Theory on the construction of the mental lexicon

Based on long observations and attentions, it has been thought that one way to analyze the organization of the mental lexicon is the study of discourse concerns, from adults who suffer as a result of brain damage. Despite the importance of neuropsychological research among patients, we must take into account in relation to studies in normal environments. There are various psychological methods designed to study the organization of the mental lexicon in normal subjects, which is partially present in this division. Of course, from the researchers has always been desirable to allow two methods to achieve the same results

Concepts of *mental lexicon*, of *lexical entry* and *lexical access* are useful to understand how words are perceived and produced. Many theories have been proposed, some of which are limited in terms of limited usefulness mental lexicon, while others are much broader and expressed in all language activities, based on the use of the mental lexicon.

To illustrate specific applications of the concept of mental vocabulary and reading activities, letters to share, talk and understand discourse, the model should discuss more ambitious and far more important to discover, model logogen, created by Morton[1] . Logogen-s have a threshold, the amount of evidence that always exceeds the threshold level, logogen "get activated" to provoke two different effects. On the one hand, activates information on *the meaning* of the word component called cognitive system: in fact there is a communication path from the input to the information system logogen semantic cognitive system. On the other hand , allows the information to be produced word (spoken or written), the transmitted component called the response of the transitory magazine for reponse written or spoken by the image shown[2] :

2.1 Model logogen[3] : first option.

The so called "first option", because this model has recently undergone a strict review and there is a second version quite different. During the research discussed in the next version of the next paragraph, but foremost, it is best to first consider the (now obsolete) as the performance of these two models is called interesting.

The original version is illustrated in the figure. The component called logogen system is a logogens enterity, a logogen for any words known by the person to whom the system belongs. A logogen is a mechanism to put together some evidence: any logolen is specialized logogen to put together evidence pertaining to the existence of words which it corresponds. Logogens have a threshold: the amount of evidence that always exceeds the threshold level, logogeni "activated" to provoke two different effects. On the one hand, activates information on *the meaning* of the word component called *cognitive system*: in fact there is a communication path from the input to the information system logogen semantic cognitive system. On the other hand, allows the information to be produced word (spoken or written) , the transmitted component called the magazine for reponse generated a written or spoken reponse by the image shown[4] :

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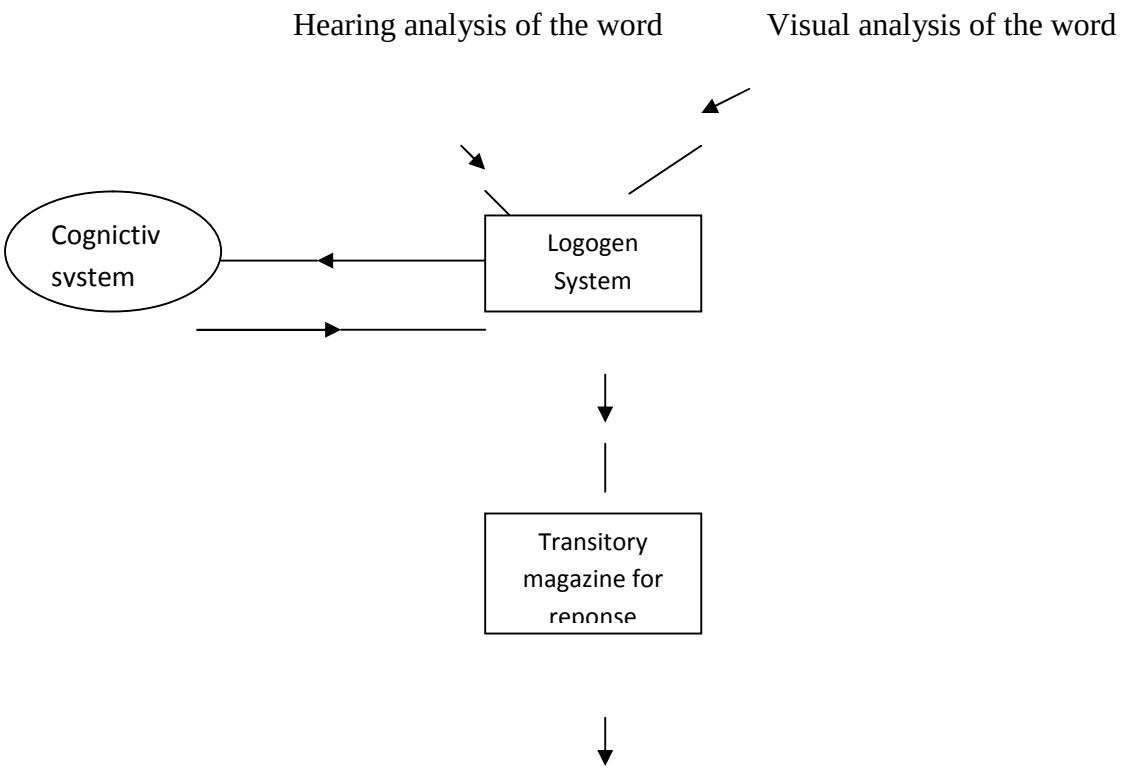
[1] Morton, J. Considerations of grammar and computation in language behavior. In Cazford, J.C. (ed.), *Studies in Language and Language Behavior.* University of Michigan Press: Ann Arbor, Michigan,1968, p. 143.

