

In conclusion, I wish to stress that our analysis of the structure of a language should be based on the real functioning of this language -- on its use in every-day life by the man of the street. We should never try to make our description conform with a preconceived model or be tempted to force it, through various manipulations, into the frame of universal logic.



is written *ee*. The word designating the tree "beech", for example, was pronounced in the same way as the word *beach*. Something had to be done in order to avoid confusion. So the tree is usually referred to as "beech-tree" —which is not the case with *oak*, as in this case, there is no danger of conflict with another word. A large number of *-ea-* words in English were eliminated at that time.

\* \* \*

Structuralism should never be a pretext to practice globalism. Globalism is what people do when they are convinced that structure exists, but are too lazy to proceed to the analysis of structure. Structuralism should never be equated with globalism. Structuralism implies analysing, putting all the elements on the right plane. The term implies that the procedure will result in a number of elements considered as distinct from the other elements and at the same time having a relationship with the others.

The analysis of structure should always proceed in such a way that anatomy should go hand in hand with physiology. We should not simply analyse a structure into its elements, then put all the elements in front of us on a green cloth, and consider that we are through. Our task is to determine the function of everyone of those items which we put on the green cloth. Structuralism without functionalism is sterile.

the nose. Nasals are not a very good linguistic product, and, for this reason, many languages tend to eliminate them. But in French, they cannot be eliminated as long as they are necessary for the preservation of mutual understanding.

Let us now take the case of the two *a* phonemes in French. In my own usage, I distinguish between the front /a/ and the back /ɑ/. This was formerly a very normal distinction in Paris. But when French spread to the provinces, it came to be used by people who spoke local vernaculars in which this distinction did not exist. Consequently, many people do not make the distinction between the two *a*'s. They say [pat] for both "paw" and "paste", which, in Paris, are traditionally distinguished as [pat] and [pat]. There once was a very good French word *tâche*, which was borrowed by the English as "task" and is, in English, an every-day word. In French, however, the word *tâche* is exceptional. It has become a literary word. This is because there is another French word, *tache* "spot", which may make conflict with the word *tâche* on account of the loss of distinction between the front and the back *a*. Similarly, there occurred a conflict between the words *las* "tired" and *là*, which means "there." If someone says "il est las" pronouncing it in the same way as "il est là", this might lead to a confusion: is he tired or is he present? Consequently, nobody uses the word *las* any longer; people say that they are "fatigué". If a distinction cannot be maintained because of the pressure exerted by the needs of communication, the vocabulary has to be changed.

A similar phenomenon took place in England in the XVIIIth century, when what is written *ea* became identical in pronunciation with what

In French, the two phonemes /ɛ̃/ and /œ̃/, namely the vowel occurring in the word *brun* and that of the word *brin*, used to be distinct and still are, in some usages of French – mine, for instance. Why does this distinction tend to be eliminated to-day? Because there is no need for it in French. The pair *brun-brin* is practically the only minimal pair in French where the distinction could be used. And as the two words are used in different contexts (one of them being an adjective and the other a substantive), there is no danger of misunderstanding. Why, may we ask, did it take the French such a long time to eliminate this needless distinction? This is because it was not difficult for people to distinguish between the two, as long as the opening of the mouth was not maximal. The phoneme in *brun* is distinguished from the phoneme in *brin* — both were formerly very high, close vowels, — through the rounding of the lips. But in the case of open vowels, it is much less easy to make a distinction by means of rounding the lips. As the French started opening the articulation of their *un* and *in*, it became very difficult for them to make the distinction, and since the distinction was of no importance, it could be eliminated, which is happening now.

There is another pair of nasal phonemes in French: the main distinction between /ɑ̃/ and /õ/ is also through the rounding of the lips. People distinguish between /ɑ̃/ and /õ/ because, if they failed to do so, misunderstandings would soon arise. There are many pairs such as *blond* and *blanc*, in French, which are distinguished only by the use of the vowel /ɑ̃/ or /õ/. If there is a tendency to open the articulation of nasal phonemes, it is because it is important, for clarity's sake, not to close the mouth too much. For if the passage through the mouth is too narrow, most of the air will pass through

We had to wait until the phonic aspect of language was integrated into linguistic structure before people could understand the true nature of the evolution of phonological systems. The basic principle of the structural explanation of linguistic evolution lies in the fact that the nature and the value of the various elements depend on those of the other elements in the system. By system, I mean the list of elements which may appear in a given position in the utterance. At every point in the utterance, we make a choice between the phonemes of the language. We select the phonemes according to the message we wish to convey, and in order to convey this message, we have to choose, at every point in the chain, a given phoneme instead of any other phoneme. A permanent conflict — an unconscious one — takes place within every system. In other words, if we want to achieve our aim, which is communication with language, we must make sure that we present a definite phoneme at a certain point, which implies that, on pronouncing a phoneme, we must keep it distinct from the other phonemes of the language. If, in a given system, a phoneme is affected in the way it is pronounced, its neighbors in the system will have to be shifted, and the neighbors of the neighbors as well. Since there is redundancy in a language, it will take a long time before the pressure of one phoneme spreads to its neighbors, and from its neighbors to other phonemes. We find a nice illustration of all that in some Portuguese dialects where the /u/ phoneme was shifted to [y]. The former /o/ is now practically [u]; the /ɔ/ phoneme has shifted in the direction of [o] but has not become [o]; /a/ has begun to shift in the direction of [ɔ], but is still far from it.

