

H.S.Gill

The Semiotics of Creative
Process in the Eighteenth
Century France

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The Semiotics of Creative Process in the Eighteenth Century France begins with a comprehensive statement on the evolutionary theory of semiotics by Destutt de Tracy where the French philosopher presents a correlation between human perception and the elements of ideology in crystallising the process of signification. It is followed by a general discussion of the various view-points on the nature of signs and propositions in the Port Royal idealist framework and the Condillacian empiricist reflections. It is shown that contrary to the so-called sentence oriented "Cartesian linguistics," the semiotics of creative process in the pre- and post-revolutionary France was squarely based on the theory of ideas and propositions situated within the constituting progression of the discourse.

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The Semiotics of Creative Process in Eighteenth Century France

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Bahri Publications
New Delhi
1989

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in Eighteenth Century France

ISBN 81-7034-089-6

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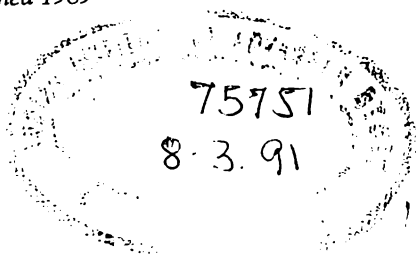
IAS, Shimla

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First Published 1989
Rs. 80



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Phototypesetting at B.H. Enterprises, E- 225, East of Kailash, New Delhi - 110 065.
Printed in India at Nav Prabhat Printing Press, Gali No 2, Balbir Nagar, Shahdara, Delhi 110 032.
Published by U.S. Bahri, for and on behalf of Bahri Publications 57 Sant Nagar, P.O. Box 7023, New Delhi 110065

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Formerly a Research Fellow at the Centre National de la Recherche Scientifique, Paris, Professor H.S. Gill teaches Semiotics at Jawaharlal Nehru University, New Delhi. . . . "Motivated by the writings of French structuralists, Gill suspended the language-society opposition and tried to combine the two as a new theoretical object. His anthropological semiotic model first emerged through his translation and editing activities (Gill 1976, 1979), through which he introduced his students for the first time to the viewpoints of Foucault, Lacan, Mouloud, Genette, Althusser, Greimas, etc. He applied this model to many legends, folktales, and literary works in his articles and books (Gill 1976, 1980, 1983 and forthcoming). While in a *Phulkari from Bhatinda* (1977) Gill has been able to explore the symbolic structure of Punjabi consciousness by integrating the symbolism of ritual life and the oral tradition of Punjabi folklore, in another book he presents his analysis of Gustave Flaubert's *Saint Julien* (forthcoming) through a method which deals with the semiotics of creative process in the general framework of constituting a discourse on the basis of conceptual oppositions emerging from a perception of contradictory pulsational forces in the violent world we live in . . . Gill's theoretical model of discourse analysis has been applied to a number of Indian and European cultural and literary texts by his research students. Almost a dozen doctoral dissertations have been produced under his supervision since 1977 which aim at revealing, in one form or another, the semiological structure of a literary work."

From *The Semiotic Web 1987*,
edited by T.A. Sebeok, Mouton, 1988.

Introduction

In the fourth chapter of *l' Art de penser*, the Art of thinking, Paris, 1796, Condillac states that to analyse is to decompose, to compare, and to apprehend the rapports. But in analysis, we decompose only to show, as far as possible, the origin and the generation of things. One who decomposes without this consideration for the generation of ideas, indulges only in abstractions, and the one who does not abstract all the qualities of an object, gives only incomplete analyses. Thirdly, if one does not present his abstracted ideas in the order which facilitates the comprehension of the generation of the objects, presents analyses which are not very instructive and generally quite obscure.

Analysis is the true secret of the discoveries. It presents a few ideas at a time, always in the simplest possible gradation. It is the enemy of vague principles, and of all that is contrary to exactitude and precision. One does not look for verity on the basis of a few general propositions. It is always an affair of a kind of calculus, which continues to compose and decompose the notions until they have been compared for all the rapports favourable to the new discovery.

At times, an analysis is complete in itself, and at others it is only relative to our previous knowledge. In the first case, it leads to the primitive, original qualities, and does not presuppose anything. In the second case, it is incomplete. It stops at the secondary qualities, at the effects that we discover, at the phenomena themselves. As such, it does not lead us to the general principles.

In geometry, we have the example of complete analysis. Its analysis does not presuppose anything for a figure cannot have

anything other than angles and sides. It presupposes **nothing**.

In physics, on the other hand, analyses are always **relative** and incomplete. There are some qualities which we can observe, and **there** are others, which obviously escape our senses. The **instruments** help the weakness of our organs, but they can also go only **so far**. The basic nature of the object remains always **masked** or **hidden**. We can discover only those qualities which are **analogous** to our previous knowledge.

When our analyses are complete, as in geometry, our **knowledge** is absolute. On the other hand, our knowledge is **relative**, when we depend upon our senses. For example, the qualities which we may have discovered on the basis of our observation of gold, lead us to a knowledge which is complete only with rapport to what we have noted, it does not penetrate into the true nature of this metal. It is because mere observation, even with the help of instruments, does not lead us to the true nature of the objects. The qualities of each object must be decomposed, then they should be compared with those of other similar or dissimilar objects, and their mutual rapports be perceived to be able to understand the way these objects are generated or formed.

This method is different from that of Descartes. According to Descartes, one should begin with defining the things, and consider the definition as proper principles to discover the properties. Condillac believes, on the other hand that one should begin with the search for the properties (decomposition). One should look for all the compositions and decompositions to compare them from all sides, to be able to perceive all the rapports in such a way that the generative or the developmental aspects of the objects are revealed. The Scholastics and the Cartesians according to Condillac, could never perceive the origin or the generation of things, for they began with the vague principle of innate ideas.

This brief note from *l'Art de penser* of Condillac shows how the idealist position of Descartes and the Port Royal school of the seventeenth century differed from the eighteenth century position of analysis. This intense intellectual activity in the two hundred years of the history of France, leading to the mental and political

upheavals of the French Revolution has been naively presented as a simplistic, uniform view in Chomsky's *Cartesian Linguistics*. There are very significant differences and developments from Port Royal to Condillac and Destutt de Tracy.

The first part of this monograph is based on *Elémens d'Idéologie*, Paris 1817, of Destutt de Tracy, who continued the tradition of Condillac, and presented a more wholesome state of the science in the last years of the eighteenth century. Destutt de Tracy presented his *Mémoire sur la faculté de penser* to the Institute in February 1798. It is he who introduced, for the first time, the term *ideology*, not in the sense in which it is known to us now, but as the *science of ideas*. In 1808, Destutt de Tracy replaced Cabanis in the Académie Française.

The second part of this monograph deals with the different points of view prevalent in these two centuries. The argument is based primarily on the excellent thesis of Sylvain Auroux, *La sémiotique des encyclopédistes*, 1979. This study shows how the notions of signs and significance, arbitrariness, decomposition, composition, comparison of rapports, analysis and synthesis were debated in the eighteenth century France. It also demonstrates how the science of ideas, the ideology so called of Destutt de Tracy, and, the science of expression, the grammar, were closely related in this reflection.

H.S.G.

The Elements of Ideology

DESTUTT DE TRACY

A.I.1 The evolution of human language follows the evolution of human societies. All cultures or civilisations have evolved, for their communication, systems of signs, which present corresponding systems of signification. The reunion of these two systems, mediated by human intellect, results in what is called a human language, in which all members of a given social, cultural or economic group participate.

It has, however, been observed that whatever degree of evolution a language might have attained, it is not necessary that there is also, in that cultural group, a theory of language, which explains the mechanism of the correspondence of the system of signs of words with the system of ideas. But this is quite natural. Theory always follows practice. Man begins with observing facts. He modifies them, involves them in several useful combinations for his needs, and operates necessary applications. For a long time, he continues to compare one fact with another, and tries to find correlations of the principal internal factors, and only later on, begins to build a system of hypotheses, which evolve into a theory. The pursuit of theoretical speculation is primarily an intellectual activity, which not only attempts to explain the empirical given facts of the moment, but also looks for possible correlative principles, which open up a bright future for all possible innovations of the creative process.

For a long time, man observed the floating of wood on water before he made use of this knowledge to make boats and learn the art of navigation. He continued to construct vessels on his understanding of immediate facts, but it took him several centuries to derive the general laws of hydrostatics from his observations of the causes, which are correlative operations. Similarly, man handled for centuries, the long baton and more heavy objects, before he could discover the analogy and the liaison of the force and the bodies, and, arrive at the principles of mechanics. This is true of all other scientific developments. Man knew how to count, and how to take care of his daily business needs, before he evolved the abstract calculations of mathematics.

A.I.2. The same is true of human language. In his primitive stage, man probably began with naming things and the objects of his environment. These words or signs referred to definite concrete objects about which he wanted to talk even when the objects were not present. And, the social or group communication was possible only if all the members of the group agreed on the significance of the signs being used for these specific objects. This gave rise to what may be called, the conventional use of language. This language of words or signs evolved into a social discourse as the physical and cultural needs and the consciousness of the group evolved. Man needed not only to name his objects, but also to refer to them in their absence, and to talk about them in correlation with their abstract awareness by the group, for the objects of human environment presented not only concrete and definitive references, but also abstract and elusive correlations. It was thus necessary that the semantic domains for the earlier nomenclatures undergo obligatory corresponding changes, and, more and more abstract combinations of these signs evolve into regular propositions.

A.I.3. Words are signs, which refer to ideas, and their reunion, forms a language. But along with words, there are other signs which represent our ideas, and as such, there are other forms of human language. There is the language of painting, which evolved into hieroglyphics, the language of action or gestures, and, several

others. These languages are also constructed around systems of signification, and can, at times, communicate very abstract human thoughts. Often both the articulatory human language, and the language of gestures, function in a complementary manner to achieve the effect of significance which any one system alone may not be able to handle.

The painting or the system of images has been used in ancient times to convey complicated whole discourses, as in Mexico, where the annals were presented in the form of a sequence of tableaux representing events. A plan, a design, or a geometrical figure, is invariably a summarised form of a movement. A plant, or a certain combination of lines and surfaces, describes an event or a discourse which substitutes a long sequence of words, and fulfills exactly the same function.

The alphabetic writing, on the other hand, does not refer to ideas. The letters correspond to sounds. With the combination of these sounds, we form words, which subsequently correspond to certain ideas. But contrary to the images of the painting, whose signs may be common to many cultures, the reference of word-signs, resultant of the combination of the sounds, is arbitrary, as different cultures have different words for the same object. The main characteristic of the alphabetic system is its combinatory power, which requires only a handful of letters to make innumerable combinations or words. This is not possible in the Egyptian hieroglyphic or the Chinese character systems, where very few combinations are possible, and hence, an extremely large number of images or figures are required.

The algebraic characters form another type of language whose nature of functioning is very instructive to comprehend the basic characteristics of human language. The numbers do not correspond to the sounds, but they represent ideas. Even when, in algebra, we employ alphabetic letters, they are not used as letters, but as signs, "a" does not represent the sound of the letter "a", but an idea of a quantity whose value is not specified. Similarly the letters "x", and "ax" refer to the multiplied quantities of both. The numbers and the letters of algebra are the veritable signs of our ideas.

All systems of human language are based on their conventional acceptance by the members of the group who participate in that communication system. This is primarily because the references from sign to significance are based on the impressions that a given sign has in a given context. Even in painting, a figure or an image, does not simply refer to a certain object, but to what that object represents. For example, a cock is a cock, but it may also be a sign of vigilance. Similarly, an owl may be a sign of wisdom, or stupidity. And, besides these symbolic references, there may be more abstract references to the supposed characteristics of the image being used, or the combination of images, to arrive at a new significance. But, however new the discourse may be, it can be understood only if it operates within the conventional norms of the group. Social comprehension is achieved not only by the figurative representation, but also by the system of impressions or the system of figures, shared by all those who are in communication with each other.

A.I.4. The system of signs, which we call language, is meant for intercommunication. It is used to refer to what is going on in our environment. As such, human language is basically an analytical instrument. Its constitution follows the obligatory needs of man to analyse his environment, to talk about the objects he comes in contact with, to arrange them in certain orders and combinations, to arrive at a system of comprehension. The ideas which the signs refer to are not always simple ideas. More often than not, they are highly complex, and require specific analytical sign systems.

In calculus, we may begin with the sign "one", which refers to a unity. This helps us differentiate one object from the other. However if we want to continue to count our objects and classify them, we need to invent other signs, like two, three, four. Now, the merit of this sign system is that each one of these numbers is placed at an *equidistance* from the other. In each case, there is a difference of one. This allows us to both take account of our objects, and, to classify them in *exact correlation* with each other. And, this constituting process of numbers continues, and, we have

unities like ten, twenty, thirty, forty etc. Each unit, as we know, is constituted of ten objects, and again, ten, twenty, thirty, forty are in exact correlation with each other. With the help of these signs or unities of numbers, we analyse our environment. In other words, we constitute a language where there are signs or words which refer to ideas, but which form by themselves, a system of communication. Hence, the system of signs itself becomes an object of human meditation. If we had only number "one", we could not continue to count, or it would have been well nigh impossible to do so. If we had only the sign which referred to one given object, we would have a language of the hieroglyphic order, which could not produce innumerable combinations which are required for our communication. The analytical words of language in algebra analyse our environment, and also, indicate a multitude of rapports amongst themselves.

The sign "one" refers to the idea of unity. When this one is added to another one, there emerges the idea of two. There are two consequences of this resultant: the first is the idea of another sign, "two", and, second is the idea of the operation of addition. This operation continues, and we have the sign-numbers, three, four, five etc. This operation leads to the idea of equidistance, and equal and parallel relationships, which each of these signs has with the other. So, it is not simply a matter of having a few signs for a few specific number-objects, but also the ideas of *correlated operation*, *equidistance*, and *parallel* relationships. Finally, it is a matter of the acquisition of these new signs, which refer to a bundle of impressions and precisions. With the help of these signs begins then the system of ideas which leads man to abstract calculations. Each of these signs differentiates one object from the other, expressing precise relationships of more or less, of equal distinctions, of reciprocal compositions. All these signs already represent a system of analysis, and, can be used for further analytical process. Without these signs of one, two, three, and, ten, twenty, thirty, one could not operate upon other unities in this world. These signs, once for all, establish a multitude of rapports which need not be gone into each time man makes use of them in

his ordinary daily work. Each of these signs represents a complex unity of ideas. It is not an affair of simple nomenclatures with which the primitive man might have begun the use of language.

At this stage, another problematic arises. It is that of the power of signs, which is exercised on the system of ideas. In the beginning, it was simply a matter of naming simple objects. The moment the signs begin to refer to mental operations, which are composite, the system of signs becomes a complex whole, which cannot be easily deciphered by ordinary analytical process. If the instruments of analysis, i.e., the signs or words, already represent bundle of ideas, the problem of using them for any further analysis becomes highly complex, which will be discussed later.

A.I.5 While one can describe with extreme precision the combination of the rapports of our ideas in the context of quantity, it cannot be done in other sectors of language. However, the process of abstraction remains the same, and, this algebraic model fits well with the evolutionary process of language, where the main preoccupation is comparison and differentiation. All our knowledge is based on our judgements, and, all our judgements are the results of the comparisons of two ideas at a time. But the problem is that the two ideas, which may be quite complex, are never present simultaneously. The presence of the one that is absent can be realised only by the sign-word which represents it. Without these signs, judgement is not possible. Take for example, a sentence like: The man who discovered a verity is useful to all humanity. There are two ideas being compared: The man who discovered a verity, and, being useful to all humanity. It would be more practicable if each of these ideas could be expressed with just one word; one with "a", the other with "b"; and the idea of affirmation with "c". The sentence would then be reduced to "a c b". Keeping intact the characteristics of the language, which joins the sign of affirmation with the common attribute, we could have the sentence as "a is b", and we would make use of "a" as all other substantives, and "b" as all other adjectives. These two words do not exist in language, but their resources are within the language, and, can be extracted from within with such an operation. Each of

these ideas, which is expressed with the help of five or six words, can be reduced to just one sign. These two groups form an ensemble, and with these, we have, in our memory, two complete and distinct ideas which we can compare without each time going to their details.

If we now consider these signs which represent composite ideas, we notice that they fall in different classes. It is obvious that man first invented signs for things before analysing and naming their qualities. And, then followed their relationships and their multiple internal rapports. As such, one can envisage that after the names of the objects, man abstracted verbs and adjectives, and the substantives followed later. One can also imagine that more subtle relations of prepositions and articles are comparatively of more recent origin. One should also not forget that all these verbs, adjectives and substantives are to begin with words given to specific objects, and, their generalisation came much later. And obviously, then followed the different forms of these verbs, nouns, with different conjugations and declensions. The most important point to note here is that all this is the result of successive analyses, gradually becoming possible due to the progressive operation of abstractions and correlations, exactly like the operations of algebra. Just as man could not continue his calculations with the singular word "one", saying one plus one plus one plus one and so on, he had to invent unities like two, three, four, and further larger unities of ten, twenty, thirty, forty etc. The linguistic discourse could also not be understood without a parallel operation of dual and multiple correlations.

All signs are abstractions and invariably refer to a bundle of ideas. In the sentence discussed above, each word is already composed of several ideas. As such, it implies that each word is already a sign, which corresponds to multiple ideas or impressions. The words, man, verity, humanity, discovery etc., are all highly complex signs which are resultants of considerable reflections. They are already abbreviations like that of algebraic signs, two, three, ten, twenty, etc. The linguistic discourse is always a consequence of successive analyses, and without the process of

abbreviations, without the help of these signs, representing composite ideas, one cannot continue this discourse. The main significance of the signs is that because of their earlier internal analyses, they help in pursuing the subsequent analyses. Languages, as such, are veritable instruments of analysis. And, the rules of grammar are just like the rules of calculus, with which we operate new combinations and new relations. In short, we are led by the words as we are led by algebraic characters.

A.I.6. There is, however, an important difference between this algebraic language of calculus, and other languages, and this difference is characteristic of the process of reasoning of these two types.

The algebraic language is applied only to the ideas of quantity, in other words, the ideas of specific unities, which have amongst themselves, very precise and fixed relationships. They are always composed of unities or their multiples, and they serve to combine these very distinct ideas in one single rapport, either of increasing or of decreasing. This rapport is itself an idea of quantity with all its specific characteristics. It is because of this feature of the algebraic language, that there is never any uncertainty or obscurity, not even any variation. For this reason, one need never think of the idea that the signs of the algebraic language represent. Whenever one wants to know the value of any of its signs, one can very easily go to its reference in the field of ideas. If one carefully follows the rules of its combinations, or its syntax, one arrives at the precise results. An algebraic discourse resembles a discourse of a person, who begins with a perfect proposition, and, never, makes a mistake all along the unfolding of the discourse.

