
A Metaphor Theory Based on Etymological Network Structure Analysis

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A strong metaphor theory, started by Gianbattista Vico and evolved with variations but also common key elements by successors including Max Black, Blumenberg and Ricoeur, considers metaphor as a point of meaning-creation in language. Formulating parts of these thoughts in form of a cognitive theory, Conceptual Metaphor Theory (CMT) views metaphor as a thought mechanism through which abstract topics are structured by means of concrete domains.

Given this role of metaphors in language, however, there is so far largely a lack of statistical real data analysis, as most research on metaphor theory is based on small sets of hand-picked linguistic examples. In turn we would like to systematically study the metaphoric network underlying the English language by looking at the dataset of the MappingMetaphor project.

Constructing a network from the Mapping Metaphor data, we can detect systematic structural properties of metaphoric mappings. We find that metaphoric connections do form persistent cognitive and linguistic structures, which are significantly more likely to get reused in new metaphoric statements ones they are established. Thus, future changes in language are influenced by currently established metaphoric connections.

The global structure of the network is dominated by two anti-communities: concrete topics including spacial, bodily and mechanistic domains form one group and abstract topics including social structures and emotions, but also time related domains form another group. Also, the connection pattern of the metaphor data allows to assign each topic domain a stable role by hierarchical clustering, which corresponds to the figurative conceptualization in a semantic space.

Combining our findings with Ricoeurs view on metaphor we aim towards a new integrated picture: Abstract structures are not transferred by metaphors (CMT) but are products of a tensional connection between two topics, in which a similarity is created across the tension without dissolving it, forming the abstract structure as a third innovative persistent element of the mapping.

References: • *Mapping Metaphor with the Historical Thesaurus*, Glasgow: University of Glasgow. Retrieved 12 November 2021, <https://mappingmetaphor.arts.gla.ac.uk>. • Ricoeur, P. (2003). *The Rule of Metaphor*. United Kingdom: Routledge. • Lakoff, G. and Johnson, M. (1981). *Metaphors we live by*. University of Chicago Press.