



**Магия ИННО:
новые измерения
в лингвистике
и лингводидактике**

В двух томах
Том 2



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NULLA DIES SINE LINEA

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Abstract

Schliemann, the famous archaeologist, acquired an excellent command of several languages through his personal method consisting of a reduced study of grammar and an increased application of practice: reading, repeating, writing and learning by heart. This method is not that obsolete, considering the most recent findings of neuroscience. Memory fixation is based on preferential pathways, called traces that are determined by new perceptions but also by repetition. We propose a new method for language learning and teaching at university level, which would be founded not only on visual skills, but also on manual writing in order to maximise neuronal traces.

Key words: hand writing, neuronal traces, language acquisition, university language teaching, Schliemann's methodology

Non fia scienza

Sanza lo ritener l'aver appreso

Dante, Par. V, 41–42

Introduction

I know very well that when listening to Lysias, he did not hear once only, but often urged him to repeat; and he gladly obeyed. Yet even that was not enough for Phaedrus, but at last he borrowed the book and read what he especially wished, and doing this he sat from early morning. Then, when he grew tired, he went for a walk, with the speech, as I believe, by the Dog, learned by heart, unless it was very long. And he was going outside the wall to practice it. And meeting the man who is sick with the love of discourse, he was glad when he saw him, because he would have someone to share his revel, and told him to lead on. [18, 228a-228b-228c.]

In Plato's evocative tale, Socrates describes Phaedrus as intent in reading and learning Lysias's text by heart, along the river Ilissos. This has been also our aim, in this work: bringing the study of the language back to a tradition,

by trying to understand as much as we could, the deep cerebral mechanisms, which are behind this process.

Nowadays, the current teaching methods based on electronic tools make us rethink the value of writing as a mnemonic support which strengthens the mnemonic trace by engaging many more neural nets (Franzoni & Assar, 2007; Franzoni, Assar, Defude & Rojas, 2008; Liao, 1999; Najjar, 1996).

As Derrida writes, in *Freud and the Scene of Writing* (1978), it was Freud to develop first the mnemonic trace theory, which is currently supported by fMRI evidence, confirmed by Ansermet and Magistretti's studies (2008). A trace of the perceptions that approach us, which we can call 'mnemonic trace', lingers on our psychic apparatus. Indeed, we call memory the function that is related to this trace (Tnm). If we fully accept the scheme of connecting the psychical processes with systems, the mnemonic trace will consist only of permanent alterations that occur within the elements of these systems (Freud, 1950). In other words, the majority of intentional behaviours is achieved without the need of being aware of them (Freeman, 2000, 14). The mediation of information takes place in a more effective way both because a greater amount of glutamate is released by presynaptic terminals, and because the mechanisms which explain this response are more effective (Ansermet & Magistretti, 2008, 60), in accordance with "Hebb's rule" (1949), from the name of the discoverer of synaptic facilitation. We studied groups of neurons linked in a network by mutual connections. When the connection is non-existent or weak, neurons release their own individual impulses without any mutual correlation. When the connection is very strong, neurons release synchronous impulses which are independent from the input stimulus. Instead, by measuring the intermediate values of connection, neurons are unrelated, but ready to interrelate; hence the application of an adequate external signal can organize them in a synchronized state whose duration is dependent on the characteristics of the exerted signal and on the level of connection (Arecchi, 2009, 3). From a functional point of view, this integration is defined as working memory, which brings into play brain areas, situated at the level of the prefrontal cortex (Ansermet & Magistretti, *cit.*, 130–32). In Lippman's brilliant essay (2004, 76), he affirms that the external stimuli, especially in the case of *written or spoken* words, recall to one's mind one part or the other of a system of stereotypes, therefore the real feeling and the preconception occupy consciousness at the same time. As Ansermet and Magistretti (*cit.*, 132) affirm the current data of neurobiology tend to show that the traces inscribed at the level of the amygdala are immediately unconscious. Neurons that fire together wire together. Neural recruitment consists in formation of a permanent circuit (Ditifeci & Kantzas, 2012). Handwriting seems more and more to represent an enhanced pathway that strengthens the working memory and the fixation mechanism. This process should be even more supported by writing. Even Tokimura *et al.*'s studies (1996, 2000) confirm the lateralization of the linguistic area and its link with the left motor area connected to the right hand. In the present study, we pointed out

an increased excitability in the left cortex during the task of reading out loud, but not during silent reading or when uttering non-verbal sounds (Kircher, Brammer, Tous Andreu, Williams & McGuire 2001; Knecht *et al.* 2000). More recent studies (Lo, Fook-Chong, Lau & Tan 2003; Meister *et al.* 2003; Seyal, Mull, Bhullar, Ahmad & Gage. 1999; Floel *et al.* 2003) corroborate the hypothesis of lateralization and the relationship between linguistic production and the motor area of the hand.