The word-signs are, however, of slightly different nature. They represent, in abbreviated forms, the results of internal combinations, which dispense with the obligation of the memory of all the details of these combinations. Thus, we can, upto a certain point, correlate them, independent of the ideas whose signs they are, but the results of these combinations and these correlations in a discourse are not as simple and as precise as the results of the algebraic processes. The modifications to which an adjective in

correlation with a substantive is subjected are more varied, and, cannot be easily measured as is the case with similar modifications of the algebraic characters. This is a significant difference. Moreover, we modify our substantives not only in their comprehension, i.e., in the number of ideas they represent, but also in their extension, i.e., in the number of objects to which they are applied. Now, what would be the fate of an algebra whose characters are not always completely abstract, but rather concrete, at times, in one way, at others, in another, i.e., are applied, at times, to a certain number of objects, at others, to another number. One could obviously not follow this calculus without at the same time thinking of the value of the characters. This is exactly what happens in other languages.

From this argument, it follows that even when we have to depend upon word-signs to analyse our linguistic discourses, we cannot entirely dispense with the constant reference to their significance. No doubt that like the signs of the algebra, the linguistic signs or words are independent of the domains of significance, but this independence is relative. Whenever there is any confusion, one can rectify one's reasoning with the help of the reference to significance in detail. In language, we have to watch both the sign and the complexity of its representative ideas. In algebra, one can mechanically follow the sequences of combinations and complicated calculations. This is possible in ordinary language only to a certain degree.

One can attempt to give to ordinary language all the properties of algebraic language. The signs can be improved, and the syntax can be regularised. But one can never imagine that all the ideas that such a language elaborates have the precision of the algebraic language, and, that all the rapports under which these ideas are considered, be equally simple and definite. Even the syllogistic forms cannot produce the algebraic effect.

At the same time, one cannot deny that the algebraic language is like any other language. Its characters are the elements of discourse. The rules of the calculus are the rules of its syntax, which tell us the possible usage of its elements, and, the modifica-

tions which are necessary to mark the liaisons that are established amongst each other, and, the intellectual operations which are executed by menas of these processes.

In all systems of reasoning, it is always a question of ideas in the form of signs. There can be no principles of logic other than those of the knowledge of these ideas and their signs, i.e., ideology and grammar, or the knowledge of the value of isolated signs, and the manner of their relationships, i.e, vocabulary and syntax. The logic so-called is a pure néant, a radically false idea.

A.I.7. The difference between the language of algebra and ordinary language is due to the difference in the nature of the sign and ideas. To understand their precise relationship, one needs to know all the ideas which compose a given sign, the internal relationships of these ideas with other similar ideas, and the intellectual operations which go into the application of these rapports. For example, the sound of the words "bread" and "good" will not allow one to dispense with all the ideas associated with these words and their correlated propositions. One never perceives at a given time, all the ideas represented by these two words. At times, one is taken by a certain dominant feature, at others, by another. It all depends upon the effect that these words have at a given moment. This is also due to the fact that the word-signs undergo several external combinations which could not be achieved by the bundle of ideas that these represent.

It is an affair of human perception. The physical sensations do not have similar impressions on our mind, where our souvenirs and our judgements are formed. The human machine and the physical machine do not correspond in terms of parallel sensations. The souvenirs and the judgements are fugitive elements of our perception. There is always discrepancy between the sensations produced, and the mental combinations which leave definite traces in our perception. Moreover, the abstract and distant ideas have, by their very nature, extremely imprecise contours, and, their human perception depends upon what is called, human condition. If we recognise that all our ideas are highly complex bundles, and consequently, operated upon by innumerable impressions and their

perceived combinations, the nature of these bundles of ideas corresponding to each of these signs is essentially fugitive. The sign-word is an attempt, like the algebraic signs, at fixing their contours, at making their function more precise. This is the veritable difference between the sign and the idea.

When an idea is intimately related with a given sensation, it strikes as often, and as easily, as the sensation itself. It is as distinct from all other ideas, correlated with other sensations, as these sensations are from other sensations. Henceforth, we need not examine all the elements of these sensations and their corresponding ideas, or their possible modifications and combinations, and substitute them with signs, which work as aide-mémoire. The signs then function as high points of memory and habit, and, we can continue to operate upon further combinations with the help of these signs, without each time referring to the exact nature of the details of the ideas they represent. The signs function as abbreviated forms of ideas just like the titles of chapters and sections in a literary discourse. The signs are used in the place of ideas. It is this transposition that is the cause of many errors of our judgement.

Signs, Translation and Communication

AII.1 After a preliminary discussion about the nature of the sign and the idea, the next question posed is whether man can think without the help of signs.

With the help of signs we combine our first perceptions, we form our composite ideas, we perceive their internal rapports, which result in new generated ideas, we analyse them, we compare them, we modify them, we envisage them in all their facets, and finally we submit them to all the calculations or syntactic relations which they are susceptible of. Obviously, the question then is whether all these operations are possible without the help of signs. *A priori*, the answer would be that it is not possible to communicate without signs. For example, if we want to express such a simple idea as "I want to eat", it would be necessary to bring together the action of the mouth and the fruit, but all the same, the expression would be somewhat incomplete. The faculty of feeling and that of acting are two distinct faculties. After feeling, we undergo certain internal movements which can be controlled or manipulated intellectually. These internal movements between feeling and action are the movements of thinking.

We begin to think before we have artificial signs with whose help we constitute discourses. But if we do not have these artificial signs, called words, all the groupings that we operate upon our signs, would be dissolved as soon as the ideas are formed. The

relationships that we establish among them would slip away as soon as they are perceived. And consequently, all the external combinations that we make with these word-signs would not be possible.

In the natural environment, there are only things or objects. All rapports between them are abstractions, and lead to composite ideas. As rapport is nothing but a perception, it is not a thing that exists by itself. Thus, without words, one can have only individual ideas. The system of rapports can be supported only by a system of signs. All our judgements and evaluations of relationships would depend upon it.

In the artificial systems of signs, there are several possibilities, and, we have already seen that hieroglyphic writing or painting can achieve a very high degree of communication. It all depends upon the feasibility of combinations and the transformations that a given system of artificial signs can be subjected to. On this depends their capacity to analyse and to express the finest nuances.

A.II.2. In this context of the degree of perfection of a sign system, the evolution of language-signs could be considered anew. If we posit that in the beginning, man gave names to objects, and later felt the need to express these relations, it follows that the evolution of the grammatical features like conjugation, declension, the abstractions of adjectives, adverbs, the connectives, the prepositions, and the articles is a gradual process, which facilitates the expressions of the finest relationships between things that a man perceives. Inversely, without these grammatical functional words, a language would be composed of only rudimentary signs which could only point to the objects, but could not constitute discourses on their rapports, or on the human condition as such.

To begin with, a language has very few word-signs. This small number helps express a small number of ideas and leads to discover them in new circumstances. There are new rapports which require new signs, and then, these new signs help perceive new combinations. It is in this way, that first the language satisfies the needs of our thought, which subsequently leads to new actions. Thus alternatively, the idea gives birth to the sign, and,

the sign gives birth to the idea. It is due to this successive interaction that the linguistic discourse evolves. The most significant point to note here is that our knowledge and our language move together. At each moment of our advancement, a new level between our language and our knowledge is re-established. Consequently, a relatively more perfect language is used by more enlightened people. If the language is not so perfect, it implies that the ideas are not yet so advanced.

A.II.3 If knowledge and language, or the system of signs, go together, it is necessary to know the nature of the signs, for this progressive re-establishment of the two levels is possible only if the signs in question have the inbuilt characteristics of numerous modifications and developments. This is applicable only to the articulated signs or words. The articulatory system, and its corresponding alphabetic writing, is the only system that can support all the stresses and strains of the ideological manipulations. All other sign systems are based on the articulatory systems. They are employed and refined by men who are used to the articulatory signs. These systems are nothing but translations of the system of word-signs, or articulated signs, and, are not composed directly from ideas. This reflection leads us to examine the specific characteristics of the articulatory signs, because these signs predominate universally. It is with these signs that man has prompted, directed and drawn the general progress of human thinking with specific combinations and specific researches. Their history is the history of our ideas and our reasoning, and consequently, of grammar, and ideology, i.e., the science of ideas, and, logic, which must be considered together.

The first advantage of articulatory signs is to be able to note, to delineate easily, numerous, fine nuances, and consequently, to express distinctly, the highly multiplied and extremely closely related ideas. There are of course other forms of signs which have in the past depicted very sophisticated ideas. The hieroglyphic system and the various transformations in artistic forms show extremely high degree of competence of these forms. One can say that these forms, especially those of art, architecture, social and

cultural organisations, are complementary forms. But the articulatory forms are the only forms, which can be combined and recombined ad infinitum. The sounds are the most natural reactions of man at the most primitive and original stage. They are the easiest to handle. With the development of alphabetic system, the sounds acquire the quality of permanence. When man can note down his images, he can use them as *aide-mémoire*, and, at the same time, he can operate upon them to make further combinations. One can think of the difference between calculating verbally, and, with the help of number-words. Moreover, with their combinability, the articulatory system acquires the power of algebraic equations as compared to simple names of the numbers. In algebraic equations, each sign has a given place which situates it vis-à-vis others with respect to its value and its rapports. Our sounds acquire a very special quality with the help of writing, as all other signs remain at the transitory level. They can all be translated, but they cannot be written.

A.II.4. This poses the problem of translation, for in all sign systems, there is invariably the question of translation from one language to another. Ordinarily speaking, translating from one language to another implies the substitution of signs and ideas of one language with the signs and ideas of another. One association of ideas is substituted for another. This requires the presence of both. Even when we express ourselves with gestures, the operation of translation continues. This process of thinking cannot be carried on for a long time without the help of signs, which are easy to handle, and which can be combined and recombined in innumerable ways. Without the help of these abbreviated signs, human brain cannot operate upon this vast universe of signification.

The problematics of translation described above is crucial to all human communication. When two persons talk to each other, they employ words which have specific connotations for one of the interlocuteurs. The other person has to envisage words and their combinations in exactly the same manner as the former to arrive at the same comprehension. Though communication is

carried on the hypothesis that the general ranges of ideas attached to each word is shared by all members of the group, the human perceptions never coincide completely. Hence, to understand the other person is to translate his sign system with his corresponding system of ideas. This intercommunication also helps in advancing the process of knowledge. The mere fact that the ideological fields of the one do not correspond with the other, there is an essential interaction, which enlarges and modifies the existing domains of ideas.

In this context, there are two extremes. Either there is absolute non-communication, as each person has his own combinatory system, and, none can think for the other. Or, there is a considerable sharing of the experience of the other. The combinations can be decomposed and further analyses can be operated upon. But this process again emphasizes the importance of the written sign. In oral communication, the necessary pause to reflect and reorganise does not exist. The process of evolution is therefore two-fold, from the oral to the written, and vice versa.

From this argument, it follows that our signs are responsible for all our intellectual progress, but they are, at the same time, the cause of all the gaps in our comprehension. It is because of the fact that these signs are of no significance to us until we have personal knowledge of their ideological field. When the ideas are highly complex, which is very often the case in abstract thinking, their comprehension remains imperfect until we have thoroughly analysed them in detail.

There is another problem. On the one hand, we need to have personal experience of the ideological field of the signs being used, and on the other, it is obvious that no one can have this extensive experience. Moreover, these signs are constantly used by different persons in different contexts, thereby constantly modifying their semantic domains. It can be generally said that a sign is perfect for the one who invents it, but remains always vague and uncertain for the one who receives it. It is with this imperfection that the exchange of signs takes place.

A.II.5. This argument also implies that a sign is perfect for the

one who invents it, but it is so only at the moment he invents it. When he uses it at other times of his life, or in other dispositions, it is not at all certain that he himself brings together the same collection of ideas, as was the case in the first instance, when the sign was created. It is rather certain that, without realising consciously, he has added some, and perhaps, left some of the older ones aside. For example, when we learn words like "love" and "hate", we support each of them with a group of ideas. We assemble around each, a number of perceptions derived from our experience. They are neither the same as that of the one who taught us these words, nor we attach the same significance to them at all times. Both, the one who first communicated these words, and the one, who later on used them in different circumstances, are never sure of their exact association of ideas and the alternations due to the changes in time, circumstances, events, moral and physical dispositions, and habits. As a result, the same sign gives us an imperfect idea of its nature, followed by an idea very different from that of other members of the social group who also employ it.

This leads us to three problems of the nature of the sign: the characteristics of the successive rectifications of the earlier ideas, what is generally called the progress of reason; the origin of the diversity and the opposition of opinions amongst men on the ideas expressed by certain words; the cause of the variation of these opinions at different times of life. *If all men, at all times, perceived the same rapports, in the same manner, it could be a simple problem. In reality, it is not so. Without being conscious of it, men perceive things in different manners, in different relationships, in different order. No wonder, there are misunderstandings, and consequently we neither agree with others now, nor with those with whom we agreed earlier.*

These characteristics of signs are inherent in their very constitution. They are due to our intellectual faculty. They are a part of the intellective process with which we operate throughout our life. This leads both to progress of our intelligence, and, to the gaps of our comprehension.

Conceptual Rapports

A.III.1. As the problem of defining and delineating the sign is intimately related with that of the idea, it is necessary to look into the process of thinking that involves proposition, judgements, and the rapports of ideas.

The notion of *rapport* seems to be the most important in this context. The rapport is that aspect of our faculty of thinking with which we relate one idea with another, with which we connect them, and compare them in one way or the other. When we say that "this horse is a good runner", we do not just have the idea of the horse and that of the good runner, but we feel that the idea of the good runner belongs to the horse. Thus we establish a rapport between them. Every judgement is a necessary consequence of our feelings or sensibility. Between the two ideas, the idea of the horse and the idea of the good runner, we feel their resemblances, their differences, and their relations. Judgement is an aspect of thinking, just like our feelings and our memory. These are three components of our mental organisation.

If we did not have the faculty of feeling rapports, we could have all our sensibilities and memories but we could never advance in our knowledge from the first day. We could never derive any conclusion. We could never point out where the sensations come from, how they operate, what are their internal relationships, what are their mutual resemblances and differences, how they are held with each other, and finally, most important of all,

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we could not bring together two ideas to form another. All our knowledge is the knowledge of rapports and judgements. This becomes even more obvious when we analyse the manner in which are formed our composite ideas.

When we have a feeling of yellow colour, for example, we are affected, but this does not tell us anything. We are only a bit happy or sad. But it is only when we are involved in the feeling of certain rapports and judgements, that we realise that this feeling comes from our eyes, that it is caused by a body, that it is an effect of light, that the body which causes this effect causes others, etc., etc. It is obvious that unless we are able to establish rapports with all the elements involved in a situation, we cannot understand it. We cannot make out what it is composed of, or in other words, what it is.

To feel a rapport, we must have at least two ideas. The act of feeling precedes that of judgement. These two faculties cannot begin to exercise at the same moment. This does not mean that we are not born with the faculty of judgement, but it implies that it is a consequence of our establishing rapports between ideas. It is a resultant of our mental organisation, which is a progressive acquisition. As the faculty of judgement improves, the mental organisation gets fortified.

It is also important to know that not only it is necessary to have two ideas to be able to feel a rapport between them, there should be only two at a time. The mechanism of rapport can operate only with two terms, the one, which is being considered, and the other, with rapport to which it is being envisaged. This is what is generally called, *subject* and *attribute*. If there are several subjects and several attributes, there would be several rapports, and consequently, several judgements. The subject and the attribute, can on the other hand, each be a highly complex idea, i.e., composed of several ideas, but it is always considered as one unit, and in each of the judgements, there are only two ideas, or two groups of ideas, which are opposed to each other.

When we say: "the man who discovered a verity is useful to all humanity", we use many words, but we express only one judge-

ment. *The man who discovered a verity*, is the subject; *is useful to all humanity*, is the attribute. But, *the man*, expresses the idea of an individual; *who*, the idea of a relation; *discover*, the idea of action; *a*, the idea of number; *verity*, the idea of the product of our intelligence. There are five ideas, one distinct from another, and each one of them is composed of many others, but together they form one idea, because we are not only talking of *a man*, but *the man* who has discovered *a verity*. Here is a complete and one whole idea, however complex it may be, with which we are going to relate another. The same is true of the attribute; *is* expresses the idea of existence; *useful*, the idea of quality; *to*, the idea of relation; *all*, the idea of quantity; *humanity*, the idea of a collection of men. There are six ideas, and, as in former case, each one of them is composed of several others, or each of them corresponds to a bundle of ideas. But all of them go to form one single idea of the attribute which is in direct relation with the subject. We do not just think that there is a subject but also, that it exists, that it is useful, that it is useful to all humanity. In all this; we establish a rapport between the two units of this string, and only then, we are able to express a judgement, or form a proposition.

On the other hand, if we have a statement like, "Paul and Peter exist," even if it is very short, it expresses two judgements, as there are three terms. Paul and Peter are two distinct ideas. It is only an abbreviated way of saying that Paul exists, and, Peter exists. The judgements depend upon the number of terms, and not on the number of ideas, constituting each group. We express one judgement when there is one rapport, and two, when there are two rapports.

In the traditional grammars of Latin and French, it is said that a proposition expresses a judgement, and, that it is constituted of three terms. This remark is based on the assumption that besides the subject and the attribute, there is the copula or the lien, which is expressed by the verb "to be", which serves as a lien. But this verb does not function as a lien. It is a part of the attribute. Before describing the manner of existence, one must state that it exists. This verb "to be" is both the beginning and the base of the attri-

bute. It is in general an attribute of all things which exist. There are, as such, always two terms in a proposition, and not, three.

It is also stated that the verb "to be", expresses action of the spirit of the one who judges, but, this verb expresses nothing but existence. If it expresses affirmation, it does so accidentally. We do not form sentence like, 'Peter to be good'. The verb must be in the definite mood, "is", to express an affirmation. Thus a sentence never functions as a judgement until its verb is in the definite, or in another mood. It is the mood that determines the affirmation, and, it is always a part of the attribute. Hence, in all propositions or judgements, it is always a question of two terms.

It must also be noted that all propositions are positive. Whether we say Peter is tall, or Peter is short, or, Peter is not tall, we make an affirmative statement. If there is negation, it is associated with the attribute, and, not with the proposition. In a proposition, there can be only an affirmation, which is the distinctive character of the notion of rapport, without which no proposition can be formed.

The Evolutionary Theory of Signification

A.IV.1. In the sixth chapter of the *Elémens d'Idéologie*, Destutt de Tracy discusses in detail the Formation of our Composite Ideas. This argument is the culmination of Cartesian logic via Port Royal and the Encyclopaedists, and, presents the most coherent theory of semiotics of that period.

