



## Lucien Tesnière, The Cognitive Science and Classical Languages in the Third Millennium

Gloria Larini

Italy

[gloria.larini@katamail.com](mailto:gloria.larini@katamail.com)

### 1. Introduction

The analysis of speech acts, also in a classical language, means, undoubtedly, the necessity to consider the various codes involved in that acts, the cognitive models of the speaker and of the addressee, the setting[1]. My analysis is supported by the belief, shared generally by scholars, that Greek and Latin languages are very appropriate to absorb linguistic structures and to use parallels. Antoine Meillet, for example, in *Aperçu d'une histoire de la langue grecque*[2], notes that literary languages have the "benefit to present fixed forms [...]: in the linguist knowledge [...] the object is exactly definite [...] and [there are] conscious rules voluntarily respected"[3]. The affirmation of "voluntary" is, in my opinion, essential, in order to consider a new method of teaching for the classical languages. Meillet recalls the "rigid structures" of the grammar, thanks to which "the grammarian can observe the complete application of the rules"[4]. Classical literary languages, like other modern literary languages, combine the possibilities to create a new semantics thanks to the rigidity of syntax and grammar[5]. Meillet allowed a "picture" of the classical literary languages that starts, in my opinion, a different approach to teaching them.

### 2. The dependence's grammar in my thesis

At the beginning of the twentieth century some scholars argued that the center of the Indo-European languages was the verb[6]. Among them, Lucien Tesnière, a French linguist, theorized a very innovative method of linguistic analysis of the structures. This method is based on the concept of "dependency" between the various elements of the phrase and on the connection between them. He divided the linguistic expressions into "subordonnées" and "régissantes". His book, *Eléments de syntaxe structurale*, was the beginning of the "dependence's grammar". It was initially used only in the teaching of modern languages, but recently was re-evaluated in order to the analysis of the classical languages thanks to the methodological studies of Germano Proverbio and Francesco Sabatini[7]. The proof of the validity of this theory and of a new methodology of teaching is also in my PhD thesis[8], in which I analyzed the announcements of entrance in Euripides' tragedies. The findings of my research lead us to consider that the structure of a classical language is strictly dependent by the situation of the *performance*. This conclusion links the structure of the greek language to the relationship between the individual and reality[9], because the reality "gives" a structure to the language and "viceversa". In a recent book Nevia Dolcini[10] has highlighted the "indicicality of the language": the ability to concentrate attention to some aspects of reality in contact with the senses of the speaker. Otherwise a theatrical stage and the real life would be a chaotic jumble of "stimuli", without criteria, but the cognitive linguistical strategies examine also a selective attention in the verbal choices[11]. It is interesting to note that even Tesnière imagine the words as "a little drama that involves actors, circumstances and a process"[12], starting from the relationship between language and reality[13].

### 3. The neural basis of the languages and the studies of Classics

Therefore it is more easy for students understand classical languages through pre-existing cognitive structures. The mastery in the first language may increase the cognitive ability in the second language[14]. The simple retention in memory of linguistic rules does not facilitate the knowledge of the classical languages, because inverts the cognitive process of learning, that begins from the structures already present in the mind. "The learning of language structures starts from two-three years of the life and continues until sexual maturity, but vocabulary learning occupies the total life of a person[15]. So the correct learning of linguistic structures in the adolescence is very crucial for the development of higher cognitive networks, related with the language: in this period of the life students can "remold more easily" their neuronal networks through a kind of assimilation and adaptation



(Piaget) of the neuronal networks used to the language production [16]. In fact Chomsky, for example, said that "the biological structure of our brain is constructed to produce the language[17] and the language that "works for" deeper logical levels is considered an achievement of evolutive development"[18].