Regardless of its anatomical localization, this relation might be due to the employment of hand gestures which almost inevitably go along with language and seems to support the hypothesis of an evolutionary link between linguistic production and gestures (Corballis 2003; Rizzolatti & Arbib 1998). Hewes (1973) brings some evidence to support the hypothesis of a gestural origin of language.

Overall, these studies seem to show a functional link between language perception and understanding and the motor system. At this point, it is interesting to cite Watkins and Paus' s study (2004) which explored this connection from an anatomical point of view by combining TMS with PET scans. The results of this experiment show that the auditory perception of language increases the excitability of the motor system which is responsible for linguistic production. This enhancement is significantly related to the activity in the back of the left inferior frontal gyrus (Broca's area). As previously explained, Broca's area plays a decisive role in linking production with the perception of language in line with the theory which underlines the importance of sensory-motor integration in understanding language (Hickok 2012, Hickok & Poeppel 2004).

Phaedrus used to say that the writing of the soul only, psychic trace only are capable of self-reproduction and self-representation, spontaneously (Derrida, *cit.*). Like Plato, Freud keeps opposing hypomnestic writing to psychic writing which is also full of traces and empirical memories from a timeless present truth.

The scientific problem of this research focuses on the validity of the current learning method based on the employment of technological tools. The hypothesis is that the mnemonic trace, fixed at neuronal level through the creation and consolidation of preferential pathways (Ansermet-Magistretti *cit.*) is enhanced if multiple systems (Gass-Selinker, 2008) are actively involved in the learning process as in handwriting, which activates and enhances memorization (Anderson, 2008). The use of electronic devices, which solve grammatical problems without the active involvement of the student, erodes self-correction skills.

Aim

The aim of this study is twofold. It is didactic, because it stimulates students to practice English in view of a better training in international relations and engage in first-hand research. The scientific goal of the research aims at proving the validity of the learning method based on repetition and handwriting as opposed to the one built on the use of technological tools.

Methods and Materials

Schliemann writes:

First of all I took pains to learn to write legibly, and this I succeeded in doing after twenty lessons from the famous calligraphist Magnee, of Brussels. Afterwards, in order to improve my position, I applied myself to the study of modern languages. My annual salary amounted only to 800 francs (£32), half of which I spent upon my studies; on the other half I lived — miserably enough, to be sure. My lodging, which cost 8 francs a month, was a wretched garret without a fire, where I shivered with cold in winter and was scorched with the heat in summer. My breakfast consisted of rye-meal porridge, and my dinner never cost more than two-pence. But nothing spurs one on to study more than misery and the certain prospect of being able to release oneself from it by unremitting work. Besides, the desire of showing myself worthy of Minna created and developed in me a boundless courage. I applied myself with extraordinary diligence to the study of English. Necessity taught me a method which greatly facilitates the study of a language. This method consists in reading a great deal aloud, without making a translation, taking a lesson every day, constantly writing essays upon subjects of interest, correcting these under the supervision of a teacher, learning them by heart, and repeating in the next lesson what was corrected on the previous day. My memory was bad, since from my childhood it had not been exercised upon any object; but I made use of every moment, and even stole time for study. In order to acquire a good pronunciation quickly, I went twice every Sunday to the English church, and repeated to myself in a low voice every word of the clergyman's sermon. I never went on my errands, even in the rain, without having my book in my hand and learning something by heart; and I never waited at the post-office without reading. By such methods I gradually strengthened my memory, and in three months' time found no difficulty in reciting from memory to my teacher, Mr. Taylor, in each day's lesson, word by word, twenty printed pages, after having read them over three times attentively. In this way I committed to memory the whole of Goldsmith's *Vicar of Wakefield* and Sir Walter Scott's *Ivanhoe*. From over-excitement I slept but little, and employed my sleepless hours at night in going over in my mind what I had read on the preceding evening. The memory being always much more concentrated at night than in the day-time, I found these repetitions at night of paramount use. Thus I succeeded in acquiring in half a year a thorough knowledge of the English language. I then applied the same method to the study of French, the difficulties of which I overcame likewise in another six months. Of French authors I learned by heart the whole of Fenelon's *Aventures de Telemaque* and Bernardin de Saint Pierre's *Paid et Virginie*. This unremitting study had in the course of a single year strengthened my memory to such a degree, that the study of Dutch, Spanish, Italian, and Portuguese appeared very easy, and it did not take me more than six weeks to write and speak each of these languages fluently [36, 9–10].