The constitution of our ideas is based on our sensibility, memory, judgement, and desire. It is a manner of classifying and recognising these four faculties. But we have to find out how all these feelings and sentiments about an object are combined to form unique ideas.

The sensations are the effects of different beings which exist in nature. We have to form individual ideas of the beings who cause these sensations, and then, the more general ideas of class, genre, species etc. It was stated earlier that we always compare only two ideas, and in the example: *the man who discovered a verity is useful to all humanity*, it was shown that the subject and the object, however composed they may be of several different ideas, formed, on each side, just one resultant idea. If for each of these two ideas, we give just one name, it remains fixed in our memory. And henceforth, we need not refer to the entire composition of the subject and the attribute to express what they are. Similarly, with all the sensations an object causes, and the properties and characteristics which we discover, we form but just

one unique idea, which is the idea of that being.

Take the example of a peach. Suppose you see a peach for the first time. It gives you a sensation of a certain colour, a certain taste, a certain form, it resists when it is pressed, it hangs on a certain tree, it is situated at a certain place. Of all these ideas, you form a unique idea, which is the idea of that peach. It is an idea of only this peach that you have seen, and not of others, that you have not seen. As such, this idea is individual and specific. If there is no language, the peach itself will be its sign. If you give it a name, this name will be applicable to the peach in question. The name, peach, that is common to all other peaches, is not yet a part of your language.

The mental operation which consists of gathering several ideas to form just one idea to which a name is given to combine all, may be called, *concrction* as opposed to *abstraction*, which is exactly its inverse. This is why, we call, concrete terms, the adjectives, as *pure*, *good* etc. which express a number of qualities grouped around its subject, while we call abstract terms, the words, *purity*, *bounty* etc., which express these qualities, independent of every subject. We also say that "three meters" is a concrete term, and, the word "three" is an abstract term.

This is how several different ideas form a group, which is an individual idea of a being in question. Let us see how these specific ideas become general, applicable to all others. When you see other peaches, you realise that they have many qualities in common, but there are also several differences. In nature, no two beings are absolutely similar. All peaches do not have the same colour, the same form, the same size, the same degree of ripeness. But you neglect these differences. You make what is called, an abstraction. Others are also called peaches because they have several characteristics in common. The idea of the individual peach becomes general. It is not composed of the characteristics which can be assigned absolutely to all the peaches. By this process of abstraction, which consists of abstracting two or more individual ideas which unite them, and by rejecting those which differentiate them, we come to the general idea of peach. But it must be under-

scored that the ideas which were abstracted to form an individual idea, is not the same, which has now become general. This is an important issue in logic. We cannot go from particular to the general. If a peach is rotten, or if a man is sick, we cannot conclude that all peaches are rotten or all men are sick. The particular is not preserved in the generalised idea, but all that can be stated about general, can be stated about the particular, for all the general ideas must be abstracted from all the individual ones.

These two operations of concretion and abstraction are most frequently used. The operation of concretion helps us to form the idea of the beings which *exist*, and, that of abstraction, to compose the group of ideas, whose model *does not exist in nature*, but they are very useful for making comparisons, and, for perceiving new rapports between the result of the rapports that we already know. The existence of each of the peaches gives us their individual ideas by the process of concretion, of a peach, in general, which is different from each of these peaches. It will be extremely useful to us when we compare this general idea of a peach with that of an apricot. For this purpose, we do not need all the subtle differences which one peach has from another, or one apricot from another. We compare what is common to the one with what is common to the other, and with this operation, we set up two classes, or two types of fruits. Henceforth, we treat these classes as individuals, even when we know that in reality only isolated individuals exist.

A.IV.2. This operation of abstraction helps us not only to group real individuals into classes and to generalise their specific ideas to form an idea which would be common to all, it serves also to abstract, from their qualities, the impressions which each of them leaves on us. Thus we see that many things are good for us. It is already a classification. We get general expressions of "good" and "useful", as all these are not "good" or "useful" in the same manner. These are different impressions which are brought together by a common factor of "good" and "useful". Moreover, from all these things, which are good, we derive the idea of "bounty". Henceforth, we use this word as if it were independent

of the beings from which it was first abstracted. Similarly, we abstract words like, *utility*, *beauty*, from the things which are useful or beautiful. These are abstract terms or abstract ideas. All generalised names, all ideas of individuals extended to several, are already abstract words or abstract ideas, for in this process of abstraction, we have neglected several elements, which were applicable only to specific individuals and abstracted only those which were supposed to be common to all.

These two operations of concretion and abstraction go side by side. They are always united and operate together in the formation of our composite ideas. Whenever we constitute a new idea with the help of different elements taken from different places, we neglect those which are specific to a given situation, which are not necessary for our object. We abstract common elements, and at the same time, we concretise these to constitute a new idea, which has its own specificity.

A.IV.3. Take another example of this operation. Suppose we get a sensation for the first time, that we call, red. If we do not know where it comes from, nor, how it comes, if we feel it without the intervention of any other judgement, it is a pure sensation. It is a *simple idea*, which is necessarily specific and individual.

If, on the other hand, we correlate this sensation of "red" with the object this sensation comes from, this idea of red is no more a simple idea. It is composed of a sensation and a judgement, but, it is still individual, i.e., specific to just one fact. We have not extended to all other similar sensations coming from all other objects with which we are not yet familiar. The same is true of the colour and the taste due to the same object. If we feel them, they are simple ideas. If we know where they come from, they become *composite ideas*, but all the same remain individual.

If now we gather all these three ideas, that of a certain colour, a certain taste, a certain odour, we constitute the idea of a being that causes them. This is already a fairly well composed idea. If we then designate this being which is responsible for all these sensations, "cherry", this name is that of the one specific cherry, and not, of cherries in general.

If we know this cherry only and these three characteristics, in a specific manner, this object is capable of giving us only these three impressions, and, nothing more. This idea of a being for us is never more than what the association of ideas we attach to it. This is why the same word has never exactly the same significance to all those who pronounce it. This significance varies according to the variations in the knowledge of the object. We could continue to enlarge the composition of our ideas of the object, cherry, if we add the knowledge of the tree to which it belongs, to the flowers its branches have, our idea of the cherry in question will be more and more composite, but it would always remain a specific and individual idea. Only, it would be more complete.

A.IV. 4. We give specific names to tastes, odours, and colours. We could do the same for the rapports that this particular cherry has with us, and consequently, causes the effect of this particular taste, odour, and colour. Every rapport leads us to three ideas: that of the rapport itself, that of its effect, that of its cause. If we do not frequently constitute these ideas, or if we do not designate them distinctly with specific names, it is because we do not need them. Or, that the names we gave to them in their individual capacity have since been extended to other similar objects. They are now common and general, and, we are not embarrassed by their differences with the specific object. But there is not even one of the innumerable rapports which each of these individuals has with us, which cannot be the source of these three specific ideas, which helps us to constitute our expressions.

Thus, for example, the rapport between me and the cherry leads to three effects: the one I call, pleasure, the other, that it is good for me, and the third, that it renders me service. We express these three rapports by saying that it is beautiful, it is good, and, it is useful, and, the causes of these rapports with the words, beauty, bounty, utility, which represent three properties of the cherry, the three ideas which compose the idea of this being. But, when we generalise the words, pleasure, good, service; when we extend them to other effects produced by other beings, the effects which are analogous, but which are not exactly the same, there is no way

I can express the exact pleasure or service that the given cherry renders me, the exact manner in which it is beautiful. As our ideas undergo series of transformations across the process of generalisations, we are reduced to this stage, when we have no means to describe each individual object. We have just these proper names which describe a given object to the exclusion of all others. At the same time, since we have examined only one cherry, not only its name is a proper name in the strict sense of the term, but all the ideas which are derived from it are also individual. These words refer to only one fact.

It is important to insist on this individual fact, for without this we cannot understand the artifice of the composition of our ideas, or our language, which is their expression, or the reasoning based on them. The main problematic is that we always lack words. By a prolonged use, we generalise them, and we have difficulty in explaining them to the auditor to take them in a restrained context of an individual, for which they are no more used. We have to place ourselves in the position of a person who first combines these ideas, and invents words. We use his words, but we do no more use his combination of ideas. The science of ideas is intimately related with that of the words. Our composite ideas do not have any support other than words, any other relation which unites all their elements. It is the words which fix them and place them in our memory.

This is then the consequence of the observations of one being. We constituted and separated its different ideas, its rapports, its effects, its causes. We created words to express them, the words which we call a substantive or an adjective. All these words are, strictly speaking, proper names of single beings.

After this we have the process of generalisation. We observe other cherries. They have many qualities in common, but they are not exactly the same. We neglect the differences between the first cherry and the others we observe now. We unite the constant qualities, and give them the name of "cherry".

The same procedure is continued for others, and the words, beautiful, good, useful, red, pleasure, service, beauty, bounty,

utility, etc. do not express the rapports that the first cherry had with us, but the rapports, effects, and the qualities of the cherries in general. They are already generalised, but not quite, for these words of beauty and bounty will then be extended to other beings which are not similar to cherries.

After the cherries, if we see a strawberry, we constitute a general idea of a strawberry as we did with a cherry. These strawberries, are also beautiful, good, useful, and red in a certain manner. If we keep these words, beautiful, good etc. with the extension of our observation of new beings, it is with the same process, which constitutes of neglecting all the differences specific to one type of beings and circumstances, and retaining all those which are common to the new beings. Consequently, each time we generalise more, we extend it to more beings, we slice off several ideas, which are specific to any class, and, our words express less and less number of ideas. To the extent, an idea becomes general, it is applicable to larger number of beings, but it covers smaller number of ideas specific to each being. This is exactly what happens in the formation of ideas relating to species, classes, genres, which are composed on the same pattern.

We take another example. We recognise an individual. We call him, Eric. It is obvious that this proper noun is a complete expression of this individual. Then we begin the process of generalisation. We gather a number of ideas which are common to a large number of similar individuals, but which also differentiate him from others. With this process, we constitute an idea of a class, which we call, Parisians. This process continues. We extend our comparisons; and we have another more extended class with which we designate, French. The generalisation continues, and we have successively, the words and ideas of European, man, animal and finally of, being, which is the most general term in this context.

It is obvious that these highly composite ideas include a large number of individuals. This leads to their extension, but, at the same time, it is the small number of ideas which help us in their comprehension. When we say that Eric is a being, we imply only one thing, the way his being affects us, but it does not tell us

how. All we mean is that he exists, and nothing more. When we say that he is an animal, we refer to the ideas of life and movement, that he eats, he reproduces, in a word, he does all that is expected of an animal. When we recognise him as a man, we specify the manner in which he effects us as a man. Similarly, when we use words like European, French, Parisian, we always add something to the previous knowledge. And finally, when we call him, Eric, we say implicitly all that we know of him, with all the characteristics which belong to him. There are naturally others, which can be added to this like, he is handsome, strong, gentle, healthy. We can keep on adding new ideas to this one word, Eric, and we will know more of him. This refers to the very important fact that *a word signifies more or less according to the knowledge of the one who uses it. All this reaffirms what we have said earlier that a specific idea of individual includes all the ideas which belong to him, and the idea of a class includes only those which are common to all the individuals of that class, and consequently, proportionately smaller number of ideas in correspondence with the larger number of individuals in a class.*

A. IV.5. From the ideas of cherries and strawberries, apricots etc., we come to the ideas of fruit, which does not include the specific ideas of each of these, but only those which are common to all. If we generalise this word even more, we can talk of the fruit of hard work, the fruit of reflection etc., and, this word, fruit, would then not include just any property of vegetal production, which is associated with fruits like cherries and apricots.

Similarly, from the ideas of red, yellow, orange, we get the idea of colour, which expresses only the quality common to the sensations felt by the eye, as the sounds by the ear. From the ideas of colour and sounds, we constitute the idea of sensation, which may originate from any source.

To begin with, the word, red, expressed only the manner of being red with reference to cherry, but progressively, is extended to the manner of strawberries and other similar objects, including what all "red" bodies have in common. The same thing happened to the word, good. At every degree of generalisation, the differences are sliced off, the word changes its signification. *It is obvious*

that the bounty of a man, a fruit, a horse. and, the "bounty" in general, are not at all the same thing. As the ideas change, the words should have changed also, but no language is so rich as to have a specific word for each specific idea. The words, as such, are only abbreviated marks, they do not faithfully represent their intended significance.

What happens to these words or proper names, happens also to other elements of discourse, like verbs, propositions etc. This will be discussed in the following section. The important thing to note is that all of them are constituted in the same manner. It is always a matter of receiving impressions, observing rapports, adding, subtracting, and reuniting, to constitute new groups. And, we need not be embarrassed to see how so many different combinations are the products of a small number of faculties that we have distinguished in our faculty of thinking.

The hypothetical process that we have outlined refers to the effort of one isolated individual, who, without the help of any other person, would constitute all these words for his personal use alone. In reality, the situation is quite different. Every language is a resultant of the efforts of a number of individuals for a number of successive generations, even centuries. But the fundamental problematics remains the same.

Most of the ideas are not created by us. We receive them from earlier generations. Their signs strike our ears in an irregular manner corresponding to the situation in which we apprehend them. We then follow the process of differentiating one from the other, classifying them, and, making use of the multiple experiences at our disposal, we try to understand them. This operation often remains incomplete, and, leads to all kinds of misunderstandings, false rapports, irrelevant interlinkings. *During the early years of our childhood, we receive a large number of ideas perpetuated over generations. We spend the rest of our lives in arriving at the comprehension of their proper, distinct significance.*

Propositions and Discourse

A.V.1. Since a linguistic discourse is a manifestation of our ideas, it is the knowledge of these ideas which can help us discover the veritable organisation of the discourse, and, reveal to us, the mechanism of its composition. For this, we have to refer again to the mental faculty, and, its various operations of feeling and judging. To judge is to feel and to establish a correlation. This operation leads also to the understanding of our existence, for to exist is to judge the rapports between two ideas. But it must be very clear that to judge is not to recognise a new idea. It is to recognise that a given being, or rather the idea that one has of him, includes a quality, a property, and a situation. Now, this quality, this property, this situation, is itself a perception, an idea, because it is a question of recognition. *To judge is then to recognise that an idea includes another.* When we think of Eric, and, we judge that Eric is handsome, we recognise that this characteristic of being handsome further includes several elements, which constitute this characteristic. It is the same, when we say that he is not old, that he is young etc. To judge or to make a judgement, is never more than this. It is not to recognise the rapports in general, but, it is the special faculty of recognising a rapport between an idea and another, the rapport of the container with the content. It is to perceive that the idea that is presented before us, contains in itself, another idea. It is the faculty of distinguishing a specific situation in a specific idea. Thus, when we perceive, we separate one situation from another. In other

words, we judge.

A.V.2. It is often stated that when we judge that the two ideas are different, we recognise these two ideas, and, a rapport of difference between them. It is not exactly so. Firstly, our sensations, our memory, our desires, in a word, all our ideas or the groups of ideas, are all different from each other. As such, there should be a different word for each of these ideas. But, we know that only broad differences are noted with the help of different words. Language operates on the basis of abstraction, and, we have, at times, one word for several objects. Secondly, to express a difference in a sensation, a sentiment, or a desire, we give it a name, a sign. For our judgement, this is not enough. When we have a specific sign to represent the intellectual act of judgement, and, not for what we are judging, it never refers to the nature of the idea in question. *Therefore, to express a judgement, we must have two ideas, where one includes the other along with the faculty of correlation which perceives a rapport between them. This is what is called, a subject, an attribute, and, the sign of affirmation, which unites them.* This is what constitutes a proposition. As a general principle, we can then state that every discourse is composed of the utterances of judgements, of propositions, or of ideas, composed of one or more signs, but, which are detached from each other, without any liaison between them.

There are two examples : Eric is not old. The mango I have is ripe. These are two propositions, two utterances of judgement. In the first, the idea of Eric, and that of not old, and, in the second, the idea of mango that I have, and that of being ripe, are united with the sign of affirmation, i.e., by the sign which marks that one is included in the other.

On the other hand, Eric, not being old; the mango, that I have being ripe, are expressions of isolated ideas, just the names of the ideas, without liaisons and without any follow up, absolutely detached from each other.

These two examples show us clearly what constitutes the expression of judgement, and, how a proposition is different from it. And, it is not because of the verb, as the verb is included in

both. It is distinctly the form of the verb that differentiates one from the other.

We call them just by one designation, one name, even when these utterances are composed of several, as, not being old, the mango that I have, being ripe etc. But we have already used the same operation for the long sentence, "the man who discovered a verity, is useful to all humanity," where we considered it as composed of only two ideas. In, not being old, it is only a question of being, which is modified by, not old. It is just one idea, which is expressed by a combination of two or three words. The same for the mango, which was individual to begin with, and, abstract later, it is this idea which is modified by the article, *the*, and then, restrained in its application, with the expression, that I have. This new idea, or this new extension, can be expressed only by means of the reunion of the signs, the mango that I have. The same is true of the expression, Eric, whether it is expressed by means of one word or more, for even as one word, Eric, includes the ideas, of a man, of a certain figure, of a certain manner of being, of certain qualities. It is as much a composite idea as any.

A.V.3. A discourse, then, is constituted of propositions, which are always expressed in the form of judgements, or, they are composed of signs or groups of signs, without any liaisons amongst them, and, in that case, these are ideas of all types, but they do not represent judgements. And, those expressions which do not refer to judgements, do not refer to any relations amongst objects, and with us. Hence, they have no, or almost no, significance for our existence. They are the elements which can be used to make propositions, but by themselves, they are not propositions. They do not affect our knowledge of human situations. And, whatever is outside human situations has no human significance.

We must also remember that all our perceptions, except pure sensations, are composite ideas, i.e., the ideas in whose constitution our intellectual faculty has already made use of rapports and combinations. We get the sensation of resistance, we form an idea of a body, then we judge that it is round, it is red, it is good to

eat, we call it, a cherry. Without these judgements, we could not constitute the ideas of body and cherry. Thus, without judgement, we would have no ideas to communicate with.

We have also stated that a discourse could be composed of propositions, or the names of ideas without liaisons, but the last part of the statement is true only if the expression is a part of a language which possesses signs, capable of expressing isolated ideas. This could happen only in an articulated language. In the language of gestures or action, this is not possible, since the situations cannot be combined at ease.

The essence of human discourse is thus to be constituted of propositions or of the utterances of judgements. The latter are not the elements of the discourse, but, of the propositions.

