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CAN ROBOTS INVENT THEIR OWN LANGUAGE?

For more than a decade we have been doing robotic experiments to understand how language could originate in a population of embodied agents. This has resulted in various fundamental mechanisms for the self-organisation of vocabularies, the co-evolution of words and meanings, and the emergence of grammar. It has also lead to a number of technological advances in language processing technologies, in particular a new grammar formalism called Fluid Construction Grammar, that attempts to formalise and capture insights from construction grammar, and a new scheme for doing grounded semantics on robots.

This talk gives a (very brief) overview of our approach and discusses some details of the technical spin-offs that have come out of this work. The talk is illustrated with live software demos and videos of robots playing language games.