Full list of the $\mathbf{T}^{\mathsf{CL}}$ Papers

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Abstract

Below the full list of papers concerning the $\mathbf{T}^{\mathsf{CL}}$ (Typicality-Based Compositional Logic). The list includes both the foundational works on the logic itself and the many applications built and relying on such a formalism.

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$\mathbf{T}^{\mathsf{CL}}$ is the first ever developed formal (i.e. logic-based) account able to model - with a unique formalism - the problem of both human-like NOUN-NOUN commonsense conceptual combination (i.e. by solving the so-called PET FISH problem, also known as guppy effect) as well as the problem known as conceptual blending (including hierarchical and iterated blending), [Lieto and Pozzato, 2020a], [Lieto and Pozzato, 2018] [Lieto and Pozzato, 2020b]. This logic is technically a probabilistic non-monotonic extension of standard Description Logics relying on the following ingredients: a non monotonic description logic of typicality, the probabilistic semantics called DISPONTE and the HEAD-MODIFIER heuristics (coming from cognitive semantics). $\mathbf{T}^{\mathsf{CL}}$ has been applied to a number of applications ranging from cognitive modelling (e.g. pet-fish problem, the conjunction fallacy [Lieto and Pozzato, 2020a], and goal-reasoning heuristics [Chiodino *et al.*, 2020b] [Lieto *et al.*, 2019b] [Lieto *et al.*, 2019c] [Lieto *et al.*, 2019a]) to computational creativity [Lieto and Pozzato, 2019] and multimedia [Chiodino *et al.*, 2020a] and emotion-oriented recommendations [Lieto *et al.*, 2021]. Technically, all the developed systems relying on $\mathbf{T}^{\mathsf{CL}}$ (and the formalism itself) can be considered mostly functional systems according to the functional/structural distinction proposed in [Lieto, 2021] [Lieto and Radicioni, 2016].

References

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