Abstract

Active Inference provides a unified formalism for understanding agents that minimize variational free energy through perception and action. Beyond a theory of surprise minimization, Active Inference operates at the *meta-level*: it is *meta-pragmatic* and *meta-epistemic*, allowing modelers to specify the frameworks within which cognition occurs.

A 2×2 matrix (Data/Meta-Data $\times$ Cognitive/Meta-Cognitive) organizes Active Inference's contributions across four quadrants. This structure reveals how Active Inference transcends reinforcement learning by enabling specification of both epistemic structures (what can be known: matrices A, B, D) and pragmatic landscapes (what matters: matrix C).

The Expected Free Energy (EFE) formulation operates at a meta-level where modeler choices define the boundaries of both epistemic and pragmatic domains. Unlike fixed reward functions, Active Inference makes framework specification itself a research question.