[2] Morton, J. Considerations of grammar and computation in language behavior. In Caford, J.C. (ed.), *Studies in Language and Language Behavior.* University of Michigan Press: An Arbor, Michigan,1968, p. 144.

[3] Term of psychology, showing the unity of analysis used in various cognitive models to explain the recognition of a word in the language forme given. Composite formed by *logo-* e *–geno* (shek.XX) Devoto, *Dizionario della lingua italiana*, Firenze, 2004.

[4] Morton, J. Considerations of grammar and computation in language behavior. In Caford, J.C. (ed.), *Studies in Language and Language Behavior.* University of Michigan Press: An Arbor, Michigan,1968, p. 144.



Must to accept that by any logogen, can be three kind of types:

a) visual appearance, which contributed visual analysis of the visual stimulus;
b) acoustic appearance, which contributes to the hearing analysis of stimulus hearing;
c) semantic appearance, whose contribution is given by the cognitive system.

The last type of test is usually due to a primary need context. For example, if you read *bread*, *butter* logogeni to take information (by placing a apparence enterity) cognitive system even before the first word *butter* be really.

Although there are three input sources logogen system, there are only a series logogen and every word has only one special logogen. Therefore logogen of the “cat” - (“maçok” in albanian) is used for the following tasks:

a) read aloud cat ;
b) to understand the spoken word cat ;
c) appoint a cat or a cat figure realistic;
d) the source of which is heard a "mew" ;
e) to answer the question: " Who drinks milk and hunts mice?"

Any stimulus will contribute to give evidence for a logogen. If it is printed word cat, "... output derived from visual analysis may conclude attributes consonant words of three letters at the beginning, the initials , “t” terminal and so on[5] .

[5] The same, p. 144.

All these tests are important indicators for the cat and the word mark so logogen level of proof for the cat, but are also important for other words. Discovering attribute "words of three letters" will activate logogen- s for all words with three letters, not only for the cat it. Even logogens for words of three letters ending in “t”, will be activated. Consequently, the representation of each sentence typed, will make a certain number to activate logogens - these logogens will be activated on various levels. Here's the reason why the thresholds are needed: when the cat appears, will be activated logogen numerous , but in any case bullying will not be high enough to reach the threshold level - except for logogenin cat , who will get more clarity (out) to reach the threshold .

Upon reaching the threshold logogen, its level of activation should fall fairly quickly. If it does not, identify the words that follow will be hindered. For example, guess we have just seen a *cat* (cat) and convenient logogen have reached the threshold, but remain high activation. Then see a similar question from the visual as COT (small bed) increases the activation of the cat and the COT (due to many aspects similar to two words) . This cat supplementary activation could activate more than logogen happening right logogen COT, which will incorrectly identify the *cat*. Morton[6] scholar believes that activation of logogen "falls very rapidly with time reaching its original value for about one second". But it is possible that the appearance of a word not to leave traces in the logogen after a second or more of its disappearance . Whenever logogen reaches its threshold, the value of such a low threshold of light moved toward him before it, without ever achieved. In this long journey, as often faces a word , the lower threshold will be logogen and so will be less necessary to reach the activation threshold . So common words will be identified and produced faster than words unusable even a word that has been previously presented, will be identified more quickly than words that were not there. This is because the initial presentation of that word would have easily limited logogen its doorstep.

We have said that when a threshold reaches logogen "a response is ready" , but since there are two descriptions logogen output from the system (system to cognitive and ephemeral storage) , this term is ambiguous. In fact, Morton has proposed[7] that each logogen has two thresholds:

- One that runs (owns) communication system to cognitive and
- A communication that leads to the transit warehouse.

