# *Anti-natural grammars: some cultural issues*[1]

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ABSTRACT

The present paper claims that one of the paths for studying contemporary linguistic theories is to examine the theoretical and ideological framework against which they react. It assumes that the construction of a new paradigm is partly based on the partial or total destruction of the preceding one, and on a re-interpretation of it. This paper aims to develop a line of inquiry into linguistic paradigms: it examines on the one hand some methodological problems of historiographic research and on the other it focuses on a single issue, which may be interesting to discuss: the internal representation of a paradigm, namely the structuralist model. By 'internal representation' I mean what a group of linguists explicitly say about their own model and what they do not say. This kind of cultural analysis may contribute, although modestly, to a global and perhaps more comprehensive evaluation of the evolution of linguistics.

## 1. INTRODUCTION

In contemporary linguistics a significant amount of research is carried out according to the principles of 'natural grammars', which include functionalists, cognitivists and discourse analysts among others. The considerable increase in the number of publications and international congresses during the last twenty years is a reliable index that the approach is continually gaining adherents and that there is a growing consensus. As with any theory that becomes 'normalized', it gradually and inevitably undergoes a process of

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institutionalization, so that many of its claims eventually are felt as obvious, self-evident, indisputable.

This paper is part of a broader project for the study of some of the historical and epistemological foundations of natural grammars. It claims that one of the paths for studying the ideas around which there is such consensus today is to examine those theories natural grammars react against: the construction of a new paradigm is partly based on the partial or total destruction of the preceding one, and on a re-interpretation of it.

Therefore, I shall attempt to study the paradigm built by early 20th century linguists, not out of an archaeological interest, but because I consider it a necessary framework for a better understanding of such contemporary linguistic models. Rather than undertaking a purely linguistic and epistemological study, I will approach it from a historiographic perspective, focusing on a particular model and its cultural context. I will try to show that it was as 'natural' for linguistics to be 'anti-natural' during a considerable part of the 20th century as it is 'natural' for many of us to adhere to the principles of 'natural grammars'. Convictions are by definition self-evident, but they may be historically determined. It is an exercise of historical and intellectual hygiene to critically examine them. I shall focus my attention on structuralist and post-structuralist linguistics, with the aim of developing a line of inquiry into linguistic paradigms, by examining one interesting aspect: the internal representation of a paradigm, that is, what a group of linguists explicitly say about their own model and what they do not say. This kind of cultural analysis may contribute, although modestly, to a global and perhaps more comprehensive evaluation of the evolution of linguistics.

## 2. METHODOLOGICAL AND CONCEPTUAL PRELIMINARIES

As defined by Koerner (1976, 1995) the historiography of linguistics [2] is not simply a historical survey of linguistics in the traditional sense, that is, the description of schools and their theories in a chronological sequence, but a more comprehensive type of approach which tries to see linguistics in relation to an intellectual context, and to the history of ideas. Since a significant part of this paper deals with history, it is important to specify a certain number of keys and guidelines that will enable me to carry out the study. I will follow those of the *Annales* [3], particularly Braudel's (1966) distinction between three scales of historical research: the concern with punctual events in sequence, which would roughly correspond to a journalistic chronicle; the study of periods (involving spans of time ranging from 10 to 50 years) and the study of movements developing at a slow pace and through large spans of time (more than 50 years, secular and even plurisecular trends).

Twentieth century linguistics has traditionally been surveyed on the second scale, by isolating schools or generations of linguists (structuralists, post-structuralists, generativists, and so on.) Curiously enough, we tend to look at past linguistics on a different scale: we usually speak of "19th century linguistics", "medieval linguistics" and "classical linguistics", the latter covering several centuries, as if there were no generational gaps and changes, and as if they were homogeneous. This way of looking at the evolution of linguistics is to me clearly inconsistent and unsatisfactory. From the perspective of a large scale, particular schools may be seen as episodes or phases within a broader movement or trend. It may be therefore interesting to attempt to identify a few continuities underlying the apparent disgregation and proliferation of 20th century theoretical proposals and to look for significant discontinuities.

Before any of the above issues can be studied, a discussion of the limitations of historiographic research and of a certain number of specific problems is called for.

One of them is the fact that much of linguistic theorizing and discourse is 'meta-linguistic': opinions and theories are largely built on secondary knowledge, on "what someone says somebody else said before". This practice often results in a discourse based on sterile *clichés* and even in total or partial misinterpretations: generalisations such as the ideas of the 16th century scholar P. Ramus being *pre-structuralist* (cf. Robins, 1967:102) or the school of Port Royal being *pre-transformationalist* (Lakoff, 1976) should be viewed with caution; terminological approximations and the inadequate use of linguistic metalanguage such as equating Port Royal's *logical structures* with the contemporary notion of *cognitive patterns* contribute as well to a considerable theoretical confusion. It also leads to simplistic and even trivialized views on significant models, and furthermore, to radical dismissals of contributions which may still be valuable. Structuralism is a case in point: every contemporary school acknowledges its indebtedness to its claims; some of its tenets have become commonplaces, but they are only quoted as a testimonial and reverential nod to authority and tradition, a mere convention in academic writing. Structuralism is assumed to be so deeply ingrained in contemporary linguistic thought that there seems to be no need to re-examine it, its character having become almost doctrinal, although totally outdated. Indeed, very few people read the original structuralist works, much less carefully examine **what** they actually said, **how** and **why** they said it and in what context. Within normal scientific activity in linguistics, a great deal seems to be taken for granted and a great deal seems to be dismissed without justification. The result is a standard, canonical representation of a model that in time becomes fossilized, and that may substantially differ from the original work.