Grammatical Function

A.VI.1. It is obvious that every proposition is an utterance of a judgement. If a discourse does not express a judgement, it has no significance. But, in articulated languages it is not always easy to decipher or decompose the various elements of an utterance of a judgement, as at times, it is just one word that expresses a judgement, and, at others, a group of words which function as such. Moreover, a word like, *No*, does not always convey the same significance. *No* may signify that I do not feel like that, or I do not believe it, or I do not want it. It all depends upon how it is placed. The same is true of the word, *yes*. We can describe the function of pronouns in the same manner. They replace nouns, and normally signify what the noun might have implied. These words are supposed to represent a complete proposition.

On the other hand, we have words, which do not represent a complete idea. They refer to a fragment of an idea. These are prepositions, adverbs, adjectives, participles, and articles. To some extent, it is applicable also to the verbs, but the verbs have their specific problems, which will be discussed later.

Words like, *the*, *of*, *courageous*, *actively*, do not signify any thing by themselves. In relation with other signs, "the" would express the specificity of the idea, "of" placed between two ideas, would indicate that one has a certain rapport with another. "Courageous" would denote a certain quality of a being. "Actively", the manner in which it is executed. But, "the", is not the name of specificity, "of", not of rapport; "courageous", not of quality; "acti-

vely" , not of manner. They are not true signs, but fragments or parts of signs. As we cannot have a new word for each new significance, we make use of these fragments of signs to constitute new groups of significance. These signs function as a kind of cement with which we bring several stones together to constitute new edifices of discourse. We have thus single words in our language, like, *yes*, *no*, which signify two ideas and one judgement, and others, like, *of*, *the* which are used as incomplete signs. Only the nouns are the words which can be used as complete signs, when it functions as a substantive or an adjective. It also happens that sometimes, the words which are meant to be fragments of signs are used in the place of nouns as complete signs. Hence, it is their use, or their function, which finally determines their specific role. Even a very complex proposition becomes a substantive, or a name of an idea, when it is represented by a pronoun. A given word can play two roles. "The", *Le*, is an article, but it is used also as a pronoun in French. Words like, *my*, *your*, *his*, etc., are called pronouns, which function as modifiers, and do not replace anything.

A.VI.2. As every proposition is an utterance of a judgement, and, every judgement consists of recognising that an idea exists in our mind, and, another is included in it, i.e., in that idea, it is necessary that a sign that expresses a proposition should have at least two ideas, the one representing an idea existing by itself, and another, that represents another idea that exists in the former. These are two necessary elements of a discourse.

The nouns are of the first type. They represent all ideas which have an absolute existence, independent of all other ideas. Whether this existence is physical or conceptual is of not much importance. These ideas exist by themselves, and, are not dependent on any other. They are expressed by the use of the nouns, all other elements of the discourse represent ideas which are related to them. This is how we can explain the replacement function of the pronouns. At times, other signs can also play the same role, but they must be taken in that position as nouns, or as it is said, substantively, i.e., considered as expressing ideas having individual

and absolute existence.

The second function is fulfilled by our so-called adjectives, or, all the words or groups of words, which are used adjectively. The adjectives express complementary ideas. They do not by themselves include the notion of existence. "Courageous" represents the idea of "courage" that belongs to a subject. It does not refer to an effective existence. As such, it is an incomplete idea. To signify that an idea "is enclosed" in another, it is necessary, that first of all, it "is", that it "exists". This is not the characteristic of any adjective.

The verbs take multiple forms. They can be considered as adjectives, which include, in them, the adjective "being", i.e., the adjective whose primary meaning refers to the notion of "existence". Their primary or fundamental forms are those of participles. We always move from the composite to the simple. It is true also that the verb, *to love*, whose substantive is also "to love", is in reality the adjective, "loving". In other words, the adjectives are deformed or mutilated verbs, and, the verbs are complete adjectives. That is why, the former in relation with a substantive can never produce a proposition. It is always a resultant of a verb and its subject. Moreover, a verb is governed by its mood. Only the things which exist have moods, for to be in a certain manner, it is necessary to "be". To exist in a manner, which may be positive, conditional, or subordinate, one should, first of all, exist. Even the question of duration or time is an idea of the mode of existence. As such, the question of time and duration can be discussed only in the context of verbs.

A.VI.3. This is why we say that there is a proposition or an utterance of a judgement, as soon as all the conditions specified for the verb are fulfilled. The moment an idea signalled by the form of its sign, as having existence in its subject, is said to exist in a certain manner, at a certain time, it is said to exist in its subject. This is a judgement. This demarcation itself explains it. Each time, the verb is in definite mood, the judgement is made. In the indefinite mood, it is considered to be incomplete.

In the words, *loving*, and, (I) *love*, the fundamental idea is the

same. In both cases, the idea of "love" is related to the idea of existence. It is expressed in the form of adjective, which can exist only in its subject. But they are not independent by themselves. They are relational. When we say, Eric loving or being loving, we only place these ideas one by the side of the other. But an idea can exist only "in the other". When we say, on the other hand, Eric loves, or, is loving we state that this idea of love which could not exist without the subject, exists now positively. This may be called a formal judgement.

A.VI.4. The intellectual act, called judgement, consists of recognising an idea, and another, which is included in it. The utterance of judgement, the proposition, thus, must include the expression of an idea represented as existing by itself, i.e., under a substantive or a nominal form, and, the expression of another idea, represented as existing in it, i.e., under the form of adjective or attribute. This is what is called the subject and the attribute.

This argument also shows us that the expression of each of these two ideas, to be complete, must include the idea of existence, for one must be represented as existing in a certain manner, and another, in another manner.

For the subject, there is no problem. The substantive or nominal form always includes the idea of existence, for to say that an idea has a certain name, or is named in a certain manner, it is to accept that it "is", that it "exists". If our nouns or substantives do not have different moods or aspects, as our verbs, it is because they are always in the enunciative mood.

For the attribute, the situation is a bit different. Our words called, adjectives, represent an idea which is devoid of absolute existence, but they do not say positively that there is a relative existence. They do not include the idea of existence, but they indicate that they signify an existence included in the subject, as existing with it but not existing positively. They are thus not the complete expression of attributes. They, by themselves, cannot express attributes. This is why, they are called, adjectives. They could also be called, modifiers. To constitute an attribute, one has to add the adjective, *being*, which indicates existence by itself.

But, when the adjective, being, is attached to an adjective *so-called*, and becomes a part of it, whether as jaxtaped, or fused with it, that adjective is no more a simple adjective, it becomes a "participle" i.e., a verb in an indefinite mood.

A verb is nothing but an adjective which is attached to the adjective, being, an adjective which includes the idea of existence. The verbs are the only complete attributes, i.e., the only words, which represent completely an idea as existing in another. This is why there are no propositions without verbs.

One can even say that the adjective, being, is the only verb, and, the only attribute. All other verbs are only fused, or jaxtaped to a modifier. All other attributes are modified in one way or another. This is why there is no proposition without the adjective, being. At the same time, we do not have a perfect proposition in a discourse, an utterance of a formal judgement, as long as the adjective, being, stays in indefinite mood. It is because of the fact that to be really attributed to a subject, the first necessary condition is that of an idea presented in the form of an attribute, i.e., existing in another, i.e., to include the idea of existence, a positive expression that it exists, but as long as this existence is not uttered positively, nothing is clear. On the contrary, as soon as an existence is announced positively, the proposition is made. This is done when the verb is in definite mood.

Syntactic Constituents and Signification

A.VII.1. We can now discuss various elements which compose a proposition. We can examine how different types of words serve to complete the idea of a proposition. We have already envisaged that in the beginning, at the origin of language, the propositions were expressed probably by just one gesture, one cry or later on, by just one word. As the judgements became more and more complicated, the combination of ideas were more involved, and, man began to operate with other words, which represented only fragments of ideas, but which helped to establish new rapports and new combinations.

A.VII.2. To begin with, we take the case of interjections. They are composed of just one word, which represents a complete idea by itself. Thus words like, *no*, *yes*, include implicitly both the subject and the attribute. They do not go through the process of conjugations or declensions, for they are not modifiers.

A.VII.3. When a proposition is not expressed by just one word, we require a sign which represents the subject of the proposition, which designates the things in question, an idea to which another would be attributed. These are *nouns* which fulfil this function. They function as subjects. There are different types of nouns, the names of real or imaginary objects, the names of class, genre, mood, quality etc., some of which exist only at the conceptual level. But this differentiation is not of much importance here. All that is required is that they include the idea of existence.

In any case, a name or noun is only an etiquette of an idea. At the same time, a noun can be used also as a complement, or in place of another noun, or in place of the idea that is attributed to it, as are words, *Eric*, and, *man*, in a sentence, *the son of Eric is a man*.

The interjections are not susceptible of any modification. Expressing entire propositions by themselves, being isolated and independent, they are never placed in relation with another word; they are invariants. Whenever there is a need of another idea of interjection, another word is substituted, for the former cannot be modified. An interjection is a proposition. It is not an element of a proposition.

With nouns, it is different. When we pronounce a noun, it can be applicable to one or to several similar nouns. They can thus be either singular or plural. They are also in relation with others. As such, they function either as a subject or an attribute, or, as a complement of a subject, or even, as a complement of an attribute. With the noun, we also identify whether it is male or female, or, whether it is masculine or feminine. We thus note that the principal idea of noun is susceptible of several modifications. The modifications administered to the nouns are specific to the nouns alone, but the modifications of other words are due to their specific relations with these nouns, which indicate a given rapport, a given liaison.

There are other words, which function like nouns, like, *I*, *you* *he*. They are either called nouns of persons, or simply *personal pronouns*. In any case, they are not veritable nouns, for the characteristic of the noun is to conform to just one idea, whose sign or etiquette it is. "I", on the contrary, is successively the name of all the persons who speak, and, "he", of all the persons, who is being spoken of. Moreover, they tell us nothing about the person who is speaking. This is why they can be successively substituted for every one who begins to speak. Destutt de Tracy agrees with Beauzée, that all other nouns which are called pronouns have different functions. The pronouns, *I*, *you*, *he*, and their corresponding others, replace nouns. But it is not just the function of replacing that characterises them as pronouns. It is primarily their rapport with the speaker that determines their specific

character. It is not just a question of replacement. This is why, even without any formal modification, the gender of the pronoun, I, changes according to the person who is speaking at a given time. These words, I, you, he, are a kind of nouns, which have the exclusive characteristics of designating the ideas under the only aspect of their relation with the act of speech. These pronouns are neither nouns, nor quasi nouns; nor the so-called replacements, but their function is to add to the real nouns, the ideas of a determination which the nouns lack, the idea of the relation with the act of speech. They play the role of the modifiers. They are, as such, the adjectives of persons, as others are the adjectives of quality.

If one thinks of the progress of ideas, it seems that these pronouns were first to follow. As soon as a sentiment or an exclamation was expressed, it was necessary to indicate where it came from, and, whom it was addressed to.

A.VII.4. We continue with the decomposition of the proposition. It includes a subject and an attribute, i.e., an idea recognised to exist in our mind, and another, that exists in it. Its primary stage is to be expressed with just one sign, as the interjection includes both the subject and the attribute. As the process of decomposition continues, we have words which express the subjects of the propositions, i.e., the nouns and the pronouns. The *verbs*, on the other hand, are the only elements which express an attribute. The *verb* is in fact an interjection which expresses only the attribute. As such, by itself it has no significance. It expresses a judgement only when it is in rapport with a subject.

It implies that a verb is different from a noun or pronoun in that like them it does not express an idea existing by itself, independent of all others, under the form of a subject. Secondly, it does not express this idea as existing in another, as do our simple adjectives, which function as modifiers. Thirdly, it expresses the idea that it represents as existing really and positively in another, as being an attribute, and consequently, it includes the idea of existence.

This characteristic of the verb leads to important consequences.

As the verb expresses the idea that it represents as existing, it is susceptible of time and mood. As it expresses this idea under the form of an attribute, it must conform to its subject, for number and person. This accord is arrived at with the help of desinenes. When it is deprived of this complement of expression, it is placed in the indefinite mood, and, we call it, participle.

Every verb in the definite mood is, then, an attribute, i.e., it implies that a manner of being is attributed to a subject. Every attribute is, then, a verb, or, at least, includes a verb. The several distinctions made amongst the verbs on the basis of action, passion etc., are not valid. All verbs are the verbs of state, as all of them refer to a subject, that it is, or it exists, in one manner or another. Whether this manner is transitory or permanent, it is not of much importance. When I say, I love, I sleep, I am tired etc., I always say that, I am, or, I exist, in this manner or another.

The only difference amongst verbs worth noting is the difference in their constitution, whether a verb consists of one word or of more. In the beginning, before our successive decomposition, the verbs are all composed of just one sign, but this sign includes two ideas, i.e., the general idea of existence, and the one that represents these two ideas under the attributive form. Then the need to express in general, that a subject is, it exists, without saying how, led us to the verbs, being, existing. And, on the other hand, we created adjectives, i.e., the form of signs which represent all the ideas under the attributive form, as able to exist in others, but which are not said to exist. Combining these adjectives with the verb, *being*, we formed all the verbs, we needed, all the possible attributes, all different from each other, as are diverse adjectives which compose them. Thus, I am tired, I am happy, are verbs like, I run, I walk. Only, they are constituted of two signs instead of one. The constituting elements are separated instead of being fused with each other.

Whether a verb is composed of two signs, or of one, there are always two elements, the verb, being, and, a simple adjective. When these two elements are grouped in one sign, that sign is a verb. When they are separated, generally the first sign is a verb,

and the other, a pure adjective. Whether we call the word, being, a verb, or we accord this name to all the words which include this or, we extend it to all the signs composed of two words, where one is a simple verb, being, and the other, an adjective, whatever side we take in this context, it is always obvious that these signs have the quality of a verb only when they include the verb, *being*. It is this quality that supports them. Consequently, the verbs are the only words, which are not just the constituents of the attribute, but, which can, on their own, be complete attributes, as the nouns are the only words, which can be complete subjects.

Finally, the verbs become interjections as soon as the nouns are invented, or, the interjections become necessarily verbs, as soon as, with the adjunction of a noun, they cease to express the subject of the proposition, and are reduced to express only the attribute.

A verb, as a verb, always constitutes a complete attribute. When we say that a subject "is", it is a complete statement, a complete judgement. When we say, I walk, I am tired, the significance is complete. However, when we say, I desire, I want, it is not as a verb that it needs a complement. It is by virtue of composition. This process is not the veritable attribute of the proposition. It is only a complement or the accessory of the attribute. It is important to note that very often the units which are composed of several words are well taken care of, while the elements which are constituted of very small signs are ignored. It is the role of the constituents which is important, and, not the formal structure.

A.VII.5. In a linguistic discourse, there are words called, interjections, which express entire propositions, nouns and pronouns, which express the subject of the propositions, and the verbs, which express attributes. But there are other words, which are used as accessories. Amongst them are adjectives. They have two functions, that of modifying the nouns and pronouns, and consequently, of multiplying the number of subjects of propositions, which are really distinct, and to join them to the verb, being thereby modifying it, and constituting with it, all sorts of

composite verbs, all sorts of different attributes. They could thus be better designated as modifiers than as adjectives, for they do not always add to the primary idea; very often they slice off or restrain but they always modify. Moreover, to approach an idea even to restrain it, is to add one element more in its composition.

It is almost impossible to determine precisely the generation of each of these adjectives, and to assert positively if they are formed of the subject, or of the verb, by restraining the idea of existence. But one can be fairly well certain that the adjectives appear after the nouns and the verbs, even though new nouns and new verbs can be generated from these adjectives. This is how languages are constituted. This is how linguistic discourse emerges. The latter elements interact with the former, and in new combinations, they form new constituents.

These adjectives or modifiers can be divided into two classes, for they modify an idea in two different manners, that of *comprehension*, and that of *extension*.

The comprehension of an idea consists of the number of elements which constitute it. Its extension consists of the number of objects it is applied to. The adjectives *poor*, *weak*, modify an idea in its comprehension, for if we attach them to the idea of man, we add to the ideas, which the word man, is constituted of. The ideas of poverty, weakness, do not necessarily enter in its formation.

On the contrary, the adjectives, *the*, *this*, *all*, *one*, *etc.*, modify an idea in its extension, for if we attach them to the idea of man, they specify the individual to which they can be applied in a specific manner, with precision, collectively, distributively, or in totality.

It may also be noted that in our languages, we do not modify an idea in its comprehension without first modifying it in its extension. Thus we will not place the adjective, *poor*, with the idea of man before first specifying which man is in question. Thus we would rather formulate, *the poor man*, or *a weak man*, etc., for before adding anything to an idea, it should first be properly circumscribed.

A noun can at times be used as an attribute even when there is no need to determine its extension, for the extension of the subject decides the extension of the attribute. Thus we can say, *that man* is animal, *that man* is a plant, certain men are machines, for the vague extensions of these words, animals, plant, machines, is determined by the subject. It all depends upon whether the extension is reasonable or not. We can say that *that man* is sick but we cannot say that *all men* are sick.

There are thus two types of adjectives: those which modify ideas in their comprehension, and others, which modify them in their extension. The former can also modify the verb *to be* and constitute with it all the composite verbs. The latter can modify only the nouns, for only the nouns can be subjected to extension.

Amongst these adjectives which are called determinatives, there are many classes. Some are designated as pronouns, others, numbers, simple adjectives, articles etc. But these designations are not of much importance. Since all of them fulfil the same function, they are grouped together.

This manner of considering the determinative adjectives decides also the question whether in Latin, there were articles or not. Very often, the pronoun "ille" serves to determine the extension of a noun; and not of replacing it. Several other Latin adjectives and pronouns play the same role. It is thus obvious that these were "articles" in Latin, or words which functioned as articles. If the same process is used to express certain ideas, the same etiquette can be applied to that constitution or formation.

A.VII.6. There are ideas which express complete significance, and others, which have either relative significance, or which need to join another to express together a complete idea. For example, we can say, "a ripe fruit is a good thing?" and the significance is complete. But, if we want to say: the fruit of that tree is good for that thing, we may not have one word for "the fruit of that tree" nor an adjective to say, good for that thing. To render these two ideas, we need a means to link the name of that tree to that of the fruit, and the name of that thing to the word, *good*.

There are languages which fulfil this function, as they mark

number and gender. They are called declensions, i.e. by means of certain changes in the desinence called, *case*. They indicate some of the rapports of nouns and adjectives. Most of the languages do not have case forms, or, they have very few of them, but the number of rapports that an idea can have with another are numerous. Thus, the case forms can express only some of the principal rapports. For example, the genitive would indicate the rapport of generation and belonging, the dative, that of attribution and donation, the accusative, that of the tendency of dependence etc., but this does not suffice. Thus, several languages have, for this purpose, distinct words, along with case forms, which are used to establish specific rapports between different elements of the discourse. These words are called prepositions.

