

Experiments in Artificial Language Evolution with Fluid Construction Grammar

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ABSTRACT:

Over the past decade, we have engaged in computational and robotic experiments where a group of autonomous embodied agents self-organise communication systems with properties similar to those of human natural languages. Initially we focused on lexical languages and their co-evolution with perceptually grounded categories. Today we are sufficiently advanced that we can investigate how grammar may emerge in these experiments. To achieve this, we have adopted construction grammar as the main linguistic perspective and designed and implemented a novel unification-based formalism called Fluid Construction Grammar. This talk surveys both the overall research program, its current state, and the experiments with Fluid Construction Grammar.