We based the empirical verification of our working hypothesis on a comparison between two groups of college students enrolled in the module *Euro-*

pean and International Relations: Linguistic Analysis B018956 offered within the Master's degree in International Relations and European Studies CdLM Relazioni Internazionali e Studi Europei B087, Università degli Studi di Firenze, who share the same level of linguistic competence according to the *European Framework of Reference* (Howatt, 1984).

The two groups (M=manual and E=electronic) were subjected to a partially diversified training. Group M teaching has been mainly administered through an inductive-contextual mode that has followed in the footsteps of the "Schliemann method", a study of grammar increased by application of practice: reading, repeating, writing and learning by heart. Group E has followed, instead, translation type classes with the aid of technological tools, for example the exercises sent through electronic devices. The two groups were then subjected to a comparison (Ricucci, 2013) which consisted in the administration of a dictation (King George VI, *Address to the Nation*, September 3, 1939), that allowed us to evaluate both the receptive and productive skills:

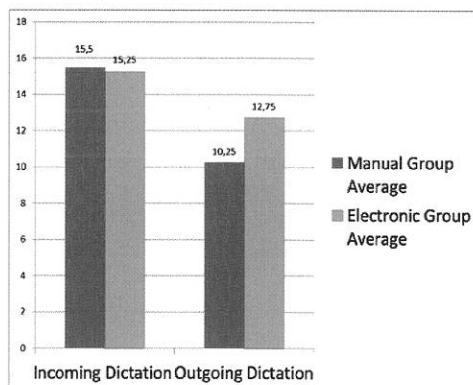
- Oral comprehension,
- Written production.

Results

The results, despite being partial since the course is still in progress, seem to support our working hypothesis. The pilot group M and the pilot group E have obtained different results.

We have compared the percentage of incoming and outgoing errors in the M group with those of the E group.

Diagram 1.



As we can see in diagram 1 both groups show almost the same percentage of mistakes in the incoming dictation, but then in the outgoing dictation Group M shows a reduced number of mistakes. There is quite a deep difference between the two groups.

Future prospects

We intend to continue this pilot project for the whole academic year with the University funding support and we want to submit students to a final evaluation with the help of FmRI.

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**Periodicals and Untranslatable Words as Indispensable
Educational Materials for Teaching Japanese Language**

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Abstract

In accordance with the professional and personal aspirations of the authors, the aim of this paper would be to examine the phenomenon of significant newspapers' language, which is a new approach to learning Japanese because it is a specific register of the language, interesting for purely linguistic — lexicological, syntactic and semantic — analyses, and corpus in which a lot can be found out about the specifics of Japanese culture and lifestyle. Hence, the paper looks into both linguistic and cultural aspects of Japanese newspaper language and shows to what extent the sociolinguistic and cultural differences affect and hinder the teacher to, through interaction classes, transfer knowledge well and faithfully to students regardless of whether or not they have had any empirical insight into the field of study.

Finally, as teachers of Japanese as a foreign language, the authors of this review want to devote particular attention to the difficulties that foreigners face in dealing with this distant language. In this context, in addition to the common use of textbooks in the classroom, analysis of periodicals is very interesting, since the knowledge of traditional techniques of translation with which students encounter at our Faculty of Philology cannot fully help to understand properly this register of the Japanese language. Syntactic cutting, specific vocabulary, orthographic conventions and abundance of metaphors, sometimes unusual to students from the West, make understanding the language of the newspapers a very difficult segment to foreign students of Japanese that they should learn.