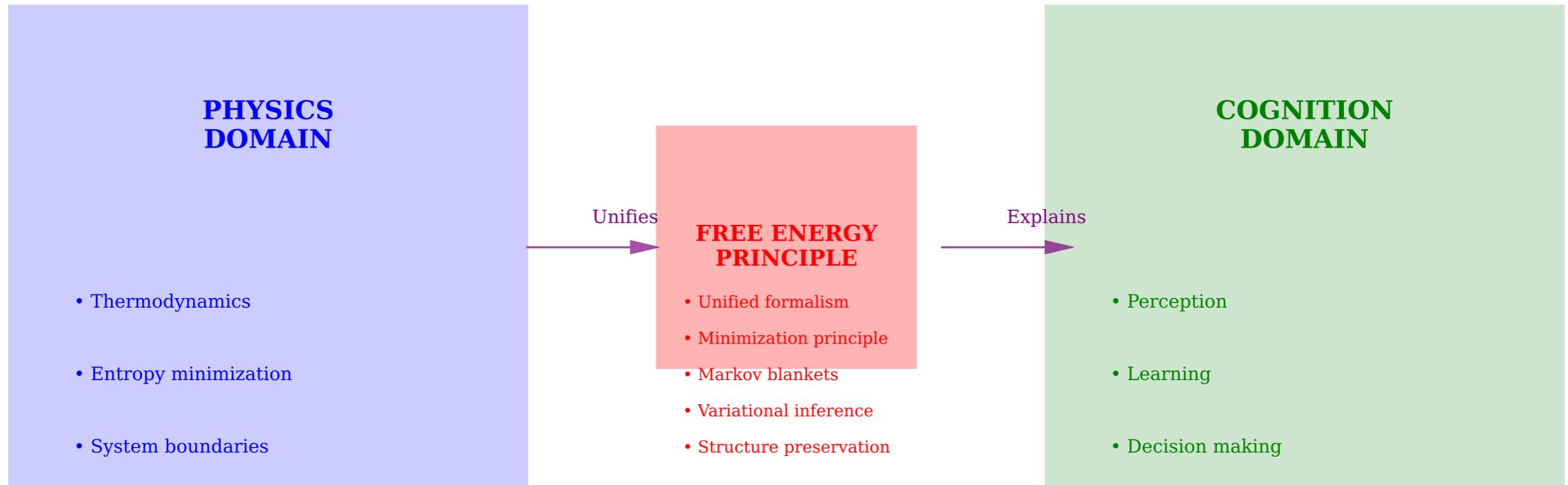


# Free Energy Principle: Bridge Between Physics and Cognition



- Energy conservation
- Self-organization

The Free Energy Principle provides a unified mathematical framework that bridges physics and cognition. Diverse phenomena - from thermodynamic systems to cognitive agents - can be understood as minimizing variational free energy to maintain structural integrity and adapt to their environments.

**Active Inference applies FEP to cognitive systems**

- Action selection
- Belief updating