Hence the historiographer should resort to a somewhat cartesian attitude and apply the methodic doubt: do not not necessarily accept anything for

which you lack personal evidence. Re-examining what was said in the light of what is now being claimed may be highly instructive; whether voluntary or involuntary, (mis)interpretations can help us describe the intellectual climate in which a given approach developed, and characterise not only the priorities which at a given moment were focused on but moreover the kinds of problems that were left aside. What E. Gombrich says in his Preface to his *History of Art* [4] about artistic evolution is I think perfectly valid for the history of linguistic ideas, namely that each work of art expresses its message to its contemporaries, not only by **what it contains** but by **what it omits.**

The second problem that must be faced is the fact that, contrarily to what happens in other sciences, linguistics is non-cumulative: scholars are still discussing basic notions, such as 'word', 'meaning', 'sentence'. Not only does this lead to a feeling of 'stagnation', in de Beaugrande's (1991) expression, but also to another type of difficulty. As speakers, we are caught in the web of language: the words themselves —the terms— remain unchanged, but not their meanings. The words linguists use are not always specialized terms, with a unique and precise meaning. Most words we use for linguistic description are relatively frequent in everyday life (e.g. 'word', 'meaning', 'sentence', 'function', 'communication', 'language') and these are not univocal but loaded with personal and cultural connotations. Even technical terms such as *structure* mean different things for different linguists[5]. Does what Daniel Jones mean by a particular word, say *phoneme*, coincide with what Trubetzkoy, or de Courtenay, or Swadesh mean by using the same term? Since we are prisonners of what a particular word means for us, it is hard to imagine that the same word may be used with a different meaning, and it is very difficult to avoid re-interpreting everything in the way that suits us better, in accordance with our own expectations:

> [...] todo posible concepto, toda supuestamente rigurosa metodología, está bañado en ese plasma lingüístico del que no se puede escapar. No hay un lugar fuera del lenguaje desde donde pudiéramos mirarlo (Lledó, 1985/1997: 54).

This is a serious methodological limitation, intrinsic to linguistics and social sciences in general, which make investigation about language and about theories of language conspicuously different from other sciences. To some extent, historiographic research in linguistics faces problems similar to those of literary hermeneutics; contemporary hermeneuts such as Dilthey, Gadamer, Ricoeur and Lledó, among others, have foregrounded the historical character of any act of interpretation against the myth of objective truth, and against the claim of traditional philology of reconstructing the past by obliterating their own historical conditions. As Braudel claims, our interest should not be about the past as past, but about the past as present, about how the past has become part of our present.

Notwithstanding, the epistemological problem of hermeneutics —Dilthey's notion of the 'hermeneutic circle— is not necessarily a drawback; it may be looked at positively [6]:

> el concepto de círculo hermenéutico significa que en el ámbito de la comprensión no se pretende deducirse una cosa de otra, de suerte que el defecto lógico de circularidad en la prueba no es aquí ningún defecto del procedimiento, sino que representa la descripción adecuada de la estructura del comprender. (Gadamer, [1984]/ 1997: 78-9).

Hence, a historical comprehension of a theory of language implies the necessity of looking into our present use of language, our prejudices and beliefs, our ideological patterns. It means being aware of the 'horizon of expectations' (what seems normal, acceptable, unacceptable and so on) through which we apprehend a past or contemporary theory. And this is possible: "(...) el texto debe hacerse lenguaje a través de la *explicación (Auslegung)*. Ningún texto, ni ningún libro habla, si no habla el lenguaje que llega hasta el otro." [7]

Moreover, as Lledó (1997: 55) rightly notes, not all prejudices and preconceived ideas are inevitable:

> Los medios de comunicación, en nuestro tiempo, pueden falsificar la mente, engendrar prejuicios [...] que imposibiliten, para siempre nuestra instalación real en la historia, y que nos distorsionen el horizonte en que están situadas las ideas y las teorías verdaderamente creadoras.