It should also be noted that the case forms are also a kind of prepositions. Their characteristics and their functioning are quite similar, for they mark the rapports of the noun to which they are added with another noun or adjective.

It seems that what we have earlier called interjections gave rise to the later prepositions. The interjections are simple words which are invariant. Slowly, with the evolution of new *syntactic rapports*, they developed into verbs, adjectives, adverbs etc. They are veritable prepositions, for the prepositions are nothing other than the adjectives which have become indeclinables.

These are the three characteristics of the prepositions which are quite distinct, but there are several analogies. The first is that they become productive while remaining separate from all other words, i.e, they mark certain rapports between a noun and another noun, or an adjective, which may be a simple word, or combined with the verb, to be. The second characteristics is that they become productive only by joining intimately another word, whose desinence they become. The syllables of conjugation also fall in the same category. The third characteristics is that they become productive by incorporating themselves with the word they modify, and by constituting composite or derivative radicals. For this third important characteristic, one can legitimately call them, *compositions*, instead of prepositions.

A.VII.7. We can conclude our discussion of this section with the relation that the signs have with the ideas. Our signs proceed from our perception. And, our perceptions are either the direct impressions, or the mutual rapports of the ideas. They are expressed with gestures or noise. Either the ideas are placed in isolation, or they are presented as propositions.

To begin with, the physical effects cause sensations which move us. We pass certain judgements on these sensations, without clearly making finer, individual distinctions. Thus, our first propositions are the veritable interjections.

Then follows the decomposition of our perceptions, the agent, the cause, and the effect, the individual and the object on which they react, and which react on them, in a word, the subject and the attribute. They are represented by the signs marking differences in the beings and the proper persons. These signs are substantive nouns and the nouns of persons. They express the subjects of the propositions, and the interjections are presented as attributes; they become verbs.

With the use of subject and attribute, one could express almost everything, but there could be several ideas which need further modifications to express a given human situation. Instead of continuously creating new nouns and new verbs, man makes use of a small number of nouns and different forms of the same verbs and modifiers which establish new rapports. In this situation, the words do not express ideas as existing, but as possibly existing in others. They are then neither subjects, nor attributes, but modifiers. These are our adjectives.

To begin with, they were constituted for the comprehension of nouns, later they were formed to modify their extension. In a further development, words were constituted to express certain relations between one noun and another, or, between a noun and an adjective. They were functioning as adjectives to begin with, but later on, their nature changed. They did no more function only to establish a rapport with a noun. They were no more intimately related with their preceding element than with the following. They became invariants. These were what we call, propositions.

The function of these prepositions has also been fulfilled at times by the desinence called case forms. These syllables, as well as all others, which vary for number, gender, person, time, mood, have the same origin, or the same evolutionary process. Functionally, all of them can also be considered as prepositions. Only, they do not have a distinct entity in the general discourse.

Then we have constructions where with just one sign one can express the regime, or the preposition. This is done by adding to certain adjectives, one of the composing syllables, which we considered as inseparable prepositions. These signs are called, adverbs. They cannot modify directly the nouns, but they modify verbs, adjectives, or at times, other adverbs. Consequently, they also become invariants like prepositions.

Amongst these invariants, there is one word, *which* (that, que), whose role is to signify the dependence of one verb on another. With this it brings together two propositions, where these two verbs are the attributes. As such, this sign functions as a conjunction. Other conjunctions are veritable interjections, the words which express entire propositions, but in such propositions, the conjunction, (que) which, finds itself enclosed there twice. This is then the only conjunction from which all others are derived.

Finally, this conjunction, que (which), constituting one word with the determinative adjective, le (the), generates elements, which may be called conjunctive or adjective-conjunctive. These conjunctives, accumulate to a certain degree, the characteristics of the conjunctions and those of the adjectives, in such a way that they serve as a lien between all the incidental propositions and the nouns that they modify.

This is how the linguistic discourse is constituted. It derives from the successive decomposition of our ideas and their first natural signs. Then, they form different combinations to constitute propositions. All signs of a language should thus be properly classified according to their individual significance, and, the significance that they generate in such a way that they serve as a lien between all the incidental propositions and the nouns that they modify.

Signification and Mental Operations

A.VIII.1. If we had, for each of our impressions, a unique and distinct sign, it would imply that all our ideas in our discourse would be isolated, independent, and without any liaison amongst them. If it were so, all our ideas would remain static, disconnected, and without any rapport of generation. We could not make any combination to generate new ideas, to make new propositions. Fortunately, this is not so in any language.

We designate a certain number of ideas with specific signs, which remain attached to them. They ensure their stability, and record, the results of the mental operations which precede them. But most of the combinations that we make continuously with these ideas, resulting in new ideas, new reunions of several signs, are transitory. A large number of signs appear and disappear in numerous different arrangements to express the new products of our intelligence. They function like the characters of a printing press, which represent sounds or a part of a sound, in the composition of a word. They are thrown back into the box as soon as they have been printed, from where they are drawn again to constitute new constructions. There is, however, a difference between the signs and these characters. The signs, like the ideas they represent, refer to each other, and like them, they are related to each other, whereas the characters are arbitrary and isolated figures, which have neither any rapport amongst themselves, nor with the sounds, they represent. But as the characters need to be put together to make significant syllables, we need to bring

together signs to express those ideas which do not have unique, single signs to represent them.

This operation of combinations follows three different steps. The first is the place that is given to the signs in a discourse. The second is the different alternations that the signs are subjected to. The third is the creation of certain signs whose sole function is to mark the relations which the others have between them. This is exactly like the combinations of the ideas of numbers, where to express or to understand a calculation, one has to know not only the proper value of the numbers, but also the place they occupy, the value derived from other numbers, and the signs which modify them, separate them, or, bring them together.

Syntax is like this operation of calculus. The phrase, *I arrange with*, implies thus the place the signs occupy, the variations they are subjected to in the new rapports, and the use of those signs whose function is to establish these rapports.

The *construction* is thus the first part of the syntax, for in every language, the place accorded to the signs is significant. This order conforms naturally to the order of generation of our ideas. The sentence begins with the ideas, we are most occupied with, and all others follow suit. Thus, it is generally common to nominate first the main impression, or the object which is responsible for it. As such, normally we should have sentences like *afraid I am of that*, or, *of that afraid I am*, rather than, *I am afraid of that*. But, the order of expression follows the order of idea in packets. We naturally begin with the ideas that occupies us the most, followed by the one which includes it. We have thus the order of subject attribute, for the object of investigation is presented before the situation in which it is found. This is the direct operation of our intellect. This order can however undergo several affectations, for there are numerous manners of a being to be occupied or affected.

For a long time, it was considered that the act of thinking is instantaneous and indivisible. There is no way to analyse it. There was only the association of ideas. There was no such thing as the logical constitution. No doubt, our intellectual operations are very

fast, but this rapidity is within the analytical faculty of man. There is no such thing as impossible or infinite. When we are unable to accomplish an act, it is impossible. But, as soon as we understand it and overcome its difficulty, it becomes possible. When we are unable to count, we call it infinite. But infinite is only what is beyond our reach. As soon as we are able to perceive the other end, the perception of infinity fades into the finite. We cannot properly perceive anything that does not have both a beginning and an end.

To follow this direct order, we have to first announce the object of our thought, then say what we think, i.e., to first express the subject, and then, the attribute of the proposition. As all the subjects and all the attributes are not composed of just one word, as in, *Eric sleeps, he works* etc., they are generally constituted with the reunion of several signs, as, *Eric who pretends to be so active, sleeps without thinking of anything; I, who am accused of being very lazy, always work.*

These different signs are the representations of as many partial ideas as come to join a principal idea, and modify it to constitute a new idea, which is far more complex than the former. But these new ideas come to modify the principal ideas in the manner in which we want them. The direct order does not change. The principal idea of the subject or the attribute is announced first, and then the accessory signs are arranged according to the rapport that is established, following the importance attached to them in the sequence.

Generally, the principal idea is expressed by a noun, or a phrase functioning as a substantive, which becomes the designation of the idea, or a pronoun, which is used in its place. In the attribute, the principal idea is that of "the being", the existence, for before we say that a thing exists in a certain manner, it is necessary that it exists. Our ideas are no more, as they are represented by themselves, but as they are expressed in combination with others, in the place they occupy, to register a certain significance.

Sylvain Auroux: from Port Royal to Condillac

B.I.1. In this section, we will discuss the various hypotheses which were advanced to elaborate the logical constitution of linguistic discourse in the seventeenth and the eighteenth century. There are significant differences in the theoretical propositions of the Port Royal Grammar and the following approaches by the encyclopaedists.

For Port Royal, grammar is the art of speaking. For the encyclopaedists, it is the science of written or oral speech. Even though both these definitions refer to the acts with which the vocal emissions are organised in language, for Port Royal, it is an affair of extracting universal rules with which these acts are formed in consonance with an immanent rationality. The reality of language, i.e., the sounds, the words, and the phrases are only a manifestation of Reason. For the encyclopaedists, on the other hand, it is a matter of describing the characteristic features of this materiality with which this speech exists; the rationality of language resides not only in the linguistic fact, that is expresses a primitive reason, but also in the fact that the linguistic reality is governed by laws, which are discovered by observing the linguistic phenomena.

This difference in the two points of view leads to important consequences. Port Royal emphasizes the synchrony of language, and limits grammar to the study of sentence. The concept of

grammar is confined to the concatenation of the linguistic signs. The grammar and logic of Arnauld and Lancelot deal with the material of words and their significance, and, the construction of the ensembles of words. With the encyclopaedists, grammar extends its field to the general study of objects: phonetics, etymology, figures of speech, synonymy, and syntax.

In this period, the notion of syntax implies the relations existing between the ideas expressed by the words. It presupposes an analysis of the notion of idea, and its rapport with language. It addresses itself to such general principles as, what is thinking?, what is language?, how knowledge can be generated with the help of words and phrases? etc. This field of knowledge, and its operational mechanism is called, Semiotics. The objects of semiotics are the phenomena of the sign and its signification. We come across such definitions of semiotics as the science of signs or words by means of which we acquire our mutual comprehension, and inherit the knowledge of those who have preceded us. Such definitions refer always to the *process of signification*. The eighteenth century does not have, or does not address itself to the definition of the notion of sign as such. The study of the linguistic sign is always a part of the study of the *origin of knowledge*, or of the origin of language.

For Port Royal, the sign is everything that is supposed to represent something. The sign encloses two ideas, that of the thing that represents, and that of the thing represented. Its nature consists of inspiring the latter by the former. If we take the word, *encloses*, literally, we cannot say that the signification of a word is an idea. If the sign encloses two ideas, that of the thing represented, and of the thing which represents, it is not possible to fix the notion of the sign, for the rapport representing/represented is a rapport which would be interpreted as the rapport of the sign. The same is true in the reverse order: the rapport of the idea of representing/idea with the represented. What then is the sign? It is certainly not the idea of the represented. If it refers to the idea of the representing, it cannot enclose two ideas. And, if it is neither one nor the other, a third being would be necessary, which would have its proper idea. Thus, we would have three ideas, and not

two. Moreover, we will have to accept that the sign is an idea which encloses two other ideas. This is neither explicit in the Port Royal definition, nor does it take account of the specific rapport of representing/represented. The sign is not divisible into two ideas, but the word, inasmuch as it is a linguistic sign, is constituted with the relation of ideas. It refers to a process. The semiotics of the eighteenth century does not have a specific definition of the sign, it addresses itself primarily to the *process of signification*.

B.I. 2. One of the greatest grammarians of the eighteenth century, Du Marsais, in *Traité des tropes*, Paris, 1797, presents this argument as follows.

As bread is given to us, the word, *bread*, is pronounced. On the one *hand*, the thing, bread, inscribes its image in our brain through our eyes, and inspires its idea; on the other, the sound of the word, bread, leaves a certain impression through our ears, in such a way that these two ideas, inspired simultaneously, could not be evoked one without the other.

For Du Marsais, it is an affair of the psychological origin of signification, as the acquisition of language and emission of speech. The psychological approach is in general Cartesian tradition. Two ideas are necessary: that of the sound, and that of the object designated, but this is acquired by means of its own idea. These are the two ideas which are related, and not a sound and an idea. The perception of the object, the sound, evokes in us, its idea, the idea-1, and relates this idea-1, with the idea-2, that of the second object, object-2. The veritable relation referred to is thus between the two ideas. As such, the fundamental structure of the process of signification would be *quaternary*, but this work as a whole seems to be based on a *ternary* definition, which is derived from the former: object-1—> idea-2—> object-2. It is obvious that this ternary definition is an interpretation of the quaternary structure. *The sound evokes its own idea, which evokes, by association, the idea of the object.* This is to justify that the sound is the sign of an idea, with which it has absolutely no rapport.

The choice of interpretation in each case is significant. The

quaternary interpretation is based on *idealism*, the dualism that it allows, and the lien of the ideas that it allows to be placed outside the brain, serves those who identify soul and the faculty of speech, excluding thus the possibility of animal language. These divergent views refer to the differences in the concept of idea.

The concept of the sign is due to the Cartesian tradition. However, even in Descartes, this notion is ambiguous. The idea is either the form of our thoughts, with whose immediate perception we are conscious of these very thoughts, or, the form of thoughts which have an objective reality. The first definition is psychological. It corresponds with the signification of words. According to Descartes, one cannot express anything with words, while one hears what one says, one is not certain if there is, in the self, the idea of the thing that is signified by these words. The use of the second requires a distinction between the signification of words, and a clear and distinct conceptualisation. The verifiable thought is confined to the second, keeping it away from language which expresses an ensemble of propositions.

Even though most of the eighteenth century grammarians stick to the first definition, its status depends upon the orientation of the theory of knowledge on which it is based, and in which it is employed. *If one sticks to Cartesian dualism, the ideas are associated only with other ideas, the rapport of idea with object is only representative.*

B.I.3. An important step in this context is taken by the *psychological interpretation of Condillac*. It is this interpretation which is the basis of further discussion by Destutt de Tracy, presented in detail, in the former section. Condillac divides signs in three classes: the *accidental signs*, where the objects are related to our ideas which evoke them; the *natural signs*, like pain or cry, provoked by physical or natural phenomenon; and the *signs of institution*, which we have ourselves chosen, and which have only an arbitrary rapport with our ideas. Port Royal also gives tripartite division of signs, but it refers to the principles of division, and not to the three classes. For Port Royal, the signs are either certain or probable. Certain signs are the ones which like breathing

of animals are certain signs of their life, and probable signs are like paleness, as the grosses of women. Further, the signs are either joined to the objects, like a dove to the sign of Holy Ghost, or those which are separated, like the sacrifices of old laws. Thirdly, there are natural signs, as an image in a mirror, and the signs of institution, which may have either a very far-fetched rapport with the thing signified, or no rapport at all.

The classification of Condillac refers only to the third principle of division. It is confined to the field of knowledge and to the activity of the subject. *With Condillac, the primitive or original perception of the thing is neither distinct from its consciousness, nor from the souvenir that it evokes, nor consequently, from its idea.* The words for thought, operation, perception, sensation, consciousness, idea, and notion are almost synonymous. Thought is all that the soul absorbs either by varied impressions, or by the use of its reflection; operation, the thought, inasmuch as it produces any change in the soul; perception, the impression that is produced in us in the presence of the objects; sensation, this very impression inasmuch as it is due to the senses; consciousness, the knowledge that one receives as images; notion, all ideas which are our own products.

The process of accidental signification is only a repetition of the process of perception. The first rapport is the one which relates an idea with an object, and enables one to remind him of the earlier idea. This rapport is accidental in the sense that it is due to the appearance of the object, it does not depend upon the individual which is the subject of perception.

The natural rapport is identical except that it is based on universality and the organic necessity of certain relations, as the natural cry is related to certain sentiments. These rapports can be schematised as (a) object—> sensation = idea; (b) object—> idea; (c) sentiment—> cry; (d) cry—> sentiment. The last class, the most important, is that of the sign of *institution*. A sign of institution has an *arbitrary* rapport with the idea it designates. This may be presented as: (e) x—> idea.

B.I.4. In the case of the sign of institution, it is the distance,

in time and space that is often responsible for its creation. This is the liberty of the individual. *As long as an individual does not have arbitrary signs, he is not the master of his thought. His ideas will be conditional.* The arbitrariness of the sign gives an individual his liberty to compose his thought with the help of his imagination and memory. He can make use of the psychological distance to compose his thought. This is not possible if he has at his disposal only the natural signs. The sign is arbitrary only when its use is free from all the external stimuli. The arbitrary sign is chosen. Man exercises his faculty of choice and organizes the signs of institution to facilitate the task of his memory and imagination. In the process of the genesis of language, man first had the accidental signs, then the natural signs, and finally, at the stage of higher mental development, he evolved the arbitrary signs. The first language of man is the *language of action*. Every sign is a response to a cause. The second language, the language developed over a period of several centuries due to the successive use of the natural signs, is the *language of habit*. Man begins to correlate an idea and an object without always depending upon its physical conditioning. The arbitrary language is a natural development from the earlier step in the mental development of man. The arbitrary signs are generally artificial signs. They do not depend upon the physical constitution of human environment. There is no natural reason for their choice. They are unmotivated. These arbitrary signs of institution follow two main principles : *analysis* and *analogy*. Analysis allows man to decompose his thought. The natural sign is not capable of this operation as it presents simultaneously the two components of an idea. The artificial language develops with the help of the names given voluntarily to the ideas, which are, in fact, not given arbitrarily, but analogically. The notion of analogy is highly complex. It relates the sound to the signified thing, but it is extra-linguistic. The ideas which are only variations of an idea are presented by the signs which are similar to them. They follow the principle of analogy, which is both natural i.e., physical, and psychological. There is always an effort at deriving new signs from the old signs or the ensembles of

signs, but in this process, man exercises his faculty of *choice and rearrangement*. As such, the natural and the arbitrary are related, but they are never the same. The language of action is born with man. The arbitrary use of language traces the history of his development. The *language of action* is automatic, it depends upon the process of stimulus/response. The articulated language of institution goes through a long process of analysis and analogy, of arbitrary choices and responsible social behaviour. The conditions for these two types of language are different. Once the natural signs are established by accident and by habit, they create conditions which are responsible for the creation of arbitrary signs.