Actually, things are not always as simple as in the case of these portuguese dialects.

language quite early and had started quite early to operate by analogy.

Although language economy normally tends to the elimination of morphology, a development of morphological complications may also take place. Let us take a historical example: the case of the accusative singular was used in Greek for the indication of the object at the time when people did not feel that it was necessary to have rules regarding the place of words in sentences and therefore had to use a case in order to indicate the object. The normal indicator, the functional indicator of the case accusative was *m* which sounded [m] after a vowel and [m̥] after a consonant: it was the same phoneme with different realizations according to the context. It happened in the evolution of the language that it became easier for Greek speakers to drop two features of the [m̥] sound, namely the feature of nasality and the feature of closure of the mouth. The final result must have been something like [a]. Hence the ending which is written *-a* in Greek for words whose radical end in a consonant. But after a vowel, the pronunciation [m] was preserved in this context. Later on, in Greek, this [m] became [n] in final position, and the vowel preceding the [n] was finally considered part of the ending in accordance with the general evolution of the language. So that we finally emerge with a situation where some words have the accusative in *-on* or *-ēn*, or later *-in*, and other words have the accusative in *-a*, which is irregular and complicates the morphology of the language. A complication of this kind is likely to result in the elimination, at a certain point, of either the accusative as such, or the entire system of declension. If it is easy enough to find examples illustrating the principle of economy in the fields of lexicon and grammar, things become much less obvious when we have to do with the vocal plane of language.

segments *verb-* being the first segment, and *-orum* the second. When I say that a child finally succeeds in analysing the language, I mean that he can analyse it into monemes – this is unconscious, of course. Before the Latin child could speak his language, he had to feel that in *verborum* he had three different items: plural, genitive and “word”. Normally, a child will achieve such a result at the age of five or six. Still, there are some very clever children who start to analyse language very early, as early as the age of three. This is a subject of concern for the family, because the child who is able to analyse at the age of three will have the greatest difficulties to learn the irregular forms of the language. A clever child who is conscious of the existence of the moneme will certainly say *oxes* for the plural of *ox* because he knows that the English plural is normally formed by adding *-s* or *-es*. But if the child starts analysing at a later stage, he will have heard many of the irregular forms often enough so as not to make mistakes. In the case of an irregular form such as *bought*, from the present *to buy*, children hear the form many times and are used to it before they start analysing it, which makes things easier for them.

The son of a friend of mine was a very clever boy, and is indeed very clever to-day—he is a well-known physicist. He had developed the ability of analysing the language quite early in life. And at the age of eleven or twelve, he was still incapable of using the form *je suis* “I am”: he was saying [žɛ] because he went on the analogy of *tu es, il est*, etc, and he said [žɑ] for “I have”, on the analogy of *tu as, il a*. His parents were very worried, and when they consulted me, I told them the only thing that was the matter with their child was his extreme cleverness... He had been analysing the

The third factor in linguistic economy is tradition. Tradition is maintained, of course, by parents and masters who correct children's mistakes. But tradition also exists on a much more elementary level: that is in the early years of one's life. A child likes to imitate the utterances he hears. If an utterance is too long for him to imitate, he will produce only part of it. Grown-ups will think he means that which he uttered – namely a segment of the model – whereas he usually means the whole utterance. There is no exact correspondence between the imitation by the child and what the child understands of the situation connected with the utterance. In many cases, a child under the age of three is incapable of analysing what he is imitating. At the age of one year and two months, my elder daughter who was anxious to do well in the presence of a guest, suddenly exclaimed about herself [okɛləgã] which was an imitation of the French *oh qu'elle est grande!* "how big she is". This was what she was used to hear when she did something well. She could not possibly know all those French words at the age of one year and two months. She was just repeating the whole utterance, and she happened to be able to repeat all of it, but she had not identified a single word. It was to take years of intellectual efforts for her to be able to analyse this utterance, to pronounce it giving every element its real meaning. At a certain point, a child becomes capable of analysing what he says, of dividing an utterance into monemes. Here I must stress that there is a great difference between the term *moneme* and the term *morpheme* used by many linguists. If we take a Latin form like *verborum*, for example, I distinguish within this form three monemes: the moneme which means "word", the moneme plural and the moneme genitive. If we operate with morphemes, we cannot distinguish more than two



presentation makes it clear that, since the former accentual laws were no longer needed for the understanding of the language, a shift of energy from the end syllable onto the stressed syllable was possible. This shift of accent was also instrumental in determining the modification in the quality of the vowels. It lengthened, for example, all the vowels in open syllables, thus determining, in some cases and regions, a diphthongization.

This illustration gives us an idea of the length of time it takes for a phenomenon to determine a modification in the syntax of a language and for the modified syntax to exert all its consequences.

Among the pressures and forces which determine the trends in a language, there are some which are more generally permanent and which we must set apart if we want to distinguish between what is permanent in linguistic evolution, and what is specific to a certain age or community.