No matter how optimistic we are, these considerations may still be viewed as serious epistemological limitations when trying to implement a hermeneutic or historiographic *praxis*. The difficulty can be overcome, at least partially, by applying historiographic procedures. These have been laid down by Koerner (1995:13) as the principles of "contextualisation, immanence and adequation" which will allow us to carry out an analysis of the theoretical frameworks in their context, aiming at "[...] a full understanding, both historical and critical, possibly even philological [...]" of linguistic texts (1995:13). The application of these principles, together with a close textual analysis of linguistic discourse as advocated by de Beaugrande (1991), will prevent us from having a distorted view of the evolution of linguistics and from "imposing an artificial retrospective sense of order and direction [...][that] can abbreviate and conceal the complexity and diversity of scientific interaction" (de Beaugrande, ibid.:1).

The reconstruction of the intellectual context (particularly of the 20th century, but also of any other period) should thus be (i) trans-disciplinary: we have to consider totally different disciplines or fields; (ii) trans-geographical: we need to examine what has been done in other places and

what has been published in other languages[8]; (iii) historical: we ought to look beyond the historical moment, (iv) ideological and (v) intertextual: much of this kind of research draws on the principles of the theory of reception in literary history. It is necessary to know not only the proposals of a given model, for instance those of "natural grammars", but also what natural grammarians say about their own theories, about those of their contemporaries, about those of their predecessors (immediate or distant) (if they say anything), what they react against, what the non-natural grammarians say about them. And, what is more, we need to identify what they **do not** say. This would suggest that there is "an objectifiable system of expectations that arises for each work in the historical moment of its appearance" (Jauss, 1982:22).

Epistemological issues may prove to be fruitful for this kind of analysis. They may be considered as useful criteria for outlining some of the features of the underlying trends in linguistic theoretical approaches. Epistemology is understood here as the science which explores the limits and possibilities of knowing something. The epistemology of linguistics will thus be concerned with characterizing the type of justification required for claiming that we know (that we have a "justified true belief" about) something (Verschueren et al. 1995: 261). It also involves defining "the kind of knowledge aimed at, (and ideally attained) by (the application of) a particular theory within a particular domain and to compare theories which are intended to cover an almost identical extensional field." (Swiggers, 1992:583). A full description of the trend in terms of recognizable parameters could perhaps enable us to answer some puzzling questions: can a theory be simply dismissed, obliterated? How much of the theory which is marginalized remains in the new theory? What factors lead to the substitution of a theory? Are all the intervening factors of the same kind? Is the process of theoretical shift as orderly and linear as it is commonly described to be?

A certain number of fundamental works on scientific evolution, particularly on the philosophy of physics —Popper (1934), Kuhn (1962), Lakatos (1978), Feyerabend (1988), among others— have proved to be useful for the description of linguistic history, although in relative terms. Hence, many of the categories of description and verification procedures may not be literally applicable to the study of linguistic theories, which often deal with phenomena that are not a matter of all or none, but rather with a continuum and are not quantifiable nor verifiable in the way physical phenomena are. However, the global framing and the main concepts are general enough to be considered valid for the study of the evolution of linguistic theories. Both Kuhn (1962), nowadays a 'classic', and Feyerabend (1988)[9] consider that not only the internal dynamics of scientific thinking —confirmation, refutation— account for scientific evolution as was claimed by Popper (1935), but that sociological, historical, economical and even psychological factors

codetermine the process. Lakatos' conception of science as a pluralistic one, allows for a certain amount of flexibility which seems to be adequate for the description of linguistics: rather than speaking of *a theory* as the fundamental notion in the logics of scientific research, he replaces it by the notion of a *set of theories*, displaying continuity and "constituting research programs" [10]. Each research program is characterized by a strong nucleus around which a "security belt" of auxiliary hypotheses is constructed. It is this belt which is submitted to verification and which may be partially or totally replaced. This makes it possible for a progressive theoretical shift to occur and simultaneously it allows for an increase in empirical content. Anomalies may be set apart, suspended, in order to be solved later, *ad hoc* hypotheses may be used, and the tendency is a "positive heuristics", trying to consider confirming facts rather than falsifying ones. It seems capable of accounting for individual contributions and theoretical proposals that cannot be considered as 'different' theories: structuralism, thus, could be better described as a "research program" with its set of theories or auxiliary hypotheses, for instance, those of Saussure, the Prague school, Bloomfield, and Hjelmslev among others.

## 3. "L'ESPRIT SCIENTIFIQUE"

As I have suggested above, the traditional way of looking at 20th century linguistics as a sequence of schools or models seems unsatisfactory. Usual labels attached to them (revolutionary, out-of-date, exhausted, etc.) often arise from superficial differences which are not always sufficiently analyzed nor seen in perspective. On a large temporal scale, schools may be seen as episodes within broader trends which extend beyond generations, such as for example, 'the consolidation of the scientific method'or 'the evolution of the idea of a universal grammar'. From this standpoint the overall picture of linguistic evolution may change substantially, because it incorporates a cultural dimension. Linguists such as Mounin, Lyons and Koerner, among others, have convincingly shown the common theoretical ground between, for instance, structuralism and generativism, so that the idea of an underlying trend is not new. I will focus on one of the features of this underlying trend: their attitude towards language, namely their *anti-natural* standpoint. I would like to show how 'natural' it was, in the first half of the 20th century, to follow a non-natural approach [11]. There is nowadays an obvious, explicit and generalized reaction against such an attitude, not only in most sciences [12], where a revision has been under way for more than twenty years, but in daily life: 'naturalness' is today a cultural value. One of the ways for exploring this contemporary consensus is precisely to examine those ideas that are rejected or re-interpreted and the way this is done.

