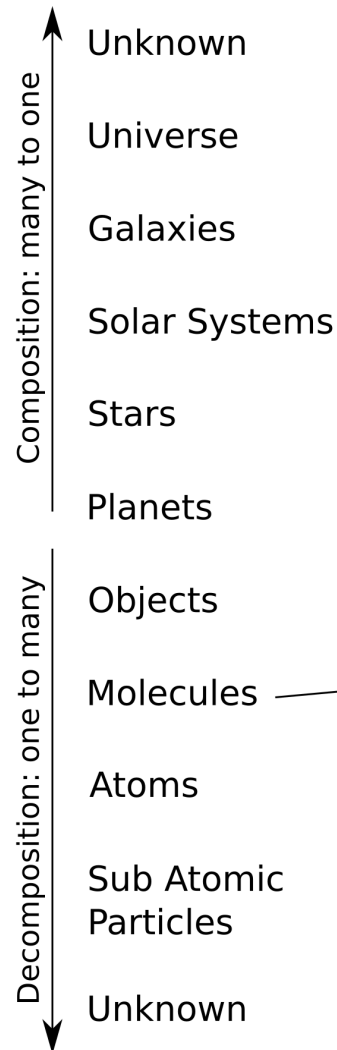


Physical

Abstract Objects
and Processes



Causation: movement
Theory: Physical laws
Parts: space, time, etc.
composition, decomposition.
Total effect of Physical laws

Electro-Chemical Organisms

Multi-Cell
Grow and move to survive
Intentions, purposes

Single Cell
Reproduction
Adapt by random genetics
Electro-chemical responses
Feedback, homeostasis

Causation: ion, chemical
Theory: life
Parts: reproduce, evolve
sense, respond.
Minor cause over Physical

Neural Organisms

Families
Small organizations
Few levels
Humans
Symbolic reasoning
Infinite modeling trees
Modeling of modeling
Fast self alteration

Higher Animals
Neural net responses
Neurons choose actions
Simple models of reality
Goals

Causation: neural networks
Theory: consciousness
Parts: self aware, models,
control, create
Major control of Physical

Symbolic Organisms

Civilization
Unlimited organizations
Unlimited intentions
Unlimited abilities

Teams
Symbolic organizations
Fast, Intelligent adaptations
Multiple level organizations

Causation: symbolic thinking
Theory: teams
Parts: agreements,
social laws, governments.
Create new physical realities