

## **Modular modelling of language-processing and its applications to the understanding, assessment and treatment of disorders of language**

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Psycholinguistic investigations of reading, writing, speaking and understanding speech have led to the development of a highly modular model of the human language-processing system, at least with respect to language-processing at the single-word level. For the most part, the most incisive evidence assisting the development of this view of the normal language-processing system has come from data from people in whom brain damage has affected some aspects of language-processing whilst sparing others.

Such acquired disorders of language-processing can be highly specific, and there is a bewildering array of them; no two patients with impaired language processing after brain damage are the same. Nevertheless, one can understand each patient's disorder by investigating which modules of the language-processing system have remained intact and which have been impaired by the brain damage. Test batteries for assessing language impairments, such as PALPA (Kay, Lesser & Coltheart, 1992) have thus been derived directly from the theoretical model of language-processing. Model-based assessment of this kind allows the devising of focussed treatment programs, and a number of studies have demonstrated the success of such treatments in improving the language abilities of such patients.

In this talk I will describe how this model was developed over the past century or so, particularly with reference to data from people with acquired disorders of language; how it is used for assessment; and how treatment programs developed from such model-based are devised, executed and evaluated

### References:

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