A correct characterization of early 20th century theories requires their being inserted in an intellectual context. In Kuhn's view, it is the intellectual tradition that determines the choice and construction of a model that is felt to be adequate and necessary for the achievement of certain goals. A paradigm determines the kinds of facts to be discovered, described and explained, the significant problems, as well as the epistemological conditions for such discovery, together with the methods of scientific research; it contributes to the development and accuracy of the instruments needed and the design of experiments, and articulates the theory, coupling it with the facts. A paradigm does not necessarily solve all the problems, but only those which at a given moment are considered as relevant by scientists, and which have not been solved by previous paradigms. Normal scientific activity is limited to the solving of enigmas derived from the acceptance of the paradigm. Paradigms do not exclude the appearance of unpredicted phenomena, which, if they cannot be assimilated as problems or enigmas —solvable— will be anomalies and promote a crisis, eventually leading to a change of paradigm.

The above definition of paradigm is doubtless extremely useful for linguistic historiography, with two provisos: firstly, it seems to me that it tends to give a *static* picture, as if the model was *there*, at hand, ready to be absorbed, assimilated and applied. From such a definition, scientific research seems to be a process which starts from a clear idea about the facts to be analysed and that only afterwards is a set of descriptive procedures developed. However, a paradigm is not a pre-established frame. As Feyerabend (1988:11-17) says, "[...] it is a chimaera to think that a clear and distinct understanding of new ideas precedes their formulation and their institutional expression". I would agree with him when he suggests (ibid.:157) that the process is much more complex and 'sloppy' than the canonical image deriving from the principles of critical rationalism and logical empiricism. Secondly, because of its tentative and unfolding nature, much of what a paradigm is can only be considered from outside and in retrospect, although it is possible to trace an internal representation of it.

The intellectual tradition that runs through the modern scientific mainstream is well known. It has its origin in the work of Descartes[13] and Galileo who applied the mechanistic metaphor to the study of nature. It was seen as a process of mechanization of living phenomena which, as scholars such as Lewontin (1995, p.101ff) and Collingwood (1945) have noted, set the basis for a research-discovery program which limited itself exclusively to the study of those properties that organisms share with engines, objects constituted by articulated parts whose movements are geared towards executing certain functions. A fair example would be the process of transformation undergone by zoology towards the end of the 19th century:

> [...] it lost its old form, and from being a natural history, based on wholes —species and forms and their taxonomic relations— [...] it became a new science of mechanisms and parts abstracted from the organism and from its configuration as a whole (Sacks, 1995:53, my emphasis).

Linguistics enters this specific scientific mainstream with structuralism, a term that refers to a number of different approaches having a common attitude towards language study and a shared set of assumptions. As Joseph (1995: 221) rightly notes, its historical roots can also be traced back to the 17th century, where there was a generalized and "gradual realignement of the study of language away from moral science, philosophy, aesthetics, rhetoric and philology, and in the direction of the natural sciences." The contributions, in this direction, of the historical linguists of the first half of the 19th century (Bopp, Rask, Grimm) must not be underestimated: as Harris (1981:38) has noted, they worked hard to enhance "grammatical studies as being a scientific type of pursuit rather than a merely pedagogical one". However, the scientifc status of linguistics was limited to the methods, (comparison, observation, establishing laws) and did not embrace the whole of the object of study. By the end of the 19th century, anthropology, psychology, sociology, semiology, linguistics, were all struggling to define themselves in terms of the natural sciences and to adopt the methods of empirical investigation. This was a matter of serious concern, as is shown by the books published in that period seeking to establish the criteria for qualifying as science and to classify the different sciences accordingly [14]. In 1864, Max Müller [15] considered that the Science of Language was "a science of very modern date" and that it was "scarcely received as yet on a footing of equality by the elder branches of learning". None the less, language was amenable to scientific treatment:

> [...]the language which we speak, and the languages that are [...] supply materials capable of scientific treatment. We can collect them, we can classify them, we can reduce them to their constituent elements, and deduce from them some laws that determine their origin, govern their growth, [...]; we can treat them, in fact, in exactly the same spirit in which the geologist treats his stones[...]

It seems clear that the dominant attitude towards language study derived from a more general attitude towards science and that it was something like the *Geist der Zeit*. It is what Bachelard (1965) in a fundamental work called "l'esprit scientifique". Undeniably, science had —and still has— a status and a prestige that confers on its methods a universal validity deriving from its successful association with industry and technological development and applications.