#### 4. The Tesnière's method

According to the dependence's grammar each linguistic expression can be analyzed through a "stemmatical" logic[19]. This is important in order to create a hierarchical structure, based on linguistic hierarchies that start from a syntagmatic lines: the graph becomes the representation, drawn following the cognitive connections. When the graph is more complex, the linguistic structures and the ability to perceive the reality are deeper. In the method of Tesnière "the subordinate position of a word is the key in order to mean the upper word [...]" and to complete it, understanding his meaning[20]. Within this structure we can identify the connections, the so-called "knots" by Tésniere, but their identification is insufficient without the concept of "nucleus". The "nucleus" is constituted by a "focus", a kind of knot, that has some functions: this "knot" is comparable to a point and the nucleus is the set of various points[21]: the structure of a sentence is determined by the different functions of the segments inside: "the structural syntax becomes functional syntax"[22]. Each linguistic expression, therefore, may be unstructured in "knots" that can be verbal, when they have in the center a verb, nominal, when they have in the center a noun, adjectival, if they have in the center an adjective or adverbial, if they have in the center an adverb. The verb may express an action or a "status"[23]. These observations are related to the concept of "valence", from chemistry, "because every word is like an atom, equipped with hooks: the number of hooks of the verb is called valence"[24]. The nucleus can be expanded by "actants" and "circostants". The "actants" are always nouns or equivalent words and the "circostants" indicate the circumstances[25]: they may express time, place, manner and other functions in addition to the primary "focuses". Both are subordinate words, if compared to the verb. Each nucleus is intelligible through some "nuclear questions" [26]: specific questions that help the search of meaning and the function of each nucleus. This hierarchical structure of the classical language is particularly useful to cognitive exercises: latin and greek languages are important "medium" of learning the mother tongue's structures and restructure the brain networks in order to increase the correct development of the language's areas[27].

#### 5. Conclusions

The study of a classic language activates neurons in the left brain hemisphere, but the semantic choices bring into action the right hemisphere[28]. So a regular activity of translation from the classical languages, if it is structured in conformity with the Tésniere's method, simultaneously activates both neuronal areas of brain[29]. The reading, aloud or mentally, is neurologically comparable to listening a language, nullifying the artificial distinction between "dead" languages and "alive" languages[30]. The acquisition of phonological contrasts in a second language activates the same brain areas of the mother tongue. Naturally the approach to Latin language and its structures is easier than greek language, but this kind of activity is lower and more simple in the modern languages, because they have as main purpose the linguistic production, the communication, and the structures are more easy than classic languages. So in addition to historical, philosophical, theological, scientific, legal and cultural contents, Classics can perform many neuronal levels of the linguistic areas of the brain, if they are not used through a mechanical learning of rules and structures, but through logical exercises and linguistic reflection. Their function of reinforcement of cognitive skills is important for the new generations and increases the capacity of concentration, of self-confidence, through an analysis of the error's process and a reflection about problem-solving, that continually urges to seek alternative solutions. The understanding of Classics, their linguistic analysis, is also an important act of spiritual freedom[31]. In fact it hasn't a pragmatism aim (learning a language in order to get something), typical of modern languages, but it's a learning's process without any interest: a pure act of culture.

#### References

- [1] Carla Bazzanella, *Le facce del parlare*, Firenze, La Nuova Italia, 1994.
- [2] Antoine Meillet, *Aperçu d'une histoire de la langue grecque*, Librairie Hachette, 1913, tr.it.*Lineamenti di storia della lingua greca*, Einaudi Editore, Torino, 1976.



