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Towards mechanistic models of meaning composition

A theme issue compiled and edited by Andrea Martin and Giosuè Baggio

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About this issue

The sentences 'The tiger ate the snake' and 'The snake ate the tiger' convey very different meanings with the same words. Human thought and language have extraordinary expressive power because individual parts and larger structures exist simultaneously yet independently from one another in the mind/brain and can be composed in endlessly novel configurations.

This theme issue investigates the mechanisms of meaning composition in biological brains and artificial computational systems. It includes fifteen contributions from leading experimentalists, theorists, and modelers in the fields of linguistics, cognitive psychology and neuroscience, and computer science. The emerging picture shows that meaning composition is the common root of a wide range of open problems and current debates across the cognitive and brain sciences.

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