## 4. BUILDING UP THE CONSENSUS

Within the activity of "normal science", a paradigm implies the idea of consensus, which may be both explicit and tacit. It is possible to grasp it by closely examining what the linguists actually said and did. In order to show how linguistics was part of a wider context of discovery, it is not enough to detect similarities or borrowings among scientists of different fields: it is a well known fact that Saussure borrowed concepts such as "system" and "value" from other fields such as sociology, psychology and political economy, although not directly but mediated through the linguistic works published in his time —those of Whitney, H.Paul, B. de Courtenay, A. Meillet among others (Koerner 1976). But the coincidences were at an even more 'deeper' level, the ideological level.

There is, at the time, explicit agreement among linguists on a certain number of foundational principles, of which three will be examined here. They are, in my view, of primary importance and closely related.

1) The first task will be to raise the status of language study to the category of science:

> It seems incontestable that, so long as the humanities have not tested this thesis as a working hypothesis, they have neglected their most important task, that of seeking to establish humanistic studies as science. (Hjelmslev, 1961: 9)

2) The second requirement will be the need for autonomy, its "external delimitation" (Bugarski, 1976:2) from other disciplines, programmatically stated by Saussure (chap. II,20), when he says that linguistics ought to "se délimiter et [...] se définir elle-même", as well as by Bloomfield and Hjelmslev among others. This autonomy should also include the ideological delimitation from the German dominance of the preceding century (cf. Joseph 1995:225)

3) The third aspect I shall focus on will determine the course of linguistic research for most of the 20th century. We have already said that modern science is inspired in the model of a mathematical conception of nature (developed by Galileo in his *Mechanica*) which leads to concentrating on that which is "explainable and construable from rational laws" as Gadamer (op.cit.: 86) puts it. The object of study (whatever it may be) is **reduced to only that which can be amenable to** the scientific —mathematical— method:

> Linguistics must attempt to grasp language not as a conglomerate of non-linguistic (e.g. physical, physiological, psychological, logical, sociological) phenomena, but as a self-sufficient totality, a structure *sui generis*. (Hjelmslev, ibid. p.6, my emphasis)

Hjelmslev openly acknowledges here both the complex and heterogeneous nature of language and the epistemological necessity of reducing it to a structure. This kind of reduction is by definition non-natural, or anti-natural, but fully coherent with the working hypothesis as stated by Gadamer above. Two centuries before, Kant was already claiming the same idea in his *Critique of Pure Reason*: "Reason [...] must force nature to answer to its questions[...](my emphasis)[16]. And more recently, Bachelard insisted as well that "l'esprit scientifique doit se former *contre* la nature" (ibid.4, original emphasis), meaning by this that the intuitive, subjective perception or knowledge of reality —what Feyerabend calls 'natural interpretations'— has no room in scientific research:

> La science s'oppose à l'opinion. (...) L'opinion *pense* mal, elle ne *pense* pas: elle traduit les besoins en connaissances. (1965: 14-5 original emphasis)[...] L'esprit scientifique nous interdit d'avoir des opinions sur des choses que nous ne comprenons pas, sur des questions que nous ne savons pas poser clairement. (ibid.: 23-24)

Epistemologically speaking, this tradition is rooted on what Searle (1992/1996 p.30) considers a basic "metaphysical presupposition: *reality is objective*", which determines that the only way of studying anything scientifically is to consider it a set of objective phenomena [17]. The common use of the notion '**object** of science' (itself a metaphor) conspicuously shows how deeply is this category inserted in our conceptual system. An 'object', in daily use is associated with something stable, with fixed boundaries and a concrete shape, something typically explainable and construable from rational laws.

The point of departure is not language, but **language as seen from the perspective** of the scientific method: "Bien loin que l'objet précède le point de vue, on dirait que c'est le point de vue qui crée l'objet [...]" says Saussure (ch.III, p.23, my emphasis). The object of study is epistemologically constrained: when Bloomfield (1933: 162) says "we cannot analyse the meaning [...] within the scope of our science" (my emphasis), he is also saying that the object of study is limited by the type of procedures he wants to apply. Hjemslev makes it also crystal clear in his *Prolegomena*: "Only in this way can language in itself be subjected to scientific treatment [...]" (ibid. p.6, my emphasis)".

Although he claims language to be the goal, what is actually the goal is to apply a scientific method and to develop a consistent theory of language: the emphasis is more on the model for its own sake, and this will naturally lead to formalism. It seems that in the writings of the early scientists, they view their task as a personal challenge to develop and apply scientific procedures to language.