There is a permanent antinomy in a language between the needs of communication, which require numerous and specific elements, on the one hand, and, on the other hand, what we call "least effort", i.e. the tendency to reduce the output of energy to a minimum, which implies reducing the number of different forms. This conflict exists everywhere and has to be acknowledged as the permanent frame of linguistic evolution. An equilibrium must be found to balance the two, and the structure of the language results precisely from this equilibrium. This antinomy I have called linguistic economy. Economy, in the sense the word has in "political economy", is a balance between the needs of expression and the needs of rest.

In his book *The principle of least effort*, George Zipf shows that least effort does not mean laziness as most people think, but economy with the sense I am now giving the term.

certain situations. Adverbs indicating notions such as *at*, *in*, etc. were used in addition to cases so as to make things more clear. And gradually, in the course of the evolution of the language, those adverbs became prepositions. Finally, the endings became useless, as the prepositions now served to indicate function. This is the history of Latin and Romance languages. The whole process took millennia to develop. In French, two cases survived as late as the XIIIth century. The process determined some changes on another front: the syntactic plane of language was not the only field affected. The ending had to be maintained because there had to be cohesion in the phonological system of the language. A speaker does not drop an ending just because it has become useless. Every realization of a phoneme is structurally connected with all the other uses of this phoneme. An unstressed syllable in Latin could not be dropped unless all the other unstressed syllables in a similar situation were eliminated. That is the basic contribution of the phonological pattern of the language to linguistic evolution. People cannot change a phoneme in a word without changing the phoneme in all the words which contain it. In the old days, this was referred to as "phonetic laws", which was a very bad presentation of the fact. There were no phonetic laws, there were phonemes with a structural, a functional existence, and these elements could not be eliminated in isolation. The meaning of the words has theoretically no effect upon the fate of the phonemes. But, very often a given phoneme in a given phonic situation becomes useless. It is then eliminated, and this is what happened in the Romance languages. A result of this was the fact that, the energy being transferred from the disappearing vowel to the preceding syllable, the accent, which was a very weak musical accent in classical times, became a strong stress accent. A structural

dangerous by determining the use in one of the words of some sort of differentiating stress which would determine the appearance of a new feature in the language. It is indeed unlikely that the introduction of a word like that should modify the semantic structure of a language. But this is not necessarily the case when the word introduced belongs to the field of thinking. The famous German linguist Jost Trier showed that the introduction into Old High German of new words coined on the analogy of Latin words resulted in a complete modification of the value of a number of preexisting words in the German language. So it is quite possible that, within a limited field, the introduction of new words into a language may determine a considerable modification of the semantic or lexical pattern of the language. But, at the same time, repercussions are more likely to take place in other fields, for the structuration – meaning the tenseness of relationship – of the lexicon is far less obvious than that of grammar and phonology. Let us consider, for example, the case of Latin, which was probably matched in a large number of countries. We do not know exactly how many cases there were in the Proto Indo-European declension, but we may assume that we have six cases at the beginning of the Latin period. Those cases were what I call *functional indicators*: they served to indicate the function of the various elements of the language. Latin had five functional indicators and this may have been sufficient at a certain period when the society which spoke Latin or Proto Indo-European was a simple society. But with the development of an urban society in Rome and the corresponding complexity of social relationships, it became necessary to develop the system of functional indication in order to make the language more specific. So the initial impact was the development of urban society. People started using some adverb in order to explicit

of twenty, we are entitled to infer that there is a trend from that usage toward another usage, which is that of the younger group.

It should be understood that such a description, whether it be dynamic or static, is not the ultimate aim of linguistic studies. Ultimate in linguistic studies is the understanding of the functioning of a language, the understanding of the way a language is used for communication. Reverting now to linguistic evolution, we will stress the fact that it is often difficult to determine the initial impact responsible for a change in a language. It is difficult because, when we consider a certain language at a certain period, we do not have in mind all the information relative to the history of the language. We can compare the situation to that of a clan whose members are in conflict. We may surmise, make hypotheses about the origin of the trends. But we very seldom are in a position to observe the initial shock or influence. The situation would be very much the same, in fact, whether the initial influence were a shock or simply the general pressure, at a certain period, of the social set-up in the community which speaks the language in question.

Let us take the case of lexical terms such as "table", "lamp", "tree", etc. The adoption of a new word in a language will bear pressure on the lexicon. Is this likely to have repercussions in the language? That depends. Let us consider the arrival of a new fruit: the avocado pear, for example. A new word is introduced at the same time as the fruit. This may modify the lexical structure of the language. There may be a case of homonymy, as in French: the word *avocado* sounds [avɔka] and there is a kind of homonymy with another [avɔka], which means lawyer. Of course, this is not a dangerous homonymy, but one never knows. Some day, it may become

time it has to function. This may seem antinomic. I often say to my students that every time we use a word, we change the language. The theory of information tells us that elements which are very frequent have little information, whereas rare elements contain a vast amount of information. Therefore whenever we use a word, we increase its frequency, thus changing the language. This may seem a joke but it is perfectly true. We might argue that if we use a word with exactly the frequency it has in the language, we are not changing the language. However, this is very exceptional. Usually, when we deal with a subject, we are likely to use a certain word with a frequency far greater than the normal frequency of the word in the language. Therefore we should theoretically consider that we are exerting a pressure on the language. But actually, when I mention pressures and impacts, I am not referring to the use of a single word.

