# **Thomas Kuhn**

# THE STRUCTURE OF SCIENTIFIC REVOLUTIONS

# **Scientific Progress**

#### 1. Normal Science

"Puzzle solving" within a paradigm

#### 2. Anomalies

Observations that don't fit; initially dismissed

## 3. Crisis

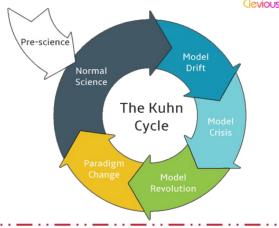
Confidence in paradigm declines

## 4. Emergence

New idea offers better solutions; not immediately accepted

#### 5. Revolution

The paradigm shifts; leads to new "normal science"



Thomas Kuhn (1922-96)

American physicist and philosopher/historian of science

#### Connections to:

# Karl Popper (Falsification)

- Believed in science advancing by testing and rejecting theories.
- Kuhn disagreed: scientists defend existing paradigms.
- Criticized Kuhn for being too relativistic.

# Feyerabend (Anarchism)

- Inspired by Kuhns approach, but took it further: "Anything goes"
- Criticized Kuhns idea as still too rigid.

#### The Revolution Step (§IX)

- 1. Accumulation of Anomalies
- 2. Breakdown of Confidence
- 3. Emergence of an alternative Paradigm
- 4. Debate and Resistance
- 5. Paradigm shift
- → Incommensurability
- → New Worldview not necessarily closer to truth