What I think is usually misrepresented and even underestimated is how aware these scholars were of the fact that reductionism was necessary, bearing in mind the kind of goals they were aiming at. Nowhere do they make ontological claims. From an epistemological perspective (in the sense given to the term on p.8), structuralism is, in my view, extremely consistent and coherent. Both Saussure and Hjemslev underline the tentative and **hypothetical character** of their description, "[...] et d'ailleurs rien ne nous dit d'avance que l'une de ces manières de considérer le fait en question soit antérieure ou supérieure aux autres" (Saussure, ibid. p.23). The picture is no more than a theoretical construct, a hypothesis about language phenomena:

> [...] and isn't language a purely arbitrary invention, a creation of the researcher? [...] Thus, the text is also a creation of the scientific spirit. [18] (my emphasis)

The reductionist strategies leading to an idealized object, 'language' (as different from 'a language') will become the basis of subsequent linguistic research. In order to have a stable and fixed object, a certain number of well known surgical operations were made. The first requirement was to make it temporally stable and permanent, i.e. **synchronic**, severing language from history. The following step was to clearly outline its fixed content/identity by severing language phenomena from the individual, focusing on **langue** as socially transmitted, excluding variations deriving from individual use (**parole**). Language was dissected, cut away from reality: language consists of arbitrary signs, as the assumption of any kind of relation between language and reality would automatically concern subjective experiences i.e., non-verifiable, non-measurable, non-quantifiable and non-general. Hjelmslev also cut language from its transcendant links, i.e. the idea that language provides the key of our conceptual system and psychic nature.

In any case, structuralists seemed to be aware that reductionism was necessary although provisional:

> [...] linguistic theory begins by circumscribing the scope of its object. This circumscription is necessary, but it is only a temporary measure(...) [it] can be considered as justified if it later permits an exhaustive and self-consistent broadening of perspective. (Hjelmslev, ibid.p.19, my emphasis)

The priority seemed to be the rigorous application of the scientific method: "It involves only a division of difficulties and a progress of thought from the simple to the complex, in conformity with Descartes' second and third rules" (Hjelmslev, ibid.).

This kind of argumentation would perfectly satisfy Bachelard's epistemological requirements:

> L'objectivité se determine dans la précision et dans la cohérence des attributs, non pas dans la collection des objets plus ou moins analogues. Cela est si vrai que ce qui limite une connaissance est souvent plus important por les progrès de la penseée que ce qui étend vaguement la connaissance. (ibid: 71-2)

## 5. CONSOLIDATING THE CONSENSUS

In the preceding section we have identified the internal representation of the paradigm as seen from the linguists' explicit theoretical proposals. I shall now proceed to isolate another mechanism —in this case tacit— by which the paradigm is consolidated. I shall attempt to show how a relatively serious theoretical inconsistency was largely undetected, and significantly enough, when detected, it was overlooked and (un)consciously put aside, so that both the particular theoretical model and the particular attitude towards science from which it derived could have their way. I would like to insist on the fact that the process of damping down questions that at a given moment are considered to be critical, goes parallel with the foregrounding of other issues that are considered essential, and that this indivisible process is constitutive of scientific evolution.

The Saussurean claim that the linguistic sign is "arbitrary" is still accepted as a foundation of modern linguistics. Even Langacker, who insistently claims to depart from saussurean and structuralist assumptions, acknowledges "the important kernel of truth in the principle of *l'arbitraire du signe*" (1987:12). However, this apparently fundamental pillar of structuralist linguistics seemed to be, from the very start, extremely fragile [19]. Benvéniste (1939) was the first to point to certain inconsistencies in Saussure's reasoning. The most conspicuous of these can be summarized as follows:

Saussure claims that (i) the sign is a twofold unit, consisting of a 'signifiant' (acoustic image) and a 'signifié' (concept), (ii) that the relation between these two elements is arbitrary, and (iii) that thereafter the sign is arbitrary.

A careful analysis of the argument shows that the concluding statement (iii) is false, as it cannot be deduced from the preceding premises (i,ii): a relation between two elements can be arbitrary, but an element on its own —the sign— is not 'arbitrary' or 'not arbitrary', it simply is, **unless** we are presupposing it in relation to some other element or external frame, left implicit (which is just the case). This *other* element, "reality", is, according to Benveniste (ibid. p. 105), introduced by Saussure a few paragraphs later "par le recours inconscient et subreptice à un troisième terme, qui n'était pas compris dans la définition initiale" (my emphasis):

> (...) nous voulons dire qu'il [le signifiant] est *immotivé*, c'est-à-dire arbitraire par rapport au signifié, avec lequel il n'a aucune attache naturelle dans la réalité (p.101 my emphasis).

Benveniste accurately shows that even if Saussure says that the idea of "soeur" is not linked to the word s-ö-r, he is actually thinking of the *reality* of the notion.

A careful reading shows that we are given two very different definitions in just two pages:

a) the relation between the signifiant (image acoustique) and the signifié (concept) is arbitrary

b) the relation between the sign and reality is arbitrary

Benvéniste argues that b) is true, and because so true and obvious, very uninstructive (p.105). But of a) he argues that the link between the acoustic image and the concept is not arbitrary but *necessary*:

> le concept (signifié) "boeuf" est forcément identique dans ma conscience à l'ensemble phonique ("signifiant") *böf*.(...) L'esprit ne contient pas de formes vides, de concepts innommés.(...) Inversement l'esprit n'accueille de forme sonore que celle qui sert de représentation identifiable pour lui. (p.106).