To begin with, it is always the physical conditions which are responsible for the creation of the first signs, but their successive use begins to depend more and more on the will of the individual. Between the natural and the arbitrary, what changes, according to Condillac, is the immediate cause of their appearance. On the other hand, between the natural and the artificial, what changes, according to Port Royal, are the conditions of the installation of the sign. In both cases, the human will, is never the first principle of the creation of the signs. The liberty involved in the arbitrary choice is also conditioned by the determination of the circumstances. It is the use of the sign, the distance from its origin, the change of conditions, and the human faculty of imagination and memory, which are responsible for the displacement of significances, for the new rapports, for the new relationships that man continues to have with his environment. Between the natural and the arbitrary, then, there is essentially a difference of quality. *In the eighteenth century, the debate does not revolve around the question, what is a sign, but rather around how man thinks, how he constitutes his language, how he relates himself to the world, to other men, and to himself.*

B.I.5. Another significant approach to the study of signs is that of De Brosse. In his *Traité de la formation mécanique des langues et principes physiques de l'étymologie*, Paris, 1765, De Brosse discusses the construction of words, but his researches

always lead to the etymology or derivation of words. In this study of the evolution of languages, the main concern is the nature of evolutionary or creative process.

Writing is a complex phenomenon. It is supposed to be independent of oral speech. It has its own system of signification. On the one hand, we have the sound, and on the other, the figure. Figure can be a sign of the object. Originally, it appeared in the form of painting. It is the representation of the object that evokes the idea. The process of signification is: figure-object-idea. This schema defines figurative writing. It may correspond to a simple painting, or a succession of paintings like the Mexican writing. In the symbolic writing, the figure evokes directly the idea, either allegorically as in Egyptian writing, or with the help of certain keys as in Chinese writing. The process of signification in this case is: figure-idea-object. To relate speech and writing is to integrate figure and sound within the same process of signification. This involves the multiplication of mediations. We can have several other processes. De Brosses presents two of these: sound-figure-idea-object; and, figure-sound-idea-object. The last formulation is the most prevalent. It covers all systems of syllabic or literal writing. It implies that writing is representation of a spoken language which exists before it. It also refers to the independent nature of writing. Apart from the Chinese figures, De Brosses gives the example of Roman numerals, which have different sounds in different languages.

In any case, the writing systems are studied only to be able to explain the origin of languages. The paintings of things are natural signs of the object. They do not require any previous knowledge. No external causality is necessary to comprehend their correspondences. The original or primitive form of the rapport of signification is this *resemblance*. In the beginning, speech and writing are two completely independent systems. During the course of their respective developments, the notions of arbitrariness take over. From painting to alphabet on the one hand, where the letters and their combinations in words and phrases have no direct rapport with the object in question, and from the natural

cries to articulated speech, where the earlier, primitive imitation does no more serve as the guiding principle for the new linguistic creations. De Brosses goes from painting to writing in the same way Condillac moves from the language of action to the language of institution. The displacement from the sound to the object, with or without the intermediary figure, leads directly to idea. In the *Traité*, De Brosses treats the notion of etymology in a highly complex manner. The study of the origin replaces the study of primitive language. There is no emphasis on the discovery of an ancient language, which was the preoccupation of the fifteenth and the sixteenth century. The study of etymology addresses itself to the internal mechanics of the first elements from which a given language might have evolved. The primitive stage is not a given fact, it is reconstructed. And, this effort at reconstruction is to discover the principles of the evolution of languages, their sounds, their words, their significations.

Etymology is based on a non-empirical reflection. It is concerned solely with rationality under the form of abstract principles which enable us to explicate different phenomena. It is a sort of an archaeology, which has been dealt with by Destutt de Tracy, in detail, in the former section.

B.I.6. The study of the origin of languages has an epistemological function. It deals with the formation of languages by reconstituting their genesis from the ensemble of primitive signs which owe their installation only to nature. It defines the *process of signification*. These processes lead us to logical successions, where the general causes can be described, and where finally the linguistic sign attains the status of the arbitrary being. This description of the origin of linguistic formations is always an interpretation, which differs from one author to another. With Condillac, it is purely psychological. With De Brosses, it becomes an objective analogy. In both cases, it is an affair of the basis on which the relation between the idea, the sound, and the object is established

B.I.7. The problem of the conditioning factors was debated at length in this period. This involved the study of the language of

animals and men. For the traditional Cartesians, represented by Port Royal and others, linguistic activity was a free activity. It depended on the soul of man, a faculty not possessed by animals. Condillac, on the other hand, and as we have seen in Destutt de Tracy, deduced the liberty of man from the conditioning factors, which were not always so fixed as claimed by those who studied only the language of animals.

It was a matter of two points of view: either construct a general concept susceptible of denoting an ensemble of phenomena within which external classifications are possible, or, attach the linguistic domain to a specific ontology, to a certain region of the being, where all originality dwells. The second proposition is more pertinent. Man speaks and lives in a universe of signs. The specificity of this phenomenon is reduced to the human soul. This specificity is derived from natural causality, which gives it its content.

In his *Cartesian Linguistics*, N. Chomsky has not been able to differentiate between different theories of language in the classical age. For him they all believe in the Cartesian innate faculty. This is due to his casual familiarity with the various texts and the schools of thought prevalent in the seventeenth and the eighteenth century. During this period, there were different schools debating the earlier, rather primitive propositions of the Port Royal tradition. The debate engages such theoreticians of language as Beauzée, Condillac, De Brosses, Du Marsais, culminating finally in the *Elémens d'Idéologie* of Destutt de Tracy, which became the main text-book and the theoretical treatise of the French Revolution.

The innate approach addressed itself only to the quaternary structure of signification. The concept of Cartesian linguistics relates the conceptual richness of linguistics to the refusal of animal language, asserting that the specificity of language depends upon characteristics of human Reason. For this tradition, the acquisition and the use of language do not depend upon any given conditions. The thesis of Condillac is no doubt based on the theory of condition, in its refusal of the Cartesian conception of liberty, but

it does not fall into absolutism. Even for Descartes who again and again insists on absolute liberty of the soul, the human physical mechanism is a relative factor. Reason is not a universal instrument, and man is not a machine. Only a machine can attain to absolute universality. Man has to function within the specificity of his conditions, which are obviously not only physical, but also mental or psychological. The word is the sign of an idea; the idea is, however, universal. The thesis of Cartesian idealism states that universality cannot be born of a particularity. The sensualism of Condillac, and of Destutt de Tracy, rejects this thesis. However, it is not true, as Chomsky would like to interpret, that for the classical age, the specificity of human language is in its being constituted of the signs whose use is free of all identifiable stimulus. For the eighteenth century, the century after Port Royal, one cannot talk of creativity with reference to language without noting that the only creation possible is that of language, i.e., the institution of signs. It is always an affair of inter-linguistic creation, for an artificial language necessarily presupposes a natural language. It is not the idea that is created, what is created is the liaison between a sound and an idea. It is a matter of elaborating a general concept including all linguistic phenomena, and, differentiating animal language from human language. The discussion of this epistemological hypothesis is fundamental for the knowledge of the organisation of semiotics.

B.I.8. This difference is discussed in detail. Father Bougeant in his *Amusement philosophique sur le langage des bêtes*, Paris, 1739, presents an interesting thesis. Like Condillac he admits that a sound emitted by an animal is a natural sign of a corresponding sentiment. One can study the external factors, and analyse animal language just like human language. This thesis supposes a certain identity of human and animal sentiments. It is also an affair of the soul of animals. The signification of the sign is the cause of its appearance. It also means that the language of the animals is limited to the expression of their needs, it does not designate the ideas of things.

The point made here is that a dog does not have a soul, thus it

does not have ideas. An impression for him is the same as that of a seal on a wax. It is conditioned. If we use speech for an animal, it must always be the same, and be employed as sound and not as a sign. The sign or a word is defined in its non-material properties, in the relation of the idea of the thing signified with the idea of the signifying thing, following the quaternary definition of the sign. This is what we find in the *Logique* of Port Royal. Bousset presents this argument forcefully. Nothing in simple nature can become a sign by itself. The animals do not possess *arbitrary* or *conventional* language. Their language depends upon external conditions and their instincts. That there is an animal language does not mean that it is identical with human language. Animal languages are natural, they are not acquired. The language of convention belongs only to man. All authors seem to agree on this point.

But there is a difference of interpretation, especially in the degree of liberty that man has in this context. What distinguishes man from animal is not *the possession of language*, it is the *possibility of creating a language*. For Rousseau, this possibility is inscribed in the liberty of man. For Condillac, it is not so simple. Man and animal are both some kind of animals. What differentiates them is that they do not find themselves in the same type of organisations, needs, and circumstances. In other words, it is the different psychological apparatus of man whose extreme complexity is responsible for this distinction. It is not only the quality, but different conditioning factors which make man a superior being in organisation, and in the creation of institutional languages.

For semiotics, the specificity of linguistic phenomenon neither depends upon a general concept nor upon an ontological particularity. It depends above all on the ternary structure of signification. Human language has an essential property. It is constituted of the *arbitrary liaison* of sound with that of an idea. Animal language does not possess this relation. The notion of linguistic *arbitrariness* is the main contribution of this period.

B.I.9. The arbitrariness of the sign may mean that the designa-

tor has no rapport with the designated. There is nothing that indicates *a priori* that they have any relation with each other. Almost all the authors of the eighteenth century agree on this point that the word is arbitrary.

The second implication is that the relation is unmotivated and without any cause. A word is arbitrary if there is no cause, no motive to be in rapport with this idea rather than with another. This interpretation is generally not accepted. If language was arbitrary to this extent, there are no governing rules, it cannot be an object of scientific study.

This third point of view is represented by Condillac and his followers. For Condillac, a sign is arbitrary if it can be used at will.

In any case, whatever may be the precise or general significance of the notion of arbitrariness, it is opposed to the natural sign. But even here there are several implications. A natural sign may be the one that is constituted of the operation of nature alone i.e., on a certain given causality, independent of human will. And, also, there is the genesis of the natural sign. A sign may be natural, if it is a sign by its very nature or characteristics, i.e., the characteristics of resemblance.

If we accept the hypothesis of the universality of thought, i.e., the ideas signified by words, the arbitrariness of language is recognised in the first sense of the word. At the same time, if the word is arbitrary in the first sense, it is not so in the second or the third sense. It is essentially conventional. For the *Age of Enlightenment*, the first character of the conventional aspect of language is not to be constituted by the absolute freedom of human will. If language is instituted by man, it does not mean that it is absolutely unmotivated, and that man is absolutely free to choose his language.

The problematics of the arbitrary nature of language poses certain paradoxes. How does a convention take form? How does one begin to communicate? Rousseau wanted even to know what was at stake, the society related to an institution of language, or a language already invented to establish a society? For Condillac, it

is more serious. It is a matter of understanding the rapport between the thought that enables one to use the signs at will, or the arbitrariness of the signs which enables one to think. What is generally accepted in this discussion is that a minimum natural language has to be there to enable the creation of a conventional language. The arbitrary notion in the second sense is thus excluded.

The theory of the beginning of linguistic communication as natural phenomenon is not accepted by all. If it were so, this minimum would be universal like the cries of the animals but it is not so. Even the onomatopoeia is not the same everywhere. If at the beginning language is neither an absolutely natural phenomenon, nor due to absolute arbitrariness of man, it is argued, it must have been given to man by God, with the faculty of further creation. This is one of the solutions of the paradox. Thus Beauzée refuses to study the origin of languages. For him, there is a sort of a tacit convention, the words are created and become universal by usage. But as we have seen in Destutt de Tracy, it is precisely the process of the use of language from one situation to another, from one individual to another, that institutionalizes language.

In this debate, there seem to be three common points. The first is that the specific character of language is not due to its creation by a Reason present by itself. On the one hand, the nature, and on the other, the usage, is responsible for it. Secondly, there are causes which explain the formation of languages and their characteristics. This second point marks the distance it has covered since Port Royal. It posits language as a concrete object of study. Thirdly, the fundamental feature of our languages is their arbitrary character.

Whatever way the notion of arbitrariness is posited, it leads to the question of origin. Even for those who believe that in the beginning, God created the elementary forms of language, the question of origin cannot be excluded, as they also want to explain the historical development of the formation of words and their significance. The notion of arbitrariness is quite vague. To the

three interpretations already presented, one more can be added: that the arbitrary is also variable. From the absolute origin, we go to the relative origin, where none questions the active part played by man. This may or may not be as an individual, i.e., as representative of will and reason, but it is certainly social and conventional or institutional. The diversity of languages is at times attributed to contingency. Here again, the role of contingency is also relative, the relationship between man and his contingency is dialectical.

B.I.10. The problematics of the origin of language is primarily concerned with the description of its formation. This research of the origin is mostly abstract. These are the steps of the logical order, and the ideal genesis. For both, there has to be a beginning, whether it is absolute or relative. In both cases, there is an effort at justifying and explaining the given sequences of development and the functioning of human language. Hence, the questions and the responses in this context depend upon a particular orientation: psychological for Condillac, idealist for Du Marsais.

All this revolves around the idea of genesis. This question relates to the problem of the origin of language with the empirical theory of knowledge. With the genetic orientation, there is a refusal of assigning a given temporal correspondence to the elementary terms of the formation of languages with the help of a distinction between the logical order and the genetic order. Condillac explains that when he talks of an original language, he is not trying to establish what men actually did, but he is thinking of what they could have done. Even Rousseau talks on the same lines when he warns in his *Discours* that his researches should not be taken as historical truths, but as hypothetical and conditional reasonings, meant to elucidate the nature of things, and not to demonstrate the veritable origins. Genesis, as such, is a restitution of the development of a real phenomenon with the bias of an experience of thought. The object of the experience of thought is derived from real phenomenon by limiting it in a conventional manner, in a laboratory. The genetic order is the order of reason. The historical order is only the order of facts, in

other words, a chronological order of what actually took place. These two have neither the same function, nor the same cognitive value. Diderot says that when the historical facts do not clarify a situation, we have to go to genetic abstraction.

To understand the mechanism of the origin of language, several experiments were conducted. Thus we have the studies on child language, on the language of deaf and dumb, and the famous case of the development of the child, Victor of Aveyron, found in a jungle. When Doctor Itard tried to teach language to Victor, he realised that Victor could not go beyond the words of his bare needs. It was always a question of stimulus and response. This is not the case with human language where the distinctive feature is the arbitrary rapport of sign and significance. To learn to speak is not to learn to repeat sounds, it is to be able to use the signs at will, and to comprehend the arbitrary functioning of these signs. Victor was not able to achieve this.

B.I.11. The study of the origin of language is the study of the *essence of language*. A beginning has to be postulated for the study of the essence of language. It must be based on the hypotheses on the nature of this commencement, and on the value of the knowledge that may be derived from it. As this approach recognizes in language, the factors of mobility, it is necessarily in rapport with effective history of the linguistic phenomena.

The nature of commencement and the rapport with historicity depends upon different theses. There are three possible attitudes. To admit that God has given us the primitive language, and consequently the study of its constituting process is refused (Beauzée). Secondly, to admit that God has given us the primitive language, but we do not know it, hence we should hypothetically study it (De Brosses). Thirdly, all theological considerations are refused, as in Condillac and Destutt de Tracy, and an effort is made to directly study its constituting process. The divine origin refers to a reality but it finds itself caught in a fact that is unknown to man. On the other hand, the human origin of language refers it to its genesis, which transforms its reality into a hypothesis, but it ensures its knowledge. However abstract it may be, the genetic

orientation corresponds directly with the thesis on the effective origin of language. It implies a class of linguistic phenomena, and not just an event of commencement.

These different approaches have essentially an epistemological value. The genetic study of language assigns to language a mobility which is supposed to be found in the derivation of words caused by daily use. For the study of diachronic dimension, where every historical variation implies installation of new signs, one has to have a thesis on the formation of the linguistic sign. Where there is no study of the first formation of linguistic signs, there will have to be the study of the second formation. When the first origin is assigned to God, the second is necessarily attributed to man. The first and the second origin are different in that the one connects the linguistic elements with each other, the other connects linguistic elements with non-linguistic elements. The first origin installs a *continuity*. The second implies *discontinuity*.

For the Age of Enlightenment, the word is a sound which is a sign of an idea representing objects or their properties. Each of these three beings has an independent existence which is perfectly heterogenous to the other two. De Brosses thinks that the use of speech consists of rendering by voice what the sound receives by senses; to represent again, the external form, what is in fact, within, but which came from without. There is an effort at reconciling four opposites: the real being, the idea, the sound, and the letter.

It is because of this heterogeneity that one has to accept the notion of arbitrariness. Thus the problematics of the origin of language becomes that of the independence and the contingency of the elements of language. *As such, the search for the origin of language is not even the search for its essence, it is an attempt at explicating the essential properties of human language. For the eighteenth century, the problematics of the origin leads to the role, language plays for the comprehension of thought. This also includes the role of ideas in the process of signification.*

The empirical approach develops a theory of the origin of ideas from sensations, and the problem of the origin of language is

situated in the origin of knowledge. The idealist school does not accept this problematic. The idea, for them, could not be born of sensation, there must be, within us, some innate ideas susceptible of founding a basis for our reasoning. These opposing approaches are presented by Turgot (1750) and Maupertuis (1748). Maupertuis believes that in the beginning, man had more or less complex perceptions. Language is constituted by a conscious operation of our esprit where the signs intervene only to designate our perceptions. Turgot, on the other hand, sticks to his empirical position, and asserts that languages are not constituted by a reason existing by itself. The faculty of reasoning presupposes the pre-existence of signs. The aim of language is not to mark for itself its own sensations, they are meant to communicate. Language is born of a double contact of man with other men, on the one hand, and man with the world, on the other.

Condillac tries to present a solution to this complicated problematic. The arbitrary nature of language implies that the propositional structure has nothing in common with the structure of facts. Obviously, this means that all the properties of language are conventional. But the arbitrariness of languages also implies that they are imperfect. They cannot totally express an idea. It is all based on *analogy*, and analogy is, after all, a rapport of resemblance. As one thing may resemble several, there are many ways to express the same idea. It all depends upon the specific rapports that authors or the speakers try to establish.

B.I.12. If metaphysics studies the rapport of ideas with things, it cannot do so without considering the role played by language in the formation of ideas. On the other hand, if grammar studies words inasmuch as they are used to express thoughts, it could not help describing the relations that it has with the ideas whose signs are these words. In a complete psychologico-grammatical *parallelism*, language will be understood as a method of analysis, and the discourse as an imitation of judgement. If grammar and logic have different aims, one concerning, speech, the other, thought, they are not so as the sciences of the fields of essentially different objects.

Neither the study of truth, nor that of esprit, constitutes an autonomous domain with its specific objects. All these are related in a unique field, determined by the sound, the idea, and the object, and their relationship in the process of signification. This is the veritable unity of semiotics. All the researches on the origin of language and its constituting process in human communication aim at this unity. The ternary structure of signification is, above all, the limit of the cultural field, in other words, the field of semiotics.

