

Science, SM and critique

① Science refers to a systematised body of knowledge which is based upon sensory observation of empirical data.

Exploration of scientific truth as against common sense knowledge was first begun during the period of Renaissance and it was first applied in the field of NS by using SM and later later extended to other fields of enquiry (SS).

② Science employs SM to arrive at general conclusions / theories

SM is characterised by

Reliance on empirical evidence as against benchmark problem

Objectivity (reifiability)

Classification and comparison

Generalisation

Verifiability

Predictions

Cause effect relationship

Reliability

③ SM was initially employed by the scientists in the field of NS. With 17th century philosophical speculations were challenged. Copernicus, Galileo and others advocated that truth is observable and subjected to empirical enquiry. The scientific research concentrated on exploring nature and giving scientific explanations about natural phenomena. This would be considered as the 1st phase in the evolution of scientific method. (NS = NS)

Subsequently SM were employed by different

④ branches of social sciences during 17th - 19th C.

→ In the field of pol philosophy, it was applied by Locke, Rousseau, Machiavelli and J.S. Mill who considered that

human behaviour could be studied from a quantitative persp.

→ In the field of economics, Adam Smith, Ricardo, advocated economic & rational man.

→ In the field of psychology, with Wilhelm Wundt, Watson employed the SM.