

Franz DOTTER – Johann LEITNER

Three-dimensional Analysis Software for Languages

The software program consists of a cognitive and a language specific level of representation. The descriptive inventory of the cognitive level consists of elements of the “scene”, spatial and temporal orientation, pragmatic and context factors. It is three-dimensional, related to the hypothesis that the visual cortex “constructs” a 3D-image of reality.

The inventory on the language specific level consists of the categories which can be detected by linguistic analysis of the coding procedure in different languages. In analogy to the linear-sequential ordering of linguistic signs, it will be mainly two-dimensional but provide all possibilities to take simultaneous phenomena into consideration (e.g. intonation in spoken language, sign simultaneity in signed languages).

The format of both levels is that of a construction kit which – by differentiation of form, colour and texture – represents cognitive or language categories.

The function of the software is twofold: On one side it will provide a practical instrument for visualising cognitive linguistic analysis, especially by directly connecting the elements on the cognitive level with those on the specific language level. On the other side it will allow to search and statistically analyse any combination of elements on both levels.

Franz DOTTER, born 1948 in Salzburg, Austria; studies in German language and literature, mathematics, and philosophy; Dr. phil. 1975. Works since 1973 at the Institute for Linguistics and Computerlinguistics of Klagenfurt University. Habilitation (on iconicity in syntax) 1990, then Associate Professor for General Linguistics; since 1996 head of the Centre for Sign Language and Deaf Communication (<http://www.uni-klu.ac.at/zgh>). Main interests: Typology and cognitive linguistics, sign languages, sociolinguistics of politics and minorities, text/discourse analysis, deaf education. E-mail: Franz.Dotter@uni-klu.ac.at.



Johann LEITNER, born 1972 in Scheifling, Styria, Austria; holds a degree in Telematics from the Graz University of Technology; after several years doing system integration projects joined the Federal Secondary College of Engineering (HTL) Mössingerstraße, Klagenfurt; Main interests: 3D frameworks, 3D modelling, 3D scene graph implementations. E-mail: johann.leitner@htl-klu.at.