Saussure himself seems to be of the same opinion when he says: "[...] de même dans la langue, on ne saurait isoler ni le son de la pensée ni la pensée du son (p.157))". Elsewhere he asserts that "les termes impliqués dans le signe lingüistique sont tous deux psychiques et sont unis dans notre cerveau par le lien de l'association" (p. 98, my emphasis) and furthermore, "il est clair que seuls les rapprochements consacrés par la langue nous apparaissent conformes à la réalité, et nous écartons n'importe quel autre qu'on pourrait imaginer" (p. 99) .

However, what strikes me is not only the contradiction itself but the fact that Benvéniste, having spotted this flagrant inconsistency, tries to skip it. He clearly sees Saussure's *faux-pas,* since he categorically affirms that "L'arbitraire n'existe ici aussi que par rapport au phénomène ou à l'objet *matériel* et n'intervient pas dans la constitution propre du signe." (p. 107, my emphasis). Nonetheless, he tries to justify it. Saussure being a rigorous thinker, the possibility of considering it an error deriving from a lack of attention is rejected: it can only be a consequence of his 19th century education as a historical linguist [20]. Benvéniste then insists that arbitrariness is a central notion and of unquestionable importance and consequences, fully agreeing in this with Saussure himself. We can see that the problematic point has been spotted but it is put aside, while at the same time, the emphasis is on the relevance of the concept as a whole. Why should the concept of arbitrariness be protected in such a way?

With his habitual lucidity, Benveniste sees that the inconsistency allows the linguist not to have to discuss any relation with reality, to keep reality external to linguistics thus avoiding the presence of subjectivity:

> Poser la relation comme arbitraire est pour le linguiste une manière de se défendre contre cette question et aussi contre la solution que le sujet parlant y apporte instinctivement. (p106)

There is a tacit acceptance that the inconsistency cannot be accomodated within the scientific frame of his time because of certain implications —namely those related to subjectivity, to intuition, to a natural interpretation— deriving from it and which are felt as 'dangerous' or inconvenient. What puzzles me is that there is no interest in simply rejecting the initial statement because of its logical inconsistency, nor in finding a substituting formula, or a more refined version of it.

The question at issue here is: **what** made Benvéniste's accurate, scrupulous and virtually devastating criticism go unnoticed [21], and Saussure's false conclusion govern subsequent linguistic thinking? Both are part of the process of building a paradigm with a defensive belt around it: such inconsistencies were ignored because of the scientific trend of the early 20th century, positivist and reductionist, and because of the goals that were expected from such an approach. Benveniste's comment openly reveals the defensive attitude of scientists scared of having their system of beliefs —and that of their culture— shattered. Contrarily to what canonical scientific research and practice would make us believe, this is not exceptional, but common. Sacks (1995:1) has brilliantly shown that scientific evolution is far from displaying a "majestic development" but that it is rather discontinuous [22]. Feyerabend (1988: 29ff.) has also pointed to the "complex nature of scientific knowledge" and illustrated how it progresses within a "context of discovery" where "irrational elements —prejudice, passion, conceit, errors, sheer pigheadedness— were often permitted to have their way against the dictates of reason".

## CONCLUSION

Language as an **object** is no more than an idea of language, a particular way of conceptualising speech phenomena, which starts getting shape at the time, framed within the mould imposed by the positivist paradigm which was considered to be valid. Reductionism is itself a consequence of the scientific method, and it naturally leads to abstraction and idealization. The 'esprit scientifique', systematically applied, may eventually lead to fully formalized grammars, based on mathematical models: non-contradictory,

exhaustive, systems consisting of a restricted number of formal premisses, as simple as possible, displaying high generality, abstraction, predictability, descriptive power, descriptive adequacy and verifiability.

The problem, I think, is that what originally was no more than a hypothesis has become, by a kind of osmosis, an ontology. There has been a transference of the properties of the scientific method to the object of study. Once transferred to language, they are accepted as dogma, as truth, not open to criticism. Their gradual institutionalization as inherent properties will result in an idea of language that will be dominant throughout the rest of the century, underlying most paradigms. Not only structuralist linguists, but post-structuralists, generativists, "anti-structuralists", algebraic and computational linguists share, in different degrees, the same scientific ideology.

This conceptualization has been acknowledged as fruitful for most sciences. Lewontin (1995) has listed the achievements of the mechanistic program in biology and believes that it will probably be successful for the description of that which is today still unknown. However, he also underlines its limitations and the fact that it does not provide a true picture of nature. As far as linguistics is concerned, many of the claims brought forward by such an approach were felt as counterintuive, and as in most sciences, the absolute validity of such conceptualization and of its foundations had to be questioned and revised[23]. Searle (ibid,36) rightly noted that the question "*How* should the existence of phenomena be verified?" must not be confused with "*What* is the nature of the phenomena whose existence one has to verify?". The mistake of logical positivism (with its reductionist procedures) was —and is— that, although it claimed it was taking reality as it is, it was actually doing too much abstraction, reducing arbitrarily what is real to what is empirically given (Dilthey, introd. p.30, my emphasis). When Lewontin suggests that despite the usefulness and validity of the model, it does not offer a **true** picture of nature, he is hinting at the fact that there is more to reality than what is empirically given. And it is in this context that the emergence of 'natural grammars' makes sense.

