

El cambio lingüístico. Sus causas, mecanismos y consecuencias

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Madrid: Síntesis, 332 pages. ISBN: 9788490772102

Received: 17-12-2015

Accepted: 29-01-2016

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1. Introduction *

As indicated by the title, the book under review offers an explanation as to what linguistic change is, and what its causes, mechanisms and consequences are. The author amply fulfils its purpose of developing an updated introduction. Written in an informative tone and with little formal apparatus, this book is accessible both for beginners, advanced students and researchers with different backgrounds. In order to illustrate the discussion, Mendívil consistently resorts to the contrast between functionalism and generativism, as well as making brilliant parallelisms with the evolutionary theory. In this respect, the main idea is that the structure of the evolutive process that languages and species follow is the same. This allows us to avoid some important misunderstandings, like the confusion between evolution of language as a human faculty and the (notion of) linguistic change, with language being understood as a cultural object. It is crucial to always bear in mind that by “linguistic change” we mean a historical process, rather than the emergence of the Language Faculty in modern human beings.

Instead of reviewing the book by chapters, I preferred to structure this review in four sections, which correspond to the four main issues raised by the author: what the language change is, why, how and for what. Although I will not make it explicit in every case, virtually all the ideas in the following paragraphs belong to Mendívil (2015) and references therein; I have just added a few remarks which are my own (in this sense, all possible shortcomings are mine).

* I am very grateful to Francesc Roca for proof-reading this text and for his suggestions. All shortcomings are mine. This work has been supported by the Generalitat de Catalunya through a FI-fellowship (FI-DGR 2015, ECO/1788/2014), and by the Universitat de Girona (Departament de Filologia i Comunicació).

2. What: tinguistic change

First, we should clarify what is meant by “language”. Mendivil (2015) starts from assumptions of the generative grammar and he argues that languages only exist as natural objects in the form of brain states of individuals whose development is constrained by biological factors and natural laws from its very initial state. Although this has been traditionally called Universal Grammar, we are no longer assuming that what channels development toward certain stats and no others is necessarily linguistic. Along these lines, the author overcomes some criticisms to the generative enterprise, such as an excess of specificity or modularity. For instance, it is argued that Minimalism and Biolinguistics seek explanations for the structure in general principles and in complementary and non-specific cognitive systems.

This view of language is contrasted with that of functionalism, where ontological primacy is given to the External-Language (E-language henceforth, Chomsky 1986) conceived as a cultural construct and, consequently, it becomes usual to place constraints on something external and fuzzy, like culture or rules. Besides, the strong bias to adaptationism, especially to a simplified environment, leaves the structural uniformity of languages without explanation.

Following the generative view, Mendivil presumes a cognitive architecture where the language of thought presents an imperfect connection with the communication systems. What is permeable to experience and variation is this interface. Moreover, the null hypothesis is assumed, i.e., the idea that lexical items are the unique elements acquired to externalize language.

Given such an internal conception of languages, the language organ developed in every individual is the only real entity in a way similar to the conception that only organisms exist in the animal world. Over these natural objects, we abstract groups that come to be become E-languages and species. Instead, functionalism, more platonic, gives ontological priority to this sort of groups of objects. While we create criteria for defining membership (fertile reproduction and mutual intelligibility), the author notes that the boundaries are actually arbitrary and diffuse, so the groups that functionalism prefers are unreal.

Consequently, if there are only discrete objects, linguistic change is just an abstract historical process that arises when these different objects are linked in a temporal sequence. Therefore, the process is not biological, but historical. Indeed, there are differences between natural objects from a comparative perspective. However, both evolution and the history of linguistic change are restricted to link in a time continuum the independent links that correspond to natural objects. Conceived this way, languages do not change. Platonic entities that gradually change and from which nature continuously extract copies do not exist.

3. Why: the causes

The author develops the idea that evolution and linguistic change are natural history. For the analogy to be effective, we need to be very precise in the terms of the comparison. The parallelism is built on the idea that life and language are emergent phenomena that are manifested individually in organisms and in Internal-

languages (I-languages henceforth). Both organisms and I-languages are the natural objects wherein, during development or acquisition, changes happen in (synchronic and diachronic) relationship to other natural objects. Because of this, Mendivil calls them “historically modified natural objects [translation JR]”; we can make groups out of them (E-languages and species), but this is based on arbitrary criteria.

The changes that these objects undergo are independent from the question of which ones are going to persist (by natural selection or social prestige in different environments) and from the function they could have. Relative to the organisms, the mechanism of change is genetic mutation, whereas with regard to I-languages, it is reanalysis. These mutations are produced within a context that replicates and limits them: both the DNA and the Universal Grammar can be considered a universal code that the objects share, and that at the same time restricts and enables the (different) expression of phenotypes.

