

Project DOC

Dictionary On Computer, hereafter DOC, is part of an overall effort to harness an on-line computer for phonological research. For certain problems the linguist finds it necessary to organize large amounts of data or to perform rather involved logical tasks -- such as checking out a body of rules with intricate ordering relations. In these situations a computer is invaluable, for it forces the linguist to analyze his problems with greater precision and it executes certain jobs with a speed and accuracy not otherwise possible.

The overt aim of DOC is the reconstruction of the phonological histories of the major Chinese dialects. At a deeper level, our interest is to learn more about how phonological structures change in general and about the relation between these changes and the synchronic systems they lead to. The achievement of this understanding is crucial for the formulation of a general theory of linguistic change.

Of the many language families in the world, Chinese offers an ideal laboratory within which to study phonological change, due both to its unrivaled wealth of materials and to its distinctive phonology and orthography. Thus it affords both the time depth of philological documentation and the spatial wealth of all the dialects. Since modern linguistics was born in the hands of the Indo-Europeanists during the last century, our conception of how language changes and how its patterns has been excessively dominated by Indo-European studies. Analyzing a language family with a very different structure can help us balance this skewed perspective.

The challenge of phonetic explanations, however, can only be met when a sufficient fund of information is available, enabling phonology to make the exciting transition from a descriptive effort into an explanatory science. DOC is designed to facilitate the gathering of this fund of information. In this paper, I will describe the actual organization of the DOC data and the methodology involved in applying it.

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