The first duty of the linguist, as we know, is to describe the language. Whether the description should be purely static or whether it should contain some dynamic elements is a different matter. Both types of description are conceivable. What is important is to give a description of a language at a certain point. If we describe a corpus consisting of a single person speaking always on the same subject, in the same tone, we may consider that we have given a perfectly static description of the language of that person. But if we choose to describe the language of a whole community, we are likely to describe utterances coming from people who belong to different age groups. We may still give a static presentation if we consider the differences as the consequences of an unbridgeable gap. But it is certainly preferable to give a description in which we compare the various usages. *It is obvious that, if we find that a certain usage, common among people over sixty years of age, is totally missing from the speech of people*

redundant, it would be extremely difficult for a new generation of speakers to learn the language. How do children manage to learn the value of tense endings, for example? In most cases, they learn to recognize the tense ending – say a future tense ending – because it is connected with something in the context which also implies the future. If the child hears the sentence “to-morrow we will go”, the word *to-morrow*, which the child may already know, will lead to the meaning of the auxiliary marking the future.

Redundancy is a very fundamental feature of linguistic structure. It is essential, because we never use language in complete silence. In a classroom, for instance, we hear various noises which can be the passing of cars, and in some cases – when we are at a close distance of the cars – such a noise can be most disturbing. It is a fact that, when several persons take part in a conversation, they are likely to speak all at the same time. It would be very inconvenient if our understanding of what is being said, depended on every single item of the utterance.

Redundancy is also responsible for the slow spread of modifications. The connection between the elements of the structure exists, but it is not tense. Consequently, the result of an impact, or pressure, on any point of the structure, will spread very slowly; the process may last for centuries and even millennia. In the meantime, other pressures from outside will take place. If these other pressures have a different bearing on the language, there will be a conflict between the various repercussions, so that the equilibrium of the changing structure of the language will result from a compromise between those various conflicts occurring at the same time. There must be some sort of arrangement so that the language may continue to function. This notion is fundamental: language changes continually, and at the same

the elements of a structure. As a rule, this type of structure is considered to be static. But this is a mistake. Starting from the conception of structure as exemplified by buildings, we should retain the notion of structure not for an isolated building, but for buildings in general: buildings of a certain period, in a certain country. We can examine the evolution of the structure of building through time, a dynamic evolution. There occurs, in the course of years, or decades or centuries, a modification in the aspect of walls and roofs. A language, without ever ceasing to function, must adapt its structure to the evolution of surroundings. A language is a structure made of a bundle of habits, and the structure can be modified under the pressure of the changing needs of the community in which the language is used. If a language were not a structure, but a conglomeration of autonomous elements, a modification in one point would have no influence on the rest. But, dealing with structure, we must expect that, when one point in the structure of a language is affected by some modification, this modification will spread to the other parts of the structure. If we were handling a precision instrument, a very complex machine, we would expect a pressure exerted in one part of it to have immediate repercussions throughout the entire machine. In language, however, we have to do with a different type of structure: a structure with redundancy. The change which spreads from one point throughout the whole structure of the language will be a very slow process. The speed of repercussion may vary, depending on which part of the structure is implicated.

The part played by redundancy in language is quite well known. It has been stressed over and over again that languages are redundant, that it is basically important for language to be redundant. If a language were not

with the other elements. This is one of the basic notions upon which the *Gestalt theory* is founded.

From this conception of structure, we can derive two different interpretations, depending on whether we stress the verb *to be*: "it is, what it is", or whether we stress the verb *depend*.

First we shall retain the verb *to be*. If an element is, what it is, because it belongs to the structure, we are tempted to define things in terms of relation. This conception is none other than that of the Danish school (Glossematics): the substance of the object does not matter, the only thing of importance being the relationship; which implies that every element should be defined in its relationship to the other elements of the structure.

If, however, we stress the verb *depend*, we thereby stress the causal relationship which must exist between the parts of a whole. The status of a given element changes if there is a change in the status and the nature of the other elements of the structure.

We must measure the full implication of this choice in linguistics. If we retain the stress on the verb *to be*, we emphasize the static aspect of language. If, on the contrary, we stress the verb *depend*, we emphasize the dynamic aspect of language. The word *depends* implies that, if we change the cause in one point, the other elements will be modified.

If we conceive our structure as something immutable and take the roof as an illustration of our theory, we will consider that the stability of the roof depends on the existence of the walls - this, of course, applies to bearing walls: in many new buildings, the walls do not support the roof; but traditionally, they served that purpose. If the walls yield, the roof will come down: that is a very simple example of the solidarity between



learn another language, we will notice that the set of habits which we call our own language is fighting against a new set of habits, which we want to acquire. The structure of a language is in the behavior of man.

Being a structuralist implies that we should consider language as a structure. Now the use of the term "structure" in reference to language may seem a metaphor—and I have already warned the reader against metaphorical extensions. But we should remember that this extension of meaning is very old, and if we consider the Latin word *structura*, we notice that its first meaning is the way stones are arranged in a wall. The second meaning is the way the bones are arranged in a body, which is the first extension of the word. And then we have an isolated use of the word *structura* in the Latin phrase *verborum quasi structura*, which means something like "as if it were the structure of words" indicating that the metaphorical use was already possible in classical times.