One of the defining features of variation is that it does not always occur in an isolated manner, but can have multiple consequences at the system level. On the one hand, mutations in regulatory genes can significantly affect the expression of other genes and the final phenotype; on the other hand, in linguistics we call parameters to certain values or changes that have an effect on the behaviour of the system. Following Mendivil’s assumption that the locus of the parameters is the lexicon, the genome and the lexical interface would be formed when these basic elements that have been historically accumulated are grouped.

Thus, the processes of natural evolution and linguistic evolution are formally identical, in spite of the fact that they are evidently applied to different substances. In this sense, when we talk about linguistic change we are excluding the evolution of the Faculty of Language. The rise of this faculty would be due to a minimal genetic change that produced a cognitive leap 100,000 years ago. Saying truisms, a linguistic change does not need a genetic change, but it does need a linguistic reanalysis; on the contrary, a reconfiguration of our cognitive architecture (beyond the possibilities of neural plasticity) does need a genetic change, but it does not depend on any reanalysis. Furthermore, reanalysis cannot lead to the evolution of our cognitive faculties.

The Grammaticalization Theory coincides with Functionalism in that both consider that the evolution of language is due to an increase of complexity coming from the accumulation of linguistic changes. These two approaches make the mistake of directly translating what happens with natural objects to what happens with cultural objects. In addition, they make simplifications such as the following ones: natural objects change to better adapt to the environment, the environment has a very simple constitution, and adaptation to the environment suffices to explain form.

The idea that the species or a language literally adapt to the environment creating better structures is persistent in the theories of evolution. However, as Mendivil points out, Darwin made it clear that evolution does not mean improvement, but only a major transmission of some variants over others. Simply, certain forms have more possibilities to be perpetuated in a particular environment. The change is accidental, i.e., it is not motivated by the cause of its ulterior selection.

Consequently, we cannot find any objective or purpose in the change. Ideal designs that fit perfectly well with the environment do not exist. If the

correspondence form-environment was so direct, and, importantly, if this environment was so simple as culture, there would exist a strong relationship between languages and cultures, a fact that is contradicted by their uniformity.

Another mistake is to simplify the environment to which languages are thought to adapt ignoring most of the natural conditions. For instance, functionalism considers the speaker as a crucial factor in the adaptive environment. It is usual to consider that she improves the language thanks to intuitions about communicative efficiency, the capacity to compare present and undeveloped states of language and to choose between them, etc. In addition to these false statements, this view will lead us to conclude that there exist inferior or more primitive previous stages, a conclusion that we would not accept for natural organisms.

According to Mendivil, the most relevant factors in the environment of languages are neither cultural nor something of the sort. Instead, he points to the much more immediate cognitive, biological and natural structure within which they are inserted. Nature channels the development of each language much more strongly than any other factor. Therefore, the adaptation to a communicative environment does not suffice to explain the form of the objects. The uniform patterns that we find in languages and in organisms owe their origin to something much deeper and universal. For instance, Ramírez (2015) proposes that locality constraints in linguistic structures are due to locality effects in oscillatory brain structures. The tendency to homogenize and create ambiguities in both structures could be ultimately related to the universal tendency to equilibrium, a thermodynamics law.

Then, if we want to identify an ultimate cause of variation, we have to point just to the different, accidental and minimal solutions that nature permits to some problems. There is no invisible hand, no superior will nor any destiny of enhancement guiding the process. According to Mendivil, the problem we face is externalization. Due to its imperfect connection with language, a lot of information gets lost when hierarchy, structure and semantics are converted into a stream of sounds. The linguistic output we generate by means of lexical items is ambiguous, and learners must reproduce the invisible connections between them and the structures of thought. Disarrangements are, then, expected.

4. How: the mechanisms

Languages and organisms are reproduced imperfectly. In organisms, genetic mutations happen and cause inheritable variation in phenotypes subject to selection. Likewise, in acquisition, linguistic reanalyses are produced. They consist of readjustments in the way in which the uniform structure of thought is externalized. The ambiguity of the input would be due to the imperfect connection between some systems. Mendivil claims that every linguistic change takes place by the same mechanism of reanalysis. Nevertheless, these readjustments are limited by natural factors: the cognitive architecture of language restricts the scope of reanalysis to the interface where lexical items operate; the underlying syntax would be universal.

The reanalysis process would include the notion of “grammaticalization”. In a sense amenable to generativism, grammaticalization is conceived as a process where representations of a lexical nature lose some of their values and materialize

categories of a functional nature. In contrast, the Grammaticalization Theory conceives it as a creative process that is progressively producing new categories for languages. This way, language gradually becomes more complex or more grammatical. The major problem with this view is the erroneous association between the rise of a lexical exponent and the rise, at a cognitive level, of the mental construct that it externalizes. It would not make any sense to believe that externalization precedes thought. Hence, Mendivil's line of thought seems more reasonable: he claims that categories are part of a universal inventory of our species; there is no cultural process that can alter them.

