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New research perspectives in post-Guillaumian linguistics: *cognematics* and *interlocutivity*.

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1. Introduction

One of the foundations of Gustave Guillaume's (1883-1960) *Psychomechanics* is the idea that language is the product of the combination of two indissociable structures, the semiological structure (the signifier¹) and the psychic structure (the signified), linked by a "congruency" relation (Guillaume 1971: 170):

A principle adhered to by all the languages in their construction is that of congruency or, in other words, the matching between the signifier and the signified. The signifier is an act of speech, the signified an act of thought, and the structure of a language, and its very existence, presuppose a sufficient agreement – which will never be excessive (and which may always grow) between an act of speech and an act of thought.

The idea of congruency between the semiological structure and the psychic structure constitutes a breakthrough in its time, while perfectly reproducing the "Saussurean division of the sign". We shall focus here on the relationship between both: indeed, the problem of the transition from phonation to semantics has provoked a major theoretical evolution in Hispanic linguistics of Guillaumian inspiration, from the 1980s to the 2000s, with the emergence of the field called today the "linguistics of the signifier". This paper will mainly focus on grammatical signifiers.

2. From Guillaume to Mo.La.Che

We should bear in mind that Guillaume insists on the prevalence of the psychic structure over the semiological structure as emphasised by Francis Tollis in *La parole et le sens* (1991: 45), this leads Guillaume "to look for a rigorous system only around the signified" [...]. Indeed, behind a semiology only offering attempts to systematise with incomplete coherence, hides a 'psychic' structure which is totally and rigorously coherent (Guillaume 1971: 133, cited by Tollis 1991: 45).

With Guillaume, the prevalence of the signified is a major breakthrough in the conception of the intra-sign relationship, but it does not really provide any response to the problem of the articulation between semantics and phonation, and again emphasises the contours of the linguistics of the *sign* rather than of the linguistics of the *signifier* (Le Tallec-Lloret 2012). If a prevalence is posed, that of the psychological structure as the motivating source of the semiological structure – what Didier Bottineau calls "the geological conception of the signifying form (Bottineau 2010: 91) – everything still remains to be done, precisely on this semiological structure, and *de facto*, on this transition from phonation to semantics. The works of Maurice Toussaint (1983), then the project of the Mo.La.Che group should be placed in this perspective, regardless of how insufficient they may appear.

After the "intense pleasure", the "revelation" brought by Guillaume that "the signifiers, like the effects of meaning and the syntax, should be interpreted as consequences generated by the semantic structure", Toussaint has relentlessly looked in semiology for "the *de facto* status" [...], the morpho-phonological "translation" of the already established organisation, independently from it, on the semantic plane. (Tollis 1991: 52)

Indeed, the principle of *congruency* has led a group of three linguists and Hispanist researchers, Maurice Molho, Michel Launay and Jean-Claude Chevalier, more readily identifiable under the acronym Mo.La.Che, to lay in the 1980s the principles of a “linguistics of the signifier” in a first manifesto-article entitled “The reason of the signifier” (1984), exposed more amply and illustrated later on in a series of articles, as a group then individually, in particular by Launay (2003) and Chevalier (1996). If we re-examine the guiding principles of Mo.La.Che, we can already observe in the very formulations, the difficult conciliation between, on a one hand, the structuralist Guillaumian legacy and, on the other, the aspiration to go beyond it.

First of all, in Mo.La.Che, the unity of the linguistic sign is asserted with strength. We shall remember the Chevalier’s formula (1996: 81) echoing the famous *congruency* of Guillaume: “Signifier and signified are anchored to each other [...]”, where we would be wrong not to dwell on the passage below: “[...] and the signifier, everywhere and always, tells what we have *read mentally* and who produces the signified. Nothing to look for in the signifier that does not mark the signified”. The undeniable prevalence of psychology over semiology is clearly set here, in such a way that this blatantly Guillaumian mentalism paradoxically combines with the rehabilitation of the signifier.

Indeed, in the intra-sign relationship, with respect to Guillaume (Tollis 1991: 225-292), Mo.La.Che realises a major shift by considering the meaning as a ‘product’ of the signifier (and not as its ‘source’), by granting *de facto* the status of commander” to the signifier:

There is nothing deeper in a language than its surface: for those who know how to look at it, it is the faithful translation of what happens deep inside. (Mo.La.Che 1986: 96)

[...] in our view, the language does not include any other system nor other systematics than as ordered and stated by a kind of semiology which is always and everywhere motivating [...] (Mo.La.Che 1984: 40).

