

Tadeusz Piotrowski (1), Francis Bond (2), Marek Maziarz (3), Ewa Rudnicka (3)

Wrocław University (1), Olomouc University (2), Wrocław University of Technology (3)

Theory and dictionaries: models of polysemy.

It is unclear whether dictionaries reflect theories of lexical semantics, it is unclear whether they should reflect those theories. They are supposed to reflect properties of languages, even if – or because - they are not founded on any clear theoretical foundation. In our study we considered whether two popular dictionaries of English, the American Webster Collegiate and the British New Dictionary have a clear structure of their polysemous entries, and we used computational methods to find that out. We selected a sample of entries from both dictionaries, and five polysemy theories were formalized as algorithms linking word senses into polysemy networks, taking into account semantic similarity of dictionary definitions calculated with the use of a deep neural network language model.