Week 5

Philosopher approaches:

- Bacon (observation and induction):
    - So he gathered 10,000 swans and he made hypothesis that all swans are white. So lots of observation and therefore a hypothesis
- Popper: (falsifying specaltive data)
    - Make a hypothesis (even before any data) as long as it is testable. Disproving theories are progress
- Lakatos (progressive research programme)
    - Reluctant to discard a theory. Works out ways of defending it as long as it is testable. "I don't believe that was a black swan.
- Kuhn:
    - A new way of seeing a new model. A new model "we were wrong. They are black swans after all but now scientist agree with you". So think original diagnosis was aids now cancer see the shift
    - Kuhn cycle goes through phases:
        - Pre-science: disorganised, competing theories, and no generally accepted truth
        - Normal science: accepted theory, and much work is just verifying and seeing how far it goes predicting and redefining it.
        - Crisis: too many conflicting findings and theory cannot be explained
        - Revolution: new theory which better explains the problematic findings get accepted this is now called *paradigm shift*
- *Humarne?*
- *One more thing*

Week 6 Lecture- All in your approach/perspective of scientific theories

Anything goes:

> Gnerally, any theory has to be at the very least explanatory of past data to be accepted, and ideally shown to be predictive also.

Different PHD (philosophy doctor)

- Epistemology
- Logic (proposition + claims)
- Metaphysics
- Aesethic
- Ethics

One Man's Trash:

- Language of biology that is not spoken in physic and chemistry is needed to explain things more clearer
- We shouldn't reduce things just because it can eg different languages should be used to describe- physic, chemical, biology etc

Decarte Beyond Any Doubt:

- Hierarchy of different sciences and how some all types of science may change: physic, and geometry.

Borge's Exactitude In science:

- Perfect science is not possible

Necessary but not sufficient:

- Facts alone are not sufficient since facts can change.

Hume's Enquiries of human understanding:

- How we arrive to knowledge of cause and effect
- Knowledge of relation
- Arises entirely from experience

Hume's Fork:

- The contrary of every matter of face is possible but never imply contradiction eg: The sun will not rise tomorrow