In contemporary usage, we encounter the word structure first in biology and in psychology, in reference to basic elements or the functioning of the object or organ considered. In other words, we find the term structure in reference to something static, as opposed to the dynamics of functioning. This use of the word reminds us of the one which is made by specialists of literature and philosophy. In a second stage, the stress is put on the connectedness of the constituents of a structure, as opposed to a conglomeration of autonomous elements. This comes much closer to our conception of structure in language in which we emphasize the solidarity of the elements involved. According to this conception, the nature of each element *depends* on that of the other elements of the structure. We may also give another formulation: an element of a structure is what it is, only in and through its relations

the only relevancy in architecture. Another relevancy, which is often quite obvious, is the "impressive relevancy". People who build palaces do not build palaces for protection only. They want to impress the rest of the world.

Another good example is that of clothing. Clothing has been the subject of investigations by structuralists that are not linguists. Barthes, for example, wrote a book about fashion. The main relevancy of clothing is protection; nowadays, however, fashion has a different relevancy: that of attraction, sexual communication. I was quite disappointed, when reading Barthes' book about fashion, to see that, instead of stating precisely the different relevancies of clothing, he proceeded to analyse the language used in connection with clothing. It is the existence of a common relevancy uniting the elements of a complex which accounts for a structure. Take, for example, the structure of a building. People are tempted to say: the structure is not in the building; the structure is in the mind of the architect. I cannot agree. What was in the mind of the architect was the model, not the structure, for the structure is present in the building. It consists of the pressures exerted by the various materials upon each other. Of course the structure is very difficult to examine, to explain. But we can present a model which is the representation of the structure. What is important is to understand that the structure is in the object, not outside of the object. Where would it be, if not in the object? This is a standing item of discussion among linguists and psychologists. Many prefer to think that structure is outside the object. This is an idealistic view. Inasmuch as we can speak of structure when we refer to language, we must say that the structure is within the language. The structure of a language is actually a set of habits. When we

it is more important to drink good coffee than practice good linguistics. There are times when good coffee is essential and times when – I think – linguistics are essential too. We cannot compare the two: they do not belong to the same field of reference.

This principle of relevancy is essential to the establishment of functionalism. Very often people imagine that functionalism interferes with the amenities of life: functionalism means straight lines, large windows, etc. But this is not true. There are countries where it is very important, or very pleasant, to have large windows. But if you live in a hot climate, it is preferable to have small windows. In short, functionalism considers that there are different relevancies for different situations. If we no longer consider speech primarily as an instrument of communication, we introduce a new relevancy into speech. The practice of poetry is a combination of communication and expression. The man who uses poetry for communication is a man who wants to achieve better, fuller communication. To write poetry is to cheat at the game of language, to confuse the planes of language. Phonemes have no meaning; if a poet insists on making them mean something, he is cheating. He is cheating in order to find a more direct, precise manner of conveying his experience. Although he cheats at the game of language, the poet still uses language for communicative purposes. However, expression also plays a part, since many people write poetry "because they feel better afterwards".

Let us now take architecture as an illustration of the principle of relevancy. It is a good example because the word structure comes from the field of *architecture*. In the case of a building, the main relevancy is protection. People build houses for protection against the weather. But this is not

linguistics, we should speak of communicating information, and in cultural anthropology of exchanging women. If we are scientifically minded, I think that we will want to avoid philosophy, if by philosophy we mean applying our thoughts to problems about which we are not sufficiently well informed. There are people who like philosophy; let them be philosophers. On the other hand, we have people who are scientifically minded, who want to discover facts and convey exact information.

If we wish to be scientists, we must limit our field of research. As soon as we aim at an exhaustive knowledge of something, we become philosophers. If the object of our study is a pen, for instance, and we want to know everything about this pen, there can be no end to our search, no limitation. We must determine a certain relevancy – say a geometric relevancy. We will make some statements about the dimensions of our pen and nobody can come and say we are wrong unless we made some mistake when we were measuring it. If someone takes those measurements again and proves to us that we were wrong, this belongs to science. A scientific treatment implies that either we or the other man are wrong in this matter. I would say that it is highly beneficial to operate with relevancy in everyday life. It simplifies matters considerably when we are able to distinguish between what is essential and what is not essential. From a certain standpoint, things that are essential when we are at the university are no longer essential when we are at home. Each relevancy has its own importance and we will not, in principle, establish a hierarchy between elements which belong to different relevancies. We cannot say, for example, that it is more important to be silent when we are attending a lecture at the university than when we are sitting with friends in a café: silence is simply irrelevant in this last instance. Nor can we say