It is substantially the whole linguistic system which is concerned by the motivational mechanisms to which we wished to call attention (1984: 32)

Mo.La.Che then advocates a theoretical rebalance between the signifier and the signified, in favour of the signifier. This has two consequences:

1) It is important to stress the difference with respect to structuralism, as observed in the conclusions of M. Launay on the apocope in Spanish (Launay 1985: 438).

For a structuralist, acopoped forms are treated in a uniform way, no matter which section of the sign is deleted (*bueno/buen; primero/primer; santo/san; grande/gran; reciente/recien...*), since only the opposition is relevant. For Launay, the very form of the apocope does matter, since the deleted segment contains the smallest possible information, either indeterminate gender (*-te, -de*) or unmarked gender (*-o*), depending on adjectival category and morphological structure.

For a structuralist only reasoning in terms of oppositions, with the postulate of the arbitrariness of the linguistic sign, the result is admittedly the same, regardless of the form which is acopoped, since the opposition is maintained. But the way the signifiers oppose also proves noteworthy.

2) This rebalance in favour of the signifier leads to go back decidedly to the ‘physiological’ part of the sign, to the elements of which it is constituted materially: the phonemes.

We shall sum up here the guiding idea of Launay according to which the sign “in itself”, i.e. “outside system”, is not motivated a priori, but is driven by the system, especially via semiotic connotation. With respect to Saussure, Launay does not only lay down the idea of a system but that of a system of signifiers. Correlatively, the emphasis is on the “phonematic structure of the signifier” (Launay 1985: 430):

My thesis is [...] that at the level of the phonematic structure of the signifier there is also a law and also a kind of prohibition which cannot be explained by the articulatory difficulties nor the semantic hierarchy of the concepts it is still referring.

The Mo.La.Che group tends to take its distance from the structuralist conception of the sign, taken as an unbreakable linguistic entity, conceived in a Language, and forebodes the decomposition of the sign in semantically relevant isolable elements, that is, lexical and grammatical submorphemic units (see below). Thus, the definition of the *formant* proposed by M. Molho constitutes a considerable theoretical breakthrough even if the choice of the term is debatable as it tends to induce confusion with vocalic formants:

For our own part, “formants” are not acoustic frequencies, but signifying elements or particles which, intervening in the structure of a given signifier, are repeated in several others, which result in the formation of an analogy field grouping one or several morphemic series. This amounts to say that a “constituent”, if it appears in a set of morphemes, informs the series and confers it a general signification of which it is the cause or the root. (Molho 1988: 291)

M. Molho’s uneasiness can be felt in his hypothesis of the “constituent” when the latter is reduced to a single phoneme (such is the case of the constituent **n*), which carries a semantic instruction^{IV}, whereas a phoneme as we know does not carry any meaning. M. Molho is compelled to reproduce the old structuralist opposition between negative value and positive value. Still, the constituent is indeed situated at another level than the morpheme and can be somehow assimilated to a ‘submorpheme’. But, in the structuralist conception passed on to Molho, the lower level comprises the phoneme, which is deprived of a positive value.

Should the element **n* be considered as a signifier in the ordinary meaning of the word? We have some scruples in designating it as such, since a signifier consists of an element which must be a linguistic integer (word, prefix, suffix, radical, desinence, etc.). However, **n* shares with the signifiers the property of presenting itself in the form of a physis to which is associated a mental or signified content, in the strict sense of the word. In other words, if it is not a signifier, **n* can still be a signified, and as such it integrates one or several signifiers and forms it or them into a system [...] by the addition of a common signification element. (Molho 1988: 299)

This very uneasiness is pointed out by Bottineau (1999: 6); the difficulty felt by Molho concerns the fact of navigating only between the grammatical morpheme (positive value, signified side) and the last stepping stone, the phoneme (negative value, signifier side), whereas the emergence of constituents would require the theoretical conception of another level of abstraction taking the phonological structure of the signifier into account:

[...] more recently, Molho (1986: 50) identifies vocalic and consonantal constituents in the grammatical words of Spanish, which can be detected in synchrony by analogies which do not respect the diachronic filiations; its role is not truly to fix a positive and intrinsic invariant, but to flatten synaptically categorical differentiations (such as that of the name

and of the verb) which mask common psychic construction traits. Consequently, the constituent is not linked with the phonomimesis.