NOTES

[1] I am grateful to my two anonymous referees. Their comments on this paper have been very useful for the final version of it.

[2] The historiography of linguistics is nowadays a well established field of research, as is shown by the existence of specialized journals and international societies (cf. Koerner 1995).

[3] The French school of the *Annales (Sociétés-Economies-Civilisations)*, with historians such as M. Bloch, L. Fevbre, G. Duby, F. Braudel, J. LeGoff, among others, has established a fruitful historical methodology by incorporating notions such as space, long duration, mentality, official and private history.

[4] 16th Spanish edition, pp. 8-9, ed. Debate

[5] Swiggers (1992) has surveyed the various perspectives from which the term has been interpreted.

[6] The notion of the hermeneutic circle is not like the notion of a vicious circle in logics, where one argument leads to another which in turn leads to the first.

[7] H.G.Gadamer, *Warheit und Methode*, p.375, cit en Lledó, p.54.

[8] This clearly refers to the overwhelmingly anglophone bias in linguistics, and the shortsightedness that may derive from it.

[9] Feyerabend and Lakatos do not always coincide in their views, but Feyerabend's *Against Method* (1988) was initially a common project with Lakatos (who died prematurely) in which they were aiming to revise critically common assumptions about science and to raise polemical issues.

[10] See Rivadulla, 1986: 234 ff., for an excellent account.

[11] The epistemological foundations of the non-natural approach may constitute elements of the background against which the analysis of what a "natural grammar" is can be properly undertaken.

[12] In linguistics, W.U. Dressler, T. Givón, M.A.K. Halliday, J. Hayman, R. Langacker, W. Mayerthaler, and A. Wierzbicka, among many others, explicitly adhere to a 'natural' approach.

[13] Descartes, in part V of the *Discours...*, inspired in the ideas of the English physician Harvey, 1628.

[14] Edmond Goblot, *Essai sur la classification des sciences* Paris 1898

Adrien Naville, *Nouvelle Classification des sciences*, Paris 1901.

[15] *Lectures on the Science of Language,* vol.i, ii, London, 1864, cit. in Harris (1981:43).

[16] My own translation of: "[...]la raison n'aperçoit que ce qu'elle produit elle-même d'après ses propres plans (...) qu'elle doit forcer la nature à répondre à ses questions, au lieu de se laisser conduire par elle-même comme à la lisière.(...)" (from the French version by J. Barni, Paris: J. Gibert, pp-18-20)

[17] Notice that we don't have: "Let us study language (whatever it may be ontologically) objectively (from an epistemological point of view, i.e. by applying objective observational and verificational procedures)" but: "in order to study language objectively (epistemologically speaking) let us consider it as an objective reality (ontologically speaking)": the presupposition of ontological objectivity is a necessary condition for an objective descriptive process and methods (epistemology).

[18] "Le procès, le texte, ne sont-ils pas la seule réalité donnée, et la langue n'est-elle pas une invention purement arbitraire, une création du chercheur? (...) Mais on ne doit pas oublier que le texte n'est à son tour réellement un texte que quand il a été soumis à l'analyse. Le texte est aussi donc alors une création de l'esprit scientifique" (Hjelmslev, 1947, trad.1968, p.192, my emphasis)

[19] I am not referring here to Saussure's contradictory treatment of the notion of 'arbitrariness' in the *Cours...* Anybody reading the whole book, will easily see that he allows for degrees in arbirariness (in Part II, chap.VI, 3 *'L'arbitraire absolu et l'arbitraire relatif'*, and that he probably was aware of the complexity of the concept. However what is significant is the fact that he is usually known as having said only this: "le signe est arbitraire" (Part I, chap.I, 2). What is significant is how in the process of consolidation of the trend of thought, original works are read in a restrictive way and only certain claims are maintained, and institutionalized.

[20] The argument is neither very clear nor very convincing.

[21] The fact that Benvéniste's article was published in French is usually neglected, but it may partially explain the little influence it had in the predominant anglophone Linguistics. The control of publishing houses is to me an external condition that influences —and may even determine— the spread of ideas and their virtual influence.

[22] Silvers' (1995) *Hidden Histories of Science* provides numerous examples of how

personal, passional, social and ideological elements interfere and sometimes determine the course of events in different disciplines.

[23] In a canonical view, (cf. Encyclopedia Britannica) science is characterized as: professionalized, reductionist, i.e. doing research on artificially pure, stable and controllable processes, modelled on theoretical physics, with heavy use of mathematical arguments, positivistic, neutral and optimistic. Claims such as neutrality, reductionism and positivism have been questioned by a large number of members of the scientific community. Relativism in its various forms, so characteristic of post-modern times, fosters other non-scientific and non-Western views as potentially compatible with scientific description.

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