reconciliation of the broader strategy of Arnauld's thinking with the more precise facts of grammar appears to present some difficulties. In contrast with the uncomplicated approach indicated in the Nouvelle Méthode latine, where, in relating 'syntaxe figurée' to 'syntaxe régulière', the latter is termed simply 'celle qui suit l'ordre naturel.' (2), the discussions in the Logique on thought in its relationship with language disregard boundaries and can hardly be described as conclusive. A suitable appraisal by Louis Marin brings out the fact that in its tensions between the nature of thought and that of language, it is as if "tout le problème de la Logique de Port-Royal était de réfléchir, sans la maîtriser, la différence du langage dans la pensée."(3)

Whereas the Logique alludes to the limitations of language in truly conveying thought, the Grammaire aims nevertheless to incorporate the structure of thought into grammar. In the Grammaire there is no obvious confusion on the nature of thought since its structure is identified with the logical operations.

2. Nouvelle Méthode latine, 8th edn., p. 355. Lancelot no doubt accepted the association of 'syntaxe simple' with the logical operations, at least at the stage of the 8th edition, when Arnauld and Nicole appear to have been associated with the work, and the affirmative role of the verb was acknowledged. But the context of the Nouvelle Méthode latine is primarily linguistic and it lacks explicit references to an underlying logical structure.
3. La critique du discours, p. 43.
However, discussion in the Logique points to the complexities surrounding the authors' views on the nature of thought in its relationship with language. As the relationship is much affected by the belief in the spirituality of thought, such discussion also has strong religious associations. The identification of the logical operations with the structure of language may appear to transcend the complexities implied by such discussion, but even the relationship of these operations with language appears to be open to interpretation.\(^1\)

If, as Robinet implies\(^2\), the logical operations are a consequence of the use of language, even though they depart as little as possible from "la pureté d'une idée qui donne la Lumière dans l'intuition instantanée et sans lieu ..."\(^3\), the relationship with language to thought is not with thought in its original nature, but with a form of thought which falls short of this. In this case, one might question the need for a formula of the sign which detaches the material expression from a form of thought which is already associated with language and is less than perfect. This is perhaps an illustration of the difficulty in reconciling Port-Royal's tenuous conception of the nature of thought with the material facts of language.

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1. The complexities are discussed at some length by Louis Marin in his 'La critique du discours'. The following extracts from this work give some indication of their nature.

   "Peut-être est-ce le statut propre du langage dans la Logique qui provoquera le déplacement du discours logique lui-même vers l'analyse éthnico-psychologique ou théologico-spirituelle? ... (p. 42).

   "Du même coup, la logique est simultanément un discours et un discours sur le discours; elle est indissolublement philosophie réflexive et métalangage et c'est là son ambiguïté..." (ibid., p. 49).

2. Chapter 7, p. 100 above.

3. Le Langage à l'Age Classique, p. 25.
Although Chomsky's comparison of the Port-Royal theory with transformational grammar partly survives, in that the mental operations themselves provide a framework for syntactic structure and a means of generating novel utterances, the mental basis envisaged by Port-Royal is obviously different from the 'biological' innateness visualised by Chomsky\(^{(1)}\). Port-Royal's syntactic framework cannot moreover be regarded as autonomous since they make it clear that they rely on semantic and contextual evidence to ascertain the nature of some syntactic forms\(^{(2)}\). Semantic primacy is also indicated by their theory of the functioning of the sign and by the sequence of the logical operations, which imply that the first consideration is the formation of an idea. A noun materialises because an object has been conceived, which, for the purpose of communication, is arbitrarily provided with a sign. It may be argued that the syntactic structure is automatic, since the grammatical class is an inevitable consequence of the mental operation, but it appears that understanding precedes syntax, since it does not depend on a sign.

Although other similarities between Port-Royal theory and modern theory have been noted\(^{(3)}\), in general it has no obvious features of current relevance. Its importance appears to rest mainly in the stimulus it provided for later philosopher

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1. "The "innateness hypothesis", then, can be formulated as follows: Linguistic theory, the theory of UG, construed in the manner just outlined, is an innate property of the human mind. In principle, we should be able to account for it in terms of human biology." (Chomsky, Reflections on Language, p. 34).

2. Chapter 5 contains illustrations of this. The point was also made by George Lakoff. "The theories of Sanctius and the Port-Royal grammarians differ from the theory of transformational grammar in a crucial way. They do not acknowledge the existence of a syntactic deep structure in Chomsky's sense but assume throughout that syntax is based on meaning and thought." (In Parret, Discussing Language, 1974, p. 173).

3. Brekle compares the Port-Royal application of the scholastic notion of substance and accident to grammatical criteria with the immediate constituents of modern theory, and relates the Port-Royal term 'signification distincte' to lexical meaning and 'signification confuse' with grammatical meaning. (Die Bedeutung der Grammaire Générale et Raisonnée für die heutige Sprachwissenschaft, in Indogermanische Forschungen, Vol. 72, 1967)."
grammarians, through its example of a grammatical theory based on an explicit relationship of language and thought\(^{(1)}\), and through discussion in the Logique on matters which were to be taken up in later theories, such as the role of abstraction, the notions of comprehension and extension, the effect of 'idées accessoires', and views on the shortcomings of language.

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1. This point is noted by Foucault. "Pourtant l'oeuvre de Lancelot et d'Arnauld marque une transformation dans le savoir grammatical. Elle a constitué pour l'analyse du langage un nouvel espace épistémologique, un nouveau mode d'apparition des objets grammaticaux, un nouveau statut pour leur analyse, une nouvelle façon de former les concepts. ... tout un réseau de relations a été installé qui allaient permettre l'apparition ultérieure des concepts, des descriptions, des explications qui caractérisent la grammaire générale du XVIIe et du XVIIIe siècles...". (Introduction to the Grammaire Générale, Paulet edn., p. xxvi.).
César Chesnau Du Marsais 1676-1756.

Chapter I Introduction

Du Marsais, contributor of numerous articles on grammar to the Encyclopédie, in addition to his own publications in this field, appears as a major figure in the history of Grammaire générale, due to the contemporary importance and quality of his work, to which d'Alembert's Éloge de Du Marsais testifies. He also appears to have been particularly representative of a period when grammatical theory was moving away from the residual influence of Cartesian rationalism, increasingly subject to the growing pressures of more recent philosophy and of the Enlightenment.

Gunvor Sahlin regards him as the most eminent of the grammairien-philosophes of the 18th century, except perhaps for Beazée. However, she does not consider Du Marsais' grammatical theories to be original in themselves, but very often remarkable only in the manner in which he could develop or apply those of his predecessors, to whom he was closely connected. She sees him as very dependent on Port-Royal in his grammatical theories, but recognises that, despite similarity of method in general, and in opinion on certain particular points, there was considerable difference between them, French grammar having in the intervening period been subject to the influence of Leibniz and Locke.

3. Sahlin provides quotations from d'Alembert and other contemporaries which indicate the high esteem in which Du Marsais was held.
4. Ibid., Introduction, XVI.
5. Ibid., p. IX.
6. Ibid., p. 17.
Brekle mentions that Du Marsais was able to profit from the ideas on education of Comenius, and more especially from both the philosophical and pedagogical work of Locke. Du Marsais himself refers to Comenius' work, and, more positively, acknowledges Locke's Traité de l'Education as an authority for commencing tuition by routine, before rules.

Though most of Du Marsais' work concerned grammatical theory, with pedagogical aims even more pronounced than with other grammaire-philosophes, his writings also embraced religion and philosophy. Among such works are his Analyse de la Religion Chrétienne and his Logique, which includes material directly relevant to his theories on grammar and language.

In his Analyse de la Religion Chrétienne, he was very critical of orthodox Christianity, and a certain amount of discussion has centred on whether he was an atheist. Werner Krauss was led to consider evidence, mainly from Du Marsais' contemporaries, for the question, 'Du Marsais, était-il janséniste ou athée?' Krauss concludes that there is no doubt that the philosophes regarded him as one of the initiated.

4. The foreword to Oeuvres de Du Marsais, 1797, refers to his works being scattered, some no longer available, even in public libraries, others unknown.
5. Oeuvres, Vol. VII.
Whereas Krauss does not see any pronounced emphasis by Du Marsais on his philosophical leanings, Françoise Soublin stresses the opposition in his thinking to Cartesianism. She traces in Du Marsais' works statements in support of her interpretation that his pursuance of the same themes, albeit in different contexts, in turn philosophical, political, pedagogical and scientific, influenced by his broad conception of the nature of man, formed, as it were, a single project. She considers that repercussions on his grammatical theory from this approach have not been reflected in Sahlin's publication or in any of the recent commentaries on aspects of his work.

Soublin's description of Du Marsais' project as 'résolument athée' may appear justified by his sharp criticism of the Christian religion, and his emphasis on the well-being of the human race being related to life on earth ("c'est pour la nature, c'est pour la terre, c'est pour lui-même que l'homme est fait, c'est ici-bas qu'il doit chercher sa félicité") But his attacks on orthodox religion appear to be distinct from his belief in God.

"... regardons la religion chrétienne du même oeil que nous regardons tant d'autres importunes ... Les idées plus épurées doivent nous faire trouver une douceur extrême à rendre à Dieu le culte le plus digne de lui et le plus digne de nous."

2. Soublin's article aims to reply to points made by Chomsky (Cartesian Linguistics, pp47-51, 1966), Aarsleff (The History of linguistics and Professor Chomsky, p. 575, 1970) and Julia Kristeva (Du sujet en Linguistique), 1971, in the context of transformational generative grammar and rationalism in general grammar.
4. from Préjugés, OC, VI, p. 239, quoted by Soublin, ibid.
This implied belief in God is, on the contrary, put in doubt by his article 'De la Raison', in which he puts forward the principle of only accepting as valid, those ideas which are verifiable through the senses and subsequent reasoning. "D'où l'on voit que ce principe nous jette dans le scepticisme et même dans l'athéisme absolu."(2)

The apparent ambivalence may be due partly to a tendency to consider all aspects of a matter, a feature noted by D'Alembert in his Eloge, which is also indicative of Du Marsais' moderate and dispassionate approach.

"... qualités dominantes de son esprit étoient la netteté et la justesse ... Son caractère étoit doux et tranquille; et son âme toujours égale, paroissoit peu agitée par les différens évènements de la vie ...

... esprit plus sage que brillant ... l'habitude qu'il avoit prise d'envisager chaque idée par toutes les faces ...

lui avait fait contracter dans la conversation une diffusion qui passait quelquefois dans ses écrits."(3)

Of modern discussion on Du Marsais, Sahlin's work, which concentrates on the grammatical aspects of his theory, remains the only major study. Appreciative acknowledgements of her work in recent publications, e.g. those of R. Donzé, J.-C. Chevalier, R. A. Hall Jr., though not uncritical, are indicative of its relevance to issues more recently discussed, in spite of the fact that it was written prior to major developments in linguistics. However, more recent works, such as those of Sylvain Auroux, J.-C. Chevalier, Daniel Droixhe, Ulrich Ricken, André Robinet, as well as those to which reference has already been made, are more attuned to those aspects of Du Marsais' theory which are of current interest to the study of general grammar and to linguistic theory.

2. Ibid., p. 20.
3. Eloge de Du Marsais, Oeuvres vol. I.
Chapter 2. The Main Aims and Principles of Du Marsais' Theory

Sahlin\(^{(1)}\) refers to Du Marsais as the first in France after the Port-Royal authors to treat general grammar otherwise than as an accessory to French grammar, though in the intervening period, several French grammars appeared in which the authors, under the influence of Port-Royal and the prevailing philosophy, often treated their subject as if they had called their works Grammaires générales\(^{(2)}\).

Du Marsais, contrary to Port-Royal, provided a definition\(^{(3)}\), but this definition, which relates to the proposed content of a grammar which he did not complete, does not appear to be particularly informative or meaningful in itself since it is limited to what he regards as the broadly common features of language. He considered that a grammaire générale should comprise observations on articulated sounds, on letters as signs of the sounds, and on the nature of words and the different ways in which they must be arranged or modified to form a meaningful whole\(^{(4)}\).

While recognising that particular grammars are affected by different usages and idioms, in practice, he does not distinguish between the content of grammaire générale and grammaire particulière, and intended dealing with considerations relating to both under the same headings\(^{(5)}\). The general principles of grammar can be learned in any language providing it is already known through usage, and the particular observations appropriate to any one language assume knowledge of the general principles\(^{(6)}\).

1. César Chesnau Du Marsais, p. 3.
2. She includes among these the works of Régnier Desmarais, Père Claude Buffier (L.), Abbé de Dangeau, P. Restaut, P. d'Olivet, G. Girard.
3. Ibid., p. 29.
5. Ibid.
6. Ibid., p. 219.
In addition to the common facility for language evident in the general features referred to above, certain other basic premises usual to those subscribing to a form of universal grammar are obvious with Du Marsais.

Although expression in language is subject to variety, the essential features of thought which are at the basis of expression are universally the same\(^{(1)}\).

There is a close connection between language and thought. With Du Marsais, an important feature of this close relationship is the order of thought. Language is but the expression of thought, and there is in expression the same order of thought as that existing in the mind of the speaker, an order to which the expression can always be reduced, whatever its composition\(^{(2)}\).

It would appear from the following headings, which he proposed for his unfinished grammar, that the work was intended to deal with purely grammatical considerations rather than formulate a comprehensive theory of language which would also explicitly account for the relationship between language and thought.

I. La connaissance de la proposition et de la période, en tant qu'elles ont rapport à la grammaire, ... II. L'orthographe. III. La prosodie. IV. L'etymologie. V. Les préliminaires de la syntaxe. VI. La syntaxe. VII. Les tropes\(^{(3)}\).

The prime aim of most of his completed work is acknowledged to have been didactic\(^{(4)}\), and it is mainly in his works of this nature, together with his Logique and the various

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2. Ibid., p. 17.
3. Les Véritables Principes de la Grammaire, Ibid., p. 275; and Avertissement to Des Tropes ou Des Differens Sens dans lesquels on peut prendre un même mot dans une même langue, Oeuvres, vol. III.
articles he contributed to the Encyclopédie that his views on the relationship between thought and language can be found.

Krauss comments: "Or, ce n'est pas la théorie de la langue qui forme le noyau des études de Du Marsais. En choisissant l'étude de la grammaire, il suivait son inclination pédagogique. Le centre des préoccupations de Du Marsais c'est l'application de la grammaire à l'enseignement juvenile."

Chevalier, in discussing Du Marsais' educational method, refers to his leading role in the reform of Latin teaching. Novel in France, though it followed Locke's recommended procedure, was his use of interlinear translation, which he systematised.

Instead of teaching immediately by rules, he proposed that instruction should begin by a routine in keeping with the pupil's own usage of his maternal language and which would rely on the natural instinct for learning languages in this way. Juxtaposed with the text of the mother tongue, the literal translation, in natural order, i.e. "selon la construction simple et sans aucune inversion", and with elided words inserted, would gradually accustom the pupil to the different means used by the language being learned, to express the same content as that of the equivalent in the mother tongue.

He also attached great importance to learning the meaning of individual words, and becoming acquainted with the ideas they represent, starting with objects perceived through the senses. In emphasising the education of children in ideas (i.e. knowledge), he refers to the previous works in this vein by P. Pomey and Comenius.

1. Enigme de Du Marsais, p. 520.
4. Ibid., p. 3.
In his explanation of his system of 'routine', important aspects of Du Marsais' grammatical theories become evident. The natural order of language, reflecting the order in which one arranges one's thoughts, and to which the French language corresponds closely, is the one to which pupils, through usage, are naturally accustomed. To align Latin with this natural order, Du Marsais resorts to 'inversion' and 'ellipsis'. His strong emphasis on 'usage' is apparent in the first part of his 'Méthode Raisonnée'. The second part, 'De la Grammaire raisonnée', follows up instruction through routine by teaching the pupils the principles of 'grammaire raisonnée', giving the reasons for the various parts of speech, such as their function, and the relations between them.

Chevalier sees the originality of Du Marsais' method in a union of the two basic principles which had so long been opposed in grammar. The amalgamation of the two principles in Du Marsais' theory was recognised by D'Alembert.

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1. Ibid., p. 27.
Chapter 3. The Thought Processes.

As, for Du Marsais, language is the expression of thought, it is appropriate to look first at his 'Logique ou Reflexions sur les principales opérations de l'esprit'(1). Though Sahlin describes this as having very little value and "en somme ... sensiblement inférieur à la Logique de Port-Royal"(2) it gives a useful insight into Du Marsais' views about the nature of mind and its processes, providing evidence both of his adherence to the Cartesian dualist conception of body and mind, and of the influence of Locke, in his explanation of the derivation of all ideas through the senses. It also gives some indication of Du Marsais' acknowledgement of the pervasive influence of the nature of man, the point brought out by Soublin(3).

Sahlin notes that although Du Marsais does not define logic, his conception of it is visibly that of Arnauld, for whom it is a normative science which establishes not facts but rules for thought, a conception common to all grammairien-philosophes(4).

Maintaining the dualism of body and mind, Du Marsais refers to the two substances created by God, spiritual and corporal, and defines the spiritual substance as that which has the property of thinking, perceiving, willing, reasoning and experiencing sensations(5).

Apart from the Creator, only two kinds of spiritual substances are identified, the angel and the human soul or mind. His text indicates a reluctance, cynicism, even, about accepting the dictates of religious faith where these are not supported by experience or reason.

2. César Chesnau Du Marsais, p. x.
3. See p.125 above.
4. César Chesnau Du Marsais, p. 19. The persistence of this approach to logic is referred to in Section I, Ch. 4, above.
"A l'égard des anges, nous n'en savons que ce que la foi nous enseigne. Comme les anges sont des substances spirituelles, ils ne peuvent point affecter nos sens, et par conséquent ils sont au-dessus de nos lumières naturelles; et c'est un axiome reçu de tous les savans, qu'à l'égard des anges, la foi nous en apprend fort peu de choses, l'imagination beaucoup, et la raison rien..."(1)

However, he accepts that the union of the different substances of body and mind are the secret of the Creator(2).

In his subsequent discussion on the properties of the mind, an empirical tendency is evident, that is, empirical in so far as subjective observation appeared to be acceptable at that time. He asserts that the mind and its properties can only be known through the internal sensation we have of them. But, consistent with his view of the mind as a spiritual substance, the faculty of sensation is possessed by the mind only, the body is incapable of sensation(3).

He contests the conclusion of the Cartesians that animals are 'simples automates', for he considers that the situation with regard to animals is known only by God(4).

Two types of sensation are distinguished, immediate, from the external impressions of objects on the senses, and mediate, the mind's reflection on the impression received through the senses. The mind can only feel, whether immediately or medially, according to the laws of union established by the Creator(5).

His description of the way in which the sense impressions are conveyed to the brain recalls a similar description in Géraud de Cordemoy's Discours Physique de la Parole (6), which in turn used aspects of Descartes' physiological theory(7).

1. Ibid. 2. Ibid., p. 307.
3. Ibid., p. 308 4. Ibid.
5. Ibid., pp. 309-310.
All sensations are made effective through the nerves, whose external extremities receive impressions of objects. Their internal extremities communicate the impressions to the brain, to which all the nerves lead, notably to that part of the brain called the 'corps calleux, que l'on regarde comme le siège de l'âme'. The impressions received by the senses and carried by the nerves to the brain, to form the 'impression immédiate', leave traces in the brain, which can be revived 'par le cours des esprits animaux ou du sang', thus recalling the first impression and providing memory. Reflection on the first impression gives the 'mediate' idea. Imagination is the recall of images seen previously. Operations possible as a result of the impressions received are:

i. the joining together of certain ideas, e.g. the idea of a mountain and the idea of gold, enables us to imagine a mountain of gold.

ii. Ideas can be formed by enhancement, e.g. the idea of a giant from that of a man.

iii. Similarly, by diminution, the idea of a dwarf results from the idea of a man.

iv. abstraction, the most remarkable of mediate means of forming ideas. Having acquired an infinite number of particular ideas through the sense impressions of objects, it is possible to think separately, by abstraction, of certain impressions, without relating them to any particular object. Such are the ideas of number, length and width.

Du Marsais emphasises the dependence of all these ways of thinking, by using memory, imagination, amplification, diminution or abstraction, on prior immediate impressions.

The will is also a property of mind, as is man's inclination towards what is suitable for his well-being.

He identifies similar operations of mind to those of the Port-Royal authors as being of particular importance, but

2. Ibid., p. 313.
3. Ibid., p. 314.
specifically allows for the influence of the imagination. 'Idea' replaces Port-Royal's 'concevoir' but implies the same view of the mind conceiving an object, without applying judgment. "Idée, est donc le nom que je donne aux affections de l'âme qui conçoit, ou qui se représente un objet, sans en porter aucun jugement"(1).

The operations are:

L'idée, qui comprend aussi l'imagination
Le jugement
Le raisonnement
La méthode(2)

The importance of abstraction in Du Marsais' theories, both in the formation of general ideas(3) and as a condition of judgment, is referred to by Soublin(4). Du Marsais sees abstraction as the point of reunion whereby the mind perceives the affinity between certain objects. Abstract ideas acquired through usage become ideas of reference against which we can judge whether an object has such and such a property. This depends on whether the object causes a similar impression to that caused by other objects, the ideas of which persist in the mind. Each kind of impression is allocated to the class to which it seems to belong, or if it is unique, a new or separate class is formed. All common nouns are thus formed through the process of abstraction(5).

This account of the use of abstraction in the formation of a system of general ideas appears to owe much to Locke's similar explanation(6). It is interesting to note that the same basic process is effected in the judgment; in both cases, as a result of abstraction, two ideas are compared, and the mind judges whether one has or has not affinity, or identity with the other.

1. Ibid., p. 316.
2. Ibid.
3. Port-Royal explained the term in relation to the formation of general ideas but did not apply it to the judgment (See Section I, Ch. 5, p.72).
6. An Essay Concerning Human Understanding, Book III, Ch. III.
As the formation of judgments requires ideas, so reasoning requires judgments. Reasoning consists of deducing, inferring, or compounding a judgment from others already known. The notion of identity is also carried into Du Marsais' interpretation of reasoning in that he adds that it consists of demonstrating the identity of the judgment in question with some previous judgment\(^1\). Again, this process appears to have a parallel with that involved in the formation of general ideas and with the function of judgment, in that two or more concepts are abstracted, and compared.

Thus judgment and the operations of mind which lead to it, together with reasoning, dependent on it, are not possible without ideas, and Du Marsais makes it clear that, for him, there are no innate ideas\(^2\), only a disposition to receive certain ideas. In describing the distinction between types of ideas, he refers to the main division between 'idées adventices', those perceived directly from objects and 'idées factices', those resulting from amplification, diminution and abstraction, processes applied to the 'idées adventices'\(^3\).

Soublin quotes from various works of Du Marsais in support of her description of him as "inlassable adversaire de l'innéisme" and notes that with him, and this is the key factor in his pedagogical aims, "l'homme ne se sert pas spontanément de sa raison, l'homme ne naît pas philosophe. La vérité n'est pas innée, force nous est de l'acquérir; mais en même temps, l'homme est né pour la vérité, il a pouvoir et destin à l'acquérir"\(^4\).

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2. "L'expérience, c'est à dire, les impressions extérieures que nous recevons des objets par l'usage de la vie, et les réflexions que nous faisons ensuite sur ces impressions, sont les deux seules causes de nos idées; tout autre opinion n'est qu'un roman ..." (Logique, Oeuvres, Vol. V, p. 321).
3. Ibid., p. 321.
Though ideas are not innate, the faculties which make possible their materialisation in the mind are, and Du Marsais makes it clear that he does not regard the thoughts thus produced as being dependent on language. Man was able to think, sense, imagine, conceive and judge without words, and, without the need to communicate thoughts to others, they would have remained in their simultaneous and un-divided state, a hypothesis, comments André Robinet, which Beauzée would have found untenable.

In contrast to the importance accorded to reason in the theories of his rationalist predecessors, with Du Marsais it appears neither as a feature to be emphasised nor as a pervasive principle. He criticises the lack of clear definition of the word; it should not be confused with the soul, in its abstract sense, but relates to the soul in a certain manner, when modified or operating, i.e. reasoning.

Reason is not the order or relation found naturally between things. It consists of the thoughts and ideas formed by the soul through the use of all the faculties, also taking into account the relations of things to man's needs and welfare. "Le bon usage de toutes ces facultés est ce que nous appelons le bon sens ou la raison." (4).

He distinguishes between the mental operations which are obvious perceptions, the axioms, or principles, readily evident to the mind, which call for no reasoning,

2. Le Langage à l'Age Classique, p. 63.
4. Ibid.
5. Examples quoted are "le tout est plus grand que sa partie, ... le néant ne peut avoir aucunes propriétés (Ibid., p. 5).
and in relation to which the soul remains in a passive state, and those which require the introduction and consideration of other ideas, which involves the process of reasoning\(^{(1)}\). He thus identifies reason with the faculty of reasoning.

"... la raison peut se définir une faculté de notre âme par laquelle nous découvrons la certitude des choses obscures ou douteuses, en les comparant avec des choses qui nous sont évidemment connues."\(^{(2)}\)

Reasoning can only be based on experience, the evidence from the senses, or that of our own understanding in its consideration of such evidence\(^{(3)}\).

It is interesting to note that Du Marsais' account of reasoning implies that even though the original formation of certain well known axioms may require the processes of judging and reasoning, the acceptance of them does not. It may be that such an implication can be justified within Du Marsais' theory by the fact that the process of abstraction has already been effected in the first pronouncement of the axiom, but clarification seems desirable. One might assume that having postulated the need for certain mental operations to produce a specific statement, similar processes would be used in understanding it. But his reference to consciousness of knowledge, of judgment and reflection among readily evident principles\(^{(4)}\) implies that he regards consciousness as understanding.

For Du Marsais, the way in which the faculties operate is unknown, but he bases his description of thought as simultaneous, prior to expression in language, on intuitive observation, particularly verifiable from the experiences of the first years of childhood, when language was lacking\(^{(5)}\).

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1. Ibid.
2. Ibid., p. 6.
3. Ibid., pp. 8-9.
Such a conception of simultaneous thought had been evident earlier, for instance in Bernard Lamy's Rhetorique and with Le Labourer, both referred to by Ricken\(^{(1)}\).

Though Du Marsais considers thought to be undivided in the pre-linguistic stage, it appears that the content of the judgment is nevertheless distinguishable at this point, for it requires two ideas, that of the object of which one judges something and that of what is judged of the object. Du Marsais describes 'judgment' as an abstract term for the operation of the mind by which we think that an object is, or is not, of such a manner\(^{(2)}\).

There is also in the judgment an operation of mind whereby the object and that which is judged of it, is regarded as forming a whole. "Nous unissons, pour ainsi dire, l'un avec l'autre."\(^{(3)}\)

Sahlin sees in this view of the proposition as a whole, a replacement of Port-Royal's conception of judgment, which was dominated by the ancient logic of subsumption "Celle qui fait entrer le sujet dans l'extension de l'attribut", by Leibniz' logic of identity\(^{(4)}\). According to this, every true proposition is identical either when the subject and attribute are logically equivalent and can be substituted for each other, or by reason of an axiom such as A is A\(^{(5)}\).

But although thought in the pre-linguistic stage comprises two ideas, it is not until it comes to be expressed in language that this content is divided and the ideas considered successively in a second operation of mind. "Cette division de la pensée est une seconde opération de l'esprit qui se

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3. Ibid., p. 317.
fait relativement à l'élocution."(1)

It is not clear from this whether, prior to the second operation relating to speech, the entire thought is still considered as one, or whether the subject and attribute are already distinct. The latter appears to be the case.