If in Hispanic linguistics the sign could be broken since Mo.La.Che, the breakdown operation remains morphematic. The radicality of Mo.La.Che has undeniably marked a major stepping stone in Hispanic linguistics, while leaving unsolved the tricky issue of the transition from phonation to semantics. Moreover, it may be perceptible that its studies of Spanish morphosyntax are still more concerned with a linguistics of the sign than truly with a linguistics of the signifier. A theory of the sign taken as a linguistic entity, in Languages, within an approach still strongly marked by Saussure, leaving little room for enunciatory considerations. The postulates of the Mo.La.Che have then fuelled the works of other researchers, in particular those gathered in the seminars of Gilles Luquet in Paris 3, within the GERLHIS, Study and Research group in Hispanic Linguistics.

It was in the 2000s that the reflection on the linguistic sign was reinstated as such and marked a new stepping stone in going beyond the structuralist legacy, under a double impulse, within and outside Hispanism: that of G. Luquet – with the publication of the collection of articles *Regards sur le signifiant* (2001) and that of the Anglicist, trained along the Guillauman lines, Didier Bottineau, with his theory of *cognemes*.

3. From Mo.La.Che to *cognematics*

In the lexical field, the thesis of the motivated sign maintains that what associates the signifier to the signified to the extent of being both indissociable of the sign, is the recourse to the sensorial (Guiraud:1967): the acoustic image of the sound and of the sense only exists in their relation of reference to the corporeal sensations. In the field of grammatical morphosemantics, the distance with respect to Guillaumian mentalism ought to be stressed, as was done by Bottineau:

This makes obsolete a geological conception of the sign as a physical and expressive trace of the occult internal mental and requires an interactive conception which reconciles the indissociable dynamics of the corporal and mental processes. (2010a: 92)

This reconciliation of the physical and of the mental, where the phonological structures are conceived as articulatory gestures, forms constitutes the basis for the theory of cognemes developed by Bottineau, who observed that:

In a large number of natural languages, Indo-European or not, it appears that the grammemes and, as the cases may be, certain lexemes, do not constitute unbreakable units, but agglomerates of isolable submorphemes which, considered individually, refer to invariant mental processes, like fundamental pieces of software for cognition, named as cognemes. (2003: 185)

What is a *cogneme*? A phoneme which is capable of priming abstract meaning at submorphemic level by using its sensory-motor properties to activate procedural interpretive processes. This operation is not only attached to the intrinsic properties of the phoneme as a network of correlated articulatory gestures, but also to the network of oppositions and values which underlines it, such as /i/ vs /a/.

From a theoretical viewpoint, this involves an additional level of abstraction beneath the phoneme, that is, the participation of sensory-motor loops in sense-making processes. Initially, Bottineau formulated cognematics as a vector between speaker and hearer, and therefore formulated the theory in instructional terms:

The theory of cognemes proposes a generalized recognition of submorphemic indicators wherever they are to be found in grammatical morphology. The word *cogneme* designates a semantic process that the speaker invites the hearer to implement in order to establish a relation between two preexisting semantic entities, a cognitive hinge available in the linguistic system shared by the addresser and the addressee that the former can activate in the latter's mind by sending the relevant acoustic trigger sound in the appropriate syntactic environment. In the case of I, the instruction consists in joining or even merging two previously separate entities. The nature of the semantic entities involved depends on the format of the syntactic units between which the cognemic submarker is operating. (2007:54-55)

More recently, Bottineau (2010c) has related cognematics with the paradigm of enaction and defined cognemes as phonemes whose sensory-motor dynamics activate sense-making processes both for the speaker in reflexive thinking (endophasia) and the hearer in addressed communication (exophasia), in keeping with the paradigm of radical embodiment. Instructionalism is retained as a convenient formulation at metalinguistic level, but is not the essence of submorphemics.

