

Work on the Dual Structure of Lexical Semantic Competence

Invited talk at AIC 2014
November 26-27 University of Turin, Italy
<http://aic2014.di.unito.it>

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Abstract. Philosophical arguments and neuropsychological research on deficits of lexical processing converge in indicating that our competence on word meaning may have two components: inferential competence, that takes care of word-word relations and is relevant to tasks such as recovery of a word from its definition, pairing of synonyms, semantic inference (“Milan is north of Rome” → “Rome is south of Milan”) and more; and referential competence, that takes care of word-world relations, or, more carefully, of connections between words and perception of the outside world (through vision, hearing, touch). Normal subjects are competent in both ways; however, there are patients in which one component seems to be impaired while the other performs at normal level. Typically, cases are found of patients that are excellent at defining, say, the word ‘duck’ but cannot recover the word when shown the picture of a duck. Complementary cases have also been found and studied. Recent experiments using neuroimaging (fMRI) found that certain visual areas are active even in purely inferential performances, and a current experiment appears to show that such activation is a function of what might be called the “visual load” of both the linguistic material presented as stimulus and the target word. Such recent results will be presented and discussed. It should be noted that the notion of “visual load”, as applying to both individual words and complex phrases, has also been given a computational interpretation.