had such success in America. It must be stressed that, although the principle of relevancy applies to all human sciences, a relevancy has to be determined for every science. Before we can determine a given relevancy for a science, we have to consider what its object is meant for; this is different from a natural science, where the object itself points to its own relevancy. Before we can determine what is relevant in linguistics, we must come to the conclusion that the main function of language is communication. I already mentioned the case of Levi-Strauss who derived an approach to cultural anthropology from linguistics, taking a certain number of notions from the latter and applying them metaphorically to cultural anthropology. He drew a parallel, for example, between the way people communicate with words, in language, and the way men communicate with women between societies. This occurs when, in order to avoid incest, different tribes have to establish contact in view of exchanging wives. When Levi-Strauss spoke of "communicating with women" instead of "exchanging women", he was, of course, making a purely metaphorical use of the word. When we say, in linguistics, that we communicate with words, we mean that we transmit information with words. Thus "communicate" is a term which applies to linguistics and its use in cultural anthropology is not necessarily justified. Levi-Strauss considers that the fact of sending a woman from one tribe to another tribe amounts to an exchange of information. One could argue that if a given woman knows how to prepare a certain type of food, for example, then carries this knowledge to another tribe, she is indeed transmitting information. But this is not what Levi-Strauss meant—he used the word "information" in a far more general way. We believe that it is dangerous to use metaphors, for they lead us to philosophical outlook. When dealing with

silver, etc. This classification is based on an artistic relevancy. But in everyday life, the shape of a key, the length of its bar or the metal it is made of is normally irrelevant. What we normally expect of a key, is that it should open or lock a given door. This is what is important to us and this is its relevancy.

As soon as man intervenes in the making of something, the relevancy of the object becomes distinct from its physical nature. And it is interesting to notice that in some Indian languages of America, while there is no distinction between verbs and nouns, there is one between natural things, such as a tree, a lake or a mountain, and man and man-made things such as house or basket. The whole world is thus divided into two different parts: man-made and the rest.

The functional distinction between relevant and non-relevant hence the establishing of a functional hierarchy, was entirely absent from Bloomfieldian linguistics. This is not very different, however, from the opposition between "overt" and "covert" as practiced in American anthropology. Things that are "overt" are those which can be observed; that which lies behind them is called "covert".

As a connection could be found between the oppositions relevant-irrelevant and overt-covert, people have also established some sort of relationship between relevant vs. irrelevant, and surface structure vs. deep structure according to Chomsky's terminology. In fact, they should not be equated. But it is interesting to notice that the American public, a public who was not used to the concept of relevancy, felt that linguistic reality was not quite as simple as Bloomfieldians wished to make it. It was natural for American linguists to yearn for something that could account for the actual complexity of linguistic facts. And this is one of the reasons why generative linguistics

object itself. There can be several relevancies, for the same object may be considered from different angles: by the physicist or by the chemist, for example. Still the study of noises normally belongs to acoustics. If we consider the sciences of man, the picture changes. This is because we cannot identify the behavior of man and the motives of man. And finally, what we are interested in is not the behavior of man, but the motives which lie at the back of the behavior. Therefore we have to determine a relevancy there.

Let us take the case of phonetics. The sounds of speech have for more than one century been recorded and scientifically measured. But we shall disregard all phonetic research practiced during the last century and at the beginning of this century, because the principle of relevancy was not applied. "Phonetic" makes sense only when we know what we are looking for. The closure of the glottis [ʔ], for example, may be linguistic or not according to its function. In French, it has no function. In German, it has the function of indicating the passage from one word to another; in Danish, it has a supra-segmental function; and in Arabic, it has a phonematic function, it is a phoneme. So before we describe an element, in this or that chapter of our analysis, we must always determine the function of this element in the language. Of course, we may also study phonetic productions – the productions of the speech organs – without reference to a given language. But from the moment we consider the sounds within the frame of a language, it is not adequate to study these sounds without reference to their function in the language.

Let us consider now the famous example of the key. A key is a physical reality in itself, but it is man-made. As a physical object, it may be of interest to a museum: there are more or less ornate keys, keys made of gold or

although it is a subordinate function. Hence our aim will be to establish a hierarchy of functions. Problems pertaining to function are well known on the plane of phonology and have been studied fairly accurately. But this does not mean that they have existence only on the phonological level.

Let us take the case of morphology. My own definition of morphology as the dominion of irrelevancy corresponds with the theories of Ancient Greek and Latin grammarians. Morphology is the study of the formal variations of *signifiants*. In English, for example, the distinction between /i/ and /e/ is relevant on the phonological plane: the words *sit* and *set* are different. This means that /i/ is a phoneme of English and that /e/ is also a phoneme of English. If we now consider the form *keep-kept*, are we entitled to say that the distinction between /i/ and /e/ is relevant in this case? No, for if we said \**Keeped* instead of *kept*, it would make no difference. The form *keeped* would not be correct; it is not the traditional form. But this time, the distinction between /i/ and /e/ is not relevant.

Let us now turn to syntax. If I say "the man killed the tiger" and then change the position of the words "man" and "tiger": "the tiger killed the man", the meaning of this new statement certainly differs from that of the first! But if I say "in the village there was a man" and change it to "there was a man in the village", there is no actual difference between the two. In one case, the position is relevant and in the other it is irrelevant. Things are not always that simple: there are cases of half relevancy. But still we may establish a hierarchy, in the name of relevancy, i.e. function, on all linguistic planes.

Traditionally we distinguish between the so-called natural sciences and the sciences of man. In a natural science, relevancy results from the



for expression. Some people speak by themselves: they are not communicating but satisfying a kind of urge to express themselves. That is also a function of language. An opera singer also makes use of language: we are entitled to imagine some sort of language relevancy which would correspond to Bel Canto. We might consider, with respect to singing, that certain sounds are more appropriate than others, thus introducing another relevancy. But I think many will agree with me when I state that the main relevancy in language is communicative relevancy. Even when we use language for the purpose of expressing ourselves, even if we happen to be alone, we will play a game in which we perform the communication act. A good teacher is a person who wants to communicate and at the same time is very fond of expressing himself.

