

Formal Models of Natural Language

Igor Mel'čuk, University of Montreal

1. Formal modeling has been for a long time one of the most powerful research tools in science. The time is ripe to develop this technique in the description of natural languages.
2. The Meaning-Text Theory puts forth the Meaning-Text formal model [= MTM] of language—a system of rules that “mimic” the behavior of speakers. More precisely, an MTM specifies the transition from an infinite, but countable set of meanings of language **L** to an infinite, but countable set of texts of **L**.
3. An MTM is based on several multilayer formal representations of utterances at four major levels: semantic, syntactic, morphological, and phonological.
4. An MTM uses dependencies as the main formalism for the description of utterance structures and leans heavily on a rich semantics-oriented dictionary of a new type: *Explanatory Combinatorial Dictionary*.