This is why the notion of sign does not stand by itself. The sign cannot be understood by its own proper existence. It is the rapport between different elements where one being receives the status of a sign, by the fact that it enters into rapport with others. Its significance is purely operator. It always refers to the process of signification, the objects that it denotes may vary. *It follows that the problematics of the origin and the theory of the process of signification not only gives unity to semiotics by relating the elements which constitute it, it also distinguishes semiotics from all other disciplines where no such relating constituting process takes place.* Semiotics, thus, becomes, an autonomous discipline of investigation.

Language Translation Hypothesis

B.II.1. The ternary structure posits the independent existence of each of its terms which are placed in a certain relation by the theory of signification. The idea is placed in the esprit. The object exists in the world. The sound has a physical existence with its own internal rules of formation. The sign is not a being constituted by the relation of these terms. It is an empty concept applied to one of these three terms due to this relation. There are three basic postulates:

(i) The function of language is to represent thought, and to communicate it.

(ii) The word is a sign of one or several ideas, or, one or several parts of thought.

(iii) The linguistic sign is arbitrary, i.e., it is not natural.

These postulates based on the realist hypothesis of the existence of things outside ideas affirm the ternary structure of the linguistic sign. The second is only an application of the first, where the word is considered as an element of language and the idea is conceived as an element of thought. It also explains the fact that neither language nor thought exists outside its elements. This is the hypothesis of what is called, the language-translation theory.

B.II.2. The postulate of language-translation theory presupposes a direct correspondence between words and ideas. Two theses follow from this hypothesis (a) The signification is based on one to one correspondence, (b) The terms have independent existence. This means that (c) there is a reciprocal independence of definition

of terms, and that of the correspondence. There is as such a reciprocal independence of the significations (d) It is obvious that (c) leads to (d), for if the meanings of a word depend upon that of another word, its signification depends upon the correspondence between meaning and sound. For the eighteenth century linguists, the presence of a word is not due to another word, it is only an indication of the growing knowledge of the people. The vocabulary of a people is a reflection of their progress.

B.II.3. The hypothesis language-translation implies a general universality of ideas amongst all people. The ideas are universal, only the words are arbitrary. The arbitrariness is in the relationship that the ideas have with the words. This argument is not followed by all. There are linguists who do not believe that every language is a translation of a classical language. Different people have different set of ideas, sequence of their reasoning, and as such, the hypothesis of language-translation is falsified. This is the line that separates the idealist position of Descartes from the contingency position of Condillac.

But the argument continues. The sounds form a successive and divisible ensemble, whereas thought is a purely intellectual object, which is necessarily indivisible. Thought is both continuous and indivisible. This indivisibility lies in the very process of thinking. This act of the esprit can be analysed. The ideas can be considered separately, but this analysis is of different order. The words of the sentence correspond to the act of thought, but this correspondence is with the entire utterance. For language, the rapport is that of the multiplicity of words with the unity of the sentence. Thought, on the other hand, is unitary and instantaneous, conceived in one act of the esprit. It is a global idea which is composed of other ideas. The expression of this thought can be formulated in language, either by one word, a noun, or a sequence of words, whose elements correspond to the constituents of this thought.

To the continuity of the act of thought is juxtaposed the discontinuity of language. Maupertuis believed that there can be no translation from one language to another as each language

represents different ideas. By and large, the eighteenth century rejects this hypothesis. It is believed that the ideas pre-exist logically, and as such, are universal, the function of language is only to communicate them. Language is discontinuous. There are, in each language, a number of words which cannot be defined, but which help define other. They are, in a way, the first atoms of the signification of words. This fundamental discontinuity introduces an incommensurability between the representation and its objects. Diderot shows that there is necessarily a non-represented aspect of reality. Its nature is continuous, its representation is not necessarily so. This is why we do not have a separate sign for every significance. This leads to the hypothesis that the determination of a language in terms of the undefinable can be made in several ways. And, this does not correspond from one language to another.

B.II.4. Thought has to be enunciated to be communicated. And, the communication of thought requires that the thoughts be decomposed, i.e., analysed. *The analysis of thought is thus the immediate object of our speech. Analysis is the main function of language. It also implies that without language, this analysis is not possible.* This is far more significant than to say that the function of language is to represent the analysed thought. Language is the vital instrument of the analysis of ideas. Condillac considers that every language is an analytical method, and conversely, every method is a language. Beauzée thinks that the words are the resultants of the analytical decomposition of our ideas.

The main problem is to know what is meant by the unity of the act of the esprit in correspondence with that of the sentence. It could be an original given concept whose decomposition or analysis reproduces the genesis of our ideas, or, it could be a thought, we ourselves constitute, but whose decomposition or analysis is all the same represented by an utterance. It is to admit that the words of a sentence represent ideas which come to the esprit only in the original unity of a thought.

The general ideas are abstracted by decomposition or analysis. As such, perception presents simultaneously several ideas to the

esprit, and this simultaneity is given *a priori*. The exercise of thought necessitates its decomposition. It is also posited that all our ideas are not the resultants of decomposition. Some are due to the active composition of our esprit. Analysis, as such, does not depend upon decomposition alone, but upon a sequence of compositions and decompositions. When we talk of a method or an analytical order, it does not mean that scientific approach consists primarily of the decomposition of our notions, it is to follow the natural order in which we apprehend ideas. In linguistics, we deal with the understanding of the unity of the significance of the words which compose it. In this case, then, the analysis which corresponds to the multiplicity is opposed to the synthesis which is concerned with unity. Our signs are the resultants of our elementary ideas. Our sentences, on the other hand, bring together several words to express a single total idea, they represent synthetic operations, which take us to more complex (composite) ideas, and to the nature of things. The fundamental function of language is thus to present, successively, to the esprit, the ideas which are partial, but this is done in order to compose a total significance, i.e., just one idea.

B.II.5. The hypothesis of language-translation confuses the notions of representation, meaning, and denotation. The ideas are considered to be universal. They do not depend upon subjective determinations. Furthermore, the words do not designate the facts of the world, but the ideas of the facts of the world. A word is a noun, not because it designates any individual of a certain class, but because it designates a general idea. This is why it is difficult to distinguish the individual from its idea. There is only the concept of the class which designates either an ensemble of ideas or an ensemble of real beings. This ambiguity covers the definition of the identity of denotation, but the reverse is not true. The "evening star" and the "morning star" are the expressions which denote the same star, but they do not refer to the same meaning or significance.

The referential function of language is thus reduced to its analytico-synthetic function. In putting together several general

ideas, the sentence reconstitutes a concrete idea of a thing or of a fact. Language applies general ideas to things. As such, the significance of the sentence is identical with perception, the words of language are signs of general ideas. The perception formulates a concrete idea, but this concrete idea is a complex idea composed of general ideas. The sentence which composes the general ideas is equivalent to a complex and concrete idea, projecting a specific perception.

B.II.6. In the case of true propositions based on facts, the comprehension of the linguistic mechanism as decomposition and recomposition of a global thought can be followed. But the next problem would be to see if a few words of a sentence can signify all the determinations which compose the perception of an individual. Condillac gives an example of a sentence: the justice is always good. For Condillac, the notion of justice is not abstracted from the composite ideas of real individuals. It is an artificial idea which has been constituted by us by means of several diverse ideas. This composite idea is then not a "given" idea, and the words of the sentence cannot be considered as decomposing a thought whose elements appeared initially in an ensemble to the esprit. The sentence can be taken as an analysis, for in composing the ideas to form a complete significance, it reproduces the genesis of the ideas. More so, if we consider the linguistic mechanism. The words, *justice, always, good* present successively to the esprit the ideas which compose the global idea constituting the significance of the sentence. As such, they represent an analysis of the significance. With this treatment, Condillac proposes an opposition between the analysis as concerned with the genesis of the ideas, and the analysis as an explication of linguistic mechanism. It is admitted that every thought is not an already given, and the linguistic analysis is not a fractioning of an initial given, it is a discrete presentation of the elements constituting a complete significance. Once we are in possession of ideas, we can compose them.

B.II.7. There are three types of propositions. The first are those whose significance is identical with a perception, which are true.

The linguistic mechanism, decomposition and recomposition, reproduces the genesis of the ideas. The second are those whose significance is not identical with a perception. In this case, the sentence reproduces the genesis of the ideas, the linguistic mechanism does not play this role. The third are those whose significance is not identical with a perception, but in this case, the linguistic mechanism reproduces the genesis of the ideas.

In the treatment of propositions, three levels of semantics are posited: the *symbol*, the *thought*, and the *object*. It is the idea which functions both for significance and denotation, but there is a distinction between *the idea as it is in the esprit*, and *the idea as it is in the object*. Every proposition shows an intellectual existence of a subject. No proposition posits real existence which takes ideas out of nothing. It is within our comprehension, our understanding. For example, the notion of a "square circle", which cannot have a real existence, has in our comprehension an intellectual existence. The propositions represent our thought. Their rapports with the objects, their denotation, are derived from the nature of these thoughts. The analytico-synthetic mechanism of language enables us to constitute an idea. This idea possesses an intellectual existence, but it can also be an image of a real object. As such, on the one hand, the proposition is true, and on the other, the idea represents the thing. This means that only true propositions have a denotation, and that to denote an object of the external world is not an essential property of an elementary sign.

Language has its own texture. The phenomena which are derived from it have the value of facticity. On the one hand, a word can be considered simply as a sign of an idea and on the other, the application of ideas to things is to be considered with the bias of the words. This quality of the point of view constitutes a dividing line throughout the semiotic movement. Words must be stated, must be analysed.

B.II.8. The *nominalism* of the period consists of three basic theses. It is affirmed that without language, certain ideas are impossible. *Some ideas are only words*. And, some of our opinions or propositions are due only to language. The first step

towards nominalism is taken when the universals in nature are not accepted, and the existence of the individuals is posited. This affirmation is at times posed as a corollary of the process of abstraction, and at others, as the genesis of general ideas based on sensations.

Rousseau states that the general ideas can be introduced into the esprit only with the help of words, and there can be no understanding without proposition. The general ideas are purely intellectual. As soon as imagination is introduced, the general idea becomes specific. The abstract beings are conceived only in a discourse. This implies that language is necessary for the development of thought. Rousseau asserts that linguistic relativism leads to ideal relativism. *When the languages change signs, they, at the same time, modify the ideas they represent.* Reason is the only common factor. The esprit of each language has its specific form. But as the reason is universal, the thought cannot be placed in a veritable relativism.

Condillac emphasizes this thesis with the example of mathematics, where there could be no progress without signs. He asserts that there are people who do not have certain ideas because they do not have words to express them. One cannot keep on counting with just one word for the unit one, and keep on repeating the same for all calculations. But this thesis gets blurred when Condillac states that, on the one hand, the idea is a being that is distinct from the word, and on the other, that these representative properties are independent of language that expresses them. Thought pre-exists its expression. Condillac clarifies that the decomposition of thought presupposes its existence. It would be absurd to say that one begins to judge and reason only when one begins to represent to oneself successively what one knows. The main proposition is that *thought presents ideas simultaneously, and language or proposition, in a succession.* *On the one hand, there is confusion. On the other, there is order.* The absence of language is the absence of a distinct idea. Language enables us to analyse thought in two ways. The first is the way it represents an analysed thought, i.e., decomposed in elements which are ex-

pressed in succession. And, the second is the way it makes it possible to analyse thought by means of its arbitrariness, i.e., a succession of compositions and decompositions, which while obeying the natural order, constitute the veritable reasoning. If every language represents an analytical method, and every method, a language, it is because every language represents, an analysed thought, and inversely, the analysis of thought is possible only in the elements of language.

Syntax and Semantic Considerations

B.III.1. The formal approach to language requires the use of variables, or at least, the codification of the procedures of substitution. The syntax of a formal language is defined by specifying the classes of variables, the connectors, the rules defining the classes of well formed expressions, and those which allow their derivation. The definition of different classes of variables already provides us with semantic information, but generally, the syntax is considered free from all semantic considerations in the context where the two types of rules are defined, and function, totally independent of the terms which can be substituted for the variables.

Syntax is thus conceived as an ensemble of procedures which regulates the formation of expressions with the help of a basic vocabulary. Its object is essentially the concatenation of the elementary expressions. Since it depends upon variables and substitution, it leads to two necessary consequences. One can consider that the domain of substitution is constituted of objects (individuals or predicates) and study the rapport of the possible domains of objects with the possible syntactic formation. This gives us the logical syntax, which cannot serve as a basis of a linguistic semantics, as it takes into account only the reference of expressions. We can then consider that the domain of substitution is constituted of the expressions of a natural language, and the rules of substitution are the rules of re-writing, one may leave aside the variables.

This conception of syntax is not possible in the eighteenth

century. The rapport of the general to the particular is always conceived as that of the content with the container. This means that syntax is far from being independent of semantics. It depends entirely upon the theory of ideas. The primary concern of grammar, both in Port Royal and the following century, is the analysis of content. Port Royal defines syntax as the construction of the ensemble of words, i.e., as the establishment of rapport of the signs of our ideas. Syntax is considered exclusively as the operation of concatenation. The preoccupation of general Grammar is the elaboration of the classes of words on the basis of the modes of their designations, the functional categories occupy very little place. There is no discussion of morphology.

In the eighteenth century, syntax is given a very important place in the study of grammar. Du Marsais and his followers develop the various notions of the period. The object of syntax is not the operation of concatenation as in Port Royal but its resultant becomes the aim. Syntax is concerned with the grouping of words to express a thought, in other words, a proposition. Secondly, syntax is not an appendix of classification of words. On the contrary, it is syntax that determines their respective function. The point of departure is not the categories of words, it is the complete expression of thought. Thirdly, an important place is given to morphology in the study of syntax. But it is made clear that it is not the form of words which classifies them in different categories, it is the use of the words, and not the differences in sounds which places them in different classes. Fourthly, the understanding of syntax is necessary for the understanding of the functioning of languages. Just as the individual significance of words does not suffice to understand a sentence, one should comprehend the nature of their rapport which the words have amongst them. It is due to this rapport that words acquire significance.

B.III.2. Language is the image of our thought. As such, a proposition must be the image of what the esprit conceives by its judgement. Like thought, the proposition corresponds to the one unique act of esprit, the linguistic expression transforms this simultaneity into succession, i.e., into several words signifying

different ideas, translating a unique thought. This implies firstly, that the unity of thought is a primitive term with rapport to which all must be explained. Secondly, that these ideas designated by the terms of the linguistic proposition must have amongst them certain rapport to reconstitute the unity of thought. Thirdly, to be the image of this thought, the linguistic proposition must have the signs of these rapports. The development of the study of syntax in the eighteenth century thus corresponds to the point of view of the proposition considered as a given totality. This point of view also clarifies the distinction between the universal categories of reason, and the concrete elements of contingency in each language. The universality and reason are found in the rapports of ideas. The rapports are: *identity*, *determination*, and, *order*. The contingency of linguistic facts depends upon the arbitrariness with which are instituted the signs of these rapports. The syntactic arbitrariness is only an example of the arbitrariness of the linguistic sign. As the rapports between words refer to the three types of possible rapports between ideas, the linguistic procedures to which they correspond can be brought to the three main relations: *concordance*, *regime* and *construction*.

B.III.3. The theory of linguistic proposition depends upon the identification of the significance with that of an idea, pre-existing in esprit with the expression that is realised by it. Beauzée states that our words are the resultants of the analytical decomposition of our ideas; they are significant signs of elementary ideas. Our sentences, which bring together several words to express a unique total idea, are as many synthetic operations, which bring us closer to more composite ideas, and to the nature of things, and which consequently, render our discourse intellectually more intelligible. From this point of view, the grammatical theory, or theory-2, can be presented as: a proposition is an addition of several ideas to constitute one single idea. Condillac refers to a similar definition when he states that a proposition corresponds to a single global perception. Theory-1 and theory-2 differ in the definitions of the verity that they enable us to constitute. For theory-1, a proposition is true if the idea of the predicate is well enclosed in the

subject. For theory-2, a proposition is true if the global idea, which is its significance, corresponds to a fact, i.e. either to a perception, or to a part of a perception. Every proposition that is true for theory-1 is also true for theory-2. The proposition, *the dogs are white*, is not true according to the criteria of theory-1. If we are in the presence of *white dogs*, this proposition is true from the point of view of theory-2. The two classes of true propositions coincide only if we accept that the cases similar to this given example, the expression, *the dogs are white*, does not designate the nature of the individuals of the species of dogs, but only of those who are before us, i.e., the sentence is not interpreted as "the idea of dog encloses the idea of white". In any case, one has to explain how the expression of a general idea joined to an expression of another general idea, enables us to designate an idea which is neither one, nor the other. This is the aim of theory-2. As such, it is more general than theory-1.

Since the proposition is conceived as the expression of a pre-existing idea, theory-1 poses sentence as the object of its study. This also implies that a sentence expresses a complete significance. This notion of completeness signifies three aspects of the sentence. Firstly, the absence of an element renders the significance of the sentence incomplete. Consequently, the elements responsible for this complete significance are obligatory. Secondly, there are in a sentence certain elements whose function is to complete its significance. Thirdly, the elements which serve to complete the significance cannot be used on their own.

The main characteristics of theory-2 is that of *determination*. A linguistic element determines another. It does not delimit a class of objects. What theory-2 asserts is that the elements of a sentence coordinate with each other to complete significance. Consequently, each of them determines the other. This determination is not a specific rapport between words. It is the relation that constitutes the concatenation of words in a sentence.

The theory-2 of the proposition explicates the mechanism of determination at the level of *designation*. Du Marsais explains that common nouns become proper nouns with the help of the words

that are joined with them to make a specific application. Beauzée interprets a proposition, whose subject is in plural, as a conjunction of propositions of the same attribute, but having subjects with the proper nouns, individuals, constituting the extension of the words to plural. It is the rapport between *comprehension* and *extension* that is the basis of the theory of designation, for if a group of ideas constitute a correct image of things, it is because the ensemble leads to better comprehension. This is possible if all the linguistic relations are conceived as the application of ideas to things, and syntax is a tributary of the law of Port Royal on the correlative variations of extension and comprehension. This is possible if all the linguistic relations are conceived as specific forms of determination, and that all these relations be susceptible of being derived from different characteristics of determination, i.e., their differences can only be due to the characteristics of the terms used where there is a relation of determination. Consequently, for each syntactic phenomenon that can be empirically recognised, there is a corresponding rapport of *determination*.

B.III.4. Words are classified in different categories on the basis of their use or their function in a sentence. The category of adjective is a word which serves to reduce the extension of another word. It also enables us to differentiate between two categories of adjectives on the basis of the ideas designated by them. Thus the physical adjectives are those which designate undetermined beings by a precise idea, which added to another of determined nature, constitute with it a totally different idea, whose comprehension is increased with this operation. The metaphysical adjectives are those which designate the undetermined by a precise idea, which added to those whose nature is determined, constitute with it, a total idea, whose comprehension is always the same, but whose expansion is restricted.