In this paradigm, the cogneme is understood as a complex bundle of articulatory gestures which activates a complex bundle of perceptual events: the cogneme is multimodal on both sides, both in terms of motricity and sensoriality. For this reason, each cogneme is apt to activate a matrix of interpretive processes that can be glossed in instructional term, but in a given context, one of those traits is made salient at the expense of the others. Some cognemes activate interpretive profiles which are directly linked to the sensorimotor properties of the articulatory gestures: in romance languages, the *i/a* opposition, marking a contrast between proximity and distance (or, in instructional terms, processes of conjunction and disjunction), is narrowly tied to the closing and opening gestures characterizing the production of those vowels. Other cognemes activate interpretive gestures that are more loosely linked (if at all) to the articulatory pattern: in present-day English, the *wh-* / *th-* opposition (as in *where* / *there*, *when* / *then*) deals with the availability or absence of a given entity in working memory, but one cannot relate this semantic contrast with a clearcut opposition at the level of traits, even if there may have been a stronger connection in diachrony. Even at cognematic level, the degree of solidarity between the profile of the gesture and the nature of the interpretive process can fluctuate in diachrony and depends on how speakers interpret the link at a given moment of the history of the language, alternating conflicting trends towards relative demotivation and relative remotivation, especially when new forms emerge under the pressure of analogy. Language change oscillates between cognematic erosion (like the disappearance of the *o/a* opposition in French or the destabilization of the English vocalic system by the great vowel shift) and cognematic structuration (like the homologous analogies between *en* and *-ant* in French and *in* and *-ing* in English concerning spatial and aspectual interiority (Bottineau 2014): in microdiachrony and at synchronic level, a submorphological order, underpinned by cognematics, is forever emerging and struggling against dissolution, but cognematics is never fully re-created or remotivated by speakers and is not determined by the properties of external referents.

Unlike in the case of Molho's 'constituent', both dimensions, phonological and semantic, are taken into account here, in what is akin to a trajectory, a process: from a phonological mechanism (the *cogneme* gives phonological "instructions", articulatory traits) cognitive and semantic instructions are triggered. What is glossed as a semantic instruction is not in itself a representation but an operation intended for combining the phonation and the meaning by what is also called by Bottineau an, a "psychophone", a "cognophone", "at a subconscious level, the phonic stimulus inducing a sensorial/mental response".

This theory offers the double advantage of isolating what is used as an instrument for switching from phonation to semantics (the *cogneme*) while going beyond the theoretical cul-de-sac which leads Mo.La.Che in order to pour meaning into the phoneme, thereby excluding phonomimesis:

The cogneme relationship fundamentally involves a restriction in its application, the obligatory 'contrasting' in the actualising process:

We are founded to consider a phoneme as a submorpheme which is semantically relevant under the following (non-cumulative) conditions: 1- it occurs in a recurring alternation [...]. 2- The word-operator in which it occurs is itself globally formed of an agglutination of markers extracted from such alternations [...]. 3- The submorpheme, combined with a root or with other submorphemes in a constant position like the initial or the final position, classifies all the operators concerned in a given category [...] (Bottineau 2004: 29)

The 'cogneme' is somehow the missing link between phonation and semantics, this union of sound and meaning sought after by R. Jakobson (1976: 22-23). The motivation of the 'signifier' considered by Guillaume as the psychic welding of the 'virtual signified' and of the 'sign' shows forth in the sensori-motor grounding which sometimes shapes or at least supports the articulation of the virtual cogneme. The transition from phonation to semantics is not direct: it involves the cognition, a step which precisely marks the break with structuralism: "what sounds impart to the senses and raises in the mind". We may pontificate on the cognemes in an instructional manner (these phonatory, cognitive, semantic instructions), which excludes attributing them any 'signified' content.

For the time being, cognematics remains a linguistic hypothesis grounded in the modelization of submorphological coherence in grammatical system supported by analogical, remotivational and neological processes in microdiachrony. How this speculative proposal can be validated by other methodologies is currently discussed (Bottineau 2014) and experimental work has been undertaken (Thibaut 2011 for the connection between cognematics and co-speech gestures; Olivier and Bottineau 2015 for gestuo-motor compatibilities).

4. Linguistics of the signifier

In order to come back to Hispanism and in order to understand how cognematics and linguistics of the signifier could make contact^v, we need to re-examine the works of Gilles Luquet, who very quickly adopts, in the wake of Launay, a conception of languages not as systems of 'signs' but as systems of 'signifiers', delivering phonological sequences to objective observation.