"L'objet dont on juge s'appelle le sujet du jugement; et quand le jugement est exprimé par les mots, l'assemblage de tous ces mots, qui fait l'expression du jugement est appelé proposition."(2)

There is nevertheless the idea that it is the need to communicate thought to others that forces us to observe in it a subject, attribute, adjective etc.(3) The subject and attribute already exist in the judgment in the mind of the speaker, at least in composite form, but are not specifically recognised as such until they need to be expressed.

Du Marsais indicates that the second operation is a division into parts (the nature of which is unspecified) beyond the total subject and attribute, and these parts correspond to the words, of which they are the original counterparts. 'Thought is analysed, as if by instinct, into parts, and these are then grouped according to the order of their relations, and given signs, i.e. words, which are at the same time the instrument and the sign of analysis of thought.'(4).

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4. Ibid., p. 6.
Chapter 4. The Proposition.

Du Marsais divides the proposition into the two essential parts, the subject, the word which marks the person or thing of which one judges or which one regards as having such and such a quality or modification, and the attribute, containing the words which mark what is judged of the subject or what one regards as the manner of the subject. The attribute contains the verb (1).

In his Logique, the verb 'est' is described as expressly marking the action of the mind which joins an attribute to its subject (2), thus implying a similar point of view to that of Port-Royal (3). But he does not limit the verb to this role. It is the essential part of the attribute, not a simple liaison or copule ... it is the sign of the real or imagined existence of the subject (4) of the proposition, to which this existence and the remainder of the attribute is linked (5). His general definition of the verb, "un mot qui marque l'action de l'esprit qui adapte ou applique un qualificatif à un sujet, de quelque manière que cette application se fasse." (6) allows for the effect of all moods, not only the indicative, to which it was restricted by Port-Royal's conception of affirmation.

1. Ibid., Oeuvres, Vol. V, p. 44.
3. See Part 2, Section 1, Chapter 5.
4. Robinet sees in Du Marsais' view of the verb a similarity with the doctrine of consignification of Scotus, Boethius and Aristotle, for whom the basis of the verb and subject rests in the enunciation of the existence of the subject. (Le Langage à l'Age Classique, p. 66).
The judgment, expressed in language, inevitably takes the form of the proposition, but not all the propositions are judgments. This is evident in Du Marsais' definition of the proposition as a collection of words which, by means of the different relations between them, express a judgment, or some particular consideration of the mind in regarding an object as such.

The effect of this definition is to exclude from 'judgments' enunciations using moods of verbs other than the indicative. Although enunciations of command, condition, wish, or dependence, e.g. soyez sage, si vous étiez sage, afin que vous soyez sage, Pierre être sage, express the action of mind which adapts a perception or qualification to an object, the sign of the action is, as Auroux notes, in a form which does not involve a decision which affirms or denies the position relative to the object. It is this, comments Auroux, which leads Du Marsais to admit that all moods of verbs other than indicatives correspond not to judgments but to enunciations, hence the distinction between "proposition directe énoncée par le mode indicatif" and "proposition oblique ou simple, énonciation exprimée par quelqu'un des autres modes du verbe." However, he includes both types of proposition in the same syntactic propositional structure, and the distinction between the two forms of proposition can only depend therefore on their relationship to external reality. Du Marsais' definition assumes that this relationship depends on an act of the mind. The consequences of this in relation to Beauzée's opposing definition, discussed by Auroux, are considered in Part 2, Section 3, Ch. 5. of this study.

1. Ibid., Oeuvres, Vol. V, p. 41.
2. Auroux, La sémiotique des encyclopédistes, p. 92.
3. Ibid., pp. 92-3.
While criticising Du Marsais' retention of the relationship between proposition and judgment, Sahlin sees considerable progress in his definition over that of Port-Royal, and over his own earlier definition in his Méthode Raisonnée, in that not only unity of meaning but grammatical unity is achieved through the construction of words together. His 'assemblage de mots' was however opposed by Beauzée, who quoted 'moriemur' as an example of a proposition being composed of one word only. As no difference is implied in the syntax of the two distinct types of proposition, it seems doubtful whether Du Marsais had in mind grammatical considerations in this aspect of his definition. Rather it appears as his acknowledgement of the expression of the will, the emotions and imagination in language. He was the only grammairien-philosophe to make this distinction.

Du Marsais distinguishes between the proposition viewed grammatically, when only the reciprocal relations between words are concerned, and logically, when only the total meaning resulting from the group of words is considered. The grammatical proposition relates to speech, the logical form to the understanding, which is only concerned with the different parts, or the different points of view of the mind. One part is considered as subject, the other as attribute, or as cause and effect, without regard to the words which express them.

He appears to regard the proposition in an abstract sense in distinguishing it from the enunciation, or utterance, thus indicating that both in its grammatical and logical form, it is viewed theoretically, "La proposition a deux parties essentielles...Il en est de même de l'énonciation."  

2. Grammaire Générale, Livre III, Ch. I.
4. Ibid., p. 44.
Du Marsais' definition of four kinds of subjects appears to conform to his view of the logical proposition. Simple consists of one idea; multiple, 'la foi, l'espérance et la charité', of several; complexe 'Alexandre, fils de Philippe', allows for the subject and its complement, and the fourth consists of several words forming a total meaning equivalent to a noun, 'différer de profiter de l'occasion'\(^{(1)}\).

It was the differentiation between the logical and grammatical proposition, which led Du Marsais to introduce the notions of identity and determination as relations appropriate to the proposition considered logically, which would nevertheless be reconcilable with the traditional grammatical features of agreement and rection (concordance and régime).

Chevalier's commentary on Du Marsais' theory, in its application to syntax, points to the difficulty in reconciling with a logical analysis, the formal distinctions of concordance, which relates to the agreement of accidents of gender, case, number and person, and régime, which governs the case used. He demonstrates this through the example quoted by Du Marsais, "Celui qui me suit ne marche point dans les ténèbres". Whereas a grammatical analysis would distinguish a nominative, 'celui'; an attribute, 'ne marche point dans les ténèbres'; and an incidental proposition, 'qui me suit', the logical analysis merely segregates the logical subject, 'celui qui me suit' and the logical attribute, 'ne marche point dans les ténèbres', and in this case the formal distinctions of concordance and régime would be irrelevant. Nor would Du Marsais' standards for complement be appropriate to an analysis by function (i.e. grammatical) since, as well as relative determinative propositions, "complement" would embrace adjectives and objects of active verbs, used in this capacity\(^{(2)}\).

1. Ibid.
The relations of identity and determination and their grammatical counterparts of concordance and régime fall appropriately within Du Marsais' conception of syntax but in view of their basis in the logical proposition, discussion on them is included in this chapter.

Du Marsais describes identity and determination as the two relations between words governing their construction (i.e. arrangement)\(^1\). It is clear that the relations relate to the meaning of the ideas represented by the words, for he deduces them from the fact that the use of words in the expression consists of two points only, to announce an idea, e.g. 'lumière', and to make known the relation that an idea has with another. This is done by signs established in each language, to extend, or to restrict the ideas, or to apply them in a particular way\(^2\).

From this it appears possible to identify a subject as being something, and at the same time, to determine it by restricting it to a certain kind. Du Marsais, in fact, says that the relation of identity does not exclude that of determination. In the example 'l'homme savant', or 'le savant homme', 'savant' determines 'homme', but there is also a relation of identity between 'homme' and 'savant' for the two words relate to the same individual and could be expressed by one word\(^3\).

On the other hand the relation of determination is often found apart from that of identity. In the example 'Diane était soeur d'Apollon', 'Diane' and 'soeur' have a relation of identity but that between 'soeur' and 'Apollon' is one of determination only\(^4\).

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2. Ibid., p. 66.
4. Ibid.
The relation of identity is the basis for agreement between the substantive and adjective. Because the adjective announces what the subjective is said to be, the adjective is the subject analysed, so that it should not be differently marked from the substantive\(^1\).

Since Du Marsais includes the verb in the attribute, it is not surprising that the same relation of identity applies between the verb and the subject of the proposition.

"... parce que le verbe énonce que l'esprit considère le sujet comme étant, ayant, ou faisant quelque chose. Ainsi le verbe doit indiquer le même nombre et la même personne que le sujet indique,"\(^2\).

The relation of determination applies when a word in itself only forms part of the analysis of a particular meaning, the remainder, or determining word or words being necessary to complete the meaning\(^3\). Chevalier notes\(^4\) that it was this definition which was to justify the term 'complement', and which provided Thurot with grounds for regarding Du Marsais as author of the notion.

Du Marsais regards the relation of determination as the basis of régime. In the example 'Dieu a créé le monde', 'le monde' 'détermine ce que je dis que Dieu a créé' and the formal relation of régime exists between créé and le monde\(^5\). Nouns, verbs and prepositions are the only parts of speech requiring determination\(^6\).

2. Ibid.
The concepts of identity and determination were open to confusion, in themselves and in their relation to the grammatical distinctions of concordance and régime, though Beuzée's subsequent treatment of them\(^{(1)}\) led to some clarification. They were to be abandoned subsequently though at the time providing the means of retaining the traditional syntactic framework within a changing philosophical perspective\(^{(2)}\).

Explicative and determinative propositions fall within the concept of determination. The terms are those of Port-Royal, though Sahlin notes\(^{(3)}\) that it was Du Marsais who specifically introduced them into French grammar, though still, as with Arnauld, in a purely logical sense, explicative, leaving the word to which it refers in its original value, whereas determinative restricted its meaning\(^{(4)}\).

Du Marsais also retains the Port-Royal distinction between the proposition principale and the proposition incidente\(^{(5)}\), and similarly recognises the possibility of ellipsis in the incidental proposition, by noting that it is explicit when the subject and attribute are expressed, implicit, imperfect and elliptic when subject and verb are not expressed\(^{(6)}\).

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1. See Part 2, Section 3, Chapter 6.
5. Ibid., p. 54. As with Port-Royal, the incidental was introduced only by the relative proposition, not a subordinate proposition, but Sahlin comments that it was the introduction into grammar of the notion of principle proposition which led to that of the subordinate proposition, a term noted in Condillac's Grammaire (César Chesnau Du Marsais, p. 132).
6. Ibid., p. 55.
Chapter 5. Syntax

Although Du Marsais, obviously, from his 'Tropes', gave considerable thought to the meaning of separate words, and acknowledges, as above, their role in analysing thought, it is through his emphasis on the relations between words contributing to the external expression of the total thought, that his grammatical theory shows a major development, with notable repercussions on syntax.

In itself, the meaning of words is insufficient for the comprehension of a sentence; one must also know the sign of each different relation between the words, for it is only through these that the words make sense\(^{(1)}\).

Neither can the total meaning resulting from the collection and construction of words be understood until the whole proposition has been uttered\(^{(2)}\).

Syntax, defined as the part of grammar which provides knowledge of signs\(^{(3)}\) established in a language to stimulate a meaning in the mind\(^{(4)}\), assumes a particular importance within this conception of relations. So do the relations of identity and determination, which are the two principles from which all the rules of 'syntaxe nécessaire' are derived\(^{(5)}\).

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1. Inversion, Oeuvres, Vol. III, p. 344.
2. Ibid., p. 354.
3. 'Signs' in this case appears to mean signs of the relation between words.
Whereas Du Marsais in this respect may be said to have introduced a new emphasis in the development of syntax, as with other aspects of his theory, there were precedents; the way towards it was encouraged by earlier developments.

Reference has already been made to Chevalier's view of the role of Port-Royal in the development of syntax\(^1\). He also acknowledges that they paved the way for the segregation of syntax from construction but pays tribute to Père Buffier's more direct contribution in advancing syntax from being simply an account of features of association towards a science allowing for progress from elementary to much more complex structures\(^2\).

Daniel Droixhe also acknowledges the importance of Buffier's emphasis on relations between words.

"Quand il (i.e. Buffier) regrette, à propos des diverses "parties de la grammaire", "qu'on ne fait point assez sentir leur rapport mutuel, leur arrangement, leur dépendance", n'est-ce pas exactement l'oeuvre de Du Marsais, premier grand jalon du courant que nous nommerons "immanentiste", qu'il appelle?"\(^3\).

Auroux, while recognising that Port-Royal's definition of syntax, "la construction des mots ensemble" was entirely concerned with the operation of joining words to each other, points out that they gave, however, no emphasis to this operation and no definition of the different types of concatenation. The focal point of the Grammaire générale was the explanation of word classes starting from the basis of their way of designating, with the functional categories,

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1. See Part 2, Section 1, Chapter 5.
e.g. régime, being given little attention. With Du Marsais and his successors the basic factor did not consist of word categories but was the total expression of a thought\(^1\).

Du Marsais illustrates his distinction between syntax and construction by examples from Cicero to demonstrate that although the construction, or arrangement of words varies, the syntax, the relations between words, remains the same.

"Je crois qu'on ne doit pas confondre construction avec syntaxe. Construction ne présente que l'idée de combinaison et d'arrangement. Cicéron a dit, selon trois combinaisons différentes,

\[ \text{accepi litteras tuas, tuas accepi litteras, litteras accepi tuas.} \]

Il y a la trois constructions différentes, puisqu'il y a trois différents arrangements de mots: cependant il n'y a qu'une syntaxe; car dans chacune de ces trois constructions, il y a les mêmes signes des rapports que les mots ont entre eux: ... Ainsi, chacun de ces trois arrangements excite dans l'esprit le même sens ..."\(^2\).

He distinguishes two kinds of syntax, 'syntaxe simple et nécessaire', and 'syntaxe figurée et élégante'\(^3\). Syntaxe simple occurs when, following the original order of thought, words are arranged according to the successive relations between them, that is, according to the different

1. The later Encyclopédie articles of Grammaire and Syntaxe (E.R.M.B.) followed Du Marsais' conception of syntax. The definition given, "concours de mots réunis pour former une pensée", which was said to be identical with that of Du Marsais' definition. La sémiotique des Encyclopédistes, p. 162.
3. Lancelot, in the Nouvelle Méthode latine, distinguished similarly between syntaxe simple ou régulière and syntaxe figurée ou irrégulière. (8th edition, p. 355). Syntaxe simple also followed the natural order of thought, but there was not, as there was with Du Marsais, the emphasis on the total meaning of the phrase, conforming to the liaison between ideas.
modifications they produce on each other in following the liaison between ideas, the order in which the mind conceives ideas. 'Syntaxe figurée et élégante', the kind commonly used in Latin, is the order caused by the passions and internal movements, whereby objects or their attributes are presented to the imagination. This kind of syntax is subject to inversions and ellipsis (1).

It is important to note that as 'syntaxe simple et nécessaire' follows the natural order of thought, the words which represent the ideas have the same modifying effect on each other as the ideas conceived in the mind. It seems reasonable to deduce from this that providing the words are arranged according to the order of thought, the arrangement itself will, by placing the words which modify each other in suitable positions, provide the necessary effect of the liaison of ideas, without the need for additional signs to mark such liaison.

In spite of having distinguished syntaxe from construction, Du Marsais (2) also implies that 'construction simple' is synonymous with 'syntaxe simple', which, of course, is the case if the arrangement of words, or construction, provides at the same time the order of ideas and the relations between them.

Although 'syntaxe figurée et élégante' deviates from 'syntaxe simple' through inversions and ellipsis, it remains subject to the essential rules of 'syntaxe simple'. Any expression can therefore be reduced to this form by supplying the elided items and placing its constituent parts in natural order. It is this procedure which Du Marsais uses in his interlineary method of teaching Latin (3).

2. Ibid., p. 198.
3. Ibid.
It is the basic principle of syntax in every language that words, whether expressed or elided are always formed according to the sign of the relation which exists between them in the same proposition. Words must always be put with their co-relatives and those which are understood must be expressed for the intended meaning of the author to be understood\(^{(1)}\).

The concept of natural order implicit in 'syntaxe simple' had a long history prior to Du Marsais. It was a feature of the Port-Royal theory\(^{(2)}\) but did not with Port-Royal assume the importance or the role which Du Marsais gave to it.

Its earlier history has been referred to by several authors. Chevalier describes it as one of the focal points of reflection by grammarians from the time of the 17th century. Precedents were invoked to justify its importance.

"Du Marsais inscrira Donat et Servius et Cornutus, et aussi Priscian et ce Joannis susenbrotus Ravenspurgi, lequel publiait à Bâle une Grammatica artis Institutio en 1529; tous ont eu recours à la magique formule, Ordo est. Beauzée sera plus explicite encore à l'article Inversion"\(^{(3)}\).

Auroux refers to discussion on a suitable definition of natural order. Neither the problems nor the solutions proposed in the 18th century were original, the question having already been debated by Quintilian, Servius, Priscian and Isidore de Seville. Denys d'Halicarnasse (1st century BC) had concluded that there were no natural rules for the arrangement of words, a conclusion subsequently echoed by the sous-précepteur of Louis XVI, l'abbé de Radonvilliers\(^{(4)}\).

2. See Part 2, Section 1, Chapter 6.
4. La sémiotique des encyclopédistes, p. 192.
The whole question of natural order is dealt with specifically and comprehensively by Ulrich Ricken\(^{(1)}\). From its earlier postulation and rejection by Denys d'Halicarnasse to its identification by the Modistae with the order conforming to logical relations, it became from the time of the Port-Royal Grammaire générale identified with the French language which was considered to show particular conformity with it.

Thoughts in sympathy with Du Marsais' conception of it, and its application to education, were to be found in certain aspects of the work of two 17th century rationalists, Géraud de Cordemoy and Le Labourer, described by Ricken\(^{(2)}\). Cordemoy considered that the perfection of a language depended on an order of words which reflected the succession in which children learning languages assimilated different parts of speech\(^{(3)}\). Le Labourer's theory postulated that since words were signs of thoughts, they should, in natural expression, follow the same succession as that of ideas. The true order of conception was subject-verb-object of action, the subject always taking first place since there can be no action without a subject. Thus, notes Ricken, ideas were again conceived as logical categories\(^{(4)}\).


3. It is possible to see in this an antecedent to aspects of Condillac's theory.

4. Ibid.
The apparent paradox of Du Marsais' adoption of a rationalist doctrine of 'ordre naturel', while following certain aspects of Locke's sensation-based theories, is discussed by Ricken who attributes it to the fact that Du Marsais' a priori hypothesis of thought pre-existing language and being the cause of its laws could rest on Locke's faculty of reflection, which co-existed with sensation and did not result from it(1).

Du Marsais himself provides a mixture of rationalist and empiricist based justifications for his postulation of 'ordre naturel', though all, in effect, conform to the traditional order of the logical proposition.

The order of speech is basically uniform everywhere because it reflects the universal order of thought, another reason for calling it natural(2). This echoes Le Labourer's view above.

The order follows nature because it expresses words according to the way in which the mind conceives things, it moves from cause to effect, from agent to patient(3).

In the learning process, children follow a natural order of first the objects, then the modifying or determining words(4), a similar view to that of Cordemoy, above.

Objects, of which impressions are received through the senses, are first in natural order, and, conforming to this, so are particular ideas. General ideas are not possible without first forming particular ideas through sense impressions(5).

1. Ibid., p. 86.
3. Ibid., p. 11.
4. Ibid., pp. 6-7.
Ellipsis, for Du Marsais, is the most important of the figures of construction, since, together with the use of natural order, the inclusion of the ellided elements makes possible the reconstruction of the 'syntaxe simple' of any utterance. He attributes the omissions of words to man's tendency to abbreviate for convenience and to the eagerness of the imagination to express one's thoughts(1).

It is defined as occurring when some word necessary to reduce the sentence to 'syntaxe simple' is not expressed but is nevertheless the sole cause of the modification of another word in the sentence. It is the suppression or omission of words whose value, or meaning exists in the mind. The ellipsis can be restored by any word which provides the meaning indicated by the adjoining ones and the circumstances(2).

Du Marsais acknowledges the precedents of Sanctius and other grammarians in recognising understood words and the practice of Port-Royal in re-constructing, in the Nouvelle Méthode latine, abbreviated expressions into simple construction. But he claims originality in making the procedure available to pupils, the Nouvelle Méthode latine of Port-Royal having been intended for teachers(3).

Critical in general of the arbitrary practice of re-constructing sentences to allow for assumed ellipsis, because of the distortions thus risked to grammatical theory, Sahlin sees in Du Marsais' treatment of the practice a closer identification of the reconstruction with logic, whereas for Sanctius and Lancelot the practice was only a means of rationalising grammatical difficulties. For Du Marsais the

natural order of words and the words supposedly suppressed are always present in the mind of the speaker. He proves this by the fact that in an inverted proposition or ellipsis, the words have the same ending\(^1\) as they would have had in a regularly constructed proposition.

Though, comments Sahlin, the method of re-constructing the phrase had been previously practised in French grammar, this was only sporadically; it was Du Marsais who made it into a system "et il l'applique constamment à propos de toutes sortes de questions grammaticales dès que quelque chose lui paraît contraire à la logique: c'est la clef de voûte de son œuvre grammaticale"\(^2\).

The rules of 'syntaxe nécessaire', drawn entirely from the principles of identity and determination, which account for all relations between ideas, and which are expressed by the relations between words of 'concordance' and 'régime', are based on knowledge of:

I. the nature of words, the properties of the different word classes.
2. the proposition and the way in which words are expressed and determined in speech.
3. the purposes of the endings of words\(^3\).

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1. "Tout changement suppose une cause aussi bien dans la grammaire que dans la physique - règle invariable de la nature; or puisque ces mots ont changé leur simple dénomination pour prendre la terminaison de l'ablatif, il faut qu'il y ait une raison de ce changement; et comme nous voyons par tant d'autres exemples que l'ablatif est le cas naturel de la préposition, nous sommes fondez à la suppléer". Méthode Raisonnée, Œuvres, Vol. I, p. 18.

2. César Chesnau Du Marsais, p. 94.

It is indicative of the dominant role of syntax in Du Marsais' theories that he calls item 1, the part of grammar concerned with the different word classes, 'les préliminaires de la syntaxe'.

He deliberates in some detail on the different classes of words, sometimes not coming to any firm conclusion. Considered from a grammatical point of view in their separate classes, an approach followed by Sahlin, there is a general impression of a lack of consistent treatment. But Soublin appropriately comments that it is because his total plan has not been appreciated that certain of his work has been misunderstood, for instance by Sahlin and Kukenheim\(^1\). Du Marsais' 'syntax' is a kind of universal metalanguage which today would be called formal semantics or theory of speech, and it is at this level that his contributions affecting French grammar find coherence\(^2\).

Du Marsais appears concerned to penetrate the nature and function of words\(^3\), and, given his postulation of a division of thought into parts which are the counterpart of words\(^4\), it is not surprising that he has regard to semantic and logical considerations\(^5\).

The following summary of some relevant comments by Sahlin are given as an indication of the kind of considerations he takes into account in forming his conclusions on the main classes of words:

2. Ibid., p. 404.
4. See Chapter 3.
Pronouns which, for Du Marsais, "ne sont employés que pour réveiller l'idée d'un autre mot ou pour le rappeler à l'esprit".

Sahlin comments that Du Marsais has not succeeded in resolving completely the nature of pronouns because he had not unified his diverse theories into a system. Nevertheless, he contributed more than any other grammairien-philosophe to clarification of the problem; none other envisaged the word under so many different aspects and within so complete a conception (1).

Verb. This was dealt with in the context of the proposition, in Chapter 4.

Nouns and Adjectives. Among the parts of speech "le nom est celle que Du Marsais a traité le plus à fond et de la façon la plus complète ..." (2)

He takes little account of the theories of preceding grammarians, being more inspired by the philosophical ideas of Locke and Leibniz and by certain scholastic ideas, applying now one, now another, thus not succeeding in forming a system. Grammatical considerations are minimal. There is no comprehensive treatise on nouns but a résumé from various works provides a reasonably complete study (3).

The main part of his theories relate to the distinction between substantives and adjectives.

His view of adjective reflects Locke's notion of substance (4).

2. Ibid., p. 154.
3. Ibid., p. 167.
4. Essay, I, Book II, ch. XXIII.
"le nom adjectif est toujours ajouté à un substantif qui est ou exprimé ou sous-entendu. "L'adjectif est un mot qui donne une qualification au substantif; il en désigne la qualité ou manière d'être"(1).

Sahlin notes that through this reasoning, Du Marsais provides a philosophical basis for accounting for an elided substantive behind an adjective(2).

Du Marsais did not establish a principle for the division between adjective and substantive; his delimitation was more fluid than that of his predecessors, but his reflections went further, and he was one of those nearest to resolving the difference between the two, at least from the point of view of logical grammar of the 18th century(3).

As far as his classification of adjectives is concerned, for Du Marsais there are as many kinds as there are qualities or 'manières d'être', but he reduces them to the two divisions of 'adjectifs physiques' and 'adjectifs métaphysiques', reflecting Locke's distinction between ideas resulting directly from the senses and those produced by reflection(4).

With substantives, the same distinction is made between 'physiques' and 'métaphysiques'. He also distinguishes between 'propres' and 'appellatifs', and 'abstraits' and those 'pris dans un sens concret'. Sahlin considers the classification of substantives to be one of the areas where Du Marsais' theories are the most philosophical and strangest to grammar, being inspired apparently by Locke and certain ideas of the scholastic philosopher, Occam, while using Leibniz' terms(5).

2. César Chesnau Du Marsais, P. 171.
3. Ibid., pp. 178-179.
4. Ibid., p. 181.
5. Ibid., p. 189.
Chapter 6. Words as Signs

Du Marsais subscribes to the view that words have been invented by man as signs of their thoughts, and whereas thought is quite independent of any arbitrary usage, signs, at least in their first application, are arbitrary.(1)

The first objects to be named were the tangible ones(2), obvious through the senses, followed, by analogy, by those resulting from some action of the mind(3).

Words become known through their usage, and, consistent with Du Marsais' view of thought pre-existing language, they only become meaningful because man already knows what they signify. But beyond this, full appreciation of their effectiveness depends on knowing how they are used in relation to thought.

"... Or, comme on ne sauroit connoître le signe en tant que signe, si l'on ne connoit pas ce qu'il signifie, l'on ne sauroit se former d'idée juste des mots et de leurs usages, sans s'instruire de la liaison que les hommes ont mise entre leurs manières de penser et les mots qu'ils ont établis pour se communiquer leurs pensées."(4).

The Port-Royal concept of the idea of the sound stimulating the idea of the object appears also with Du Marsais, but linked at the same time, as Auroux points out(5), with the conditioning involved in the process of signification. The importance of usage in this process is also obvious; it is usage which instils the meaning of words.

2. The same idea is present in Condillac's theory.
5. La sémiotique des encyclopédistes, p. 24.
"... les enfants ont lié la signification des mots aux idées que l'usage leur a fait connoître que ces mots signifient.

À mesure qu'on nous a donné du pain, et qu'on nous a prononcé le mot pain; d'un côté le pain a gravé par les yeux son image dans notre cerveaux, et en a excité l'idée; d'un autre côté le son du mot pain a fait aussi son impression par les oreilles, de sorte que ces deux idées accessoires, c'est-à-dire, excitées en nous en même temps, ne sauroient se réveiller séparément, sans que l'une excite l'autre."^(1)

Auroux considers this view of the sign, the 'structure quaternaire' to be an interpretation of the 'structure ternaire', used in the 18th century. The idea of the sound producing its own idea, which stimulates through association, the idea of another object, does but justify the basic essential that the sound is the sign of an idea, to which it has no natural relation^(2).