- [3] Antoine Meillet 1913, *op. cit.*, p. 153.
- [4] Antoine Meillet 1913, *op. cit.*, p. 165.
- [5] Antoine Meillet 1913, *op. cit.*, p. 268.
- [6] Lucien Tesnière, *Éléments de syntaxe structurale*, Paris, Klincksieck, 1954 (rist. 1982<sup>10</sup>), tr. it. di Germano Proverbio e Anna Trocini Cerrina, Rosenberg & Sellier, 2001., p. 73.
- [7] Germano Proverbio, (ed.), *La sfida linguistica. Lingue classiche e modelli grammaticali*, Torino, Rosenberg & Sellier, 1979; Germano Proverbio, *Lezioni di glottodidattica*, Torino, Giappichelli, 1984.; Germano Proverbio, *Note sulla grammatica della dipendenza*, Torino, Giappichelli, 1986; Francesco Sabatini, *La comunicazione orale, scritta e trasmessa: la diversità del mezzo, della lingua, delle funzioni*, in Provincia di Roma, Istituto di Psicologia del CNR, Educazione Linguistica nella Scuola Superiore, 1982.
- [8] Gloria Larini, *La casa sulla scena euripidea. Didascalie implicite e moduli linguistici, dialogici, drammaturgici per una lettura a tre dimensioni delle scene di ingresso*, Istituto Italiano di Scienze Umane, a.a. 2010/2011, tutor prof. Antonio Carlini (unpublished thesis).
- [9] John R. Searle, *Speech Acts*, Cambridge, Cambridge University Press, 1969, tr. it. di Giorgio Raimondo Cardona, *Atti linguistici. Saggio di filosofia del linguaggio*, Torino, Boringhieri 1976.
- [10] Nevia Dolcini, *Le parole e i sensi. Una teoria degli indicali basata sulla percezione*, Macerata, EUM, 2009, soprattutto pp. 122-146.
- [11] Nevia Dolcini, *op. cit.*, soprattutto pp.100-107 per approfondire il concetto di attenzione selettiva.
- [12] Lucien Tesnière 1959, *op. cit.*, p. 73.
- [13] Cristina Riva Crugnola, *Nascita del simbolo e costruzione dell'oggetto nella prima infanzia*, Franco Angeli, 1992<sup>2</sup>
- [14] Gloria Larini, *Biolinguistica e cognitivismo nelle lingue classiche*, "Pragma", 30 (2007), p. 20).
- [15] Gloria Larini, *op. cit.*, p. 20.
- [16] Jean Piaget, *Le scienze dell'uomo*, Ed. Laterza, 1983<sup>3</sup> ; G. Larini, *op. cit.*, p. 20
- [17] Noam Chomsky, *La prospettiva biolinguistica 50 anni dopo*, sito accademia della Crusca, 2005; Noam Chomsky, *Linguaggio e problemi della conoscenza*, tr. it. Bologna, Il Mulino, 1998; John L. Austin, *How to do Things with Words*, Oxford, Oxford University Press, 1962, tr. it. Carlo Penco e Marina Sbisà, *Come fare cose con le parole*, Genova, Marietti 1987
- [18] Gloria Larini, *op. cit.*, p. 20; R. Langacker, *Structural syntax: The view from Cognitive Grammar*, in F. Madray-Lesigne & J. Richard-Zappella (eds. 1995), *Lucien Tesnière aujourd'hui*, Louvain-Peeters, 1995.
- [19] Lucien Tesnière 1959, *op. cit.*, p. 17; John R. Searle, *A Taxonomy of Illocutionary Acts*, Cambridge, Cambridge University Press, 1975, tr. it. *Per una tassonomia degli atti illocutori*, in *Gli atti linguistici*, a cura di Marina Sbisà, Milano, Feltrinelli, 1978, pp.168-198.
- [20] Lucien Tesnière 1959, *op. cit.*, p. 22.
- [21] Lucien Tesnière 1959, *op. cit.*, pp. 60-62.
- [22] Lucien Tesnière 1959, *op. cit.*, p. 55.
- [23] Lucien Tesnière 1959, *op. cit.*, p. 124; Paul Ricoeur, *La semantica dell'azione*, Milano, Jaka Book, 1986 (Paris 1977).
- [24] Lucien Tesnière 1959, *op. cit.*, p. 157 per "valenza" e Id. 1954, p. 17 per "nucleo".
- [25] Lucien Tesnière 1959, *op. cit.*, p. 73.
- [26] Lucien Tesnière 1959, *op. cit.*, p. 135.
- [27] Lev S. Vigotsky, *Pensiero e linguaggio*, Laterza, 1990; Malika Auvray & J.-Kevin O'Regan, *L'influence des facteurs sémantiques sur la cécité aux changements progressifs dans les scènes visuelles [The influence of semantic factors on blindness to progressive changes in visual scenes]*, *Année Psychologique*, 103 (2003), pp. 9-32.
- [28] David W. Green, *The neural basis of the lexicon and the grammar in L2 acquisition*, ed. Van Houtr e a. Amsterdam, 2003.
- [29] Gloria Larini, *op. cit.*, p. 21.
- [30] Mariacristina Musso et a., *Broca's area and the language instinct*, *Nature Neuroscience*, 6, (2003), pp. 774-781.
- [31] Gloria Larini, *op. cit.*, p. 21; Alfredo Paternoster, *Introduzione alla filosofia della mente*, Laterza, Bari, 2008.