In his works on Spanish verbs, starting from two structuring variations (person and *exochrony/endochrony* relationship), Luquet observes that in the personal forms, there is no such thing, properly speaking, as a subjunctive mode on the plane of the signifier (1998: 89-90):

The sole semiological traits shared by a 'present', a 'future' and a subjunctive 'imperfect' (in this instance the marks of the person) are usually found in other 'tenses' of the Spanish conjugation and especially in certain tenses of the so-called 'indicative' mode. Such is indeed the case with the absence of specific marks concerning the 1st and 3rd persons of the singular; [...] the terminal *-s* of the 2nd person of the singular; [...] of the terminal morphemes *-mos*, *-is* and *-n terminal morphemes*, in charge of representing respectively the 1st, 2nd and 3rd persons of the plural. These marks are not specifically subjunctive since they can also be

found in the signifying structure of any indicative imperfect or of any conditional. As regards the thematic morphemes to which they relate, nothing, from a semiological viewpoint, compels to group them in a single assembly.

In 2004, his theories on modes and tenses (founded strictly on the semiology of verbal forms) marks a break with the Guillaumian approach by substituting the traditional modal opposition between indicative and subjunctive with an *actualising* mode with respect to an *inactualising* mode.

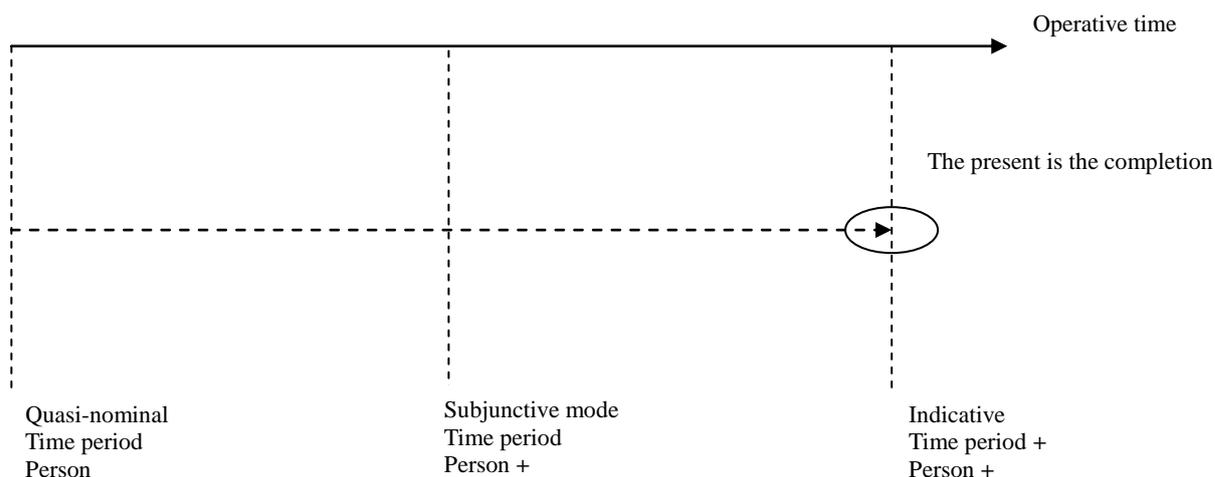
After exposing a clear opposition between the three personal verbal forms distinguishing the 1st and 3rd persons of the conjugation, and the others, which neutralise this distinction, he proposes to make a distinction between two types of identifications around the speaker's figure, the keystone of this temporal architecture:

- A *really temporal identification*, founded on the speaker's experience time, enabling him to locate an operation in time;
- an *identification of the inactual*, winning over a conception of time of another nature, a conceptual, imaginary time and not an experience time any longer.

Thus, the personal verbal forms in modern Spanish are organised into two modal sub-assemblies: on the one hand, an *actualising mode* offering three types of representations: *canto* ('present'), *canté* ('preterit'), *cantará* ('future'); on the other, an *inactualising* mode offering five types of representations: *cantaba* ('imperfect'), *cantaria* ('conditional'), *cante* (ex-'present subjunctive', *cantara* (ex-'imperfect subjunctive', a *-ra* form), *cantase* (ex-'imperfect subjunctive', a *-se* form).

Based on these three superficial observations, and contrary to the Guillaumian tradition which saw in the 'present' of the indicative mode a completion^{vi} of the chronogenetic operation (fig.1 below), Luquet considers the enunciation present as the 'source' of the verbo-temporal system.