Although Port-Royal's version, the 'quaternaire', preceded the triple version, Auroux's conclusion that the latter was the basic form has some justification in that Port-Royal's formula provided an additional process merely to preserve the integrity of the 'idea'. On the other hand, the Port-Royal theory could be regarded as the inspiration for the later applications of the concept of the sign.

The choice of interpretation, comments Auroux, is not due to chance. That of the 'quaternaire' structure is in sympathy with idealism, in allowing for the dualism of those such as Du Marsais, who identify 'âme' with the

capacity for language and exclude the possibility of animal language. The differences in interpretations of the process of signification are linked to the concept of the idea\(^1\). Auroux expands as follows on the effect of the differing concepts.

For the whole of the 18th century the concept of idea is of Cartesian heritage, but with Descartes himself is ambiguous. It is either "la forme de nos pensées par la perception immédiate de laquelle nous avons conscience de ces mêmes pensées" (Réponses aux Deuxième Objections), soit seulement "la forme de pensée qui possède une réalité objective" (Troisième Méditation). The first definition is purely psychological and corresponds to the signification of words "je ne puis rien exprimer par des paroles, lorsque j'entends ce que je dis, que de cela même il ne soit certain que j'ai en moi l'idée de la chose qui est signifiée par mes paroles"\(^2\). The use of the second would be impracticable in language since it would allow only 'true' propositions.

Authors studying language in general were essentially obliged, as were Arnauld and Du Marsais, to use Descartes' first definition, but, even holding to this, 'idea' is subject to variation according to the orientation of the theory of knowledge within which the term is used. Whereas in the case of a Cartesian type dualism, ideas are only associated with ideas, in an empiricist position idea is associated with sensation and with the object to which it corresponds, thus eliminating one of the terms of the 'structure quaternaire'\(^3\).

1. Ibid., p. 25.
2. These words are echoed in Du Marsais' view above, p. 159.
3. La sémiotique des encyclopédistes, pp. 25, 26.
While it appears appropriate to identify the respective views of both Port-Royal and Du Marsais on the idea with Descartes' first definition, this does not take account of the major difference between the two on the origin of ideas, which, for Du Marsais, contrary to the Port-Royal belief, was through the senses. Descartes' definition may have been a sufficiently adequate basis for Du Marsais, but Port-Royal's formulation of the sign appears to rest on the more fundamental Augustinian concept of the idea(1).

A major feature of Du Marsais' work was the attention he gave to the different meanings of words, which materialised in his 'Des Tropes ou des différents sens dans lesquels on peut prendre un même mot dans une même langue'. Article IV of this work gives the definition "Les Tropes sont des figures par lesquelles on fait prendre à un mot une signification qui n'est pas précisément la signification propre de ce mot: ainsi pour entendre ce que c'est qu'un trope, il faut commencer par bien comprendre ce que c'est que la signification propre d'un mot". Article VI defines 'sens propre' as 'la première signification du mot'(2).

Sahlin notes that Du Marsais was not the first to introduce Tropes into grammar, and refers to the work of Donatus, Thrax, and Isidore de Seville, but in French grammar it was a novelty. "Quelque imparfait qu'il soit, le Traité des Tropes est le premier ouvrage de sémantique ..."(3).

As Soublin emphasises, the word itself, for Du Marsais, is inert and incapable of imposing any law by itself(4). It is the use of words through the exercise of imagination, which gives them their force. "L'imagination, au contraire,

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1. See Section 1, Ch. 7.
a ses lois universelles, le Traité des Tropes les met en
evidence dans son secteur, en montrant que les changements
de sens présentent des régularités inconnues des mots pris
dans leur première institution."¹

While Du Marsais' expansive treatment of the subject
was innovative, some of the ideas on the subject had
already been aired. The acknowledgement of the role of
imagination in language was by no means novel and is traced
by Ricken². Instances of recognition of the part played
by imagination had already been evident in the works of
Antoine Arnauld and Bernard Lamy³. Variations in meanings
of words in usage, including those through ideas (idées
accessoires) added by the mind to the precise meanings of
words, are in fact explicitly recognised in the Port-Royal
Logique⁴. But certainly his specialist treatment of the
subject appears to mark a new departure, and seems likely
to have more lasting relevance than other aspects of his
theory.

¹. Ibid., p. 399.
². Grammaire et Philosophie au Siècle des Lumières.
³. Ibid., p. 74.
⁴. Pt. I, Chapters XIV and XV.
Chapter 7. Summary.

Although Du Marsais did not set out to formulate a comprehensive theory of language, the main stimulus in his work being didactic, his various works include elements which would have contributed to the basis of a theory of contemporary interest.

But rather than aiming at the formulation of such a theory, Du Marsais appears concerned to penetrate the elements of language and the reasons behind them, which find their expression in usage. Usage can always be related to a universal and fundamental form of syntax, which is determined by the universal nature of thought itself, but the variations from this basic form are acceptable and justifiable by the added factors, inherent in man, of imagination and the emotions. The effect of these influences is taken into account in Du Marsais' 'Tropes' in which he considers the different applications made by man of words beyond their first arbitrary signification. Such influences are also evident in his recognition that an enunciation, using moods other than the indicative, may be a proposition, which is thus not only confined to the judgment; and in his broader consideration of the word classes than is generally the case with predecessors and contemporaries.

These three features are quoted by Soublin as contributing to her interpretation that Du Marsais did not restrict his view of man to 'l'homme cogitans', but regarded him in all his aspects, subject to the contradictory forces of reason and imagination, a concept that he carried into his grammatical theory(1).

1. "... c'est pour avoir inscrit au coeur de ce langage non pas l'homme "cogitans" mais les hommes, êtres également soumis par nature aux forces contradictoires de la raison et de l'imagination ..." (in Parret, 1976, p. 408).
The effect of Du Marsais' approach, which is brought out in Soublin's interpretation of his work, was to invest the basic form of speech, the subject-predicate formula, rooted in reason, and of universal application, with the possibility of variations deriving from the imagination and from the urgencies of usage.

Nevertheless, the essential principles on which his method of instruction is based were founded not so much on imagination, as on a priori concepts of the nature of thought, influenced by the prevailing philosophy, particularly of Locke, and also incorporating features from antecedents. Important features which are a consequence of his view of the presentation, in language, of simultaneous thought, and the liaison of ideas within a total thought, are the theoretical concepts of the logical and the grammatical proposition, and the logical relations of identity and determination.

One can justifiably say that Du Marsais' grammatical theory was dominated by considerations of syntax, and he was always conscious of the underlying reason which give rise to syntax, namely, the liaison of ideas which is represented by the relations between words. Also evident in his work is the strong emphasis on meaning, a feature not brought out by Sahlin, who concentrates on his "théories grammaticales proprement dites"(1). This emphasis is consistent with his views on the underlying causes of syntax from which his model of 'syntaxe simple' is formulated. It is also a necessary consequence of his approach to translation, for to translate involves penetrating the meaning of the writer, and this involves restoring elided words and relations to those of the 'syntaxe simple'.

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His sense of the importance of meaning led him to include his 'Tropes' as the seventh part of his projected Grammaire (which remained incomplete), for he considered it an essential part of grammar, since explanation of the true meaning of words, and the way in which they are used in speech, falls within the province of grammar (1).

His 'Tropes' dealt with the more purely semantic aspects of the word, but Du Marsais appears to have been no less conscious of the diverse functional uses of them. His application of the word 'sens' is not always explicit but usually clear from the context. His tendency to consider all aspects of words in their functional and grammatical application, and to provide descriptions or definitions of them in this capacity, appears to be due at least in part to his recognition that, as the meaning (semantic) of a word is subject to different interpretations, so it is with the 'sens grammatical'. This is implied in that he regards it as a necessary rule, in the same way as one would not give a word a different meaning in the same utterance, similarly to maintain the same 'sens grammatical' (2).

Comparisons have been made between certain aspects of Du Marsais' theories and those of modern transformational generative grammar.

Chomsky himself refers (3) to Du Marsais' term 'syntaxe' as essentially the deep structure of an expression, and his 'construction' its surface structure. This is an erroneous interpretation in view of Du Marsais' distinction between the terms, construction being applied only to the arrangement of

words, not the relations between them, except that in natural order, which is found in 'construction simple', or 'naturelle', the requisite relations between words are already present. If any aspect of Du Marsais' theory can be equated with deep and surface structure, it would appear to be, respectively, 'syntaxe simple et nécessaire', embodying 'construction naturelle'; and 'syntaxe figurée', applicable to expressions found in usage, and subject to ellipsis and 'construction figurée' or 'usuelle'.

Soublin considers that, in addition to having in common, as Chomsky claims, though in broad terms only, a concept of universal grammatical structure reflecting basic properties of mind, Du Marsais and Chomsky share a similar epistemological attitude in that they place the relationship between language and thought not in reality, i.e. in the consciousness of the individual, but in a descriptive theoretical process. Du Marsais' theory however, shows notable differences in his recognition of the effect on language of man's nature in its totality.

It seems that the main difference derives from the two features which play a major role in Du Marsais' theory, namely the concept of syntax governing the relations between words, and the importance he attaches to meaning, both as a reason for syntax and in practical usage of a language.

Also of relevance is the fact that although he concedes a certain instinct in man and a natural inclination on the part of the child, through the natural capacity for expression, and through imitation and curiosity, to learn a language, there remains much which has to be taught. The nearest equivalent to an internal universal structure appears to be the natural form of thought, which is however, with Du Marsais, pre-linguistic.

1. See Chapter 5.
4. Ibid.
Part 2. Section 3.

Nicholas Beauzée 1717 - 1789

Chapter 1. Introduction.

Beauzée's major work, his Grammaire générale (1), the subject of a full description and analysis by Barrie E. Bartlett (2), can probably be regarded as the most explicit and comprehensive version of its kind, certainly in the history of general grammar in France (3).

Details of his grammatical theories are also to be found in the articles which he edited for the Encyclopédie in collaboration with Douchet, following the death of Du Marsais, the previous contributor, in 1756. Bartlett notes that the collaboration was apparently unsuccessful and, after the early articles, Beauzée appeared to be the only author (4). The authorship of the articles, signed B.E.R.M., or E.R.M. (Ecole Royale Militaire, where Beauzée taught), is discussed by Auroux (5), who deduces that those signed B.E.R.M. can be attributed to Beauzée. Of these articles, Auroux considers that

1. Grammaire générale ou exposition raisonnée des éléments nécessaires du langage, pour servir de fondement à l'étude de toutes les langues, 1767. All references are to the H.E. Brekle 1974 facsimile reprint, Friedrich Fromman Verlag, Stuttgart-Bad Cannstatt.

2. Beauzée's Grammaire générale, Mouton, 1975, hereafter referred to as Bartlett, with para. and page numbers. Auroux refers to this as "le premier ouvrage un peu complet sur Beauzée". He mentions some omissions from the Bibliography, including a work on phonetics, 1762, Beauzée's Petite Grammaire Francaise 1826 and Thiébault, 1771 and 1773. (Historiographia Linguistica, IV: 3, p. 384.

3. Bartlett comments that its "comprehensiveness far surpasses that of contemporary and earlier universal grammars". (3.1, p. 31).

4. Ibid., 2.21, pp. 26-7.

5. L'encyclopédie "grammaire" et "langue" au XVIIIe siècle 1973, p. 49.
"Grammaire" and "Langue" clearly express the linguistic conceptions common at the time of the Enlightenment(1). Some of the texts in the Encyclopédie articles are also included in Beauzée's Grammaire générale.

Beauzée's contemporary reputation appears to have been overshadowed by that of Du Marsais, who, of predecessors and contemporaries, had probably the greatest influence on his grammatical theories. Bartlett's work on Beauzée's Grammaire générale, quotes, inter alia, from Rivarol(2), "honnête homme... qui a toujours vécu entre le supin et le gérondif, sans faire le moindre tort à personne". The somewhat colourless impression conveyed by this comment does not seem to do justice to Beauzée's work, which reflects a sturdy confidence and independent approach. Bartlett, who emphasises in his study Beauzée's capacity for distinguishing the linguistic considerations from logical and epistemological ones, considers Kukenheim's description of him(3) as 'much less philosopher and much more grammarian than Du Marsais' as alone attributing to Beauzée a well deserved reputation(4). To this may be added Dieudonné Thiebault's view that Beauzée stands above Du Marsais. "... la Grammaire de celui-ci (i.e. Du Marsais) n'est... qu'un échantillon, de celui-là (i.e. Beauzée), un ouvrage entier... il a enrichi la Grammaire Philosophique."(5). Auroux' discussions on various aspects of his theories well illustrate his importance to the concept of Grammaire générale(6).

1. Ibid., p. 11.
3. Esquisse historique de la linguistique française, p. 43.
Though his grammatical theories were identified with those of the Enlightenment, he can hardly be said to be representative of the empirical tendencies of the age. In discussing educational methods of the time, Chevalier considers Du Marsais to be closer to the empiricism of Locke whereas Beauxée inclines to the trend of Leibniz' theories. "Pour Beauxée, il faut découvrir les vérités universelles, qui se vérifieront, peu à peu, dans l'expérience."(1). But he does appear to represent an alliance between rationalism and empiricism, a feature of his time. Chevalier comments, "se fier à l'empiricisme, c'est, selon une métaphore captieuse employée par Beauxée, "leur donner le secours du flambeau de la Logique, en portant ce flambeau derrière eux"(2). C'est par la Logique grammaticale qu'il faut commencer ..."(3). Beauxée himself proclaims that he follows in the footsteps of Sanctius, Arnauld, Duclos, Du Marsais, Girard, Vaugelas, Bouhours(4).

He shows himself to be firmly orthodox in his view of reason and language (at least in its initial form) as God-given and unique to man. Thought the fundamental sincerity of his orthodoxy does not appear to be in doubt, Bartlett considers Beauxée's adoption of the 'most orthodox of positions' on the question of the origin of language to be based, not so much on theological conviction as on logical necessity. "Language stems from reason and rational processes, and if man has always by definition been a rational creature then he has always possessed language in the form in which we know it"(5). As a

5. Bartlett, 2.12, p. 23.
consequence of acknowledging a God-given primitive language, Beuzée did not consider its formation\(^{(1)}\). Beuzée's opposition to the theory of origin and successive developments of language is detailed by Daniel Droixhe\(^{(2)}\), who notes from Beuzée's Encyclopédie article, 'Langue', how closely he participates in the movement of "resacralisation en train de se développer"\(^{(3)}\). But this was not taken to the point of idealisation, for a theory of language must take full account of usage\(^{(4)}\).

The teaching of languages was an important factor in the formulation of his theories, as is evident in his declared aim of facilitating language study by a method of introduction to language on the pattern of Descartes' method\(^{(5)}\).

But his main interest was the deeper one of formulating a theory of language which would "account coherently, consistently and exhaustively for the grammatical facts of all languages"\(^{(6)}\).

Bartlett's work, the only one to date which concentrates specifically on Beuzée's grammatical theory, is the main source for this. Other important sources are the works by Auroux, Chevalier, Droixhe, Ricken and Robinet, which will be referred to in context.

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1. Auroux, La sémiotique des encyclopédistes, pp. 51, 57.
3. Ibid., p. 174.
4. Ibid., p. 162.
Chapter 2. The Basic Principles and Aims of Beuzeville's Theory.

Beuzeville announces in the preface to his Grammaire générale the basic principles on which his theory is founded, principles which contain features common to general conceptions of universal grammar, and which reflect the influences of his time, but which are formulated in terms of his own interpretation.

The universality of thought and language is founded in reason. He echoes Cartesian concepts, also evident with Port-Royal, in accepting that both reason and language are God-given and unique to man, but invokes, not Cartesian precedent, but an earlier exponent of this view, Quintilian. Unlike Port-Royal, Beuzeville implies a dependence of reason on language, which seems to stem from his recognition that man's sociability, and therefore communication, is part of the Divine scheme. This is evident in his emphasis on the importance of language in making reason effective through the communication of thought.

This common aim of all languages is achieved through the use of speech sounds which, with their material, successive and divisible form appear most unlikely, comments Beuzeville, to be able to represent thought which is purely intellectual and necessarily indivisible. But he postulates that this is made

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2. "... Mais cette raison, .... à quoi nous serviroit-elle. Comment se manifesterait-elle en nous si nous n'avions la faculté d'exprimer nos pensées par la parole? C'est du Langage qu'elle emprunte immédiatement les lumières qui font sa gloire; c'est en quelque sorte dans le Langage qu'elle a sa source; parce que c'est par le Langage qu'elle se communique et qu'elle transmet l'image de la pensée." Ibid.
possible through the analysis of thought in some way by logic with the help of abstraction. Logic considers separately the ideas which are the object of thought and observes the different relations between the ideas, relations which result from the connection all ideas have with the indivisible thought of which they are part. Based on this connection, the resulting analysis provides a succession, in order of priority, of partial ideas of the same thought\(^1\).

This succession of partial ideas is called by Beauzée the 'ordre analytique', because it is both the result of analysis of thought and the basis of analysis of speech in all languages. The principles of this analysis, founded in reason, produce universally similar results. The analysis establishes everywhere the same kind of words, to represent, under similar points of view, the same kinds of ideas; it subjects words to the same uses, and links words together in similar ways, in conformity with the relations between the ideas of which the words have become signs\(^2\).

Language, based on this analysis, which is described by Beauzée as its intellectual mechanism, thus becomes the common instrument for manifesting thought and reason. Beauzée also recognises language as a medium for the emotions and as a social necessity within the Divine scheme for human welfare\(^3\), and its universality is consequently also linked with its communicative role. Since sociability, which as part of the Divine scheme, is subject to universal and unchanging laws, so also must language, as its necessary organ, be universal and unchanging in its basic principles. Differences between languages are purely superficial, due to time, place, customs and interests, which, though resulting in endless variations, always have the same bases\(^4\).

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1. Ibid., pp. vi-viij.
2. Ibid., pp. viij-viiij.
3. Ibid., p. viiij.
4. Ibid., pp. viiij-ix.
From the thought of sociability and language as part of the essence of man, and as unchanging as the divine law of which they partake, Beuzée leads into the concept of general grammar and the differences in principle between general and particular grammars. Those of general grammar, of unchanging truth and universal usage, derive from the nature of thought itself and are the result of its analysis; those of particular grammars have only a hypothetical truth and are dependent on accidental, arbitrary and changeable conventions\(^1\).

General grammar is a science because it is concerned with reasoned speculation on the unchanging and general principles of language, particular grammar an art, involving the practical application of arbitrary features of particular languages to the general principles of language.

Grammatical science is prior to all languages because its principles, which are the same as those which guide human reason in its intellectual operations, merely envisage the possibility of languages. Grammatical art is posterior because the usages of language must exist before they can be artificially linked to the general principles of languages. The analogical systems which form the art can only be the result of observations made on pre-existent usages\(^2\).

This definition of Beuzée's, in itself\(^3\) probably the clearest and most explicit of the various descriptions of universal and general grammar, was given methodical expression in his Grammaire générale.

Although the two kinds of grammar are distinct, Beuzée did not intend that the study of each should be pursued separately, for they benefit each other. On the one hand, the

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1. Ibid., pp. ix-x.
2. Ibid., pp. x-xj.
3. There were earlier definitions of general and particular grammars as grammatical science and grammatical art (Bartlett, 3.14, p. 35: Chomsky, Cartesian Linguistics, p.52 et seq.).
guidance of reasoned speculation is needed in applying the usages of particular languages to the principles of general grammar, and on the other, observations of combined usages and different practices is necessary to assist in generalisation of principles\(^{(1)}\).

The 'reasoned speculation of the unchanging and general principles of language', the objective of general grammar, was formulated by Beauzée in terms of an "exposition raisonnée des éléments nécessaires à l'étude de toutes les langues", the sub-title of his Grammaire générale.

Although Beauzée's 'Eléments nécessaires' comprise those elements which are indispensible in all languages for the external presentation of analysed thought, they are not rigidly prescribed but indicate the kind of need which particular languages should meet, by setting the limits of choice\(^{(2)}\). He mentions, for instance, that not all languages use the same elementary sounds, but all those used are to be found in the classes which he specifies. Of grammatical features, cases are sometimes used instead of prepositions, and adverbs are in some languages expressed by a preposition and noun or by extensive use of cases with nouns\(^{(3)}\).

His discussions on the elements take account of his universal a priori principles governing the relationship of language and thought, and his own observations of various languages. In spite of his claims of having consulted grammars of all kinds of languages\(^{(4)}\), his Grammaire générale is very much based on French, which leads Bartlett to describe it as a 'grammaire particulière', since the theory of language and the universal grammar are mostly explained in terms of a French grammar established according to their principles.

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2. "Beauzée donne encore pour fonction à sa grammaire générale de "servir de fondement à l'étude de toutes les langues", mais ce fondement consiste moins en théorèmes initiaux qu'en éléments d'une théorie linguistique destinés à guider le choix d'une pratique empirique." (Auroux, La sémiotique des encyclopédistes, p. 240).
4. Ibid., p. xv.
Bartlett therefore considers it necessary to distinguish sharply between Beauzée's theory of language, the universal grammar to which it gives rise, and the language specific grammars exemplifying its principles\(^{(1)}\).

'Theory of Language' is Bartlett's own term. It is not referred to as such by Beauzée, who merges the features which it comprises with treatment of specific problems of language. It may be said to encompass the general principles behind the universality of language, and the way in which these principles, intrinsic to the nature of thought and man's conformation, become related to the necessary elements of language.

Bartlett identifies five a priori principles on which the theory of language is based\(^{(2)}\):

1. Thought, as a phenomenon of knowledge and the datum to be externalised by language is 'une et indivisible'.

2. Man's intellectual mechanism is universal.

3. The speech mechanism is universally the same. "Dieu, qui avoit destine l'homme a vivre en societe, avoit preparé en lui, l'organe de la parole, pour être l'instrument de la communication des pensées ..."\(^{(3)}\)

4. The meaning of words is arbitrary (i.e. in their first signification). "La signification des mots est incontestablement arbitraire dans son origine."\(^{(4)}\).

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1. Bartlett, 3.4, p. 32.
2. Ibid., 3.7, p. 33.
5. Individual lexical items belong to only one particular word class and have essentially but one meaning. "C'est un principe incontestable que la nature des mots est immuable:..."(1)

1. and 2. are already obvious in Beauzee's Preface, referred to above(2). The influence of 5. becomes apparent at the grammatical stage and appears to rest on Beauzee's contention that the nature of words reflects the nature of the things they represent, which is unchangeable.

"... l'Adjectif le, la, les ne peut donc jamais devenir pronom, parce que les natures des mots sont immuables comme celles des choses"(3).

Another principle, which appears to qualify as an addition to the list, is Beauzee's concept of the 'ordre analytique' which he regards as the universal form of analysis of thought and the basis of the analysis of speech in all languages. Its importance becomes more evident in Beauzee's discussion on syntax.

Bartlett detects a series of stages in Beauzee's theory, based on these a priori principles, which relate content, i.e., thought analysed, in semantic units, to the expression, i.e. the utterance(4). He defines these stages as the logical proposition, an abstract concept representing thought analysed in semantic terms, i.e. words; the grammatical proposition, also abstract, but indicating the grammatical features of the content, e.g. by assigning word classes; and a phonological component to the utterance, which also had its 'deeper' stage in being selected from a universal choice of speech sounds possible to man(5).

2. P. 172.
5. Ibid., 5.15, p. 67, 6.86, p. 157.
"These levels of organisation are inter-related by realisational processes that allow or determine specific choices (or sets of choices) from amongst the possible alternatives delimited by the general grammar; the totality of these stages of organisation and their realisations characterise the particular grammar of a specific language." (1)

The stages and processes defined by Bartlett are substantiated from Beauzée's text, where they are not methodically presented in this form, but become apparent, in varying degrees, as levels differentiated in the course of his detailed consideration of the various components of his Grammaire générale.

The grammatical proposition is the most evident and important in Beauzée's exposition since it represents the abstract stage of general grammar. The logical proposition as such is not made explicit by Beauzée (2) but that he visualises the proposition in its semantic content only is implicit in various parts of his commentary. Moreover it seems likely that he would agree with Du Marsais' use (3) of the logical proposition.

1. Ibid., 3.8, p. 33.
2. Ibid., 5.18, p. 68.
3. See Section 2, Ch. 4.
Chapter 3. The Thought Processes.

Whereas Beuzée accounts in some detail for the processes which occur after thought has been analysed, up to the stage of the utterance, he is less explicit about the nature of thought and its processes in the pre-linguistic state. His view of it as "une et indivisible" prior to analysis by language, conforms to the Enlightenment conception, already evident in Du Marsais' theory.

Though he does not specifically discuss the question, he accepts the origin of ideas (at least, simple ones, since he acknowledges the action of the mind in forming complex ideas) through the senses. This fact is referred to incidentally in his criticism of Diderot for basing the analysis of language on the order of priority of interests, and of Batteux for aligning it with the sequence in which ideas are generated in language.

Thoughts are defined as the intuitive or reasoned perception of the relations which exist between ideas present at the time in the mind. As he regards it as the first aim of language to clearly express our thoughts, the inference is that the content is in some way identifiable before language presents it in successive order. Presumably some process has been

1. 'Noms appellatifs', or common nouns, are 'idées factices', which the mind in some way forms from all the ideas of common attributes which it abstracts from individual ideas. (Grammaire générale, Livre II, Ch. 1, Vol. I, p. 237.).
2. "... l'ordre de la génération est tout aussi variable que celui de l'intérêt: elle tient nécessairement à la succession accidentelle des causes qui peuvent introduire les idées dans notre intelligence par les portes des sens; ..." (Ibid., Livre III, Ch. IX, Vol. 2, p. 508).
3. Ibid.
4. Ibid.
involved in selecting the ideas, which are present at a particular time, in order to form a thought. But Beauzée does not enlarge on this. The reference to logic analysing in some way the purely spiritual operation of thought\(^1\) appears to apply after the content of a specific thought has been formed.

Beauzée's reference to thought as a purely spiritual operation supports Auroux's view of the indivisibility of thought being attributable to the mind's action, as against the object of the act. Auroux describes the distinction as relatively fragile, because it cannot be confirmed that thought rests in the act to the exclusion of its object, nor in the object to the exclusion of the act. Single and simultaneous thought is simply a global idea consisting of other ideas. Though it may be argued that the global idea could be expressed in any number of ways, including a continuous sound, language is essentially discontinuous\(^2\). The fact that the 18th century does not regard thought as a continuous entity, which expression could divide arbitrarily, is due to the role played by the idea in the prevailing concept of the science of language;

''... les idées pré-existent logiquement à une langue qui n'a pour fonction que de les communiquer.''

Nor, in Beauzée's theory, does language appear to be necessary for the analysis of thought. Auroux, in considering this question, compares Beauzée's attitude with the more extreme one of Condillac, for whom "toute langue est une méthode analytique, et toute méthode analytique est une langue". That language presents analysed thought rather than functions to analyse it is also indicated by Beauzée's comment, quoted by Auroux, "Nos mots sont comme les résultats de la composition analytique des idées; .."\(^4\)

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1. Ibid., p. 467.
2. Auroux refers to Diderot's text on discontinuity, Art. Encyclopédie, t. 5.
3. Auroux, La sémiotique des encyclopédistes, pp. 73-76.
Bartlett, on the other hand, interprets Beauzée's view of thought 'une et indivisible' as being dependent on sense impressions, and essentially pre-rational in that it is unstructured. Beauzée, he comments, appears to believe that thought can only be brought under the control of mind by the interdependency of reason and language, to become knowledge, or, in linguistic terms, content. Bartlett further deduces from Beauzée's comment on the dependence of reason on language, "C'est du langage qu'elle emprunte immédiatement les lumières qui font sa gloire; c'est en quelque sorte dans le langage qu'elle a sa source, ..."(1), and on the inseparability of thinking and speaking, "... parler et penser sont liés inséparablement ...", that thought, reason and language represent an unordered triad(3). This implies that Bartlett sees language as participating, in Beauzée's theory, in the analysis of thought.