Language being basically made for communication, in order to describe a language we have to establish the relevancy of communication and leave aside for other purposes, or studies, all other possible relevancies. This implies that we have to study the *function* of the various elements. Let us take an example. We may say that, in English, we distinguish the word *knock* /nɒk/ from the word *mock* /mɒk/ through the difference between /n/ and /m/. Now on the basis of relevancy, we say that the distinction between /n/ and /m/ is the difference between a labial and an apical articulation and we consider that the voicing, or vibrations of the glottis, which we use at the beginning of both *knock* and *mock*, is irrelevant. But does this mean that it has no function? It does have function, because it helps people notice the difference between *knock* and *mock* : it would be more difficult to distinguish the two if we did not use voice when we pronounce the /n/ of *knock* or the /m/ of *mock*. Therefore the vibrations of the glottis have a function

identity of the speaker. Suppose you have been listening to me for some time to-day and again have the opportunity of hearing my voice to-morrow, this time through a closed door: you will recognize my voice because you know that these are the noises I make with my mouth and speech organs, these are elements which belong to me, which are different from what you might hear coming from other people. At every point in the utterance you will be aware of this and you will also perceive therein indications as to my temper, whether I am afraid or not, whether I speak in anger or friendliness, etc. Every speaker's utterances include such indications which are liable to vary from one community to another and are therefore partially linguistic. From one language to another, there are differences in the way people express their feelings, differences in what we call intonation. But variations also occur from one part of a country to another. My intonation may well be French, it is not *the* intonation of French. It is the intonation which I learnt in my native province and which was modified by years of living in Paris, and may have been influenced by years of living in the United States and elsewhere. And then you have the third element which is linguistically basic, and that is the message.

Before we can analyse, describe a language, we must be able to ascertain which elements of physical reality are a direct contribution to the message. The only part of the utterance we consider properly linguistic is that which corresponds to the message. This is because our linguistic experience has shown us that the main function of language is communication. When I say "the main function" I am alluding to the other functions of language. Indeed, in a number of cases, we use language not for communication, but

to that which we call relevant elements: elements of phonic reality which are given a special status in consideration of their usefulness in communication. It is also worth noticing that Bloomfield finally identified the phoneme as a bundle of relevant features. Thus, in the course of the history of structural linguistics, people finally agreed as to the principle of relevancy.

Before we examine this principle of relevancy, which was first presented by the Austrian philosopher Karl Bühler, I want to stress the following point: the word relevancy, in spite of appearances, is not an international word; the word cannot be made French, for obvious reasons: *relever* is a very common French word and *relevant* is the normal present participle of this verb. One could never convince a Frenchman that "relevant" means *relevant*! I was faced with this problem when I had to translate Trubetzkoy's "relevant" into French. Since "relever" could not be used, which word was to furnish a suitable equivalent? I finally hit upon "pertinent" which is also a very good international word. A number of people use the word pertinent for relevant and pertinence or pertinency for relevancy. But since the word relevancy pre-existed in English and in German, I continue to use it whenever I speak or write in English. I wish to emphasize the fact, however, that relevant and pertinent have the same meaning in linguistic practice.

Let us now return to the principle of relevancy, although I shall avoid its rather philosophical presentation by Karl Bühler.

Just now you are listening to someone speaking English. If you understand English, this means that you have been trained to a certain way of sorting the physical elements you perceive in the utterance: there are three types of elements which a person trained to understand a language distinguishes unconsciously. First of all, there are elements which point to the

pairs, I eventually gave up "quasi-homonyms" for the former term so as not to confuse the general reader. Let us take another example: the status of phonetic reality with the Prague school, with the Danish school and with the Bloomfieldien school. For the Bloomfieldians, phonetic reality is a linguistic reality. The Danish school claims just the opposite: the physical reality of speech is not linguistic; nothing is linguistic except the relationship between the units, the units being defined as the crossing points of a net of relations. Phonic reality has no existence. Therefore, in Copenhagen, you could not speak of phonemes because in "phoneme" you have the element "phone" which means sound. The elements considered are empty units. This total rejection of phonetic reality – also of semantic reality – is characteristic of the Danish (Hjelmslevian) stand-point. The Prague school stand-point, which is my own stand-point now, is that part of the phonetic reality – the *relevant* part – has linguistic reality. The word *relevant* will be our key word from now on. How are we to ascertain whether or not an element is relevant? Through the practice, the process of commutation. Though commutation was a common practice, linguists of the different schools did not attach the same meaning to the procedure. For the Bloomfieldians it was a kind of trick they did not want to justify – could not justify – that enabled them to determine a phoneme or morpheme. Hjelmslev and others practiced commutation in order to identify the units, as a starting point. They had to recognize them as having some sort of physical reality; otherwise they would have been unable to identify them. But as soon as the units were identified, the only fact retained was the relationship between these units.