Fig. 1 : *Chronogenetic operation* (Le Tallec-Lloret 2010: 98)



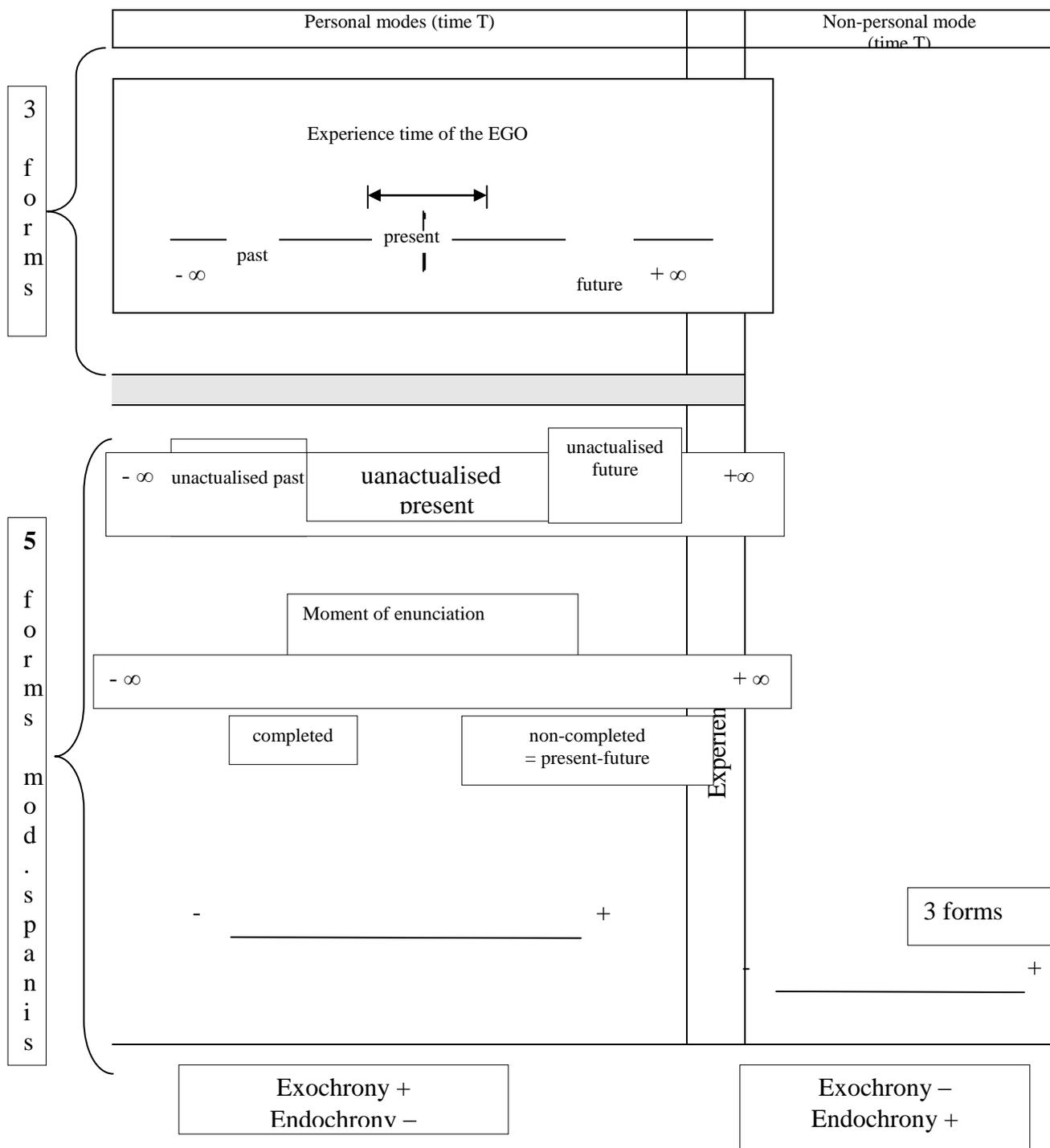
By "enunciation present" is meant 'the' unique present of the being defined as the EGO, both speaker and builder of the language^{vii}. It is as an enunciating instance that the EGO builds its representations of time, its time-images. The personal and impersonal forms represent different

conceptions of time associated with an operation: it is this conception of time that is called the “linguistic time”.

Personal verbal forms in Modern Spanish are organized in two modal groups: actualising mode consisting of three types: *canto, canté, cantaré*, and inactualising mode consisting of five types: *cantaba, cantaría, cante, cantara, cantase*.