The relationship of language to thought in Beauzée's theory is further complicated by the possible interpretations which can be placed on the fact that a simultaneous act of thought corresponds to a sentence. Auroux, in discussing this point comments that thought can be either an original fact of which the analysis reproduces the origins of our ideas, or it can be any thought which we ourselves have composed. To concede that the words of a sentence represent ideas which would only occur in the mind in the original unity of a thought corresponding to the meaning of a sentence, would amount to denying that a word can signify a composition of ideas of which the elements had not occurred together, and that a sentence can consist of terms not having previously appeared simultaneously in the mind. This would limit the act of thought to facts, and exclude abstract concepts(4). Auroux considers that it is the act

4. La sémiotique des encyclopédistes, p. 81.
of analysis itself which is ambiguous as a result of the different roles it plays. It can explain the genesis of abstract ideas, by analysing general ideas from those which originate through the senses and are necessarily of individuals, and, in the case of the linguistic proposition, it provides the multiplicity of words which form the unity of thought. He sees the latter application as assuming a dual function for language: to present partial ideas successively to the mind, but in order to provide the total meaning, a single idea. The interpretation of this function in terms of the analysis of simultaneous thought can be regarded as an inadequate attempt to provide a basis for it\(^1\). It seems that Auroux sees the problem in terms of seeking an explanation for the function of language rather than providing a convincing account of the nature and functioning of thought, a view which has some justification in the case of Beauzée who particularly concentrates on the linguistic processes.

The role of analysis in deriving general ideas is evident in Beauzée's account of the acquisition of knowledge and the communication of thought, which he describes as two very different processes. To acquire notions\(^2\) (referred to by Bartlett as content\(^3\)), complex ideas are decomposed into the

1. Ibid., pp. 81-82.
2. These appear to be similar to Condillac's conception of ideas which result from the mind's action. "Idée, notion. Il me semble que le second ne peut se dire que des idées qui sont l'ouvrage de l'esprit. On dit la notion de la justice, et on ne dit pas la notion d'un arbre". (Condillac, Dictionnaire des Synonymes, Oeuvres philosophiques, ed. Le Roy, 1947-51, Vol. III).
   Bartlett however notes that for Condillac, notions were a synthesis of simple ideas: for Beauzée they seem to result from the analysis of some complex of perceptions. (2.17, p. 24).
most simple, which are the most general and the easiest to assimilate. These abstractions provide the mechanism for reasoning and a means for drawing on memory and intelligence. To communicate thoughts the synthetic method is used. For convenience, to shorten communication we start at the point where we have arrived by degrees and proceed from the most simple to the most complex idea so that the picture presented by the succession of words which together express the thought, is the reflection of the image in the mind.

Obviously the method of synthesis involves language, and by implication, since this process depends on the results of analysis, so does the decomposition of complex ideas. It would seem that the analysis to simple ideas provides a basic fund of knowledge on which reason and memory can draw for the various mental processes, including the formation of thoughts.

Items in such a fund of knowledge would more conveniently be identified by signs, and such signs could represent complex as well as simple ideas. However, although complex terms are necessary to shorten communication, it appears that they would be of limited use as ready reference in the mental process, since the process of analysis from complex to simple ideas would still take place, because it is related to the capacity to understand. This may be another indication that, for Beauzée, thought is to some extent independent of language.

Bartlett sees this analytic process as making Beauzée's theory of knowledge (Bartlett's term) dependent on his theory of language. He also refers to the analysed elements providing not only the means by which man takes advantage of

2. Ibid.
3. Bartlett considers that Beauzée places the language mechanism firmly within that of reason, i.e. man's ability to analyse, make abstractions and generalisations, and to synthesise, classify and subclassify. (3.30, pp. 41-42.)
his memory and intelligence but also representing the data from which the language utterance is synthesised.

The use of the term 'synthesis' in this context seems to relate not only to the synthesis of simple ideas into complex ones, identified by words, but also to the composition of the utterance from words representing simple or complex ideas, or a mixture of both.

The position seems to be confused, however, in that while Beauzée states that, for ease of communication, synthesis, the reverse process of analysis, presents the idea in its pre-analysed form, the presentation of a total thought in a sentence is stated to be in analytic order.

The process of synthesis evidently applies in Beauzée's illustration regarding complex ideas which are represented by 'noms appellatifs', "qui désignent les êtres par l'idée générale d'une nature commune à plusieurs". They express the total idea ("l'idée totale") of the nature which is common and this total idea is the sum of the partial ideas ("compréhension de l'idée") forming the total. Homme, for example, includes the partial ideas of 'corps vivant' and 'âme raisonnable', which in turn include ideas subordinate to them, e.g. 'âme raisonnable' assumes ideas of substance, unity, intelligence etc.

Thus the more general and simple ideas would be synthesised to the more complex idea of 'homme'.

1. Ibid., 3.31, p. 42.
3. Ibid., pp. vij-viiij.
But Beauzée says that while the more general and simple ideas take precedence in synthetic order, proper nouns (noms propres) representing individuals, take priority on analytic order, because knowledge of individuals comes first in experience\(^1\). 'Order', it seems, refers to the stage from which the processes of analysis and synthesis proceed.

Beauzée's use of the same term 'analysis' in opposition to synthesis, both for abstracting simple ideas which are then compounded (synthesised) in the expression and for the presentation of partial ideas of the same thought in the expression, adds to the confusion. There appears to be a difference of kind between a mental process forming a total idea by the addition of semantic features which are included in the comprehension of an idea and are represented by a word, and saying something in a sentence by presenting a succession of ideas, all amounting to the expression of an 'acte indivisible'. It may be that Beauzée would regard the two functions as part of a total process since, in effect, the analysed simple ideas and the words in a sentence are all partial ideas of the same thought. It is for convenience of communication that simple ideas are synthesised to complex ideas. Such a view would nevertheless seem to confuse semantic analysis with the question of ordering of ideas.

'Order' can admittedly apply to both the analysis and synthesis of separate ideas (i.e. in the sense of the stage from which one proceeds) and to the order of priority of ideas in a sentence, but there seems to be a difference which Beauzée does not acknowledge, though possibly deliberately, if he views the process as common to both aspects.

1. Ibid., pp. 252-253.
A further question is prompted by Beauzée's references to the synthesis of simple ideas and the resulting succession of words which express a thought. Beauzée's simple and complex ideas appear to concern only objects which can relate to reality directly or indirectly and in terms of word class would be represented by nouns, whereas the process by which the utterance is formulated would require other kinds of semantic units, representing for instance relationships, manner, etc., having their grammatical counterpart in other word classes. Such units would also need to be available to memory.

This point does not appear to have received Beauzée's specific attention, but his recognition of the distinction between words expressing objects of thoughts and those expressing the mind's view is of interest. He agrees in principle with Port-Royal's division into these two classes but criticises it as arbitrary and insufficiently reasoned (1). His own distinction is made on the quite different basis of whether words are marked for number, and therefore can be regarded as objects of our thoughts. He excludes 'affectifs', i.e. interjections from the division (2), which only applies to 'discursifs', which "servent à l'exposition analytique des pensées de l'esprit" (3). Nouns, pronouns, adjectives and verbs represent objects of thought, because they are the only parts of speech which express things (les êtres); prepositions, adverbs and conjunctions represent the mind's views.

Commenting on the difference between the Encyclopédie classification of words signifying objects of thought and those signifying manner of thought, and that of Port-Royal, Auroux points out that within the Enlightenment view of a proposition merely corresponding to a total idea expressing a fact, manner of thought is not related to an act of mind but is a point of view whereby the object or idea is regarded by the thought (4).

1. Ibid., Livre III, Ch. III, Vol. 2, p. 91.
2. These were classified by Port-Royal, together with conjunctions, as signifying the operation of mind which joins or disunites things.
3. Ibid., p. 94.
4. La sémiotique des encyclopédistes, pp. 96-7.
Chapter 4. The Word in Beauzée's Theory.

Bartlett refers to the word as the cornerstone of Beauzée's theory since it is the basic linguistic element at each stage of his theory of language. He considers that Beauzée obviously sees the word as the basic linguistic unit synthesised from analysed thought to establish semantic elements in the logical proposition; it has formal grammatical class membership in the grammatical proposition; as a phonological unit it is subject to phonological/phonetic constraints, and, in the utterance it manifests the specific choices made at each of the underlying stages (1).

Beauzée's definition of the word is included in the Encyclopédie. "Une totalité de sons, devenue par usage, pour ceux qui l'entendent, le signe d'une idée totale" (2).

He recognises the meaningless nature of the word, in itself. The arbitrary association of meaning with a word was referred to at Chapter 2, above, as one of the a priori principles of his theory (3).

He dismisses the usual signification of the words of a language as a matter for the dictionary, stating that Grammaire générale, which is only concerned with general principles common to all languages, aims at defining the specific character of the classes in which words are arranged. The basis of these classifications is to be found in the nature of their common functions relative to the analytical expression of thought (4).

2. Ibid., and the article "Mot", Encyclopédie, 10, p. 752.
Beauzée distinguishes between the 'signification objective' of a word, "l'idée fondamentale qui est l'objet individuel de la signification du mot" (1), relating to semantic content, and the 'signification formelle ou spécifique', "la manière particulière dont un mot présente à l'esprit l'idée individuelle dont il est le signe" (2). This in effect signifies its syntactic function and identifies it as a word class, since the basic idea, or meaning, is applied in a particular way. This is illustrated by Beauzée's example of the common root 'am', the basic idea of aimer, amitié, ami, amical, amicalement. The different inflexions add to this 'idée objective' a particular application which gives the formal signification, aimer being a verb, amitié, an abstract noun, ami, a substantive noun, amical, an adjective, and amicalement, an adverb (3).

Together, the 'signification objective' and 'signification formelle' give the 'signification totale' of a word, comprising all the possible meanings and grammatical uses which it can have in language (4).

Beauzée's classification of the word is also subject to sub-classification of the 'idée totale', namely, to the categories 'idées principales' and 'idées accessoires', terms which are to be found in various contexts in his Grammaire générale. In relation to the 'signification formelle' of a word, case would represent an 'idée accessoire' (5). Bartlett sees the 'signification objective' of a word as consisting of its semantic distinguishers, which are its 'idées principales'.

1. Ibid., Livre III, Ch. VI, Vol. 2, p. 346.
2. Ibid., p. 345.
3. Ibid., p. 346-347.
5. "...on ne peut plus douter aujourd'hui que la diversité des Cas ne dépende de celle des terminaisons, destinées à désigner les idées accessoires des différents rapports à l'ordre analytique de l'énonciation." (Livre III, Ch. IV, Vol. 2, p. 151).
and its semantic markers, its 'idées accessoires'. As examples he instances 'amour and amitié'. as markers and 'haine and amour' as distinguishers (the last two examples are Bartlett's own)\(^{(1)}\).

The term 'acception formelle' is also used by Beauzée in relation to the word in all its aspects. Bartlett notes that this appears to bridge content and expression. Content relates to a choice of variables made by the speaker which range from denotation, connotation and accessory features, such as singularity and plurality, to a wide choice of affective meanings, e.g. sens propre, sens figuré, sens accidentel and others listed in Beauzée's Encyclopédie article, 'Sens', which is compiled largely from Du Marsais' Traité des Tropes\(^{(2)}\).

The fact that Beauzée considers the possibility of meaningful syllables is referred to by Robinet as an original feature which contributes to the difference between his definition of the word and the views of Port-Royal, Du Marsais, Duclos and Fromant. Beauzée, in addition to considering the Port-Royal definition\(^{(3)}\) as a pleonasm, referred to it as inexact because it did not take account of the fact that each syllable signifies something in our thoughts. A more fundamental difference is Beauzée's view of the object represented, not in the capacity of an idea, but in that of a being. Robinet describes Beauzée's interpretation as 'non arnauldienne', Aristotelian\(^{(4)}\) and ontological, far removed from Port-Royal's

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1. Bartlett, 4.8, p. 49.
2. Ibid., 4.12, p. 51.
4. "Cet aristotelisme du plein XVIIIe siècle est la raison de la divergence constatée et longuement explicitée entre PR et l'ERM, qui accentue la tendance amorçée par Du Marsais." (Le Langage à l'Age Classique, p. 69).
distinction between the 'idée représentée' and the 'idée représentante', for, independent of the signifier and the signified is the being\(^1\).

Beauzée's recognition, illustrated by the identification of 'am' as the 'idée objective', that units not forming a complete word may nevertheless be meaningful\(^2\) prompts certain questions.

One relates to possible anomalies arising from his use of the terms 'idée partielle' and 'idée totale' which appear to be relative terms (e.g. homme is an idée totale in relation to the idées partielles which it contains, such as mâle, animal, âme etc., but an idée partielle in relation to the term homme pieux). This aspect is discussed by Bartlett in the context of Beauzée's open-ended view of the word. Though recognising that single syllables or single sounds may be meaningful and therefore capable of being the sign of an idea, Beauzée considers them as only idées partielles, not words, which, by his definition above, are the sign of an 'idée totale'. But an 'idée' as a sum of semantic features (e.g. the subject and its complement, or the proposition, which can also be 'idées totales' in relation to the 'idées partielles' of which they are formed) may transcend the word boundary. The existence of the word in all its differing capacities at the same time also makes it difficult to define it in terms valid throughout\(^3\). However, the stage at which the word is being considered is usually evident from the context, so that the lack of a clear distinction denoting its various capacities presents no real problem\(^4\).

1. Ibid., p. 70.
2. In the article "Mot", Encyclopédie, Beauzée considers amaverimus as five individual features. "Chaque syllabe est un son distinct et souvent articulé, qui quelquefois signifie quelque chose de nos pensées." (Bartlett, p. 53 and Robinet p. 69 refer).
4. Ibid., 4.19, p. 54.
Another point relates to the content of the meaningful units which are smaller than the word. Although these units are elements from which the expression becomes synthesised, their role in this respect does not seem to be considered by Beauzée. Their semantic nature appears to be different from that of the simple ideas analysed from complex ideas which also form elements of analysed thought, but which appear likely to each provide an 'idée totale' capable of being represented by a word.

Setting aside the interjections (affectifs), which represent the 'langage du coeur', and are segregated as word classes from the discursives, which 'servent à l'expression analytique des pensées' (1), Beauzée defines the basic signification, common to the four declinable word classes, nouns, pronouns, adjectives and verbs, as presenting 'les êtres', real or abstract, which can be the object of thought (2).

Bartlett notes that it is the nominalist existence, the 'existence intellectuelle' as a result of the act of judgment that confers on the referents of word classes the common property of being 'des êtres' (3).

Within this basic principle, words are allocated to classes according to their nature, which, as noted in the above definition, rests on how they signify beings. In illustration:

"... les Noms sont des mots qui expriment déterminément les êtres, en les désignant par l'idée de leur nature.

.....

Les Noms appellatifs sont ceux qui désignent des êtres par l'idée générale d'une nature commune à plusieurs.

.....

Les Noms propres sont ceux qui désignent les êtres par l'idée singulière d'une nature individuelle."(1)

"... on ne doit regarder comme des Pronoms, que les mots qui expriment des êtres déterminés par l'idée de leur personne."(2)

Sub-classifications of the word classes are made according to the semantic features common to them, as indicated by the above-sub-classification of nouns to common and proper nouns.

Beauzée's definitions of word classes relate to their unchanging nature. The way in which the words are used in a particular language, i.e. in the utterance, may vary from this due to the use of ellipsis(3).

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2. Ibid., Ch. II, p. 275.
Chapter 5. The Proposition.

If content were regarded as a mass of semantic entities, without a pre-destined form, subsequent realisation in speech should present endless possibilities. But Beauzée is constrained by the concept of the proposition as a judgment, though he gives it his own independent definition and materialisation from thought 'une et indivisible' to the utterance.

According to his interpretation, knowledge is nothing other than the intellectual recognition of beings with their attributes, which logicians call judgments, the act whereby the mind perceives in itself the existence of a being with its attribute. If the relationship in reality is as it exists in the mind, our knowledge of it is correct, but it is false if it does not correspond with reality(1).

Bartlett interprets the 'acte' of judgment as the act of analysis which produces two discrete entities in some relationship to each other, the entities probably being in some gross or undifferentiated semantic terms. The structure resulting from the subsequent act of synthesis is the 'logical proposition', abstract in that it does not depend on a specific form of lexicalisation but on expression of the intellectual existence of the subject and its relationship with the attribute(2).

2. Bartlett, 5.16-5.18, pp. 67-68.

Auroux discusses some consequences deriving from differing conceptions of the proposition, including those of Beauzée and Du Marsais. Beauzée's 'existence intellectuelle' made the truth or falsehood of a proposition depend on the relationship of the entire proposition to reality. Du Marsais' definition amounted to the possibility of making truth or falsehood dependent on an act of mind. (La sémiotique des encyclopédistes, pp. 93-4). Beauzée's arguments against Du Marsais' theory are included in his Grammaire générale (Livre III, Ch. I, Vol. 2, p. 4 et seq.).
Beauzee does not appear to be explicit on whether or not the act of judgment involves some internal form of lexical differentiation. In his description of the function of a proposition, his reference to 'sujet déterminé' and 'attribut déterminé' implies a formal distinction, corresponding to the intellectual existence of the subject with its attribute\(^1\).

While not describing the logical proposition and grammatical proposition as such, Beauzee does imply such distinct levels at other contexts of his commentary\(^2\). The distinction is illustrated in a description of the content of "la gloire qui vient de la vertu est supérieure à celle qui vient de la naissance". He defines "la gloire" and "supérieure" as grammatical subject and attribute respectively, and "la gloire qui vient de la vertu" and "supérieure à celle qui vient de la naissance" as logical subject and attribute\(^3\). The logical subject and attribute are thus identifiable with the grammatical subject and attribute and their respective complements. Although, as Bartlett points out, the logical proposition is regarded from purely the aspect of content and although the total content overlaps with that of the total expression, there is no necessary one to one relationship within the content\(^4\). The latter point is well illustrated in Bartlett's account of the distinction made by Beauzee between, on the one hand, the definition of simple and compound logical subjects and attributes and on the other, between non complex or complex grammatical subjects or attributes. In the first case, the subject is simple if it derives from a single 'idée unique', compound if it consists of more than one 'idée unique', irrespective of the number or form or words used to

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1. "Une proposition doit être l'image de ce que l'esprit aperçoit par son jugement, et par conséquent elle doit énoncer avec exactitude ce qui se passe alors dans l'esprit, et montrer sensiblement un sujet déterminé, un attribut déterminé, et l'existence intellectuelle du sujet avec relation à l'attribut". Livre II, Ch. IV, Vol. 2, p. 394.
express this; and in the second, non-complex if it depends on
one word, complex if more than one word is used\(^1\).

Bartlett notes that in this respect Beauzée uses the same
distinction as Arnauld between simple and compound ideas as
opposed to complex and non complex terms\(^2\).

Although Beauzée's definition of the role of the verb être
in the proposition moves away from Port-Royal's view of it
as an operative act of mind, joining the subject to its
attribute\(^3\), it attributes an important and distinctive
center to the verb, vesting in it the idea of the intellect-
ual existence of the subject in relation to the attribute\(^4\).

Beauzée distinguishes between the usual function of the
verb être expressing intellectual existence, and its use to
express real existence, when, in addition to the abstract form,
is added the accessory feature of the determined idea of real
existence\(^5\). The existence of other adjectival or concrete
verbs is explained by the suppression of the root of the
substantive or abstract verb (i.e. être) leaving only the
accessory idea of the attribute. Only the endings recall
the idea of intellectual existence, a necessary element in
the total signification of concrete verbs\(^6\).

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2. Bartlett, 2.18, p. 25.
3. Auroux, p. 96-7; Robinet, Le Langage à l'Age Classique,
   pp. 68-72 discusses Beauzée's objections to the Port-Royal
   concept of affirmation.
5. Ibid., p. 410.
6. Ibid., p. 411.
he defines the grammatical content of the proposition as the sum total of the integral parts of which it is composed, reduced by analysis to the subject and attribute. The attribute, viewed as grammatical content, includes the verb (1).

In relation to the total parts which should constitute the proposition, Beauzée considers that the sentence (i.e. utterance) may be complete, in its natural state (plénitude), or have a lack, or surplus of some parts (défaut or redondance) (2). Ellipsis, the lack of some part of the natural state of the phrase is the form of deviation most important to Beauzée's theory, and he attributes it to the desire to recapture the unity of thought (3). The 'art' of restoring the elided parts is fundamental to his theory since it allows for the completion of the sentence in agreement with the grammatical principles he establishes regarding the nature of words and their relationship within the sentence, i.e., the principles which form his Grammaire générale (4).

Bartlett considers it quite apparent that Beauzée regards this 'art' of reconstructing the underlying form of the utterance, consciously undertaken by the grammarian by application of a set of rules drawn from some general grammar, as part of the language user's competence. Bartlett interprets the decoding process as involving successive stages to determine first the grammatical structure, then the underlying semantic organisation. "The hearer analyses the utterance ... and proceeds, by means of his unconscious knowledge of the grammar

1. Ibid., Livre III, Ch. I, Vol. 2, p. 7. Auroux distinguishes between 'Théorie-1' and 'Théorie-2' of the proposition. 'Théorie-2' - which is relevant to Beauzée's conception is the addition of several ideas to form a single one. It is true if the global idea corresponds to a fact. For 'Théorie-1' (appropriate to Port-Royal), the proposition is true if the idea of the predicate is included in that of the subject. (Auroux, La sémiotique des encyclopédistes, p. 166).
3. Ibid., pp. 396-7.
4. Ibid., p. 398.
to synthesize its underlying grammatical structure. This, in turn, is analysed to obtain the semantic organisation of the logical proposition, leading finally to the synthesis of thought 'une et indivisible'\(^1\).

Beauzée's reference to a special marking, "marque infallible"\(^2\) which would signal that something had been omitted from the utterance, provides some support for Bartlett's conclusions. Furthermore, the fact that Beauzée bases the art of reconstruction on the grammatical principles which he has established, in accordance with the principles regarding the nature of words and the grammatical forms which relate the words within the total sentence, provides justification for a view that in a decoding process, the grammatical structure is determined first. Against this, Beauzée quotes Du Marsais' recommendation that the words expressed must arouse the idea of those which are understood, but not expressed, so that the mind can, by analogy, reconstruct the entire sentence\(^3\). This implies that semantic considerations are also taken into account. Bartlett in fact acknowledges that a reconstruction process which a language user would apply, would draw on such "unconscious knowledge as the meaning and word-class membership of lexical items accruing in the utterance to correctly and unambiguously derive the underlying grammatical and semantic structures."\(^4\).

1. Bartlett, 5.10-5.11, p. 65.
2. "S'il autorise donc une phrase elliptique, afin de donner au tour le mérite de la brièveté ou de l'énergie; il a soin d'y conserver quelque chose, qui puisse caractériser la suppression: de manière qu'il est toujours possible de reconnaître à quelque marque infallible ce qui manque à la plénitude de la phrase, et ce qu'il convient de suppléer pour en rétablir l'intégrité". (Grammaire générale, Livre III Ch. VIII, Vol. 2, pp. 398-9).
3. Ibid., p. 398.
Bartlett sees ellipsis especially, but also redundancy and the natural construction, as elements of the realisation processes leading from one stage to another, and as a means of accounting for the lack of one to one correspondence between content and expression\(^{(1)}\). While it is clear that ellipsis is liberally used in the context of relating the grammatical proposition to the utterance, its application between the logical and grammatical proposition is not apparent. Bartlett considers that it seems reasonable to conclude that Beauzée saw ellipsis also occurring between logical and grammatical propositions\(^{(2)}\). Since both forms of proposition appear to correspond in their outer limits, i.e. content and expression overlap, any possible use of ellipsis would appear to be limited to internal organisation, involving, for instance, semantic content not reconcilable with the rules of general grammar allowed for in the grammatical proposition.

1. Ibid., 4.2, pp. 46-7, 5.5, p. 63.
2. Ibid., 6.72, p. 151.
Chapter 6. Syntax.

With Beauzée, as with Du Marsais, the arrangement of the words in a sentence, their mutual relationship and their relationship to the whole sentence is of vital importance in conveying the meaning of the sentence as a faithful image of the thought it expresses, for it reflects the relationship between the ideas contained in the thought, ideas which the words themselves express\(^1\).

The principles whereby these aims are achieved in Beauzée's theory are the analytic order of words in a sentence (l'ordre analytique), the notion of complement, and the relations of identity and determination.

Beauzée's views on syntax and construction, endorsing the definitions formulated by Du Marsais, accommodate these principles. Syntax is the art of ordering words and their accidental forms within the proposition, in conformity with the analytical order of ideas, and the relations of the basic ideas of the thought\(^2\).

Beauzée acknowledges the fundamental importance of the role of construction in syntax. The accidental forms of words depend on the analytical order of the ideas which they represent, and through them the natural construction is achieved, the image of the analytical succession of ideas and the faithful portrayal of the thought\(^3\).

He is emphatic about the importance of the 'ordre analytique' and forcefully declares it to be fundamental to the faithful representation of thought in language and the

2. Ibid.
3. Ibid., Livre III, Introduction, p. 3.
universal and unchanging prototype in all languages, without which there would be no common terms of reference. It is the indispensable basis of the rules of syntax in all languages. "Anéantissez l'ordre analytique: les règles de la Syntaxe sont partout sans raison, sans appui; bientôt elles seront sans consistance, sans autorité, sans effet; les mots, sans relation entre eux, ne formeront plus de sens; la parole ne sera plus qu'un vain bruit. Mais l'ordre analytique une fois admis pour terme de comparaison, la communication est établie généralement partout, avec les seules difficultés qui naissent des différentes manières de peindre le même objet."(1)

These unequivocal views of Beauzée on the importance of the concept of 'ordre analytique', or natural order, lead from references to Batteux' opinion that inversion could be equally regarded as normal order, a doctrine accepted by Condillac in his Essai sur l'origine des connaissances humaines and by Pluche and Chompré(2). The differing lines of thought are discussed in relation to Condillac's theory, at Part 2, Section 4, Chapter 8.

Beauzée refers to the two possible means whereby the influence of the 'ordre analytique' can be made known in the outward expression of thought, either to follow, in speech, the same order as that of ideas in the 'ordre analytique', as in the languages described by Girard as analogues, which include French, Italian, Spanish, English or, as with the transpositives, to convey the 'ordre analytique' by inflexions, allowing a free order, as in Latin(3). His own interpretation of the ordre analytique is constrained by the order followed by the analogues, and specifically French, and his formula for it lacks conviction at least as a universal basis(4).

1. Ibid., Ch. IX, Vol. 2, pp. 467-468.
2. Ibid., pp. 464-6.
3. Ibid., p. 468.
The vital weakness is that Beauzée's postulated order of analysed thought, reflected in the 'ordre analytique' which is the ideal order in the sentence, in effect derives from the order normal to the French language and is influenced by the traditional view of the logical proposition. His natural order of parts of speech is for the subject to precede the verb, because the mind sees a being before observing its manner of being: the verb is followed by its complement, because all action must commence before achieving its consequence: similarly the preposition is followed by the complement, because the complement completes the meaning initiated by the preposition: adjective follows the noun with which it is associated: incidental proposition follows the antecedent it modifies\(^1\).