In 1951, Hjelmslev reconsidered his old theory and finally reintroduced what he called formed substance into linguistics. This amounts exactly

such schools and they have few things in common. Those interested in linguistic structuralism originally came from very different schools of thought. We must mention the Prague school of structuralism, the Danish school of structuralism, the British school of structuralism and, of course, the American school which I am always tempted to call the Bloomfieldian school since Bloomfield was undoubtedly its leader and his book *Language* became the bible of this school. All these schools have in common certain practices, certain methods, one of them being the so-called *commutation*. Commutation consists in placing face to face elements, i.e. segments taken from the *corpus* and putting together those that are similar in every point except one, which has to be investigated. The term commutation was not invented by the Prague school but by Hjelmslev, at a later date. The procedure of commutation, however, was general in all the schools. Even when the word *commutation* is not used, people know that in order to determine the phonological pattern of the language, we have to operate with the so-called *minimal pairs*. Using minimal pairs is actually practicing commutation. Commutation, however, can be practiced both in order to get information about the phonology of a language and to get information about the rest of the language. The fact that the different schools had in common the practice of commutation made research in that field generally available: the material discovered and the analyses made in one quarter were readily transmissible and could be used in another quarter as well, provided terminological changes were made. The word *allophone*, for example, which is used by some linguists, is understandable for representatives of other schools of linguistics where people use in its stead *contextual variants* or *combinatory variants*. There was a period when I used the term *quasi-homonyms*. Since this referred to the same thing as minimal

as transformational-generative. We may also number among non-structuralists people who practice a type of linguistics which I would be tempted to call philological linguistics; but the main difference is the one which opposes structuralists to linguists belonging to the transformational-generative school. The opposition between these two branches of linguistics is, in my opinion, total: there is no way of reconciling the two. In the late fifties, when I started reading the first productions of Chomsky and the new ideas developed by Harris, it seemed possible that traditional structural linguistics might somehow gain by taking into account transformational and generative practices. I do not think this is possible now for, as soon as the basic foundations of the generative school were presented, it became perfectly clear that we have, on the one hand, structural linguistics which I will describe as the linguistics of languages and, on the other hand, linguistics of logicians. Linguistics of languages stresses the importance of the differences between languages and the importance of limiting the linguist's observations to languages. Structural linguists consider language and languages as the true object of their science and insist on observing linguistic facts, whereas representatives of the transformational school start from a logical standpoint and, since they are convinced of the unity of logic, seek to extend that unity to the field of language, thereby disregarding linguistic variety. The members of the first group think it is not a matter of chance if languages are different: it is fundamental in the nature of language that it should be represented by different languages. This is the linguistics of languages. In my opinion, there lies between the two schools an unbridgeable gap.

We must now point out what the various schools and trends that can be called structuralist, have in common. As a matter of fact there are many

This branch of structuralism undoubtedly derives from linguistic structuralism, or rather from a specific aspect of linguistic structuralism; its development has been following lines which are not entirely unlike those followed by the linguists although they remain quite distinct from the latter. One of the main differences is due to the fact that the people who are called – or claim to be – structuralists, in Paris, more often indulge in a philosophical outlook than attempt to build a theoretical frame for describing and analysing facts. Modern structuralism in philosophical and literary circles, in France, is derived from Levi-Strauss' and ultimately from Roman Jakobson's teachings. Jakobson belongs – or belonged – to structuralism although he was one of the least scientifically minded of the structuralists. He was a linguist, no doubt, but his main interest, to start with, was not linguistic. In the Prague school of linguistics, Trubetzkoy was the linguist and Jakobson was at the start a specialist of literature.

One of the main points in which this literary and philosophical structuralism differs from linguistic structuralism is the stress on the non-historical approach to things. The opponents of structuralist theories are usually historians who reject structuralism on account of its being anti-historical. It is true that anti-historicism is not entirely absent from linguistic structuralism. But if we take the situation in France to-day, we have, on the one hand, anti-historicism with literary and philosophical structuralism, as opposed, on the other hand, to a definite rejection of anti-historicism on the part of representatives of structural linguistics.

This much for structuralism on the non-linguistic plane. We shall now turn to non-structuralist linguistics. The non-structuralist branch of linguistics is essentially constituted to-day by linguistics that can be described

**André Martinet**

## **Function and Structure in Linguistics\***

Mr. Chairman, Ladies and Gentlemen

If we want to understand the current situation in linguistics, it is necessary – nay indispensable, to determine with accuracy the value of the words *Structure*, *Structural* and *Structuralism*. This does not mean that I shall offer here a disquisition concerning the etymology of these words, nor do I aim to determine whether a particular school deserves more than the other schools the epithet *Structuralist* or *Structural*. Under no circumstances should we be prescriptive; we want to observe what people do and say and maybe warn beginners against possible confusions due to terminology.

For a better understanding of the term *Structuralism* in linguistics, it may be useful to say a few words about structuralism in other domains as well as mention linguistic schools that are not structuralist. In France and elsewhere in Europe, lately, the term *Structuralism* has been used in reference to a school of thought which happens to be highly fashionable among intellectuals in literary and philosophical fields. My impression is that this school of structuralism is already on its wane, though it still deserves consideration. Roland Barthes and Michel Foucault are among the leaders of this school.

---

\* Two lectures delivered, in October 1970 in the University of Tehran by  
André MARTINET.