This theory gives rise to the Verbo-Temporal System in Spanish as suggested by the following recapitulative figure:

Fig. 2 : *Verbo-Temporal System in Spanish - actualising mode vs. inactualising mode* (Le Tallec-Lloret 2010: 118)



Indeed, in the Guillaumian tradition, it is the indicative mode that corresponds to the maximum degree of actualisation of the process, as it situates it with respect to the speaker's person and at the moment of the act of language. The operative time in *Psychomechanics* requires a certain time period to unfold; it is represented horizontally by Guillaume who therein includes vertical cross-sections (*fig.1*). In this Guillaumian vision of time which is building up to completion, the number of verbal forms grows up to the indicative mode which can be divided into time-scales: starting from four forms in the quasi-nominal mode, we obtain ten forms in the indicative mode. Still, in the Luquet's theory, the verbo-temporal system of Spanish takes its 'source' in the present and is not its achievement: the founding, enunciation present finds itself "upside down" (*fig.2*) the other lines of time then marking, one after the other, a mental distance with respect to the experienced time of the speaker, following the parameter as it is being abandoned: from the three-part vision resulting from the spoken word founded the present and rooted in experience ('actualising mode'), there is a transition towards a mental universe marking a break from the experienced present ('inactualising mode').

5. Conclusion

Luquet's theory, reveals, beyond the debate on the existence or not of a language structure, the idea of a system of signifiers (here the verbo-temporal subsystem of Spanish). It places *de facto* at the forefront the oppositions authorised by the language and that the speaker exploits, in his linguistic subconscious, both as a builder and a user of language.

Between the actuality and the inactuality of speaking, these theories on modes and times, turn interlocution, a parameter absent in Mo.La.Che, into the other theoretical key which combines with a true 'reading of the signifier', today particularly active nowadays in Hispanic linguistics. Language is not the world; it is itself another world, a system with its own rules of organisation, observable even in the phonematic structure of its signifiers. From this perspective, the roll-over one can observe in Luquet (the present being turned "upside down") is not all the more a so-called "renunciating theory", taken in the classic sense of the term. It is much closer to the *interlocutivity theory* in the sense of Douay and Roulland (2012 and 2014). Taking into account the signifier of the verbal forms is a cardinal parameter, resulting both from the Guillaumian legacy, the breakthroughs of Mo.La.Che, but also from taking into consideration the corporeal or enactive approach of language as modelled by Bottineau (Le Tallec-Lloret 2012: 29-36).

Today, post-Guillaumian linguistics may address a new step towards the "linguistics of the signifier", if it integrates the theoretical resolution supplied by cognematics (articulating sound and meaning by exploiting the notion of contrast) and if it seeks to articulate the necessary system and the just as necessary interlocution.

ⁱIt is furthermore important to specify that the ‘signifier’ should be understood, in the Saussurean sense of the word, designating the material face of language, and not as an equivalent of the ‘sign’, as Guillaume could use it. Fully aware of the expeditious aspect of this presentation with respect to semiology and psychism, crucial issues for Guillaume, and for linguistics in general, see Tollis 2008: 179-206.

ⁱⁱ The study of the semiological structure is called ‘psychosemiology’ while the study of the psychological structure is called ‘psychosystematics’.

ⁱⁱⁱ “[...] we were right, in that matter, to criticise the purely ‘articulatory’ explanation. But we were wrong, probably, to try and see the alpha and omega, as a reaction, in ‘semantics’: as if the signifier as such could not be the place of any law of its own, as if the laws governing the signifier should absolutely depend on the body producing it (the physiological aspect) or on the world which it may be instrumental in describing (the semantic aspect). My thesis is on the contrary that at the level of the phonematic structure of the signifier there is also a law and hence also a kind of prohibition which cannot be explained by the articulatory difficulties nor the semantic hierarchy of the concepts it is still referring”, *Ibid.*, p. 430.

^{iv} “[...] the mental content associated with *n* is that of the exclusion and inclusion in its double relation: more in less or less in more”, (p. 301).

^{vi} The theoretical meeting concretely took place in the 12th Colloquium of Ibero-Roman linguistics in Rennes in 2008 where Bottineau first presented his conference, «The grammatical submorphology in Spanish and the theory of the cognemes», followed by Luquet’s one, «On the iconicity of the grammatical morphemes in Spanish». See Bottineau (2010a) and Luquet (2010).

^{vii} See Gérard Moignet: “As a language system, it displays its coherence in the progression that it shows of an increasingly precise and differentiated image of time as we go from the most virtual to the most actual” (1981: 65).

^{viii} Apart from the act of language, excluding when speaking, there are as many present tenses as human beings conceiving them.

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