He claims that 'ordre analytique' meets the natural succession representing the relation between the 'idées objectives' (i.e. the semantic content) of a thought which accords priority to the one and posteriority to the other\(^2\). He argues that Condillac's 'liaison des idées' is insufficient to present this relationship\(^3\). Bartlett, criticising the circularity and unconvincing nature of Beauzée's argument in favour of 'ordre analytique', considers that Condillac's point of view, though counter to Beauzée's basic premises about the structure of content, could have proved productive as a formal device in his theory\(^4\).

Du Marsais, with his distinction between the logical and the grammatical proposition, and the introduction of the notions of identity and determination in respect of logical relations, had paved the way for the notion of complement\(^5\), but it was Beauzée who formulated the notion.

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2. Ibid., p. 472.
3. Ibid., p. 536.
5. Chevalier, quoting Fr. Thurot, remarks that, to the 18th century, Du Marsais was the inventor. Histoire de la Syntaxe, p. 651.
Beauzée's definition is related to the meaning of the word. It is an addition to a term which changes or completes its meaning. "... le Complément d'un mot est une addition faite à ce mot, afin d'en changer ou d'en compléter la signification: ..."

His definitions regarding complement are also included in the Encyclopédie article Régime. On the basis of this definition, everything in the sentence can be reduced to the description of the subject and attribute and their complements, forming a total idea of the subject and attribute respectively.

Beauzée distinguishes two kinds of words which are subject to complementation, those having a general meaning (signification générale), which can have different degrees of complementation, and which do not necessarily require such amplification, since they are already 'idées totales' in themselves; and those with a relative meaning (signification relative) for which complementation is indispensable to complete their meaning. In the first category are common nouns, certain adjectives, certain adverbs and most verbs, and in these cases, complementation would change the meaning. In the second category are included words whose meaning implies a counterpart, including the 'simples mats relatifs' such as 'père, oncle etc', which require a 'correlatif', and the 'réciproquement relatifs', which express a constant relationship between two terms, such as 'frère, collègue, cousin etc'.

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2. Ibid., pp. 45-48. Bartlett notes that Beauzée's consideration of such points regarding words having a relative significance (signification relative) shows an interesting approach to the componential analysis of words, which, however, he fails to develop to any greater extent. (5.138, p. 118).
Prepositions unconditionally require a complement, a noun, pronoun or infinitive\(^{(1)}\).

Complements can be considered relative to their expression or their meaning. Considered in relation to their meaning, there can be as many kinds of complements as there are possible ways of determining the meaning of the word, and Beauzée attempts a distinction according to the different circumstances which can affect a fact, quoting 'quis, quid, ubi, quibus, auxiliis, cur, quomodo, quando'\(^{(2)}\).

In relation to its expression, i.e. viewed grammatically, a complement can be incomplex, when it is expressed by one word, a noun, pronoun, adjective, infinitive or an adverb; or complex, when expressed by several words, each of which modifies the others. A word which is already complement to another may itself be followed by another, and so on, until the last in the series is semantically complete\(^{(3)}\). In such cases, the word which is first in the 'ordre analytique', to which the remaining words are subordinate, needs to be distinguished, and if the word is an adjective, noun, pronoun or infinitive it can be called the 'complément grammatical' because in languages subject to declension these word classes are affected by their syntactic role in the complement. Viewed in its entirety, the complement is the 'complément logique', "parce que c'est l'expression de l'idée totale que la raison envisage comme le vrai complément"\(^{(4)}\).

2. Ibid., pp. 52, 57. Chevalier refers to the similarity to the former classical divisions, in Beausée's treatment of the content of complements, which includes classification according to place, means, cause, manner and time, but considers that the modifications made by Beausée are far from being an improvement (Histoire de la Syntaxe, p. 720).
3. Bartlett, 5.139, p. 119. Bartlett records that the idea of semantic completion, i.e. there should remain no relations whose antecedents and consequent terms are not fully specified, formed part of the modistic concept of syntax, cf. Bursill-Hall Aspects of modistic grammar, 143. (Bartlett, p. 119).
4. Bartlett (5.141, p. 120) relates the logical complement to Bloomfield's endocentric construction. (Bloomfield, Language, p. 194).
Where the first word of a complex complement is indeclinable i.e. an adverb or preposition, it is the 'complément initial', and the entire complement is the 'complément total' (1).

Beauzée’s conception of the complement has its repercussions in his definition of the incidental propositions, which serve as determinative or explicative complements to partial ideas belonging to another proposition, this being principle in relation to the incidental, which is only part of it. Together, the incidental and principal proposition form a complex proposition.

Using the Port-Royal terms of explication and comprehension, Beauzée defines the role of the explicative incidental proposition as developing the comprehension of the partial idea to which it is linked; that of the determinative adds an accessory idea to the comprehension of the partial idea to which it is linked (2).

He criticises both Du Marsais' and Port-Royal's definitions of the incidental proposition. Du Marsais' definition was inadequate in that it assumed that the incidental proposition merely applied to the subject of the principal clause. "celle qui se trouve entre le sujet personnel et l'attribut d'une autre Proposition qu'on appelle Proposition principale". That of Port-Royal, though allowing for the incidental to apply to both subject and predicate limited it to cases introduced by the relative pronoun. "Les Propositions incidentes sont celles dont le sujet est le relatif qui" (3).

A consequence of the differing approaches of Port-Royal and Beauzée to the incidental proposition is that whereas Port-Royal saw in such propositions the possibility of underlying propositions, in terms of judgment, Beauzée's view of them as complements with similar functions to any other complements,

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3. Ibid., pp. 23-29.
required no deeper structural explanation in this respect. Auroux comments that, whereas Port-Royal's interpretation could be compared in this respect with the modern conception of transformational generative grammar, that of Beauzée could not. Chomsky himself noted the difference between Beauzée and Port-Royal.

Of interest are the criteria identified by Beauzée for the two different categories of incidental propositions. The incidental explicative can, instead of being joined to the antecedent by a conjunctive, become a principal proposition by the use of causal conjunctions or equivalent phrase, or it can be omitted without altering the sense of the principal proposition. The antecedent to the conjunctive word of the incidental can be substituted for it, transforming the incidental into a principal, without changing the truth of the proposition.

In the case of the determinative incidental, the incidental can be made principal by replacing the conjunctive word by a conditional conjunctive, e.g. si, or some phrase having both the conditional and conjunctive sense. Contrary to the explicative, the incidental determinative cannot be suppressed without changing the sense and the truth of the principal. Similarly the antecedent of the conjunctive word of the incidental determinative cannot be substituted for it, thus making the incidental a principal, without falsifying the proposition, e.g. 'la gloire qui vient de la vertu' cannot retain its truth in 'la gloire vient de la vertu'.

Beauzée invokes the Port-Royal Logique's point that all additions distinctly marking proper nouns are explicative, since their comprehension is already complete and requires no further determination.

2. Port-Royal noted similar restrictions. See Section I, Chapter 5.
Indicative of the persistence of the authority of the Port-Royal Logique is also Beauzee's comment that further points on incidental propositions are more appropriate to logic than grammar and it would be better to consult La Logique ou l'Art de penser (1).

Auroux emphasises that the criteria defined by Beauzee for recognising explicative and determinative incidental propositions do not depend on differences of deep structure but on intrinsic properties of the surface structure, deriving from semantic and epistemological considerations. Auroux adds that the most advanced studies on this subject recognise the need to use three levels of analysis: 1. a level linked to the relative autonomy of language, using morpho-syntactic surface structures for a given language to define distinctions: 2. a level affected by criteria linked to the utterance: 3. a level where the interpretation of sentences is guided by knowledge of the world (formation discursive), which determines the meaning. He considers the importance of this approach to be overlooked by treatment of the distinctions in terms restricted to a first generative approach to grammar (2).

Both Du Marsais and Beauzee developed the Port-Royal distinction of syntaxe de concordance and syntaxe de régime on the same lines as each other, in that both were concerned in expounding semantic distinctions which had syntactic values marked in the expression. But, Auroux comments that, compared with Du Marsais' lack of a clear distinction between the relations of identity and determination, and his merging of both of them under 'concordance', Beauzee defined them and distinguished their separate markings of concordance (agreement) and régime (government) respectively, and clarified their relationship in regard to complementation (3).

1. Ibid., p. 35.
2. La sémiotique des encyclopédistes, pp. 176-180.
3. Ibid., pp. 184-185.
Accounting between them for all relations between words joined together for the expression of an 'idée totale', identity submits words to the rules of concordance, determination to the rules of régime(1).

Under Beauzée's definitions, the agreement of inflexions (concordance) resulting from the relation of identity leads from that of the dominant term, the inflexion for this having been first determined by the principle of régime. The remaining terms related to the dominant one take corresponding inflections, common nouns being the dominant term for adjectives, any noun or pronoun for verbs(2).

Words joined together in a relation of identity result, in content, in one indivisible idea; la loi naturelle, la loi politique, la loi évangélique are three different and single ideas, as is le soleil luit(3).

The inclusion of le soleil luit as an example of identity producing one idea appears to suggest that with Beauzée, the grammatical relationship of régime (luit being governed by soleil, the word which it determines), is not excluded by the relationship of concordance. Auroux, on the other hand, notes that "le complément (du nom, du verbe ou de l'adjectif) complète ou détermine le terme qui le régît sans qu'il y ait identité entre les êtres signifiés par les deux termes(4).

Régime, or government, which Beauzée regards as a consequence of determination, is made distinct, in his interpretation, from complement, with which it had previously been identified.

3. Ibid.
4. La sémiotique des encyclopédistes, p. 185.
"Il me semble que tout cela établit la nécessité de distinguer le Complément, qui, ... est un objet essentiel de la Logique grammaticale; et le Régime, qui ne dispose que des formes des mots, comme d'autant d'etiquettes qui en caractérisent les rapports ...

Apartment from some apparent anomalies regarding identity and determination, deriving from the differing interpretations of Du Marsais and Beauzée, the concept of determination itself appears open to confusion.

Bartlett in analysing Beauzée's uses of the term notes that Beauzée himself was well aware of the dangers inherent in his use of it. Beauzée distinguishes the determination of the extension of a word from determination of the meaning of a word, which can be interpreted as representation of a certain idea by an arbitrary sign, differentiation by context, or the explanation of it by definition.

The extension of a word, or term goes back to Port-Royal's definition of comprehension and extension, but Beauzée's use of it derives from a different interpretation of the concepts. Bartlett points out the greater clarity of Beauzée's definition of comprehension, "la totalité des idées partielles (i.e. semantic content) qui constituent l'idée totale de la nature commune exprimée par les Noms" and the marked difference in the sense in which the term extension is used. Whereas Port-Royal's definition indicated an hierarchy of knowledge

1. Grammaire générale, Livre III, Ch. II, Vol. 2, p. 84. This corresponds with the definition in article 'grammaire' E.R.M. (Auroux, Encyclopédie "grammaire" et "langue" au XVIII siècle, p. 82).
within the term in question, representing a purely Aristotelian classification, Beauzée's definition, rejecting the implied restriction, extended the signification of the term to the number of individuals to whom the idea of the nature announced by the term applied. Bartlett sees in this interpretation a much clearer distinction than is the case with any of Beauzée's contemporaries between "la logique toute pure" (i.e. the hierarchical organisation of knowledge and logical argumentation from premises) and "la logique grammaticale" (i.e. "the application of the mind's rational processes to the linguistic means by which thought is manifested as language") which was Beauzée's prime consideration.

Of interest in regard to the use of prepositions in complementation, such as 'livre de grammaire', is Beauzée's view of them as expressing only general relations which are modified by different complements. The preposition, vers, for example, can relate to place, time, or a term. The meaning it takes in context is not in the word 'vers' but derives from its relationship to the antecedent and consequent terms.

"Disons-le de bonne foi, ces différentes significations ne sont point dans le mot vers: les rapports sont compris dans la signification des termes antécédents, et c'est l'ordre; les termes conséquents les déterminent spécifiquement; et la Préposition ne fait qu'indiquer que son complément est le terme conséquent du rapport qui appartient au terme antécédent et dont elle est le signe".

1. W. & M. Kneale, while also referring to lack of clarity in the Port-Royal concepts, concede that they probably meant the set of individuals to which a general term applies. See Part 2, Section 1, Chapter 4.


The inference from this, which also applies, though in different degree, to the 18th century view of relation between words generally, is that the association of one or more words together adds to or modifies the intrinsic content of the word\(^1\). Prepositions appear to be a special case in being regarded as 'semantically empty', but in any relationship where two or more expressions, through being associated, take on a different or additional meaning over and above that each contains separately, there appears to be the suggestion that the total is greater than the sum of the constituent parts. The 'idée totale' of Beauzée comprises 'idées partielles' and also the relations of identity and determination, effective in providing the 'ordre analytique'. Whether the relationship itself contributes an addition appears open to discussion.

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1. Auroux quotes Beauzée's definition of prepositions as "mots qui désignent des rapports généraux avec abstraction de tout terme antécédent et conséquent" (art. Préposition, t. 13, ERMB, p. 301 and Grammaire générale, Livre II, Ch. V, Vol. 1, p. 515) in commenting that the notion of determination can be understood as a 'théorie intensionnelle de relations'. Auroux also mentions his own article Logique et grammaire: une théorie archaique des relations, Dialogue XVII-I, pp. 1-18, mars 1978. La sémiotique des encyclopédistes, p. 190.
Chapter 7. Summary.

As Beauzée's aim in formulating the reasoned elements of his Grammaire générale was to account for the grammatical facts of languages rather than to explain how thought is represented in language, the fact that his consideration of the thought processes and their relationship with language does not receive the explicit and detailed attention which he gives to the linguistic stages of his theory is understandable. The linguistic stages nevertheless partly depend on the a priori form of thought 'une et indivisible', which may be regarded as the starting point for the theory. It is feasible that, as Bartlett suggests, he envisaged thought at this stage as an unstructured collection of sensory impressions, as did his contemporary, Condillac, but in his stipulation that God-given reason played a leading role in analysing thought, Beauzée maintained a more orthodox position. Nor did he go so far as to say that language analyses thought, though according to Bartlett's interpretation, this was a function of reason in co-operation with language.

In formulating the stages through which simultaneous thought progresses to the utterance, Beauzée was able to benefit from features used in Du Marsais' theory, which led from the view that relations between words contribute to the total meaning. Such were the abstract concepts of the logical and grammatical proposition, which distinguished between the content and its grammatical formulation, and the relations of identity and determination, which Beauzée developed further, in conjunction with his detailed formulation of the notion of complement. But, though drawing on aspects of traditional and contemporary theories, Beauzée showed a high degree of sophistication and of independence in his interpretation. Bartlett refers to his postulation of deep and surface structure
as possibly unique\(^{(1)}\), and comments that although his under-
lying assumptions and the rationalist metalanguage and
methodology were shared by contemporaries, it can be claimed
that his theory is unique, firstly, in his attempt to explain
language in its own terms\(^{(2)}\), and secondly, in his use of
the concepts of identity and determination\(^{(3)}\).

Within Beauzée's theory, there is a commendable propensity
for analysis, arising from the distinction in his terminology
between the different features of content and formal expression,
including the differing roles of the word at each stage of
the theory, and from his recognition that there need not be
a one to one correspondence between the different stages.
Since the nature of the content is regarded as universal, and
the constituents of the grammatical proposition aim to provide
a selection of elements from which particular grammars may
make their selection, in theory, the general grammar allows
for numerous permutations for expressing the same kind of
content. The potential for separate consideration of the
various features and stages, which Beauzée's method appears
to offer is, however, inhibited by the restricted a priori
view of the content. In spite of Beauzée's independent
formulation, this remains influenced by the traditional view
of the logical proposition and by the a priori basis of his
theory. Bartlett refers to the theory constituting a body
of circular argumentation, with rational principles providing
"the basis for the assumptions, the processes by which the
internal developments of the theory are largely determined,
and the data for which the theory must account."\(^{(4)}\).

Though the question is, of course, unfair in relation
to Beauzée's stated aim of the Grammaire générale, as an
'exposition raisonnée des éléments nécessaires du langage,
pour servir de fondement à l'étude de toutes les langues',
it is interesting to consider whether, especially since

\begin{itemize}
\item 1. 7.7, p. 174.
\item 2. 7.30, 7.31, p. 181.
\item 3. 7.33, p. 182.
\item 4. 7.24, p. 179.
\end{itemize}
Beauzée's grammatical formulations are so related to his view of content, the Grammaire générale could be considered as providing a structure which would avoid irregular semantic associations. The regular ordering postulated in Beauzée's concept of the 'ordre analytique', and the logical relations of identity and determination with their grammatical counterparts of concordance and régime might be regarded, though only for the French language, as elements constituting an ordered structure, to which the 'signification objective' of words would add the required semantic features.

The inbuilt deficiencies already referred to, which derive from the a priori basis and the circularity of his theory, would constitute an obstacle to the effectiveness of the theory in such a capacity even if this were Beauzée's intended aim. The components of the structure itself may have a certain validity, since, notwithstanding Beauzée's description of them in terms which relate to a priori assumptions, they are to be found in usage of the French language. The presentation of the elements of Grammaire générale in sets from which specific languages may make a choice may be regarded as providing a 'transformational' quality to Beauzée's theory. However, some of the formulations of choices depend on Beauzée's a priori assumptions regarding content, which could make them invalid as structures, and, as far as semantic features are concerned, these appear to have been inadequately explored and defined.

The framing of components of general grammar as elements capable of accounting for the particular grammars of all languages rather than for language utterances also argues against regarding the theory as providing a structure in the transformational sense. Also relevant is Bartlett's point that "there is no formal means of establishing the processes

acting as realisational relations between stages"(1), a reason why ad hoc solutions may plausibly be adopted(2). The point made by Bartlett that there is no theoretical principle against increasing the number of word classes in his theory(3), indicates that the components for his theory are not necessarily finite.

Features which also run counter to the possibility of syntactic autonomy in Beauzée's theory are the apparent reliance, at least in part, on semantic considerations, in recognising the 'marque infaillible', by which ellided elements can be deduced(4), and the need to take into account semantic and contextual aspects in identifying explicative and determinative incidental propositions(5).

An interesting feature of Beauzée's theory is his distinction between the processes of acquiring knowledge and of communicating thought. Although his theory appears to call for amplification in this respect, as Bartlett indicates, it contributes, in conjunction with the encoding and decoding propensity of the various stages of realisation, an explanation of the mechanism involved in communication, as well as contributing to what Bartlett describes as a theory of knowledge.

Another noteworthy feature is his definition of the judgment, which appears to be more analytic than that of other philosopher grammarians, because of his distinction between the intellectual existence of the subject and attribute as opposed to their real existence. This seems to be reminiscent of the Modistae's recognition of reality and appears to offer a more positive basis than is evident in other theories of general grammar, for exploring the truth conditions of a proposition.

1. Bartlett points out that the relations of identity and determination stem neither from Beauzée's basic assumptions, nor from developments within the theory. Although they "depend on the concepts of comprehension and extension in nouns, this fact does not in itself give rise to these relations." (7.15, p. 177).

2. 7.27, p. 180. 3. 7.29, p. 181. 4. Chapter 5 above.

5. Ibid.
Part 2, Section 4

Etienne Bonnot de Condillac, 1714 - 1780

Chapter I. Introduction.

Although language is a vital part of Condillac's theory of human understanding, he has, until relatively recently, been associated more with the general philosophy of the Enlightenment than with theories of language and grammar.

As regards his role in philosophy, Georges Le Roy comments that although he was influential among the Philosophes, they, as much as Condillac himself, were inspired primarily by English empiricism and shared a common admiration for the philosophy of Locke and Newton. It was with the Idéologues that his influence became most marked, though they differed from him in their interpretation of sensualist doctrine(1). After his death his philosophy became associated with the French Revolution through the medium of the Idéologues, whose programme, Idéologie, inspired by his work, received academic status as the official philosophy of the French schools during the Revolutionary and Napoleonic periods(2).

Knight notes that, because Condillac was a philosopher, he has been written about mainly by other philosophers, most studies of him being intended as evaluations of this thought(3). It appears that, up to recent times, such publications about Condillac only incidentally dealt with his views on language,

3. Ibid., p. 303.
if at all, and Hans Aarsleff strongly criticises the general neglect and misunderstanding of Condillac's theory in relation to language and the lack of appreciation of its impact on the question of the origin of language and on the 18th century view of 'universal grammar' and 'grammaire générale'.

Among the 20th century works on Condillac, Georges Le Roy's La Psychologie de Condillac is referred to by Knight as the best and most analytic twentieth century study of Condillac, and this work, as well as Knight's own, are included by Robert G. Weyant among the few exceptions to the generally brief and superficial discussions of Condillac's psychology. However, a caveat on Knight's work comes from Aarsleff who considers that it can only tend to perpetuate conventional errors about Condillac. Georges Le Roy's edition of the complete works of Condillac is also commended by Aarsleff and Knight. Roger Lefèvre's Condillac provides a straightforward account of the main features of Condillac's theory. Of relevance to the philosophy of the period are the well known work of Ernst Cassirer, The Philosophy of the Enlightenment, and Pierre Juliard's

Philosophies of Language in Eighteenth Century France. Condillac's role as a leading empiricist grammarian is discussed by Guy Harnois(1), and his views on the origin and development of language feature in works which concentrate on this topic, for example, Paul Kuehner's Theories on the Origin and Formation of Language in the Eighteenth Century in France, and James H. Stam's Inquiries into the Origin of Language.

It is, however, more recent works, notably those of Hans Aarsleff, Sylvain Auroux, Eugenio Coseriu, Daniel Droixhe, Ulrich Ricken, André Robinet and Patrick Tort, which have really concentrated on the linguistic aspects of Condillac's theory and these provide the main secondary sources for this section.

Of Condillac's own works, his first publication, Essai sur l'Origine des Connaissances Humaines, 1746(2) may be regarded as his key work and is described by Knight(3) as containing in germ nearly every idea to appear in his subsequent works.

The title is indicative of what Knight calls a nearly universal conviction that the explanation of everything lies in its origins(4). But this interest was not in origins, as such, but only as a means of explaining man's present state. Aarsleff(5) notes that the 18th century was really trying to

4. Ibid., p. 28.
explore and perhaps explain the nature of mind and man (1).

Much influenced by Locke's Essay concerning Human Understanding, Condillac nevertheless considered it did not go far enough in explaining the processes of understanding, and a main aim of Condillac's Essai was to advance his theory that every operation of mind derives from sensation, thus taking a more extreme position than Locke, who allowed reflexion to be a separate principle.

Le Roy, in particular, emphasises that, for a proper understanding of Condillac's theory, the importance of the dual influence of Locke and Newton on his thinking must be appreciated.

"A Locke il a plus particulièrement emprunté l'idée d'une étude descriptive de l'entendement, à Newton celle d'un principe unique, expliquant toute la nature" (2)

This 'principe unique' (3), the source of knowledge through which all experience can be explained, is the liaison of ideas, which is only possible through language. It is in order to develop and prove this principle that he follows through the mind's operations and investigates the origin

2. Le Roy, La Psychologie de Condillac, p. 33.
3. Condillac's single principle was mistakenly taken to be sensation by Coseriu (Die Geschichte der Sprachphilosophie von der Antike bis zur Gegenwart, Vol. II, p. 223. Tübingen 1975). This point was noted by Rüdiger Schreyer (Historiographia. Linguistica, VI/2, p. 36, 1978).
of signs and the use made of them\(^{(1)}\), matters which form the
bulk of the content of the Essai.

Condillac's next work, the Traité des Systèmes, 1749\(^{(2)}\),
takes up the theme that true systems, as opposed to rationalist
philosophies founded on hypotheses and metaphysics, are based
on a limited number of observable facts. This expresses both
his empiricist philosophy and also his inclination, stimulated
by Newton's law of gravitation, towards a universal principle
capable of explaining everything concerning human understanding;
a principle which would cut through the diversity of observable
data\(^{(3)}\).

Condillac's Traité des Sensations, 1754\(^{(4)}\), aims to strengthen,
by demonstrating the impact of impressions received through
the senses on a hypothetical statue, his concept, announced in
the Essai, of sensation as the unique principle from which
understanding is derived. More especially it was intended to
answer a challenge by Diderot that his theory did not allow
for the separate existence of reality, merely for modes of
understanding it\(^{(5)}\).

To avoid a possible label of materialism arising from
comparisons of his 'statue' of the Traité des Sensations
with a similar concept of Buffon's, Condillac wrote a brief
Dissertation sur la liberté and the Traité des Animaux\(^{(6)}\),
in which he refuted both Descartes' view of animals as machines

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Psychologie de Condillac, pp. 29-30. The same trend towards
deriving all human knowledge from a single source is
detected by Ernst Cassirer in English empirical philosophy
(The Philosophy of the Enlightenment, Princeton, 1951,
pp. 99-100).
5. Aarsleff, The Tradition of Condillac, p. 100, and Le Roy,
La Psychologie de Condillac, pp. 90-108.
and Buffon's notion that animals possess only a "corporeal" soul\(^1\).

Other works by Condillac, of relevance to his views on the thought processes and language, are included in his Cours d'Etudes, published 1767-73 and embodying material written for the Prince of Parma to whom he was tutor 1758-1767. These comprise a Grammaire; De L'Art d'Ecrire, a handbook on style; De L'Art de Raisonner, a textbook of scientific method; and De L'Art de Penser, an analysis of the psychology of thought\(^2\).

Condillac's last works, La Logique, published 1780\(^3\), written at the request of the Polish Government for a textbook on elementary logic, and La Langue des Calculs, 1778\(^4\), are praised by Le Roy\(^5\) for their clear and precise definition of Condillac's concepts. The Logique is of particular interest for its clear presentation of Condillac's ideas, previously made known in the Essai, on the development of thought and language.

A work, 'Les Monades', which Condillac had published anonymously in 1748, has recently been edited\(^6\). It appears that the implications of this work have yet to be fully evaluated, but it demonstrates Condillac's interest in metaphysics and gives evidence of the influence of Leibniz.'

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2. Ibid., p. 12. All these works are in Op. Vol. I.
4. Ibid.
5. Introduction to Oeuvres Complètes.
thinking\(^{(1)}\), aspects which had attracted his criticism. Bongie refers to the work as providing explicit evidence of philosophical affinity with Leibniz and support for Le Roy's suggestion that a basic rationalism lay behind much of Condillac's psychology\(^{(2)}\).

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1. Leibniz' theory, described by Bertrand Russell in *History of Western Philosophy*, Book III, Ch. XI, postulated an infinite number of monads, subject to laws of harmony.

Chapter 2. The Development of the Thought Processes

Since Condillac sees the origin and development of language as interdependent with that of the process necessary for acquiring knowledge, whereby the mental faculties develop and the higher forms of thought become possible, an understanding of his view of the relationship of language to thought inevitably involves an account of the essential features of this process.

Condillac retains the Cartesian distinction between soul and body, supporting it by his own argument that the body, composed of several substances, cannot be a repository of thought, since, even when thought is formed of a number of distinct perceptions, there needs to be a point of re-union, a soul\(^1\).

So, for Condillac, the soul or mind\(^2\) persists as the thinking substance. But, to reconcile his explanation of the origin of ideas through the senses with the orthodox view of the soul, he attributes the loss of the soul's capacity to form ideas, independently of the senses, to the fall from grace\(^3\).

Condillac differentiates between the soul's operations, which relate more especially to the understanding, and those of the will. His theory is limited to the processes of understanding\(^4\). This lack of attention to mental activity involving the will was to become a topic of criticism by Maine de Biran\(^5\).

