

Cycling Through Paradigms

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Thomas Kuhn Scientific progress is not linear,
is not simply cumulative Scientific progress
is cyclical Some things get lost in the process

2 phases of scientific progress:

Normal science Based on a prevailing paradigm, which is universally accepted

- Calibrate the parameters of model
- Evaluate predictions of model & refine / articulate model further
- Collect anomalies / puzzle that cannot be easily explained by model (without complications)

One of the competing paradigms is widely accepted by community

Too many anomalies are accumulated

Revolutionary science New paradigms emerge, and compete with existing paradigms. One of the objectives of the new paradigms is to resolve the anomalies that have accumulated. But since paradigms do not focus on same facts, argumentation also plays a role