The hypothesis of variation restricted to externalization is challenged by the apparent syntactic variation among languages. With a naked eye, the structure of sentences varies, that is, syntactic constituents are differently ordered in different languages. With the aim to reduce syntactic variation to morphology, Mendivil assumes a universal sentence structure and a very concrete implementation of the parametric theory. He defends that there are hierarchically organized values and that these values have consequences at a system-level, show some correlations among them and condition each other. Their effects are formalized as sets of morphological properties. Mendivil goes over a reformulation of the parametric theory à la Borer-Chomsky, which prevents them from the illogic parameterization of principles. Furthermore, and he resorts to the virical conception of features, which became popular in the Minimalist Program, to justify order changes in terms of checking of features through syntactic movement.

5. For what: the consequences

The only consequence of linguistic change is the diversity of languages in itself, which is a very limited one. Given such a poor outcome, Mendivil puts emphasis on which consequences are not possible: linguistic change cannot produce anything that is not language, nor can it create it; linguistic change cannot modify our biology.

In support to the universality defined mostly by natural factors, we could adduce the hypothesis of uniformity of languages, according to which every language is in the same evolutionary stage. Importantly, this is not because languages had enough time to reach a pinnacle of complexity; it has to do with biological constraints over the language organ.

In the same vein, the changes in the way we think are not a consequence of linguistic change, contrary to the what linguistic relativism claimed. Radical empiricists think that language modulates thought, grounded on incorrect premises such as that language and thought are distinct entities and that languages influence our world conception, and not viceversa. Unfruitful attempts to corroborate this have been limited to superficial properties of language.

For linguists' relief, a lower order consequence could be that cognitive science can study language from different perspectives. Mendivil feels optimistic about the idea that a proper parametric theory will help to delimitate where the universality is and where variation is.

6. Assessment

This book surpasses the introductory character announced by its author. It goes deeper than many other publications on linguistic change intended for audiences with a background in formal linguistics. This is so because, in general, books that approach this topic assume as certain a large amount of postulations and move to tackle very specific questions in the form of more and more features that describe more and more data.

As a matter of fact, the book precisely deflates when it leaves the reflexive tone behind and dedicates chapters to the mechanisms of linguistic change, specially the syntactic one. The proposals of the book are courageous, but a further degree of bravery is needed to refuse the usual formal (un)explanation. I talk about bravery because this gap cannot be attributed to the author, but, probably, to the main goals of the collection. His vast knowledge of biology could be much more productive.

If one of the conclusions reached is that linguistic change is just an abstraction drawn over accidents without deep causes or consequences, why would we need such a formal apparatus to capture it? It may be time to focus on biological and universal factors that constrain change, nothing else. It is often said that parametric theory might be useful for cognitive (neuro)science. Considering the explicative simplicity of the proposals about mechanisms by cognitive neuroscience, and the difficulties to find out correlates of linguistic operations in neuroscience, I truly doubt it.

But there is a much more serious error that linguists have lost sight of. We endlessly believe that we understand the universal component of language, which legitimates us to focus the research on variation. In the eighties, we supposedly apprehended the principles of language, so we jumped to analyze variation in the form of macroparameters. In the nineties, we realized that we did not understand the principles: we postulated some minimal and general ones, and jumped into microvariation. This century, biolinguistics is sending the same warning sign again: we have not understood the principles yet, so it is still premature to approach a variation whose limits we don't know.

For instance, an important premise assumed in this book is the perfect connection between the computational system and the conceptual-intentional system, in contrast to the imperfect connection between the former and the sensorio-motor system. It suffices to have a look at any introductory book on cognitive neuroscience to realize that, although we have some ideas about how information is processed in the sensory and motor systems, the so-called conceptual-intentional system is nowhere!

This does not mean that translating the supposed architecture of language to the brain is impossible. I tried myself and I could speculate, but, at this very moment, we just have some knowledge about the sensory-motor systems, and the conceptual-intentional system is only a wildcard expression for the linguist. Then, we cannot assume that some connections are perfect and that some others are not; in consequence, it is difficult to construct a whole theory over such weak fundamentals.

The latter is not a reproof to the author nor to this book, but to the field in general. If our aim is to understand the biological constraints of variation, we may

need to go back to the pre-parametric era, to the most elementary ideas of generativism. Only when we can understand the most basic operations (Ramírez 2014, Ramírez et al. 2015) and the most basic constraints (Ramírez 2015), will we feel more legitimized to enter the scope of variation. If our aim is to talk about the mind and the brain at the same time, I have very little hope that the formal tools we use today will hold up.

Finally, and in a somewhat rough summary, we can say that languages do not change and that the historical process we abstract lacks deep causes and consequences. This is so simply because imperfect replications of ambiguous input occur accidentally among individuals and such a replication among peers would take place over the externalization of (language of) thought. As a result, we get diversity from a comparative perspective; no more, no less.

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