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2. Condillac's definition of âme is "Substance qui sent, qui pense. Parce que cette substance est le principe qui nous fait agir et mouvoir on dit qu'un homme est l'âme d'une entreprise, lorsqu'il en est le principal instrument". (Op. Vol. III, Index Des Notions).
The first operation of understanding, and the one from which all the others develop, is perception, the impression on the soul, or mind, caused by the action of the senses. It provides the first and smallest degree of knowledge, cannot be acquired through language and is not possible without the mind's ability to perceive\(^1\).

He deduces a state of mind which he calls consciousness, the mind's knowledge of perception. This leads to 'degrees' of perception in that the mind can be more conscious of some perceptions than others. There are no perceptions of which the mind is not conscious and they are in effect the same operation, the name of perception being given to it if considered as an impression on the mind, consciousness in so far as it alerts the mind to its existence\(^2\). Should consciousness reach such a degree that the perceptions related to it appear to be the only ones of which we are aware, the state of 'attention', has been reached, which results from the attraction objects have in relation to our needs\(^3\). Reminiscence, made possible by attention, whereby the perceptions caused by impressions of objects persist in the mind\(^4\), results when there is consciousness that the same perception occurred previously.

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2. Ibid., para 13, p. 13.
3. Ibid., Ch. III, para 28, p. 17.
A distinction is made between imagination, which renews the perceptions themselves, memory, which brings to mind only their signs and circumstances, and reminiscence, whereby we discern perceptions as those we had previously.\(^1\)

The perceptions retained in the mind when the objects perceived are absent are generally preserved in the same order in which the object presented them. A connection between the perceptions is thus formed, making possible imagination, contemplation and memory.\(^2\)

Condillac sees this liaison of ideas, the key principle in his system, as both facilitating imagination, contemplation and memory and enabling a framework of knowledge to be developed. Since things attract our attention only by the relationship they bear to our needs (in the broad sense), the same attention joins our needs and the things relevant to them.

Needs are interrelated, and the perception of objects satisfying them can be regarded as a succession of basic ideas to which everything which contributes to knowledge can be related, this basic series being extended by other connected ideas, e.g. of location, association, or emotion. In this way, all knowledge forms a chain, with its subsidiary chains joining at certain links and separating at others.\(^3\)

This interdependence facilitates recollection since attention to certain ideas would bring to notice others with which they are connected. For perception, consciousness and attention, signs are unnecessary, and limited habits of imagination and reminiscence are possible through accidental

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signs, which are simply objects brought into association with perceptions by chance external circumstances, and not within the mind's power to recall. Similarly, with natural sounds, expressing emotions or needs, which become signs through repetitive association with the emotion experienced, imagination depends on chance association of the sign with the object or emotion(1).

But with instituted signs, those chosen by man, which bear only an arbitrary relation to the ideas they signify(2), the mind gains control over its operations, and imagination, contemplation and memory become habits not dependent on external stimuli but within the mind's power(3).

A gradual progress in the range of the mental operations is envisaged, with the exercise of memory and imagination and the usage of artificial signs reciprocally reacting on each other in a process of mutual development. With imagination arousing ideas (i.e. perceptions) and memory recalling the signs of the perceptions, reflection develops. This is the practice of directing attention at will to various objects, or to different parts of the same object in turn. And reflection is the major step forward in man's understanding; through it the mind's full potential begins to be realised(4).

Patric Tort(5) gives a full appreciation of Condillac's account of the development of the processes of the mind in association with that of artificial language. He stresses the importance of the transition from the pre-reflexive stage, lacking the analytical facility of language, to the reflexive stage, noting that it is the internal disposition of man to convey a message which marks the transition "alors qu'au

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2. Ibid., para 35, p. 19.
3. Ibid., paras 44-6, p. 19.
stade pré-réflexif, aucune demande d'écoute n'était effectuée, aussi qu'en témoigne la description de l'homme qui ne possédait que des signes accidentels et des signes naturels."

Once separate consideration of ideas becomes possible through reflection, the way is open for the connection of ideas, since they can be compared, and combined as appropriate. General ideas can also be formed through the abstraction of qualities common to different objects.\(^1\)

The process of abstraction has an epistemological consequence, for Condillac sees it as a means of classifying knowledge which would otherwise be beyond the grasp of human intelligence.\(^2\) It thus provides a system for all knowledge, "le résultat, l'expression abrégée de nos découvertes."\(^3\).

It is from the comparison of ideas that Condillac deduces the operation of judgment, whereby two ideas are connected, or affirmed, by the verb est, or separated by negation, thus forming the proposition.\(^4\) From the operation of judgment arises that of reasoning, simply a succession of judgments dependent on each other.\(^5\)

Whereas, for Port-Royal, 'concevoir' is the first of the mind's operations, Condillac defines the term as 'being conscious of the exact ideas resulting from the aforementioned operations', all of which form understanding.\(^6\)

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3. Ibid., Ch. X, p. 748.
4. Condillac's conception of judgment is further considered in conjunction with the proposition, see Chapter 8.
6. Ibid., paras 72-73, p. 28.
Condillac emphasises the supreme role of reason in the process of understanding and defines it as knowledge of the manner in which we should control the mind's operations. But, together with common sense and intelligence, reason results from the liaison of ideas made possible by the use of signs, an assertion which would seem to imply that for Condillac, it is not the innate faculty of the kind acknowledged in rationalist theories.

"Le principal avantage qui résulte de la manière dont j'ai envisagé les opérations de l'âme, c'est qu'on voit évidemment comment le bon sens, l'esprit, la raison et leurs contraires naissent également d'un même principe, qui est la liaison des idées les unes avec les autres; que, remontant plus haut, on voit que cette liaison est produite par l'usage des signes. Voilà le principe." 

The liaison of ideas, Condillac's key principle, is described by Aarsleff as 'the unique instrument of reflection', and, like reason behind it, 'natural and innate'; it is "uniquement dans la nature de l'âme et du corps. C'est pourquoi je regarde cette liaison comme une première expérience qui doit suffire pour expliquer toutes les autres."

To describe reason as 'natural and innate' appears to contradict the earlier quotation above, which sees reason as a consequence, rather than a cause of the liaison of ideas. But, on the other hand, Condillac's immediately following passage quoted below justifies Aarsleff's view, in that it makes reflection dependent on reason, reflection, in turn, making possible the liaison of ideas. However it is not clear that the liaison of ideas is natural and innate, though the capacity to form ideas may be:

1. Ibid., Ch. IX, para 92, p. 33.
3. The Tradition of Condillac, p. 102.
"On est capable de plus de réflexion à proportion qu'on a plus de raison. Cette dernière faculté produit donc la réflexion. D'un côté, la réflexion nous rend maitres de notre attention; elle engendre donc l'attention: d'un autre côté, elle nous fait lier nos idées; elle occasionne donc la mémoire. De là naît l'analyse, d'où se forme la réminiscence, ce qui donne lieu à l'imagination." (1)

The apparent contradiction has been the subject of some discussion. Rudiger Schreyer, in contesting Ulrich Ricken's argument that, to Condillac, reason was but a further development of sensation, agrees with Aarsleff's conviction that it was fundamental to man. Schreyer submits that Condillac distinguishes between the operations of the mind, linked with sensation, and the faculties, which Condillac assumes to be an innate, though latent part of human nature (2).

Coseriu (3) also points out that certain mental faculties must be assumed in Condillac's theory for the mind's operations to be possible: that the sense perception cannot account for the subsequent 'opérations de l'âme', which must be regarded as such, namely either resulting from the mind itself, or from capabilities characteristic of man. The one principle, the liaison of ideas, by which Condillac seeks to explain everything, is itself not composed of sense experience, but of a formal principle of arrangement (4). The basic factor with man is not sensation itself, but the capacity to distinguish himself from sensation and regard himself as an observer (5).

1. Ibid., para 107, p. 36.
4. "Das eigentliche Prinzip, auf das Condillac alles zurückführt, ist nicht der Stoff der Erkenntnis, d.h. die sinnliche Erfahrung, sondern nur ein formales Ordnungsprinzip, d.h. die Operation der Interpretation vom Einfachen zum Komplexen." (Ibid., p. 225).
5. Ibid.
The question of Condillac's view of innate faculties is considered further at Chapter 3.

The limited capacity of the mind's operations without the use of language is demonstrated in Condillac's "Traité des Sensations"(1), though it was not specifically the aim of this work to do so. As Aarsleff emphasises(2), Condillac used the structural device of a statue existing in isolation, lacking all but the most rudimentary form of reflection as well as being deprived of the use of signs and language, to demonstrate a habitual and instinctive assurance of the existence of the outside world, which was all that he set out to do to meet Diderot's charge of Berkleyism. Condillac does this through separate consideration of the impressions made on the statue by each of the senses, demonstrating that only touch was in itself capable of proving the existence of reality(3). It is through this sense that the other senses learn to know reality.

Aarsleff acknowledges that Le Roy clearly demonstrates the conception of the statue; but says that he did not consider some significant additions which Condillac made to the final version, which very strongly underscore the meaning of the statue's lack of language, as if Condillac were eager to reduce any possible conflict with the Essai(4).

Though the statue lacks the faculty of language, Condillac postulates that through merely the impressions received through the senses it becomes capable of giving attention, of remembering, comparing, judging, discerning, imagining, of having some abstract notions, such as ideas of number and duration, of knowing general and particular truths, experiencing desires and emotions and of forming habits(5).

2. The Tradition of Condillac, p. 100.
4. The Tradition of Condillac, p. 100.
In view of this imposing list of capabilities, one might wonder if Condillac had compromised his view, expounded in the Essai, that language is necessary for the more advanced states of mind, even though these, in turn derive, through the succession of processes, from sensation.

This point is dealt with by Condillac himself, when he admits that he may have given the impression that the statue has more knowledge than it can possibly acquire. He points out in this connection the need to distinguish between theoretical and practical knowledge. Theoretical knowledge consists in a succession of distinct ideas which need signs for their classification and definition. Practical knowledge (appropriate to the statue, and animals) comprises indistinct ideas, to which we react without knowing how. "Idées confuses qui règlent nos actions sans que nous soyons capables de remarquer comment elles nous font agir." 

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Chapter 3. Innateness in Condillac's Theory

Though the statue's limitations can be taken to illustrate the effectiveness of language, this does not deal with the question of language as a specifically human characteristic, surpassing the statue's capabilities which, as Aarsleff points out, are similar in Condillac's view to those of animals\(^1\).

It is in his Traité des Animaux, 1755, that Condillac comments further on this aspect, and on the nature of man, as distinct from that of animals. This work, in Lefèvre's words, 'resolves the irritating problem of the soul of animals which had inflamed libertines and apologists for 200 years'\(^2\). The Traité refutes both Descartes, for whom the soul, immortal, was exclusive to man, animal being only matter, not progressing beyond the first degree of sense, and Buffon's opposing theory, which explained instinct through the action of organic molecules. Condillac explains the distinction between man and animal in terms compatible both with his own theory that all the operations of understanding derive from the one faculty of sensation, and with orthodox religious beliefs.

Language marks the difference between man and animal. If animals have a language, it is only one of action, variable with the organisation and needs of the species and limited to each\(^3\).

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2. Condillac, p. 53.
"Il y a des bêtes qui sentent comme nous le besoin de vivre ensemble mais leur société manque de ce ressort qui donne tous les jours à la nôtre de nouveaux mouvements, et qui la fait tendre à une plus grande perfection.

Ce ressort est la parole ..."(1)

But the difference itself is one of nature. There are various references in the Traité referring to the superior nature of man to animal, but Condillac accepts the facts of this difference as being known only to the Creator. We can only judge the difference by what becomes evident from observation. "La bête n'a pas dans sa nature de quoi devenir homme, comme l'ange n'a pas dans sa nature de quoi devenir Dieu."(2).

Thus Condillac allows for an innate essence, different in each species, which we cannot know. All he is seeking to do is present a theory of the operations of the minds of man and animal.

While it is reasonable to conclude from the foregoing that Condillac acknowledges some kind of innate 'directing force' behind the progression of the mind's operations from the one innate faculty, sensation, indications in the Traité des Animaux, as in the Essai,(3) that Condillac acknowledges a higher degree of innate intelligence in man appear to be qualified by other references which imply that such a capacity is dependent on sensation. The following extract from the Traité des Animaux(4), though maintaining the role of sensation as that from which other faculties derive, does, however, infer that reason is man's innate intelligence.

2. Ibid., p. 361-2.
3. See p. 228.
4. Ibid.
"La faculté de sentir est la première de toutes les facultés de l'âme, elle est même la seule origine des autres, et l'être sentant ne fait que se transformer. Il y a dans les bêtes ce degré d'intelligence que nous appelons instinct; et dans l'homme ce degré supérieur que nous appelons raison."(1)

Whether or not instinct and reason are the closest Condillac will allow himself to a definition of the innate force behind the mind's operations, it is also implied in the Logique that Condillac admits an original principle from which they derive, in the following extract referred to by Aarsleff in support of his firm view that reason was, for Condillac, an innate faculty(2).

"Principe est synonyme de commencement, et c'est dans cette signification qu'on l'a d'abord employé, mais ensuite, à force d'en faire usage, on s'en est servi par habitude, machinalement, sans y attacher d'idées, et l'on a eu des principes qui ne sont le commencement de rien ... car quoique toutes ses facultés ne soient, dans le principe, que sentir, cette vérité n'est pas un principe ou un commencement pour nous, si, au lieu d'être une première connaissance, elle est une dernière. Or elle est une dernière, puisqu'elle est un résultat donné par l'analyse."

... Ne disons pas qu'il faut, dans nos recherches, avoir pour principes des définitions: disons plus simplement qu'il faut bien commencer, c'est-à-dire, voir les choses telles qu'elles sont; et ajoutons que, pour les voir ainsi, il faut toujours commencer par les analyses."(3)

Here, in Chapter VI of the Logique, is the thought that one can only know through observation and analysis. Condillac is not disputing the existence of innate faculties

1. Ibid., p. 379.
other than that of sensation, indeed he acknowledges them in the Creator's endowment of man's superior nature (1), but he can only observe and analyse the effects, not the nature itself.

1. See p. 233.
Chapter 4. The Development of Artificial (i.e. Human) Language

Of relevance to the preceding discussion on Condillac's view of innate faculties is his own acknowledgement of an apparent inconsistency, in that one would expect the process of reflection to be needed for the creation and use of artificial signs, whereas he postulates that it is only by the use of signs that the practice of reflection is acquired, a point he says he will resolve in his account of the history of language. The relevant passage is quoted by Aarsleff in support of his view that, "thanks to man's unique possession of reason the gestural language suggests the utility of signs and the possibility of developing artificial, voluntary signs." (1)

"Il semble qu'on ne sauroit se servir des signes d'institution si l'on n'était pas déjà capable d'assez de réflexion pour les choisir et pour y attacher des idées. Comment donc, m'objectera-t-on peut-être l'exercice de la réflexion ne s'acquerrôit-il que par l'usage de signes?
Je réponds que je satisferai à cette difficulté lorsque je donnerai l'histoire du langage ..." (2)

Condillac's explanation of the transition from natural to artificial language, briefly summarised in the following paragraphs, is neither sufficiently explicit nor convincing to satisfy various critics. Starting with Herder's criticism of the 'emotive' theory of the transition, Droixhe summarises the various adverse remarks directed at this hypothesis (3). Herder's sharp criticism of Condillac is also described by James H. Stam (4).

Condillac explains the development of artificial language as a gradual process deriving from the primitive language of action which used gestures and natural vocal sounds to communicate needs and emotions.

It has been noted that the device used by Condillac to speculate on how language was invented, namely two children left on their own after the deluge, was not novel. It had an antecedent in Bernard de Mandeville's work, and Condillac himself acknowledges this source. Condillac's implied basic agreement with Warburton is viewed by Stam as a means of protection against attacks from theological quarters, but at the same time Stam points out that this implication distorted the source, for Warburton found the natural explanation a temptation to ungenerate reason. In addition to referring to the above mentioned sources, Ellen Hine comments that the origin and development of language by natural means had been supported much earlier by Richard Simon. Tort refers to the idea of a necessary apprenticeship in natural signs apparently being one of the topics of genetic theories of language in Géraud de Cordemoy's Discours Physique de la Parole.

2. The Tradition of Condillac, p. 95.
4. Inquiries into the Origin of Language, p. 47.
Other branches of expression, miming\(^{(1)}\), dancing, prosody, music and poetry stemmed from the language of action but the development of artificial language from the language of articulated sounds was to become "le plus commode de tous"\(^{(2)}\).

Through habit the gestures and sounds came to be associated with the needs or emotions they expressed, leading to a reciprocal improvement in the range of the operations of mind. Having become accustomed, through the habit developed by nature, to connecting ideas with natural or accidental signs, man was led to forming, by analogy, new sounds, which led to further improvement in the operation of mind, in turn stimulating progress towards the perfection of artificial language, albeit a very slow process\(^{(3)}\).

Condillac's view of the parallel progression in all forms of expression, from the visual and the sensuous to the more abstract is emphasised by Stam\(^{(4)}\). The evolution of writing\(^{(5)}\) followed a similar course from picture writing to hieroglyphics, and finally the more abstract and conventional alphabets.

1. Stam records that Condillac's theme of chironomic and pantmimic media of expression, a theme which was to become important for aesthetic theories of the day, was taken up by Diderot in his letter on the Deaf and Dumb for the use of Those who Hear and Speak (1751) and was given practical application in the sign language devised for the instruction of deaf mutes (Inquiries into the Origin of Language, pp. 48-49).
4. Inquiries into the Origin of Language, p. 49.
Chapter 5. The Origin and Development of the Word Classes

Though not entirely without credibility, Condillac's explanations of the development of the word classes to their contemporary state, with specific reference to those of the French language, lack the authenticity of researched etymological accounts. But although speculative, some of his explanations, especially in their recourse to agglutinations and analogy, are akin in nature to those of later transformational theories.

The first words, and the only ones in existence for a long time, were those for which there was most need: material objects such as tree, fruit, etc., immediately evident through the senses. As the capacity for analysis grew, signs were invented for the more simple ideas, e.g. the trunk, bough, greenness, etc., of a tree. With attention being directed to the qualities and circumstances relating to the objects, came adjectives and adverbs. The sensations of the mind, experienced e.g. by seeing, hearing, willing, loving, remained for a long time without adequate expression, and some form of action accompanied the names used. As man gradually became used to identifying such ideas, verbs were introduced at first merely to express the disposition of mind in the active or passive state (1).

The natural order of ideas, that used in the language of action where immediate needs were the first objective, was for the name of the object, as the most familiar sign, and the easiest for communication, to be given first, before the verb. This is relevant to Condillac's view on 'inversion'. The order 'fruit wants Peter' is no less natural than 'Peter wants fruit', a fact which is proved from the Latin tongue, in which both are used (2).

2. Ibid., para 84, p. 83.
Similarly, words which came to be invented to take the place of the gestures which were earlier used to supply the tenses, mood, numbers and persons to verbs originally indeterminate, also followed the noun and verb. Condillac therefore concludes that the order would be 'fruit to eat to come me', instead of 'I will eat some fruit'\(^ {1}\). Conjugations developed from a tendency to add to the verb those sounds which determined its signification\(^ {2}\). The verb was then considered as a noun "which, though indefinite in its original form, became, by the variation of its tenses and moods, an appropriate means of expressing, in a determinate manner, the active and passive state of everything"\(^ {3}\). Change to the present order was very slow, through a long succession of idioms\(^ {4}\).

Whereas Port Royal's justification for the affirmative role of the verb 'to be' rested on its representation of an act of mind, Condillac deduces its origin by analogy with a functional role observed in other linguistic features.

Observing that the word added to the verb to determine its person, number, tense and mood, also had the property of connecting the verb with the noun which governed the determining elements, the verb to be was therefore used to connect the adjective with its substantive, its character being to mark the affirmation\(^ {5}\). This word joining the substantive

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1. Ibid., paras. 85-86.
2. Coseriu instances Condillac's view of the formation of endings from independent words as an idea of some importance (Die Geschichte der Sprachphilosophie von der Antike bis zur Gegenwart, Vol. II, p. 233.
3. Essai, II, I, Ch. IX, para. 87, p. 84.
4. Ibid., para. 88, p. 84.
5. Ibid., para. 94, p. 85.
and adjective became merged with the adjective, forming one word susceptible of conjugation, which became a third class of verb, signifying neither the passive nor the active state. With adjectives having been changed into verbs the construction of languages altered\(^{(1)}\). The place of the new verbs varied as did the words from which they were derived, sometimes being placed before, sometimes after the substantive which they governed. This practice gradually became extended to other verbs. The new form of verb came to be considered as a word signifying affirmation with the distinction of persons, numbers, tenses and moods, and from that time, 'être' was the only true verb\(^{(2)}\). Conjugations and declensions followed, with constructions varying as there was no need to adhere to a constant order in the expression\(^{(3)}\).

Other conjectures of a similar nature follow. As the different qualities of mind are no more than the effect of the different states through which it passes, the adjectives expressing them must have been introduced after the verbs, e.g. 'to speak' must have been in use before 'eloquent'. Abstract substantives developed long after adjectives.

Condillac attributes the need for general terms, to human limitations in providing names for each particular object. The order of development of general terms followed the sequence of mental operations. As the most general notions result from ideas derived directly from the senses, the most abstract terms would come from the first names given to tangible objects, thus accounting for the use of words such as movement, rest, inclination being applied to e.g. the idea of soul\(^{(4)}\).

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1. Ibid., paras 95-7, p. 85-86.
2. Ibid., para 98.
3. Ibid., paras 98-100.
4. Ibid., II.I, Ch. X, paras 102-31, pp. 86-87. Coseriu notes a similarity in this respect with Vico who envisaged a similar development though for different reasons. (Die Geschichte der Sprachphilosophie von der Antike bis zum Gegenwart, Vol. II, p. 232.)
Arrivé and Chevalier remark on the fact that Condillac's hypothesis of the creation of language provides a sequence which follows the strata of word classes and grammatical features detected in Port Royal's theory\(^1\).

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1. "... chose remarquable, dans cette hypothèse de source lockienne et explicitement anti-cartésienne se retrouve la disposition en strates proposée par Port-Royal." (La Grammaire, p. 85).
Chapter 6. The Analysis of Thought by Language

The importance of analysis, the method instilled by nature, as a process of thought, is particularly apparent in Condillac's Logique where he refers to its superiority over the method of synthesis. They are not mutually exclusive, for analysis, as well as synthesis, composes as well as decomposes, but the analysis starts with decomposition, the order followed by nature\(^1\). Le Roy considers that, though their respective philosophies vary, in the concept of analysis there is much similarity between Condillac and Leibniz. "Tous deux rêvent de donner à leur pensée une expression où se retrouvent les caractères mêmes de la logique."\(^2\)

Condillac likens the process of analysis to the observation in consecutive order of the qualities of an object so that they can be presented in the mind in the simultaneous form in which they exist\(^3\).

It is the only way in which knowledge is acquired and nature herself, in giving us the capacity to see things one at a time, in addition to taking in the whole view at once, has taught us the method\(^4\) ... Similarly, items of knowledge presented simultaneously to the mind need to be put in consecutive order to re-establish them in accordance with the relations existing between them.\(^5\).

The method of analysis is already evident in the gestural language of action, whereby the 'listener' or 'viewer', to whom the ability of decomposition is natural, needs to

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2. La Psychologie de Condillac, P. 227.
4. Ibid., pp. 374-5.
observe the simultaneous gestures of the 'speaker' as successive signs, in order to understand them. This analysis follows the order of needs and circumstances. The use of this method is extended by analogy (1).

Thought, prior to being analysed by language, consists of several ideas and operations existing simultaneously in the form of sensation. To decompose thought is to present successively the ideas and the operations which develop from sensation, i.e. sensation considered successively under different points of view (2).

Aarsleff (3) refers to the Essai having shown how the inescapable linearity of speech had forced man to decompose the initial unitary signs of the language of action into discrete and arbitrary signs of human language, thus making analysis and ordered reflection possible - "Si toutes les idées qui composent une pensée sont simultanées dans l'esprit, elles sont successives dans le discours: ce sont les langues qui nous fournissent les moyens d'analyser nos pensées" (4).

Condillac's view of simultaneous thought being composed of several ideas and operations can be taken to imply nothing more than thought, in the form of sensation, encompassing ideas and 'potential' operations deriving from sensation, namely content at a pre-reflexive stage. But he also refers to the more advanced operations of judgment and reasoning existing without means of analysis.

"La sensation enveloppe donc toutes nos idées et toutes nos opérations; et l'art de la décomposer, n'est que l'art de nous représenter successivement les idées et les opérations qu'elle renferme ..."

1. Ibid., Ch. II, p. 397.
3. The Tradition of Condillac, p. 103.
La décomposition d'une pensée suppose l'existence de cette pensée; et il seroit absurde de dire que je ne commence à juger et à raisonner, que lorsque je commence à pouvoir me représenter successivement ce que je sais quand je juge et quand je raisonne." (1)

It is not clear from this whether he regards judgment and reasoning in a latent form within perception, or whether they have already materialised in a prelinguistic, or internal linguistic form as a separate and advanced operation. A form of internal thinking which would require the function of judgment (i.e. comparison of ideas), is indicated by Condillac's example of the sequence arising from the occurrence of desire, though it concerns a function of the will, which Condillac has set apart from the process of understanding.

"...c'est ainsi que pour décomposer ma pensée, lorsque je forme un désir, j'observe successivement l'inquiétude ou le malaise que j'éprouve, l'idée que je me fais de l'objet propre à me soulager, l'état où je suis pour en être privé, le plaisir que me promet sa jouissance, et la direction de toutes mes facultés vers le même objet." (2)

It seems that some form of internal sign is necessary to reconcile the internal mental states indicated in the above quotations with his postulated need for artificial language to order, or analyse thought. He does not appear to be explicit on this point.

1. Ibid.
2. Ibid.
Tort points out that Condillac does not clearly differentiate between the genetic progress of the mind's operations and their systematic functioning\(^{(1)}\). Condillac appears to identify, in a way, the learning functions of a child with the genetic progress. It is possible, therefore, that he regards the functioning of the higher operations as having been systematically instilled in the process of signification starting from the child's 'pre-linguistic' stage to the extent that in the advanced linguistic state of man, there is no longer a 'sensation' stage as such, the higher operations being a normal process. The following extract adds support to this.

"Puisqu'il n'y a point d'homme qui n'ait été sans l'usage des signes artificiels, il n'en est point à qui les idées et les opérations de son esprit ne se soient offertes, pendant un temps; tout-à-fait confondues avec la sensation; et tous ont commencé par être dans l'impuissance de démêler ce qui se passait dans leur pensée... Vous avez néanmoins surmonté cette difficulté et vous devez juger que vous en pouvez surmonter d'autres"\(^{(2)}\).

The need of language for the existence of thought in Condillac's theory is explored by Auroux within the context of his consideration as to whether the language-thought relationship implicit in the nominalism of the Enlightenment is compatible with his hypothesis of 'langage-traduction'... This, based on Enlightenment views of signification\(^{(3)}\), postulates that (briefly) the speaker produces an image of an idea represented by the sound, and the listener by the inverse process, receiving the sound, produces the image of the idea\(^{(4)}\).

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1. Dialectique des signes chez Condillac, p. 489.
3. See Section 2, Ch. 6 for Auroux's comments on the triple structure of the sign.
4. La sémiotique des encyclopédistes, pp. 69-70. Auroux refers to D. J. O'Connor's 'translation-theory' of meaning (J. Locke, Dover, 1966, p. 125) as the source of this idea.
The hypothesis of langage-traduction, comments Auroux, is equivalent to acknowledging that language adds nothing to thought "Elle laisse supposer qu'à tout son (qui est du langage) correspond quelque chose dans l'esprit de celui qui parle, à savoir l'idée dont il est signé."(1) Against this, the nominalist aspect of Enlightenment thought, based on the view that only individuals existed, was reflected in beliefs that general ideas were not possible without language. Auroux considers the matter in regard to Condillac because he provides an explicit and important theory, as opposed to general opinions, and in it he adopts a more radical position than most of his contemporaries.