When read aloud, errors become concerned with semantic and syntactic content of previous and next. This shows that (and read aloud) before the words reach a transit warehouse , next word will have reached cognitive system - as this is the only way by which come into play semantic and syntactic aspects . The information can then turn to the cognitive system to influence logogen system response that can be misunderstood word. If system logogen threshold of cognitive system is sometimes more or less than the threshold of the cognitive system that logogen, could be explained then subcecion (to be able to reach the meaning of a word without being able to repeat it) and the proper semantic errors dyslexic deep[8] , in which specific words printed get confused semantically related words , for example , instead of reading roar of the storm (for a more detailed review of the deep dyslexic, should be made studies of basic observations by specialized institutions , at certain times .

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[6] The same, p. 145.

[7] The same, p. 145.

[8] dislezi-a medicine linguistic term that describes the inability to recognize and to remember a word written during the reading process, which is done by overcoming a reversal of the order of letters and syllables, as a result of nerve disease or cerebral lesions: term, as a composite, comes from the Greek morpheme "dis + lexis", which means reading disability.(Garzanti).

An important characteristic of logogen theory, which has given impetus to a numerous amount of experimental research, is the ability to mediate the effect of priming[9] Regulation in speech recognition, namely, faster recognition of a word on effect of a previous of her exposure. As long emphasized, with logogen reach the threshold level of activation did not immediately return to normal holiday, falls in a period of about one second. If the word is presented in this period of time, will be known very soon, because its logogen will still be strongly activated and thus will be less information required to reach the threshold. This type of priming effect on the short end (which is on display periods of about one second), is however not the only form of priming[10]. In many experiments Morton and other scientists are priming observed effects of a length of time much larger, can be more than half an hour between the start of the action and its effect , or sometimes a day or more .
These effects priming the target (end) long are explained within the model logogen, and hypothesized that, after having reached the threshold, before quickly disappearing activism for a period of about one second, without reaching the normal level of rest, following a the long time in which there is a very slight drop of residual activated - a period measured in hours and days.
Regarding the long end priming, its effect can be created experimentally in a certain number of ways. The possibility of identifying a word presented in takistoskop (take the word fork - fork in English) can be improved by one of the following factors:
a) have seen the word before fork ;
b) have heard the word before fork ;
c) have termed an image with a fork ;
d) to be answered before the question : "What a processor to eat there for teeth?"

This happens from that, if there is one logogen to fork , all these different tests activate the same logogen.
Doing this prediction given the original options logogen, errors can result . Daniel Winnick[11] have demonstrated that, if the takistoskop recognition of a printed word is facilitated by a preceding reading aloud, there is no relief in the fact the named process of an image or to answer a determination to evoke - tasks "c)" and "d)" listed above. Clarke of Morton[12] and Morton[13] have confirmed the inability of an indirect priming: failed to find ease in visual identification of a word with a previous appearance hearing.
If priming effect should be attributed to residual activation logogens, lack of priming indirect effects leads to the necessity of abandoning the concept of single logogen system for visual recognition of hearing the word to the image and to be labeled' responding definitions. There was thus proposed a revised version of the model logogen - with ingredients that contain multiple different systems logogen[14].

For this reason it does not seem right, ignore the nowords processing theory concerning the organization of the mental lexicon. So we have to consider that the mechanism can be used in the processing of verbal stimulation, not lexical (nowords spoken or written). Lexical words

[9] With priming preactivisation understood the elements of a sequence: the continuation of events - for example, word of a phrase uttered one after the other - when it comes to priming the realization of an intermediate degree conditions accelerates the realization of other intermediate stages of after placement chronologically.
[10] Scarborough,D.L.Frequnecy and repeticion effects in lexikal memory, 1977, p. 1-17.
[11] Winnich, W.A. and Daniel, S.A. Two kinds of response primini in tachistoscopic recognition, 1970,p. 74-81.
[12] Clarke, R.and Morton, J. Cross modalit facilitation in tachistoscopic word recognition, 1983, p. 79-86.
[13] Morton, J. Interaction of information in word recognition,p. 78, 1979.
[14] The same, p. 1978

not be made subject to greater attention, such as reading aloud the words and not with the general concept becomes a task of such a return is using a system of rules that attach to the sound spelling. Sometimes it comes "for rules letter-sound correspondence" but this term is not entirely accurate due to the nature of some aspects of the writing system used in English, for example, where these studies were carried out, which does not occur in Albanian and in several other languages, where the letters contacted sounds, except bigrams, such as “sh”, “q”, “f”, “j”, “xh”, “zh”, “nj”. Examples of words in Albanian can bring as spot sign, scarf, leaf, etc..

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