

ABOUT THE NEUROLINGUISTICS OF THE IMPLICATURES

ABSTRACT OF A STUDY

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SUMMARY — Taking into account recent data on linguistics of production and comprehension in aphasia, a protocol was executed including the several types of implicatures. The protocol was applied to 90 subjects classified according to the localization of cerebral lesions, as shown by CT. Results are discussed in report to clinical manifestations of brain lesions, as aphasia, apraxia, agnosia, and intelligence and pragmatics disturbances. Discussion supports the impression that there is a mechanism that correlates extra-linguistics contexts with the 'said' at the right hemisphere.

Sobre a neurolinguística das implicaturas: sùmula de um estudo.

RESUMO — Considerando dados acerca da linguística da produção e compreensão em afasias, foi elaborado protocolo que abrange os diversos tipos de implicaturas. O protocolo foi aplicado a 90 pacientes classificados segundo o tipo de lesão cerebral evidenciada pela TC. Os resultados são discutidos tomando em conta as manifestações clínicas das lesões cerebrais, como afasia, apraxia, agnosia e alterações da inteligência e da pragmática. A discussão permite aceitar a impressão da existência de um aparelho ('device') que correlaciona (paleador de) contextos extra-linguísticos com o 'dito' (aspectos semânticos formais), aposto no hemisfério cerebral direito.

The objective of this abstract is to report main aspects of a study on the neurolinguistics of the implicatures. This study was presented in full as a Dissertation¹. In the first part, neuropsychology and neurolinguistics are revised, especially the most recent revisions about linguistics aspects of production and comprehension in aphasia: the linguistics model in the description and interpretation of the aphasia — the linguistics Occam razor, the lexical and the anomia, definitions and hypothesis, the mnemonic-verbal deposit problem and its modalities of evocations, syntactic and semantic categories and the aphasic performance, Garret's model to linguistic production and the aphasic. Once having demonstrated that the applications of linguistics dates in the cerebral pathology does not go further the lexical, at the second part it is intended to enter the study of the phase, to observe if a recent linguistic model — the Grice's implicatures — can explain the performance of multiple groups of subjects with cerebral lesions. Grice had as principal preoccupation to explain how can the signification of the speaker be different of the signification of the strictly said (limited to semantic, in the meaning of Frege). To explain his theory, he offers an example that had become classical: 'Suppose that (A) and (B) are talking about a common friend (C) that is now working at a bank. (A) asks (B) how (C) is doing at his new job, and (B) answers: 'Oh! Very well, I think; he likes his friends and hasn't been arrested yet'. At this point (A) must look for what (B) was implicating (('implicate'), what he was suggesting, or even what he meant by saying that (C) hadn't

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been arrested yet. The answer could had been something like: '(C) is the kind of person that tends to fall in tentations provoked by his occupation', or 'his colleagues are indeed very unpleasant and unfaithful'. (B)'s answer says that (C) is fine and hadn't been arrested yet and implicates that this could had happened. To Grice the 'said' is the signification expressed literally in its semantic value therefore excluded of its implicatures. There are two basical types of implicatures: the conventional, which is linked to the conventional meaning of the word, not being calculated from extra-linguistics contexts, and the conversational, that have to be calculated from the 'said' and the extra-linguistic context.

A protocol was executed with twenty test assembling Grice's examples, including all the types of implicatures and applied with the Raven progressive matrices and the token test, to 90 subjects, classified by the localization of their cerebral lesions as shown by the CT, and distributed as follows: 30 subjects with left hemisphere focal lesion of whom 24 were aphasic and 6 were not; 20 subjects with right hemisphere focal lesions; 20 subjects with diffuse encephalic lesions (dements, excluding those with multifocal lesions) and 20 control subjects without encephalic lesions and having the same provenience, social, economic and years of scholarship. We can enumerate the following done works: (1) validation of the reduced version of the token test; (2) observation of the performance in the Raven progressive matrices of patients with cerebral focal lesions; (3) observations on the relation between the localization of lesion and the aphasics syndromes; (4) observations on the comprehension of Grice's implicatures provided by the performance at the implicatures' protocol: the implicatures' protocol separated the controls from the demented and from the aphasics. In the group of the demented, the performance at the protocol varied and correlated to the Raven progressive matrices, and not the token test, showing that the protocol avaliates 'intelligence in language. The analysis of the errors shows that the groups make mistakes because of different motives. It was observed that the dements and a little bit less those with right hemisphere lesions have difficulties in correlate extra-linguistic contexts with the 'said', manifested by mistakes that predominate in these two groups, but not in the aphasics, the subjects with left hemisphere lesions but not aphasics and the controls. There is left an impression that there is a mechanism that correlates extra-linguistics contexts with the 'said', at the right hemisphere.

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REFERENCE

1. Fontanari JL — Sobre a neurolinguística das implicaturas. Dissertação de Mestrado em Língua e Letras. Pontifícia Univ. Católica do Rio Grande do Sul. Porto Alegre, 1988.