Condillac's view that signs are necessary to the development of ideas may appear inconsistent with the theory of 'langage-traduction' which postulates the separate existence of idea from sign but Condillac, on the other hand, confirms that thought exists before its expression in his account of its de-composition by language.

Auroux concludes that his hypothesis and Condillac's concept of signification are compatible since for Condillac language thus adds nothing to the content of thought. Although indistinct prior to analysis by language, it nevertheless exists without it. The role of language in translating the form of content from simultaneity to succession does not in itself explain its necessity. The need for signs is the submission of thought to the will(2).

While Auroux's conclusion that, for Condillac, language adds nothing to the content of thought is justifiable taken in the quantitative sense in which it is meant, qualitatively, as Auroux well appreciates, it is indispensible.

1. Ibid., p. 102.
2. Ibid., pp. 102-107.
Auroux and Tort(1) emphasise the all-pervasive importance of the sign in Condillac's theory. The nature of its close involvement with all aspects of Condillac's theory, which makes it difficult to consider it in isolation, is aptly summarised by Auroux:

"Dès qu'il veut analyser la classification condillacienne des signes, l'historien se trouve ainsi plongé dans une problématique plus large. Il n'y est pas seulement question de dire ce qu'est le signe, mais de déterminer comment l'homme pense, agit et constitue un langage. La nature du signe linguistique n'est pensée que dans le déploiement patient des rapports qui unissent l'homme au monde, les hommes entre eux, et tout homme à lui-même ..."(2)

Auroux's discussion on the distinction between the rationalist and the empiricist conception of the sign was referred to in Part 2, Section 2, Chapter 6. He also notes that whereas the first part of the Encyclopédie article 'sign' used the Port-Royal definition, the second part reproduces Condillac's text defining three forms of the sign; accidental, those which are linked to ideas by chance; natural, sounds endowed by nature to express emotions; and artificial signs, chosen by man, and which have only an arbitrary relationship with ideas(3). These three kinds of signs correspond to his postulated stages of development of language, in association with thought(4).

1. Tort, La Dialectique des signes chez Condillac; Auroux, La sémiotique des encyclopédistes, pp. 26-35.
2. Ibid., p. 34.
4. See Chapter 2.
Auroux comments on the lack of homogeneity between the two parts of the Encyclopédie text: Condillac's classification only concerns the third type of Port-Royal's three divisions of signs, namely the distinction between those which are natural and those which have been instituted, and it introduces a new approach (1).

With Port-Royal's definition, the sign is always related to an idea (which stimulates the idea of the object). Condillac's evolving process of signification involves a single relationship between an idea and an external object and the idea always has its source in perception.

In the case of the accidental sign, the signifying relationship is that which links an idea to an object and allows the recall of the idea. The relationship of the natural sign is basically the same, but it also depends on the universality of the liaison of natural sounds with human emotions and therefore becomes reciprocal, the sound producing the idea of the emotion, the emotion producing the sound. The third and most important category which has evolved from the earlier signs through the processes of analysis and analogy is free from external stimulus, having an arbitrary relationship with the idea which is designated (2).

Auroux (3) and Tort point out some ambiguities in Condillac's terminology relating to the sign, notably in his references to 'arbitraire'. In the Essai, it appears that the language of action is both natural and arbitrary (4). In the Grammaire it is presented as originally natural (5). Tort refers to Condillac's indiscriminate use of 'signes arbitraires et d'institution' at the stage of the operations of memory, the

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1. La sémiotique des encyclopédistes, pp. 26-27.
2. Ibid., pp. 27-29.
3. Ibid., p. 31.
4. Ibid., p. 30.
5. Ibid., p. 31.
apparent change in terminology in the grammar indicating that artificial signs relate either to natural conventionalised signs or to signs formed by analogy with natural signs\(^{(1)}\). Condillac’s definition in the Grammaire makes clear his view of arbitrary, and in this it is representative of the 18th century opposition to the term\(^{(2)}\).

In this definition he makes a clear distinction between artificial signs, invented by analogy with the language of action and based on a choice made by reason, and arbitrary signs, having no rational foundation\(^{(3)}\).

Although the artificial sign has such a vital and pervasive role in his theory, Condillac does not say much about its relationship with the idea or object which it represents.

Coseriu notes\(^{(4)}\) that Condillac strongly emphasises the importance of the "Opération par laquelle nous donnons des signes à nos idées"\(^{(5)}\) but is not very informative about the operation itself, saying merely that it results from the imagination presenting to the mind signs not previously in use, and attention which links them with ideas\(^{(6)}\).

The mnemonic nature of the sign is evident in the role attributed to it by Condillac in developing the mind’s operations. He also refers to this in relating the sign to

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6. Ibid.
different kinds of ideas\(^{(1)}\). It is vital in enabling features which form complex ideas to be related in the mind\(^{(2)}\).

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1. Condillac's definition of idea distinguishes between images resulting directly from perceptions and ideas formed by the action of the mind, to which the term 'notion' is appropriate.

"Idée. Image que nous formons des choses, manière dont nous les concevons.

Idée, notion. Il me semble que le second ne peut se dire que des idées qui sont l'ouvrage de l'esprit. On dit la notion de la justice, et on ne dit pas la notion d'un arbre". (Op. Vol. III, Index des Notions).

Chapter 8  Condillac's Theory related to Grammar

For Condillac's theory of the origin and development of language and his account of how language analyses thought to be compatible with the prevailing state of language, one would expect his version of grammatical theory to endorse his postulations, or, at least, not to contradict them, since the contemporary state of language is the developed stage, to which grammar relates.

It has already been noted that his explanation for the development of specific word classes conveniently carries them to their current form\(^1\). Though thus allowing in detail for successive stages of development, globally, as Auroux points out\(^2\) it is only practicable to distinguish two stages, the primitive, and the fully developed. Condillac himself makes this point:

"Si on pouvait observer une langue dans ses progrès successifs, on verrait les règles s'établir peu à peu. Il ne nous reste qu'à observer notre langue, telle qu'elle est aujourd'hui et à chercher les lois qu'elle suit dans l'analyse de la pensée."\(^3\).

This, however, appears to leave open the question of how words relate to ideas in the perfected state of language, for, as the ultimate point reached in the course of the development of language may be considerably removed from the original relationship between words and the ideas which they express, this may appear to present a problem.

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1. See Chapter 5.
2. La sémiotique des encyclopédistes, p. 293.
For Condillac, since language analyses thought, its principles are to be found in the way in which it does this, and the more perfect the language the greater will be the precision of the analysis\(^1\). On this basis, whatever the stage reached, the function of language is the same, though its efficiency may vary. One can deduce from this that Condillac assumes different stages of development in different languages, which would imply therefore the possibility of further development.

Condillac's Grammaire is really intended for the French, but he refers to the first part of the work, De l'analyse du Discours, dealing with the signs provided by language to analyse thought, as a general grammar revealing the elements of language and the rules common to all\(^2\).

Although Condillac's Grammaire is essentially concerned with the developed language, all principles of language at whatever stage, rest on analogy and analysis which guided the development of language from the language of action\(^3\).

Languages have words of different types because ideas relate to different classes of knowledge, the system of language therefore being formed on the system of knowledge. They use means of connecting words only because we do not think except in so far as we connect ideas\(^4\).

Because the system of ideas everywhere has the same basis, the system of language is basically the same everywhere. They all have words of different kinds and signs to mark the relationship between words. They differ in using different words for the same ideas and using different signs to mark the same relationship\(^5\).

2. Ibid.
3. Ibid., p. 431.
4. Ibid., Ch. II, p. 433.
5. Ibid., p. 435.
Languages become more perfect according as they become more effective in analysing thought, that is in distinguishing ideas, and in combining them and in considering them under all possible relationships\(^1\).

The universality of language lies, then, in its universal function, the analysis of thought, with its universal type of content, which derives from common sources of knowledge, perceived through the senses. Grammar, Condillac defines as the science which teaches the principles and rules of this analytic method. It is general if it lays down rules appropriate to all languages, particular if the rules apply only to individual languages. Since speech consists of a judgment or succession of judgments, it is sufficient to observe the analysis of a few judgments to know the method\(^2\).

With Condillac's theory being applicable to any state of development of language, language described as thought analysed, i.e. with its ideas and operations presented successively, and grammar viewed in terms of the method by which thought is analysed, with existing forms of parts of speech, at least in French, reconciled to his account of their origin, it seems unlikely that Condillac's version of grammar would present any radical aspects. Knight, in fact, refers to the Grammaire as being drawn mostly from standard French grammars of the day\(^3\). It is mainly in keeping with prevailing theory expressed through the Encyclopédie articles, which, in any event, reflect the influence of Locke, as does Condillac's theory. Condillac's main principle, the liaison of ideas, is consistent with the strong emphasis of prevailing grammatical theory on the relations between words and the view of thought as 'une et indivisible'.

1. Ibid.
2. Ibid., Ch. VI, p. 443.
There are some features peculiar to Condillac, deriving from his theory of the origin of language, but they mainly relate to reasons why the grammatical structure came to be formed, rather than create new rules of grammar. These are his own interpretation of the proposition as a judgment, his view of the order of words, and his limited number of true word classes.

It is indicative of Condillac's view of the directness of the analysis of thought by language that he uses a speech of Racine's to illustrate and comment on how this is effected.

The form which language takes is that of the judgment, or series of judgments, expressed in the proposition. But Condillac's account of the mental process which form the judgment differs from that of his predecessors.

He describes judgment as the same as perception, in so far as they are the same mental operation, but viewed differently. To perceive a large tree, the relationship between tree and large can be considered in the perception of this relationship, or in the ideas large and tree which present the object as existing outside ourselves. In comparing these ideas, the judgment becomes an affirmation.

From this it seems that the judgment has two faces, both expressed by the proposition. But the ability not merely to perceive the two ideas but to affirm the relationship between them depends on artificial signs. For without words it would be impossible to consider separately each idea and therefore to affirm the relationship of one to another, thus forming a proposition.

"... L'affirmation est, en quelque sorte, moins dans votre esprit que dans les mots qui prononcent les rapports que vous apercevez."(2).

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2. Ibid., p. 437-8.
The fact that although language makes possible the function of affirmation, it does not allow for a distinction between this and perception, is discussed at Chapter 9.

A judgment is always simple but a proposition can include several judgments and can therefore be decomposed into several propositions (1).

Because a proposition is the expression of a judgment, it must consist of three words, two being signs of the two ideas compared, the third that of the mind's operation, when the relation between the two ideas is judged. The subject is the thing of which one speaks, the attribute that which is judged to apply to the subject, and the verb, the third word, relates the attribute to the subject (2).

It is interesting to compare the view of Condillac of the judgment as perception or an affirmation with that of Port-Royal, for whom judgment arose also from comparing two ideas together and affirming or denying one or the other, with the verb 'est' representing the operation of mind which effects the affirmation.

Though the practical effect in the proposition of the affirming role of the verb appears to be the same (3), the respective explanations for the role differ in that, whereas Port-Royal attributed it to a direct and innate action of mind, with Condillac, it has a genetic origin (4) and though described in the above quotation as an operation of mind, this originates in perception.

3. Arrive and Chevalier (La Grammaire, p. 89) also noted the similarity: "... on retrouve en ce développement l'analyse port-royaliste de la proposition".
4. See Chapter 5.
Leading from this difference, Robinet sees a wide gap between the respective positions of Port-Royal and Condillac, due to the following innovations in Condillac's theory:

the etymological approach to all grammatical terms;

the originating role of perception in thought, and the genetic derivation from it of conception (an original operation of mind with Port-Royal);

the co-existence of affirmation within the idea of analysis of thought by language;

the confused state of simultaneous thought prior to analysis by language, far removed from one of pure intelligibility;

the creative role of language in the clear formulation of ideas;

Condillac's conclusion that the possibility of affirmation rests in the words themselves and is not an act of mind.\(^1\)

Whereas these points find justification in Condillac's texts, an interpretation of the operations of mind as latent faculties providing a content of thought pre-existing language\(^2\) would make the apparent gap between the two approaches appear less extreme.

In discussing the subject and attribute, and their respective roles, Condillac conforms to the Encyclopédie notions of complement and the relations of identity and determination\(^3\).

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2. See Chapter 3.
Modifications to substantives, (i.e. partial ideas of the subject or attribute), are possible through the use of adjectives, incidental propositions or a substantive preceded by a preposition. Condillac specifies a semantic restriction in cases where the attribute of a proposition is a substantive.

The substantive as subject must be less general than the substantive as attribute, e.g. one can say Corneille est un poète, but not un poète est Corneille. Condillac explains this feature by his derivation of general ideas from individual ones, whereby the subject is a partial idea of the general one. "'poète est écrivain'" is equivalent to saying 'l'idée d'écrivain est une partie de l'idée de poète', but 'un écrivain est un poète' is invalid because the idea of poet is only part of that of écrivain.¹

To overcome the apparent problem of explaining the affirmative role of the verb in negative propositions, Condillac introduces the idea of the verb être expressing the affirmation that the quality in the attribute exists among the other qualities of the subject, and therefore expresses the coexistence of the attribute with the subject. In this way, the proposition is affirmative if it affirms that the subject and attribute co-exist, and negative if affirming that they do not.²

Adhering to his explanation of the development of the verb from its original role of affirmation to its adjectival forms, Condillac states that adjectival verbs have come about through man's desire to abbreviate, uniting the verb être with adjective, e.g. étudier for être étudiant, etc. The accessories to which verbs are susceptible are the object, circumstances of time and place, action, the means, the cause, the aim or motive. Circumstances of time and place are appropriate to the verb être, others to the adjectival verb.

¹. Ibid., p. 455.
². Ibid., Ch. XIII, p. 456.
He distinguishes between the verb substantive être implying existence, and être signifying judgment. 'Corneille étoit du temps de Racine' implies he existed, but 'Corneille est poète' does not imply real existence, since Corneille no longer exists, but represents a view of the mind which sees Corneille and poète as two ideas co-existing\(^{(1)}\).

Only four types of words are necessary; substantives to name all objects of which we can speak, adjectives to express the qualities, prepositions to indicate the relationships, and a single verb to express all judgments\(^{(2)}\).

To reconcile other parts of speech to these four types, Condillac deduces that they take the place of one or more elements. Adverb, pronoun, and conjunction, though single words, really contain several elements and should not count as parts of speech. Adverbs are abbreviated expressions equivalent to a noun preceded by a preposition. The pronoun is equivalent to an entire phrase for it takes the place of a noun, with all its accessories, to avoid repeating this\(^{(3)}\). Conjunctions mark the liaison between thoughts, in addition to the thoughts being associated by means of the order in which they are presented. Condillac deduces that they function as substitutes for complex expressions because they have the effect of recalling expressions already made, which can be referred to by complex expressions. Thus, 'alors' is equivalent to 'dans ce temps-là', 'ainsi' to 'de la sorte', 'donc' to 'par conséquent'.

'Et', 'ni' and 'que' are similarly regarded as conjunctions since they mark the passage from one proposition to another\(^{(4)}\).

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1. Ibid., p. 457.
2. Ibid., p. 456.
3. These are similar explanations to those of Port-Royal regarding the adverb (Grammaire Générale, Pt. II, Ch. XII, p. 65) and the pronoun (Ibid., Ch. VIII, p. 44), except that Condillac allows for the notion of noun and complement being replaced by the pronoun.
So far, Condillac's explanation of grammar as the method of analysing thought, summarised, though superficially, in the following quotation, shows no notable differences from prevailing Encyclopédie grammatical theory, except for the introduction of the 'subordinate proposition'.

"Nous avons vu le discours se décomposer en différentes parties. Nous y avons découvert des propositions principales, subordonnées, incidentes, simples, composées. Nous avons trouvé dans ces propositions, des noms substantifs, des adjectifs, des prépositions et des verbes. Nous avons observé les différents accessoires dont le sujet, le verbe et l'attribut peuvent être modifiés; et nous avons remarqué tous les signes dont on se sert pour exprimer toute espèce d'idées et toute espèce de rapports. Voilà donc le discours réduit à ses vrais éléments, et nous avons achevé l'analyse." (1).

However, an important difference between Du Marsais and Beauzée on the one hand and Condillac, Batteux and Diderot on the other is that of the order of words, a matter discussed by Ulrich Ricken, whose commentary is summarised below. (2)

According to the 17th century rationalist view of natural order, leading from the scholastic theory of 'ordo naturalis', the succession of logical categories of subject-verb, object was regarded as a feature of universal reason. An opposing trend of thought developed, however, from Descartes' 'psycho-physiologie', whereby the soul, in rationalist theory the producer of immaterial thought, received 'mechanical impressions' via the brain's nervous system. The holders of the viewpoint opposing the rationalist theory regarded imagination, thereby materially influenced, as an unconditional component of speech. With B. Lamy came the first opposition

1. Ibid., p. 458.
to the natural order. As numerous impressions appeared simultaneously in the brain, the imagination presented several thoughts simultaneously. The analysis inevitable with linear speech necessitated presentation of simultaneous thought in successive units, but the simultaneous action of the imagination therefore ran counter to order which followed logical categories. The need to grasp the thought in its combined form (i.e.: uninfluenced by the natural sequence of logic) was favourable to a freer word order. This opposition had materialised by the last quarter of the 17th century, with the rationalist language theory resting on Descartes' concept of immaterial thought, the opponents applying their interpretation of Cartesian psychophysiology to language. Thus the contradiction between Descartes physics and metaphysics was carried to linguistic theory.

Du Marsais, though representing sensualist principles in important points of his language theory, maintained the logical word order as the natural, universal one (as did Beauzée) and in his concept of the origin of language also saw in language the consequential result of an already formed thinking capacity (1).

Condillac's theory of the origin of language and the reciprocal development of the operations of mind and language eliminated any universal order of logical categories. His universal principle was the liaison of ideas, without any fixed word order, the French order which he regarded as a consequence of the more abstract form of thought and language of the French, being equally acceptable as the inverted Latin order. The important point is the closest possible connection between the ideas which belong to each other. Ricken adds that although Condillac's sensualist approach called into question the rationalist criteria of word order, it was not a direct polemic against that theory.

Condillac's views on the order of words are included in his treatment of syntax and construction. His definitions of syntax and construction follow those of Du Marsais, whom he quotes, and of the Encyclopédie, syntax being concerned with the relations between words, construction, the order of words, but always conforming to the syntactic requirements. The aim of syntax is to bring together several ideas to form a whole, comprising all the details and the relationships of the thought expressed.

The relations between words can be marked by the words' positions: by different forms taken by the words: by prepositions which mark them as a second term of a relation: by conjunctions which link incidental propositions with the substantives they modify; and by conjunctions which mark the connection between the principal parts of speech.

Condillac describes 'construction directe' as that in which ideas follow in unbroken sequence, 'construction renversée' or 'inversion' occurs where the order is transposed. Both are equally natural since, in the mind, all ideas which are judged occur simultaneously and would be uttered, as perceived simultaneously, if this were possible. So it is only in the utterance that there can be a direct or inverse order.

Condillac explains the apparent anomaly of any question of order in relation to thoughts perceived simultaneously by the fact that the mind is able to consider ideas separately and therefore distinctly through the use of language; it is only due to the resulting succession of ideas that the question of direct or inverse order arises.

3. Ibid., p. 500.
5. Ibid.
It is due to the mind's operations of judging and reasoning that, although simultaneous, ideas are arranged in a certain order of precedence, with a relationship of subordination linking one with the other. The more this connection can be preserved in language, the clearer will be the expression\(^{(1)}\).

It is noteworthy that this extract indicates that judgment and reasoning are effective prior to their linear expression in language since they arrange ideas in a certain order. The liaison of ideas, i.e., the connection between dependent ideas, must always in the expression be in direct order, but since thought is composite, the whole expression must be subject to inversion\(^{(2)}\).

Ellipsis is not a necessary feature of Condillac's theory except in so far as he uses it in explaining certain word classes. He acknowledges that omissions are frequent in all languages, and attributes them to man's natural inclination to present thought in its original simultaneous state, thus omitting unnecessary words, a feature which is also welcome to the listener or reader, since it presents several ideas together, as they exist in the mind\(^{(3)}\).

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Chapter 9. Further Developments in Language

Throughout Condillac's work, his views on the natural progression of mental operations and language are qualified by his recognition of the limitations of human nature, of varying capabilities within the human race, and of the negative sides to the faculties and operations which he postulates.

While he appears to envisage an ongoing 'natural' progress, since he regards some languages as more analytical than others, he is also concerned more specifically with deliberate measures which would refine the existing imperfect state of language and move towards an ideal language.

Although nature provides the pattern and stimulus towards perfecting a language, with the first steps resulting from man's own conformation, further progress being achieved through analogy, general usage has introduced imperfections, through imprecise use of existing signs, and the proliferation of signs which are not the most suitable for analysis. Simple ideas do not present a problem, but the words for complex ideas are very susceptible to abuse.(1)

James Knowlson, discussing the importance of Condillac in late 18th century consideration of theories of ideal languages, neatly summarises Condillac's view of the defectiveness of languages as methods of analysis.

"As languages have become more elaborate and richer in terms, they have also tended to become less effective as methods of analysis, incorporating words that reveal less clearly the true resemblances or analogies existing between ideas."(2)

The criticisms made by Condillac are expressed in his 'La Langue des Calculs', in the context of consideration of the requirements for a perfect language. Here, he expresses his mistrust of usage, together with the idea noted by Coseriu as astonishingly modern\(^{(1)}\), that leading writers do not create but discover languages and develop them further.

The ideal language forms all its words by analogy and uses the least possible number of words to express the greatest possible number of ideas\(^{(2)}\).

The improvements envisaged by Condillac would imply a semantic, rather than a structural re-organisation, and would depend on a more stringent analysis, or abstraction. This, in turn, would enable greater precision in knowledge.

A point in Condillac's theory which could invoke a re-organisation of syntax, at least in the French language, is, however, dealt with by Tort. Condillac argues that thought can appear to be obscure because language does not precisely indicate the sense in which judgments such as 'la neige est blanche' is to be taken. It is true, if, by 'blanche', the physical cause of our perception is meant, and not something similar to our perception itself\(^{(3)}\), i.e. the mind's view of it, a distinction which is not made in the proposition\(^{(4)}\).

At issue, comments Tort, is not only the lack of differentiation between objects and words caused by the lack of something which might amplify the idea of referent, but also the problem of syntactic structure, the predication of quality in the proposition being dependent on the relationship between the substantive and adjectival categories\(^{(5)}\).

\(^{4}\) See Chapter 8.
\(^{5}\) Tort, Dialectique des Signes chez Condillac, pp. 490-491.
Chapter 10. Summary.

Condillac's thinking results in a theory of language and understanding, rather than of general grammar, his declared aim being to demonstrate how one principle, the liaison of ideas through language, is vital to the organisation of human knowledge. This liaison, a mental operation in itself and therefore unobservable, is not possible without human language (or equivalent system of artificial signs) which is observable.

As Condillac attempts to achieve his demonstration through the empirical principle of observation and the process of analysis, which he describes as that observed in nature, his theory may, with some justification, be called empirical. But since it can be concluded that his explanation of the interdependent progression of language and thought, and the development of all the mental faculties from sensation, would not be possible without man's innate intelligence, it seems that he accepts an ultimate a priori basis to his theory.

The occasional ambiguity in his account appears to stem from the opposition between his acceptance of God-given human intelligence, and his aim to use only empirical data in demonstration. His religious convictions are reconciled with the empirical bias to his theory through his assumption that, after the fall, the soul no longer retained the capacity for perfect knowledge, but only such faculties as depended on sense impressions

1. "D'ailleurs s'il nous importe beaucoup, comme on n'en sauroit douter, de connoître les facultés, dont Dieu, malgré le pêché de notre premier père, nous a conservé l'usage, il est inutile de vouloir deviner celles qu'il nous a enlevées, et qu'il ne doit nous rendre qu'après cette vie. ...  
Notre unique objet doit être de consulter l'expérience, et de ne raisonner que d'après des faits que personne ne puisse révoquer en doute."
But, unlike the earlier philosopher grammarians, who accepted reason as the unconditional universal basis for language, Condillac envisaged that man's faculty of intelligence, though having a dominant role in the process of understanding, could not achieve expression without the prior functioning of his other innate characteristics. To remove, for instance, perception, attention deriving from man's needs, involuntary memory, imagination or reminiscence, would invalidate his theory.

As a consequence of Condillac's emphasis on factors which are more amenable to observation, the universality of the relationship between language and thought is seen not to depend unconditionally on the innate faculty of intelligence or reason, but on man's complete nature, and is expressed by the universal function of language in analysing thought. Without language, thought beyond the stage achieved by animals would not be possible.

A strong epistemological link is also indispensible to Condillac's theory and its universality. Language is a necessary condition for the acquisition, deduction, communication and storage of knowledge; and the connection of ideas, made possible by language and reflection, plays a vital role in this, through linking objects with needs and with each other, in an interlocking system. Powers of abstraction, effective through language and the connection of ideas, provide a system of knowledge. The ideas and therefore the words which represent them are themselves of a universal type because they represent objects which are similar throughout the world. So, the universality of the content of language and the way the content is organised, is largely dependent on reality itself.

Although Condillac subscribed to the usual view that general grammar contains elements and rules common to all languages, the basis for the common elements and rules is, therefore, no longer reason, or logic. The universality of content and of the word classes is related to the universality of knowledge.
The universality of the structure of language relates to the way in which thought is analysed, and this, in Condillac's account of the development of language, is common to all men, and therefore to all languages, since it derives from impressions made on the mind through the senses, and from man's nature which equips him for this analytic method, which is grammar.

Thus, he sees principles of general grammar inherent in the manner in which man uses language to analyse thought. In fact, since he regards any language as a means of analysing thought, specifies a maximum number of parts of speech as necessary for this and takes a relaxed attitude on the order of words in the proposition, it is possible that he could not go further in framing rules for a general grammar without compromising the elasticity of the basis of his theory. Given this broad basis of general grammar, there appears to be no call for a detailed formulation such as that provided by Beaufée. Nevertheless, apart from his opposition to the theory of natural order, his ideas seem unlikely to conflict in principle with those of the Encyclopédie, especially since the prevailing Encyclopédie view of total ideas and the grammatical relationships of identity and determination were in sympathy with his emphasis on the closest possible connection of ideas to achieve suitable representation of the simultaneous form of thought.

A noteworthy feature of Condillac's theory is its similarity with that of Port-Royal, in the very close identification of thought and language (1), though the respective bases of the relationship vary. For Port-Royal, the mental processes in the form of logical operations are directly represented in the proposition; for Condillac, language directly analyses thought.

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1. Ellen Hine regards Condillac as a discipline of Port-Royal in the close relationship of language and thought. But while Port-Royal regarded grammar as the art of speaking, and logic as the art of thinking, Condillac saw grammar as the first part of the art of thinking. (Condillac and the problem of language, Studies on Voltaire and the Eighteenth Century, Vol. 106, 1973, pp. 36-37).
and this provides a less rigid hypothesis than that of Port-Royal. In grammar, however, both subscribe to a similar view of the proposition, for, in spite of a different departure stage from that of Port-Royal, and other divergent factors, Condillac's 'analysis of thought by language' also materialises into the elements of the judgment, expressed in the proposition.