There are however two points where the aspect of determination does not seem to be susceptible of dominating directly. On the one hand, the composition of ideas with which the linguistic expression forms an image of things, the restriction of extension with which this image is made more precise does not affect just

any element of this composition, not even each of them. Thus in the expression, *pious man*, it is not the idea of man that restrains the signification of pious, neither each of the two ideas which restrict each other reciprocally, but only that of pious, which restricts the extension of man. On the other hand, in a sentence, the terms receive differentiated functions, where the simplest are those of *subject* and *predicate*. Thus, in the expression, *that man is ignorant*, the two terms do not have the same function, of restricting reciprocally their extensions. All these issues are supposed to be taken care of by the following criteria.

Firstly, there are ontologic criteria. The applicative nouns signify beings by the idea of their common nature. The proper nouns express individual natures, and other words designate a being by its precise nature, which may be general, accidental, or applicable to several natures.

Secondly, there are logical criteria. They enable us to assign specific roles to words in a sentence, like subject and attribute. The subject is a part of the proposition which expresses a being whose existence is perceived by the esprit with a given relation, with certain modifications of the manner of being. The attribute is a part of the proposition that expresses the intellective existence of the subject, with a given relation, with certain modifications of the manner of being.

Thirdly, there are morphological criteria. With this principle, the first opposition is maintained between the declinables and indeclinables. It enables us to differentiate between interjections, nouns, pronouns, adjectives and verbs, on the one hand, and prepositions, adverbs and conjunctions, on the other.

The first criterion is compatible with the theory of ideas, since the classification follows the order from the general to the particular. The second is compatible with the first. The ontological distinction, essence/accident functions also in the case of noun/adjective or verb, and for subject/attribute. There are thus two ways of considering a sentence, either as an *affirmation*, or as a *composition of ideas*. The third criterion serves explicitly in the cases where the first two do not function, as where the words

designate the ideas of rapport amongst ideas.

B.III.5. This analysis leads to the distinction between the *determinative* words and the *indeterminative* words, depending upon whether they can be subjects, nouns or pronouns, or adjectives or verbs, in a sentence. The subject is determined, i.e., the word that is used first determines what follows; it denotes an object.

The global term of *determination* is used in two ways. The first is reserved for the fact when the extension of a word is reduced by the addition of another. It may be termed as *a-determination*. A word is more or less *a-determined* as its extension is more or less marked. The other is for the word that denotes an object of a subject, *b-determination*. Only the proper noun is *a-determinable*. And, only the nouns and pronouns are *b-determinable*.

These two aspects are not derived from the same level. The first is based on the theory of ideas, theory-2. The second results from the consideration of the role of words in a sentence, or the being they are susceptible of designating.

The role of the structure, subject-predicate, is defined by two features. Firstly, these categories appear to be liberated of the aristotelian ontological import. Even though the *subject* designates a nature or an essence, and the *predicate*, an accident of this nature, the two do so by the intermediary of ideas. The main aspect of determination is thus applicable to them. Secondly, even though, for their definition, and for the definition of the proposition in general, reference is made to the characteristics derived from theory-2, the categories of subject and predicate are employed in an *autonomous* manner. It is only after the division of the sentence into subject and predicate that the grammar of the *Age of Enlightenment* is primarily a *syntagmatic grammar*. It also means that far from being a theory of concurrence, the analysis of a sentence into subject and predicate takes place within theory-2. The proposition is posited as object by this theory, the categories of subject and predicate, allow the first division ($Po \rightarrow S+P$), and the other follows: ($S \rightarrow \text{article} + \text{noun} + \text{adjective}$).

Syntax must examine the *matter* and the *form* of the proposi-

tions. The matter of the proposition is the totality of the parts which enter into composition. They can be of two types: logical or grammatical. The logical parts are the total expressions of each of the ideas the esprit perceives in the analysis of thought, as the *subject*, the *attribute* and the *copula*. The grammatical parts of the proposition are the words which are included here by the needs of the enunciation of a language to constitute the totality of the logical parts. And, the form of the proposition consists of the specific inflections and the respective arrangements of the different parts which compose it.

The rapport between the logical parts and the grammatical parts confirms the syntagmatic aspect of the syntax of this period. The first decomposition is obviously into subject and predicate. The different types of propositions are due to the manner in which the grammatical parts constitute the logical parts. The *composite propositions* are those which express the rapport of one subject with several predicates, or of several subjects with one predicate. The complex propositions are those whose logical parts include, other than the article, more than one word. A sentence has logical parts if its rappings can be analysed at their own level, and which are thus within the order of the fragmentation of grammatical parts.

B.III.6. The difference between ideas can be of two types. They are either based on the representative content of the ideas placed in rapport with each other, and can thus be deduced from the theory of ideas alone, or, they require other criteria. The distinction between *explication* and *determination* is based on the first type. Beauzée states that a proposition is explicative when it serves to develop the comprehension of a partial idea with which it is related. It is determinative when it adds an accessory idea for the comprehension of the partial idea with which it is related. He provides three tests for the verification of each of them.

For the *explicative*, firstly, instead of connecting incident with antecedent with a conjunctive meant for this purpose, one can make it the principal element and connect it with another *principal proposition* with one of the two causative conjunctions.

Secondly, one may separate the explicative, incidental proposition from the *principal proposition*, without changing its significance.

Thirdly, one may also without changing the verity, substitute the antecedent of the conjunctive, to transform the explicative, incidental proposition into a principal proposition, by submitting the antecedent to the same syntax as that of the conjunctive, whose place it takes.

For the *determinative*, instead of connecting the incident with the antecedent and a conjunctive, one may convert it into a principal element, and connect it to another principal element with a conditional conjunction, *if, when, while*, or some other equivalent phrase.

Secondly, one cannot separate the determinative, incidental proposition from the principal proposition without changing its significance and its verity.

Thirdly, one can neither transform, without falsifying the determinative, incidental proposition, into principal proposition, nor by substituting the antecedent with the conjunctive of the incident.

The distinction between explicative and determinative reposes on the rapport of the semantic value of the relational with that of the nominal group with which it is related. It depends upon the theses on the structure of the world, i.e., its knowledge.

In the sentence, (a) *the dogs who are white are noticed easily at night*, the incident is determinative. This sentence is pronounced in the circumstances that the dogs in question are those of my neighbour. The replacement of the article with the deictic enables us to recognise the incident as an explicative, as in the sentence, (b) *these dogs who are white are noticed easily at night*. The second feature corresponds to the use of verity amongst the criteria of distinction, or the verity of the proposition, constituted by the subject of the principal element and the verbal group of the incident. The explicative or determinative character of the incident depends upon the relation recognised between the class corresponding to the subject, and the one corresponding to the charac-

teristics expressed by the incident.

In the following examples:

- (c) The swans who are white are noticed at night.
- (d) The man who laughs is above simple nature.

It is clear, that depending upon whether one knows the existence of black swans or not, the test enables us to classify the incident as explicative or determinative. For the sentence (d), the application of this criterion is ambiguous, for only man laughs, but there are men who do not laugh. Consequently, the incident will be considered explicative or determinative depending upon one of the following contexts applied to it:

(d₁) The animal is only a part of nature.

(d₂) The man who is always sad submits himself to nature.

The distinction between explicative or determinative incident thus depends upon the context, and, is relative to the rapport of the linguistic elements with the known structure of the world. In this study, three levels of analysis are recognised. Firstly, a level related to the relative autonomy of language, which by means of morpho-syntactic features, appears on surface, and authorises this distinction. Secondly, a level, where the criteria connected with enunciation or presupposition intervene. Thirdly, a level, where the interpretation of the sentence is guided by the intervention of a discursive formation. The "relationals" thus cover a frontier region between *the linguistic level and the discursive level. General Grammar operates exclusively with the notional content of the words. It is thus a grammar of discourse, and not of sentence.*

Beauzée treats both the isolated sentence and the connected discourse in the same manner. The first presents a significance that is complete and finite. The second is the expression of a complete and finite significance with the help of several propositions which are not integral parts of each other, but which are related to each other in such a way that the ones presuppose necessarily the others for the plenitude of the total significance. In this sense, explication is understood as a sort of neutralisation of determination and not as its negation. It also means that the earlier definition of language, as an application of ideas on things and of

the proposition, as a more correct image of things, is not considered sufficient; language and proposition, with the help of explication, serve also to define things and their ideas, and consequently, the words which designate them.

B.III.7. The opposition between determination and explication enables us to handle linguistic phenomena which are concerned more with the expansion of elementary sentence than with the sentence itself. This is due to the opposition between *identity* and *determination*. There are fundamental explicatives and rational categories in the syntax of the eighteenth century.

Du Marsais explains that there are two types of rapports between words: the rapport of *identity*, and the rapport of *determination*. One does not exclude the other. Both are expressed in a sentence by the concordance of different inflections of the words in question. There is as such the same sign for both these rapports. This is evident from the sentences: (1) *Sandrine is the sister of Eric*, and (2) *Eric loves virtue*. The identity is thus concerned with the relations of the subject with the attribute, and, of the subject with the verb. The determination is concerned with the relations of noun and verb with their respective complements. The first part of these sentences express identity, and the latter, the determination.

Beauzée explains the notion of identity. The noun and the adjective are one, and it is the same with the verb and its subject. The third term, *concordance*, implies the application of a vague significance of an element to the precise significance of another, and the identity of the subject, expressed by two different types of words under different aspects. The characteristics of identity of the beings, denoted by different expressions, enables us to specify the relation of *a-determination* between the two terms. The characteristics requires that one of the terms of the rapports denotes something. This can be interpreted as the intervention of an ontological criterion. At the same time, denoting something is a fact of a specific class of ideas, whose specificity is brought out by their representative content, which is their common nature. The rapport of identity can thus be considered as a specification of a rapport of determination by the internal characteristics of the

terms of the rapport.

For the rapports of determination, it is not sufficient to accumulate words indifferently to express a thought. There must be, amongst them, a universal correlation, which covers the expression of total significance. The appellative nouns, the prepositions, the relative verbs, have vague significance, which must be determined. This determination is based on the nouns, which are related to the determined words. It is the undetermined words, which govern the determined words.

This conception of syntax of the elementary sentence is used at least at three levels of analysis: the terms (different types of words), their relations (identity and determination), and the marks of these relations (concordance, inflections, orders, prepositions). This approach can be compared with modern functional grammar. Both try to assign a correspondence between different marks and semantic features. In the eighteenth century, however, there is no criterion of functionality. There is no realisation of the need of identifying the reality of each mark with its distinction. The effort is to repeat a semantic feature and to assign to it a class of marks, whose diversity and functioning are left to the arbitrary use of language.

These categories of *identity* and *determination*, even though they are independent of marks, enable the grammarians to elaborate what may be called, *the grammar of constituents*. This confirms again the syntagmatic aspect of the syntax of this period. These relations and these terms present the theory of the elementary sentence by the following schema.

$$\left[\begin{array}{l} [\text{noun (prep(noun))} + [\text{adj (adj)} + (\text{adj (prep(noun))})]] \\ \text{Subject} \end{array} \right] \quad \text{S}$$

$$+ \left[\begin{array}{l} [\text{verb [adv+(prep(noun))} + [\text{noun (adj[adj]} + (\text{prep(noun))})]] \\ \text{Predicate} \end{array} \right] \quad \text{PR}$$

There are two types of relations functioning within a sentence.

The ones are internal, in the different syntagmatic groupings, and the others, which have these different syntagmatic groupings between them. All these relations, of identity and determination, are *binary relations*. The function and utility of the structure, subject/predicate, are situated at this level. This enables us to recognise the first fragmentation of the sentence into *nominal group* and *verbal group*. The structure, subject/predicate, is indispensable to this analysis as they describe essentially the existing rapports within the syntagmatic groups. Every syntagmatic grouping takes place with only one of these terms of the other group. And, the different groups are thus constituted in two principal groups by means of the respective relations. Thus, even though the basis of this syntax is primarily semantic, it functions with morpho-semantic categories.

B III. 8. One of the main problems debated in the eighteenth century is that of *construction* and *inversion* of sentences. The term construction is almost synonymous with syntax. The construction of sentences concerns the rapports of the ideas signified by words, and the signs of these rapports. In another sense, construction implies the arrangement of words of a sentence. With the same words, and the same rapports, we can have several arrangements. This notion of construction allows them to present a natural arrangement of words, and another order as inversion, with rapport to the former. The problem of inversion becomes the principal problem for the grammarians. It is considered as central to the study of semiotics. To understand the various implications of this problematics, the following operations of the emission of the sentence are considered.

- Ai to conceive of a thought,
- Aii to take an ensemble of ideas which constitute a decomposition of this thought,
- Aiii to see the rapports which these ideas may have to constitute this thought,
- Bi to take the (arbitrary) signs of ideas,
- Bii to join them with the (arbitrary) signs of their rapports,
- Biii to arrange these signs in a successive order.

This operation takes place at two levels: at the level of (universal) thought, and at the level of the signs of the (arbitrary) thought. The first hypothesis, h_1 , admits that the general grammar is constructed at the first level, and the specific grammar of each language is constructed at the second level. The general grammar would thus need another hypothesis, h_2 , with which it becomes relevant to a specific grammar. It is also accepted that one of the main characteristics of language is to present in temporal succession what comes to the esprit in just one act, h_3 .

The operation *Biii* corresponds to hypothesis h_3 , it also serves as a basis of a more general hypothesis where there are rules of arrangement of words in sentences, h_4 . The problem then would be the exact status of these rules, or how to take account of the construction of sentences.

If these rules are derived from general explication, they have to be based at the level of ideas, h_1 and h_2 . Therefore, a universal order of the rapports of ideas will have to be posited, h_5 . The order of the sentence corresponds to a temporal succession. The order of ideas can be temporal or logical. The simultaneity of the act of the esprit with which we comprehended the significance of a sentence poses a problem for the definition of the temporal order of ideas. The hypothesis h_3 forbids us to have the order of words at the level, *Ai*. The universal order is possible then at the level, *Aii*. At this level, the theory of concept gives us a certain concept of order: the specific terms precede the general terms, the ideas of substance precede those of their quality. This would imply that in the analytical construction of a sentence, the words should be classified from more specific to more general, and every predecessor in linguistic expression be a predecessor in the flow of ideas.

The operation followed at the *Biii* level and the fourth hypothesis, h_4 , imply that there is a usual order of construction in a given language. The arbitrariness of language implies the arbitrariness of this order. The definition of universal order does not negate this arbitrary order. The second hypothesis, h_2 , of the pertinence of general grammar states simply that there are codified

manners, which are based on contingency, which can elude this order. The distinction between general grammar and specific grammar is that of universality and contingency. Consequently, a universal rule, as that of the arrangement of words, cannot depend upon arbitrary determination.

B.III.9. Du Marsais states that in every language, the determining words are preceded by determined words. When this is not so, it is called *inversion*, h_6 . This hypothesis does not contradict the fifth hypothesis, h_5 , nor even the idea with which the rules of general grammar are to be based on the level of thought, for its formulation reposes on the conception of ideal rapports (the *a* — determination).

The reason for considering the notion of inversion as an important concept arises from the fact that certain languages depend more upon the order of words in a sentence, others less. The grammarians admit that the signs of the syntactic rapports are arbitrary, i.e., vary according to different languages. The order of words is thus considered both arbitrary and universal.

Condillac presents the syntax of French in terms of the sixth hypothesis. He gives six rules:

- R 1. The order of words in a simple proposition is subject-verb-attribute.
- R 2. The object must immediately follow the verb, or at least, it cannot be separated from it except by the modification of the verb itself.
- R 3. The noun, complement of the adjective, must follow the adjective.
- R 4. The noun, complement of the substantive, does not have a fixed place.
- R 5. The incidental or relative propositions follow the substantive.
- R 6. The subordinated propositions do not have fixed place in a sentence.

The principal characteristics of these rules is their obligatory

aspect. The obligation is derived from two sources: the first is the source of usage, and the other is that when in a language the syntactic rapports are indicated elsewhere, there is no need of a specific order. What is arbitrary, is, on the one hand, the importance of order to indicate the rapports, and, on the other, the existence of rules concerning the place of words when their rapports are already indicated elsewhere. If in the last case, there are no rules of usage concerning the order of words, their arrangement in a sentence is free.

The problem of inversion is not directly raised by Condillac. He is not interested in the question whether the construction of a sentence is simple or figurative. His definition of direct order serves him to derive grammatical rules, like R_2 , but generally he talks about inversion only when there is no obligatory syntactic rule concerning the place of terms. This is why for him there are more inversions in Latin than in French. The question of inversion has been shifted from the grammatical level to the level of stylistics. The universal order of ideas is not invoked to justify the order, subject-verb-object. On the other hand, he states that there should be no inversion when the rapport of words is marked by the place they occupy. The distinction between syntax and construction ensures the independence and the discovery of the domain of *stylistics*.

B. III. 10. One of the reasons of this concern for the notion of *inversion* in the eighteenth century is an attempt to assign an *order* to different languages, and to see which is more adequate for the expression of thought. This is why this problematics takes a central position in semiotics. The discussion is organised around three points: the ambiguity of the adjective, *natural*, in the expression, the natural order, the criteria of the definition of this order, and, *nationalism*.

The adjective, *natural*, signifies, universal, primitive, original, habitual, or spontaneous. The notion of inversion depends upon the significance attached to this word, and consequently, different grammarians will take different languages which would be considered to reverse the order of ideas. For Condillac, the natur

order is the one that we follow as a consequence of our habit. This enables him to exclude the problem of inversion for his analysis of syntax. Du Marsais is ambiguous. Others take natural as confirming to the universal order of ideas. Abbé Batteaux defines the order of words in three ways: relative to the reciprocal rapport of words as governing/governed, or what he calls, the grammatical order; relative to the reciprocal rapports of ideas (the metaphysical order); relative to the aim of the one who speaks (the oratory order or the order of objects). The grammatical order is the order of the determining words with the determined words. The metaphysical order is the order of science that analyzes ideas. Only the oratory order is natural. It presents to the esprit, the objects according to the degree of interest or importance for the one who expresses. As such, French would be considered as an "inversion" language for the grammatical functions are marked by the place the words occupy in a sentence. For Batteaux, the inversion language is Latin. Diderot recognizes the diversity of criteria. There are the grammatical order, the order of institution (convention), the order of syntax, the order of the invention of words, and, the scientific order. What is inversion for one is natural for the other. This order depends upon the development or the progression of a language.

The three states of the constituting process, the origin, the formation, and, the perfection, are responsible for the scientific order, and the order of harmony of thought. The way these are derived or reconstructed depends upon the importance one attaches to one's own language. French, thus, becomes the most scientific language of the world. Intellectual nationalism plays a significant role in this analysis. Ideology and science go together.

H.S.G.

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