In view of the major difference in his grammatical theory from those of his predecessors, namely, his opposition to a theory of natural order, and the very direct relationship he envisages in his analysis of thought by language, it appears irrelevant to consider his theory in terms of an underlying structure to the surface expression. Apart from the difference in form, thought being indivisible, and language linear, the inference is that the content of language is the same as that of pre-analysed thought, assuming the analysis correctly presents the thought. Condillac does allow for ellipsis in his theory, though he does not make use of it to reconstruct specifically an ideal form of expression or a 'natural order' such as prescribed by Du Marsais, or Beauxée's 'analytic order'. Ellipsis results from man's natural reluctance to move away from the simultaneous form of thought present in the mind, to the linear, analysed form applied to it by language.

There is an apparent paradox in Condillac's description of language, the analyser of thought, advisably being made as economic as possible in the terms used in order to achieve the simultaneity and unity of thought in its natural state, while, at the same time, as Condillac's theory proclaims, thought needs to be analysed, or decomposed for clarity. There is also apparent contradiction in that Condillac refers to the analysis made by language following the closest liaison possible of ideas which relate to each other. If ideas relate to each other, they are already in some form of order. Condillac
acknowledges that they are in an order of precedence, though simultaneous: this is the order provided by the processes of judging or reasoning, which places the ideas and terms in the natural order of precedence. But as Condillac's theory claims that for such operations language is necessary, the inference is that some 'internal' use of language is involved in these mental processes, and this could be another stage, about which Condillac is not explicit.

Whatever criticism of Condillac's theory may be justified, he did, in keeping with the enquiring attitude of the Enlightenment, open up aspects affecting language to an extent that could encourage thinking about language outside the narrower relationship with thought envisaged in the theories of general grammar which had a rationalist basis. Apart from the main themes of origin and development of language, which may have stimulated interest in etymology, Condillac introduced a stronger epistemological link (words reflect the system of knowledge), recognized a relationship between the character of a language and its people(1), allowed for the communicative role of language (the speaker decomposes or analyses, the listener composes or synthesises), and through his criticism of the inadequacies of language, and views on a perfect one, stimulated thinking about reform of language and ideal languages.

His dissatisfaction with the state of language might have been more constructive had he been more knowledgeable about languages. His Grammaire, compiled for instruction, was obviously, apart from the limited general features already mentioned, intended as a French grammar, and his method of analysis tied to the French construction. Had he had the access to the languages of completely different structure, even though they may not have allowed for the distinction between reality and the mind's action which he noted as an omission in his own language, they might have brought to notice other analytical features novel to Western European languages. In his view of the progress of language, interdependent with that of thought, he did, however, concede a dynamic characteristic to language.


A comparison of the four theories gives some indication of the wide variations which can occur within the concept of universal or general grammar, even if this concept is considered only within the specifically French tradition of the phenomenon. Though having some features in common, the four accounts of the nature of thought and the way in which thought is expressed in language show marked differences, which are most pronounced if one compares the rationalist Port-Royal theory and the sensation based theory of Condillac.

André Joly, taking account of such differences, contends that the grammairien-philosophes of the eighteenth century cannot be regarded as the heirs of Port-Royal. On the other hand, the facts considered in Part 2 of this study support Auroux's view of an evolution in thinking about the concept, rather than a rupture.

In comparing the four theories, a certain progression in thinking can be detected, with that of Port-Royal playing an initiating role. Though these four theories do not of course in themselves provide a historically complete picture of general grammar in France, either in relation to the total


2. "... Mais les ruptures proviennent toujours d'un développement interne; en ce sens, elles correspondent toujours à la poursuite d'un projet initial. La grammaire générale n'est pas au XVIIIe siècle un champ morcelé; c'est un champ en travail, et ce qui travaille en lui c'est encore le projet de Port-Royal; ......" (La sémiotique des encyclopédistes, pp. 213-214). This is also referred to in Pt. 2, Section I, p. 29.
span of the concept, or to the period over which the four theories extend, they are sufficiently dominant for this progression to be indicative of important features in the evolution of thinking about the subject.

The stimulus given by Port-Royal to such thinking must also be considered against the large debt it owes in turn to antecedents, a debt which has been amply illustrated by the various commentators on this matter.

Port-Royal had provided a precedent for a theory of grammar which relied for its main principles on the operations of mind themselves. The broad theme of a psychologically based general grammar persisted in later theories, but the conception of the nature of thought, and of the mental processes underlying grammar, underwent certain transformations, with repercussions on grammatical theory. The transformations reflected the impact of the prevailing philosophy on the thinking of Du Marsais, Beauzée and Condillac, but also relevant were the respective authors' own initiatives, and the further development of some specific aspects of Port-Royal theory. It does not always appear possible to identify the part played by each factor since to some extent they appear to interact.

Important in the progression in thinking was the transition from the Port-Royal authors' view of thought as a sequence of logical operations which condition the form of language, to that, common to the theories of Du Marsais, Beauzée and Condillac, of thought as simultaneous and indivisible. This transition was concomitant with the dependency of thought on the senses, postulated in the later theories, and with the increasing emphasis on the analytical role of language. It is, however, interesting to note that Port-Royal's theory of the sign could also encourage a view that language has analytical powers, in that it implies that the need to represent thought by words obliges the mind to regard its own actions (1).

1. Section 1, Chapter 7, p. 106.
The view of thought as a sequence of logical operations, exemplified in the Port-Royal Logique, maintained, however, a certain influence on the later theories. As the rules for thinking contained in the Logique were so important to Port-Royal linguistic theory, and as this publication continued to be a point of reference during the entire period of general grammar in France, it is not surprising that certain issues raised in it featured in the subsequent views about language and its relationship with thought. Of particular interest is the central position of the 'idea' in each of the four theories, and the changing interpretations of it.

The changing conceptual approach to general grammar can be illustrated by comparing the successive versions of the nature of thought and its processes, and the effects of these on the respective accounts of the relationship of thought to language and grammar.

In each of the theories, the soul, or mind, is regarded as the source of the capacity to think, and is accepted as spiritual, as against material body. But, although the description is Cartesian, after Port-Royal, the views of the nature of thought move away from the Augustinian conception of pure spirituality, generating clear and distinct ideas, which are independent of the senses. For Du Marsais, influenced by Locke, all ideas have their origin in external impressions, with reflection on these 'idées adventices' providing 'idées factices'. Beauzée similarly concedes the derivation of ideas through the senses, and Condillac's postulation that all the mental operations have their source in sensation indicates a complete departure from the Port-Royal conception of thought, though evidence suggests that Condillac maintained that the capacity for thought is innate.

1. The importance of the 'idea' and its position in logic is reflected in Auroux' suggestion that there is a theory of ideas in the Eighteenth century, which is not only due to the nature of such and such a philosophy, but constitutes a part of the history of logic, conceived as a theoretical discipline. (La sémiotique des encyclopédistes, p. 116).
The inclusion in the Encyclopédie of the Port-Royal definition of the sign\(^{(1)}\), a definition dictated by the Solitaires' Augustinian conception of thought and the idea\(^{(2)}\) might lead to an assumption that Du Marsais, Beuzée and Condillac subscribed to the same theory of the sign as Port-Royal. But, as Auroux points out, the application of the concept of the artificial sign was affected by the change from the dualist Cartesian doctrine to the sensation based doctrine. The additional Port-Royal stage of the idea of the object, stimulated by the idea of the sign, became irrelevant to Condillac's theory, where the association of the idea is already with sensation itself\(^{(3)}\).

Although Du Marsais, consistent with acknowledging the duality of mind and body, subscribed to the Port-Royal definition of the sign\(^{(4)}\), his acceptance that all ideas have their origin through the senses, though with reflection producing further ideas, indicates a modification to the Port-Royal version. While Beuzée does not appear to indicate his adherence to any specific version of the sign, it is clear that if he endorsed the inclusion of the Port-Royal definition in the Encyclopédie, it was not through conviction on its Augustinian origin, for he considers that the object is represented by the sign, not in its capacity as an idea, but as a being\(^{(5)}\).

Although, after Port-Royal, the importance of the logical operations as a factor influencing language diminishes, they continue to feature in each of the theories. Du Marsais identifies them as being of particular importance, but his view of the first operation, conception, is affected by his belief that the first origin of ideas is through the senses.

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1. Section 4, Chapter 7, p. 247.
2. Section 1, Chapter 7, p. 101.
3. Section 2, Chapter 6, p. 161.
4. Ibid., p. 160.
5. Section 3, Chapter 4, p. 189.
Conception nevertheless seems to retain for him the implication of 'understanding'; and it is interesting to note Ricken's view that Du Marsais' adherence to the concept of natural order, with its sequence of the logical operations, could draw on Locke's theory that reflection existed alongside sensation, and that language would therefore be an ultimate product of the faculty of 'concevoir', regarded as equivalent to Locke's reflection.

Beaumee's reference to thought being in some way analysed by logic with the help of abstraction appears to depart from the logical sequence. But his postulation that logic achieves this analysis by considering separately the different ideas which are the object of thought, and the relations which the mind perceives between them, implies a certain interpretation of the logical operations. The 'ideas' could be related to the operation of concevoir; the relations between them to judgment.

Condillac's theory, which, of the four, provides the most detailed and precise analysis of the thought processes, differs in explicitly postulating perception, the impression made on the mind through the senses, as the first operation. The subsequent operations of reflection, judgment and reasoning have their source in this first operation. It is noteworthy that it is at the stage of reflection, which may be regarded on a level with the 'conception' of Port-Royal and Du Marsais, at which language becomes important, and the liaison of ideas becomes possible. In the earlier theories, conception is the stage which produces ideas, which are, for needs of communication, given artificial signs.

Despite the variations in the conceptions of the nature of thought, its form in each of the theories, even where thought is regarded initially as simultaneous and indivisible, is related to a version of the judgment, and also, in each case, the specific version of the judgment influences the interpretation of the relationship of thought with the expression.

1. Grammaire et Philosophie au siècle des Lumières, p. 86.
2. Section 4, Chapter 2, p. 223.
Port-Royal's judgment involves a specific action of mind in affirming one idea of another. Unrestricted by the Port-Royal type of formula, which represents the mental operations directly in the expression, Du Marsais' judgment is an abstract term for the mind's operation, whereby we think that an object is or is not of such a manner, the mind also regarding the object and what is judged of it as forming a whole. Whether or not Beauzée's formulation of the judgment owes something to this idea of the additional mental act of observation, it expresses the notion of the mind observing its own actions. For Beauzée, knowledge is nothing more than the intellectual recognition of things with their attributes, the act whereby the mind perceives in itself the existence of a being with such and such an attribute.

Although Condillac's version of judgment is reminiscent of that of Port-Royal in that it allows for the action of the mind in affirming one thing of another, in conception it is markedly different\(^{(1)}\), not least because for Condillac, language is thought analysed, for Port-Royal the mental processes can function without language. Of interest, however, is Condillac's view of the judgment as the same operation as perception but viewed differently. This appears to reconcile his theory that perception is at the origin of all mental operations, with the view of judgment as a logical operation. It is also possible to discern in it a means of avoiding a possible anomaly, such as that apparent in Port-Royal's theory, whereby the conception of the components of a complex term could apparently also be regarded as a judgment\(^{(2)}\).

Of the mental operations, that of abstraction, the process described in the Port-Royal Logique in relation to the formation of general ideas\(^{(3)}\), becomes increasingly important in the later theories. Whereas Port-Royal omitted to explain how a

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1. Section 4, Chapter 8, p. 256.
2. Section I, Chapter 4, p. 60.
3. Section 1, Chapter 4, p. 66.
judgment becomes possible, for Du Marsais it is as a result of abstraction that the mind is able to compare two ideas and to judge whether or not they are alike\(^{(1)}\). Abstraction was also to feature prominently in the development of the epistemological aspects of the theories, for through being instrumental in explaining the genesis of ideas it facilitates the attainment of knowledge\(^{(2)}\).

With Du Marsais, possibly also by analogy with Locke's use of abstraction, it enables a system of general ideas to be developed against which new ideas can be compared. Beauzée envisages such a system as providing the necessary mechanism for memory and intelligence to use in the processes of acquiring knowledge, and in communicating ideas\(^{(3)}\). Condillac sees abstraction in conjunction with language, as the means of providing a system of all knowledge\(^{(4)}\).

The relationship of the thought processes with the expression, in the respective theories, is affected by the transition from the belief, held by Port-Royal, that language is only needed for communication. This view was also shared by Du Marsais, though he conceded an additional role for language in that he considered that it is the need to communicate which forces the mind to distinguish the content of simultaneous thought\(^{(5)}\). Although, with Beauzée, a form of thought appears possible without language, language appears as a necessary accompaniment to developed thought. For Condillac, not only are the higher forms of thought impossible without language, but it is language that makes possible the advance of knowledge, the most important feature and one which is overlooked if language is regarded as merely a means of communication\(^{(6)}\).

1. Section 2, Chapter 3, p. 134.
2. "... on retrouve dans la Logique de Port-Royal les linéaments de la théorie de l'abstraction qui permet aux empiristes d'expliquer la génèse de nos idées..." (Auroux, La sémiotique des encyclopédistes, pp. 115-116).
3. Section 3, Chapter 3, p. 183.
5. Section 2, Chapter 3, p. 139.
While it would have been difficult for Port-Royal to refer to thought as an 'acte indivisible' and at the same time represent, as they did, the processes of mind directly in the expression, the postulation in the later theories that thought is simultaneous and indivisible paved the way for a more flexible relationship between thought and the expression.

Whether or not the three later philosopher grammarians consciously took note of the rigidity inherent in the Port-Royal theory, it certainly appears that since their respective versions of the judgment were not made directly dependent on the logical operations, certain advances in distinguishing between the form of thought and that of the expression became possible.

The expression in each of the theories takes the form of the proposition, and apart from Du Marsais' more liberal view of it as a collection of words signifying a judgment or some particular view of the mind, the role of the proposition remains limited to the judgment, though definitions of it vary according to the respective interpretation of the judgment.

To the Port-Royal authors is attributed an initiating role both in establishing the idea of the proposition in French grammar and in endowing it with the role of a formative nucleus. In this respect they may be regarded as having contributed to the emphasis on it as a cohesive unit.

In the theories of Du Marsais and Beuzée, the importance attached to the total meaning of an expression, which appears to be due, at least partly, to the conception of thought as 'une et indivisible', further reinforced the view of the proposition as a meaningful whole. The consequent recognition by Du Marsais and Beuzée of a logical proposition representing the semantic content, and a grammatical proposition, analysed according to grammatical categories, presented an improvement over Port-Royal's lack of explicit distinction between the two levels. The increased emphasis on relations between words was
condusive to advances in syntax. The notion of complement appears to have been prompted by the view of subject and attribute, each as a total idea within the logical proposition, being represented in the grammatical proposition by subject, attribute, and their respective complements.

The proposition was therefore no longer conditioned by the rigid Port-Royal form of 'la terre est ronde', and a propensity for distinguishing between semantic and grammatical content was introduced, though still influenced by the elements forming a judgment, the subject and attribute.

The Port-Royal classification of the content of the expression between words which represent objects of thought and those which represent form of thought features also in the theories of Du Marsais and Beauzée though not with the same force as in the Port-Royal theory which relates them directly to the operations of mind. With Du Marsais the distinction is attributed to the manner in which the mind considers the object (1). In Beauzée's theory, the application of the concepts is even further removed from that of Port-Royal. Auroux, referring to the differences between Du Marsais and Bezuée, comments that while Du Marsais' analysis of the proposition remains related in some way to the form and substance of content, for Beauzée, the substance only of the content is relevant (2). In Beauzée's theory, the distinction is applied to the elements of the expression which correspond to external reality on the one hand, and on the other, to those, such as quantifiers and connectors, which have no such counterpart.


2. La sémiotique des encyclopédistes, p. 96.
The copulative or affirmative role of the verb, which, for Port-Royal was the principal manner of thought, disappears with the change in emphasis, in conformity with Beauzée's view that the essence of language is a liaison of elements to express the unity of thought\(^{(1)}\). Also noteworthy in Beauzée's interpretation is his explicit acknowledgement of the separate existence of reality.

With the evolution in thinking on the relationship of language to thought, there was a change in emphasis on the universal aspects of language. For Port-Royal, the vital principles were the mental operations themselves, reflected in the universal categories of words. For Du Marsais and Beauzée, with the importance attached to the relations between ideas and the total meaning of thought, the emphasis was on 'syntaxe nécessaire' and 'ordre analytique' respectively. For Condillac the universality lay in the function of language, the analysis of thought, whose guiding principle was the liaison of ideas.

The differing approaches brought about changes in the concept of general grammar. Auroux regards Port-Royal's 'l'art de parler', the reasons for what is common to all languages and the principal differences which occur, as the concept from which general grammar in the eighteenth century was re-thought\(^{(2)}\). For Port-Royal, general grammar could be constructed a priori or from one language or a few languages\(^{(3)}\). This appears to be consistent with a view of universal mental operations being represented directly in the expression. Whatever figurative form this should take, and however the habit of usage might have affected the basic form, the mental operations could still be deduced.

1. Ibid.
2. La sémiotique des encyclopédistes, pp. 214-215.
3. Ibid., p. 221-222.
In contrast, the Encyclopédie definition of a particular grammar did not accord to it any universal value (1). The later theories, more specifically Beauzée's, defined general grammar as a science which pre-existed all languages, and with Beauzée, this materialised into abstract possibilities which particular grammars could not apply. Auroux comments that Beauzée recognised that to be general, grammar must study linguistic forms not found in each language (2).

With Condillac, the science is associated with the analysis of thought by language. Grammar is the science which teaches the principles and rules of this analytic method. It is general if it teaches rules applicable to all languages, particular if the method is applicable in specific languages (3). It is not difficult to see in this definition an encouragement towards interest in particular grammars.

As the theories were largely directed at accounting for existing facts of grammar, they may be regarded as explicative, rather than descriptive. Much of their substance is related to the processes which occur prior to the expression, and since the accounts of these processes are themselves constrained by grammatical features of the French language, it may be expected that the theories themselves had relatively little lasting impact on formal grammar.

1. Ibid., p. 224. "La Grammaire particulière n'a par définition aucune valeur universelle, ses règles n'ont "qu'une vérité hypothétique et dépendante de conventions libres et muables, et ne sont d'usage que chez les peuples qui les ont adoptés librement, ...". Auroux, La sémiotique des encyclopédistes, p. 234. The quotes are from E.R.M. article 'grammaire'.
2. Ibid., pp. 229-230.
3. Section 4, Chapter 8, p. 253.
The extent of the discussions, by the respective authors, on the definitions of the various grammatical categories suggest a theoretical interest, rather than a practical application\(^{(1)}\). As all the authors were much concerned with education, their influence in the field of formal grammar was related more to their methods of instruction. Although application of principles of general grammar in this field do not appear to have always met with success\(^{(2)}\), there appear to have been some durable effects. Sahlin refers to the doctrine of general grammar in France, initiated by Port-Royal, continuing to influence grammatical studies in France during the whole of the eighteenth century, a large part of the nineteenth century and even the modern period, the two latter periods being characterised by a prolonging of the reign of general grammar and the long effort to free grammatical studies from its yoke\(^{(3)}\).

The leading innovations relative to formal French grammar appear to be in the field of syntax, with the Port-Royal theory directing attention to the proposition to an extent not previously evident in French grammar, and the further contributions of Du Marsais and Beauzée, culminating in the notion of complement.

In spite of the differences between the four theories, they have in common a priori views on the nature of thought, a concept of the word as artificial sign of its referent, a

\[1. \quad \text{"... il serait faux d'imputer à cette doctrine (grammaire générale) toutes les erreurs de la grammaire traditionnelle: seulement comme c'est à cette époque qu'on a raisonné sur la terminologie et les définitions grammaticales, on peut dire que la grammaire générale, ayant établi la plus grande partie du cadre théorique de la grammaire, est indirectement responsable de ce qu'elle a laissé intact." (Sahlin, César Chesnau Du Marsais, p. vi).}

\[2. \quad \text{The introduction of general grammar into school studies at the period of the Revolution was not a success. (Part I, Chapter 3).}

\[3. \quad \text{César Chesnau Du Marsais, p. vi.}\]
view of the proposition as the structure of the expression, and the application of ellipsis in restoring expressions to their ideal form, though in Condillac's theory, ellipsis does not retain the same importance.

Of these features, the role of the proposition is the most notable, since, in effect, it constrains the various explanations of the nature and form of thought by obliging them to be channelled into a mould which follows the pattern of the traditional logical proposition, and which, moreover, identifies particularly with the French language (1). Though the interpretations vary in detail, the proposition in each case is said to consist of a subject and attribute, with the verb variously described. Thought, even though initially indivisible and simultaneous, has within it the potential to be analysed into the components of a judgment and thence represented in the proposition. Of the four theories, Beauzée's explicit formulation of the different stages, with optional means of realisation, shows the greatest propensity for flexibility. But in practice the framework of the expression remains the subject and attribute, as with the other theories. The authors' definitions of the proposition are moreover affected by the respective philosophical opinions on the relation between the subject and attribute, to the extent that grammatical and philosophical aspects are combined. Also, as with the theories of the Modistae, the question is prompted as to whether the theories are circular, philosophical concepts of the relationship of subject and attribute owing something to language, grammatical theory on the proposition in turn reflecting philosophical views.

1. Charles Fillmore suggests that there are reasons for questioning the deep structure validity of the traditional division between subject and predicate, and refers to Tesnière, who holds that the subject/predicate division is an importation into linguistic theory from formal logic of a concept which is not supported by the facts of language. The division furthermore obscures the many structural parallels between 'subjects' and 'objects'. (The Case for Case, in Universals in Linguistic Theory, Bach and Harms, p. 17).
Ellipsis is used in each of the theories as an explanation for deviations in a particular language from universal principles. Reasons given for such deviations include the tendency to shorten speech to attain the cohesion of thought; variations due to usage; and the exigencies of style. While such reasons may appear plausible in relation to the postulation of an ideal surface structure, they are less convincing as explanations of deviations from innate and universal principles, which are said to govern the form of thought, and of language. Once such principles are stipulated, one might expect them to apply to any utterance, without the need to account for deviations in terms which may be described as expedient. To have recourse to such explanations appears to be tantamount to saying that certain universal rules apply only up to a certain point, when external factors, such as usage, become dominant. As a device for relating surface utterances to innate principles, ellipsis is, moreover, unreliable, in that the elements said to be omitted are open to speculation. It may be argued that the restoration of elided elements is part of a transformational procedure, but, against this, the very reasons given for its occurrence are not rule governed. Recourse to ellipsis appears to be due not so much to the need to explain how principles apply in any language, but rather to a wish to account for deviations from the stipulated universal principles for whatever reasons. Moreover, the validity of the reconstructions appears to depend, in the last resort, on meaning, which argues against the universal principles being reflected in purely structural reconstructions. The weakness seems to rest in the fact that the authors are attempting to equate what appears to be simply the restoration of figurative expressions to formal grammatical structures, which have themselves evolved, with a reconciliation of the expressions to innate and constant principles.
Whether or not the fact that the theories encompassed a wide range of subjects owed something to the precedent set by Port-Royal of ignoring discipline boundaries, each covers a range of disciplines which would nowadays be studied separately, though of course to much more advanced and specialised standards, under formal grammar, the various branches of linguistics, philosophy of language and philosophy. At that period this may have been an advantage in that the scope of thinking was uninhibited by rigid boundaries. On the other hand, the lack of discrimination made it difficult to identify purely linguistic from extra-linguistic features, though Beauzée's theory showed more promise in this respect.

In addition to this multi-disciplinary flavour, the a priori versions of thought postulated by the authors as the bases of their theories distinguish them sharply from modern approaches. These versions were not so much suggested as hypotheses, as accepted as valid fundamentals underlying language.

The lack of familiarity with a wide range of languages also contributed to limiting the vision and scope of the theories. Though intended to be universal in principle each of the theories was related to the French language and the authors lacked knowledge of the completely different families of languages from those of Western Europe.

It is difficult to speak in terms of relevance of the theories to modern linguistics, beyond pointing to similarities in certain of their features. Apart from the much-discussed comparison by Chomsky of aspects of the theories of Port-Royal, Du Marsais and Beauzée with those of transformational generative grammar, there have been various references to other similarities, some of which are noted in the foregoing text, but none of these indicates a fundamental analogy with modern theories.
The features of the theories which appear to present particular interest for further thought are those which are related more to their semantic aspects. With each of the theories, meaning plays an important role, both in regard to the process of signification and in association with questions of grammatical structure and categories. The modern relevance of Beauzée's semantic criteria for determining incidental explicative and determinative phrases is recognised by Auroux. Also noteworthy is the question, particularly important with Beauzée and Du Marsais, of relations between words, and the contribution of these relations to total meaning. The relevance of a further aspect of Beauzée's theory to modern linguistics is noted by Auroux's comment that Beauzée's view of the semantic consequences of adjacent terms, notably in relation to the preposition, supports an intentional theory of relations. It is noteworthy that although these features developed from the authors' a priori conceptions of the nature of thought, they are not necessarily dependent on such conceptions. It seems to be possible to regard them as autonomous linguistic phenomena.

The importance of semantic aspects in the theories discussed constitutes a major point of difference from Chomsky's thinking, with its emphasis on the syntactic basis of transformational generative grammar. However, although Chomsky appears to maintain his view of an autonomous

1. Section 3, Chapter 6, p. 206.
2. Robins refers to the question of the semantic relation between a sentence and its component words as being far from solved today. (Short History of Linguistics, 1979, p. 138). Lest it should appear that the philosopher grammarians' consideration of the question of semantic unity of a sentence was novel, it should also be noted that Robins refers to Indian linguists having debated the whole question of the primacy of the word as against that of the sentence. Of particular interest is the view of one Indian author (c. seventh century A.D.) of the sentence as a single undivided utterance conveying its meaning 'in a flash'. (Ibid., p. 139).
grammatical system\(^{(1)}\), he regards it as "a coherent and perhaps correct proposal that the language faculty constructs a grammar only in conjunction with other faculties of mind"\(^{(2)}\). One might read into this an implication of a broad similarity with the theories of the philosopher grammarians in so far as they relate the linguistic faculty to all the mental processes, and merge linguistic considerations with other fields of knowledge.

But here, as in the case of the earlier comparison of their theories with that of transformational generative grammar, there is a marked difference between Chomsky's speculation on faculties of mind and the a priori conceptions postulated in the theories described in the foregoing text.

If modern speculation were to result in hypotheses which attempt to formulate the inter-action of linguistic with other mental faculties, at least such hypotheses would have the advantage of a much more advanced stage of thinking on the subject. By comparison with modern theories, it is not difficult to detect shortcomings in those which form the subject of this study. They provide far from convincing accounts of the relationship of language and thought, and these accounts are, moreover, much conditioned by the prevailing religious and philosophical influences. But for their time, they present an impressive and stimulating corpus of thinking on the subject, and embrace a wide range of aspects relevant to linguistic theory.

1. "My own quite tentative belief is that there is an autonomous system of formal grammar determined in principle by the language faculty and its component UG. This formal grammar generates abstract structures that are associated with "logical forms" ... by further principles of grammar. But beyond this, it may well be impossible to distinguish sharply between linguistic and non-linguistic components of knowledge and belief..." (Reflections on Language, 1976, p. 43).

Jarold Katz, more recently, comments "On balance, the spirit of Chomsky's over-all thinking about meaning seems to be basic agreement with Putnam's and Quine's concept of meaning as part of a homogeneous cognitive fabric of extra grammatical beliefs about the world." (Chomsky on meaning, Language, Vol. 56, March, 1980, p. 33).

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