

# Constitution of Social Science

# The Beginnings of Social Science

- The beginnings of social science can be temporally located in the context of the making of the Age of Enlightenment
- The Age of Enlightenment was the culmination of a long genealogy of Intellectual traditions starting from the Renaissance Movement
- The Age of Enlightenment got its name from Enlightenment Intellectualism that owed its perspective to the Newtonian Physics that emerged in a definitive form in late 17<sup>th</sup> century out of the quantitative, atomistic, mechanistic perception of the Universe, thanks to the doctrines of Bacon, Descartes, Galileo, Boyle, Newton, Hobbes, Locke and Hume
- The quantitative, atomistic, mechanistic perception detached knowledge from metaphysics by making it dependent solely upon experience of the physical world
- It separated factual knowledge from seemingly intrinsic human values like goodness, truth and beauty, and gave heavy emphasis on the primacy of knowledge of physical phenomena. It made abstract values distinctly secondary
- It is this empiricist perception that developed further in France through the 'progress' movement called Enlightenment

## Enlightenment Perception

- Faith in the Autonomy of reason
- Conviction that Principles governing nature, man and society are Knowable through Reasoning
- Optimism about Perfectibility of Knowledge and achievement of progress through intellectual efforts
- Confidence in the plausibility of discovering causality
- Conviction that knowledge is engendered by Reason and Reasoned Knowledge has the fundamental social function of ensuring Progress
- Conviction that the main responsibility of an intellectual is assault on authority
- Faith in the Cosmopolitan solidarity of intellectuals

# Enlightenment Intellectuals

- The main intellectual figures of the Enlightenment Movement were Descartes, Boyle, Hobbes, Locke, Hume, Pascal, Montesquieu, Voltaire, Diderot, d'Alembert, and Condorcet
- Newtonian Physics constituted the core of contemporary Intellectual ethos
- Though all of them were not united in their intellectual attitude to Newtonian Physics, most of them believed that the 'Newtonian Scientific Method' would guarantee the secularisation of society and, fruits of reason would bring justice to all

# Newtonian Intellectual Ethos

- That Newton discovered the fundamental cosmic laws and their applicability to the Universe as a whole as well as even to the tiniest object and that these laws are susceptible to mathematical proof, were widely accepted by his contemporaries, led to the making of the Newtonian intellectual ethos.
- Contemporary scholars felt that Newtonian discovery provided a rational foundation for knowing the Universe.
- Newton's knowledge came to be called Physics as distinguished from Astronomy or Philosophy with a view to designating it 'superior science.'
- The intellectual ethos slowly acquired hegemony and privileged Physics that came out of 'empirical way of knowing the cosmic laws and mathematical way of proving them', unique.
- Gradually, the term 'science' that originally meant knowledge of all kinds began to mean only this unique knowledge that dealt with fundamental laws and mathematical proofs of the physical Universe.
- Soon the empirical ways and means of knowledge production and mathematical confirmation as exemplified by Newtonian Physics alone became recognised as 'scientific method.'
- Forms of knowledge based on non-empirical ways of knowing and non-mathematical ways of proving thus got excluded from science

# Enlightenment Milestones in the Constitution of Social Science

- Montesquieu's (Charles-Louis de Baron de Montesquieu) *The Spirit of the Laws* (1748)
- Voltaire's *Essay on Manners* (1756)
- François Quesnay's *Tableau Économique* (1759)
- Adam Smith's *The Theory of Moral Sentiments* (1759) *An Inquiry into the Nature and Causes of the Wealth of Nations* (1776)
- Adam Ferguson's *The Essay on the History of Civil Society* (1767). *Principles of Moral and Political Science.*(1792)
- Millar's *Observations on the Distinction of Ranks* (1771)
- Thomas Malthus's *The Essay on the Principles of Population* (1798)

## The Intellectual Setting

- Cartesian rationalism made social philosophers rational. d'Alembert and Voltaire made Newton common property by 1750.
- John Locke denied innate ideas and derived all knowledge, opinions and behaviour from sense experience.
- Condillac carried this to its conclusion by insisting that even perception was a transformed sensation.
- Montesquieu, Voltaire, the encyclopaedists and physiocrats synthesised social knowledge on the basis of the data on past progress.
- The intellectual setting was of religious, political and economic controversy. Hugo Grotius questioned religion.
- Political economists debated on the sources of wealth. Shocked by the difference between the prosperous Holland and backward Spain, they first posited precious metals as the source of wealth, then commerce, and then agricultural production (Quasney and the physiocrats).
- This provided the context of the political economy thesis of Adam Smith

## The Context of the Production of Secular Social Knowledge

- The feudal edifice was crumbling, but there was no real antagonism between the bourgeoisie and the aristocracy as yet.
- With great fortunes were made by every town, Mercantilism was losing its hold on the economy and the new economic prosperity had brought a greater degree of self-confidence to the bourgeoisie.
- The bourgeoisie was able to struggle for freedom from state regulations and for liberty of commercial activity.
- By 1750 a reading public had come into existence as a result of increasing literacy.

## The Twilight of Social Science in Montesquieu's *The Spirit of the Laws* ( 1748 )

- By 1750 the social knowledge had become inductive, historical, anthropological, comparative, and critical as evident in Montesquieu's, *The Spirit of the Laws*, the most important work of political philosophy of 18th century.
- Montesquieu's inductive, historical generalisations can be exemplified through the following:
- He generalised that each form of government has an animating principle which is expressed in the laws. A Republic has the animating principle of **virtue**; an Aristocracy has the animating principle of **honour**; and a Despotism has the animating principle of **fear**.
- He generalised that a Republic ought to have three branches, the legislative, executive, and judicial — with the separation of the three powers.
- He generalised that such a Republic is the form of government that best ensures liberty.

# Comte's Social Laws

- August Comte's *law of three stages* of the development of knowledge into science is an obvious outcome of the Newtonian ethos.
- It states that each particular knowledge developed through three stages: (1) the Theocratic stage, (2) the Metaphysical stage, and (3) the Positive stage.
- Comte believed that there is a hierarchy of sciences based on the historical sequence of areas of knowledge passing through these stages in order of difficulty. The simplest and most remote becomes scientific first. The more complex knowledge areas, those considered closest to social knowledge become scientific last.
- The sciences, according to Comte's "law", developed in the following order: Mathematics; Astronomy; Physics; Chemistry; Biology; Psychology; Sociology.

# August Comte's *Social Physics* Thesis: The Constitution of Social Science

- “The theories of social science are still even in the minds of the best thinkers, completely implicated with the theologico-metaphysical philosophy; and are even supposed to be, by a fatal separation from all other science condemned to remain so involved for ever.”
- “It is in defence, as much as is reasonable, to this apprehension that I propose to state, first, how the institution of a Social Physics bears upon the principal needs and grievances of society in its present deplorable state of anarchy.”
- “The formation of social science would not have been possible in ancient times ----- We are in a condition ----- precisely coincident with the scientific so as to establish social science on a positive basis.”
- “Attempt to constitute a science of society would not have been so obstinate nor pursued in ways so various, if an instinctive need of it had not been deeply felt.”
- “Nothing now prevents our going on to the fulfilment of this proposed task by entering, ----- on the study of the method of Social Physics.”

## Social Study towards the Primacy of Method

- The second generation Enlightenment Intellectuals was more inspired by Newton's laws rather than Descartes' "reason", not by abstraction and definition, but by the method of observation and experiencing.
- What placed the stamp on the Enlightenment was the analytical method of Newtonian physics.
- Faith in the instrument of critical reasoning rather than in mere accumulation of knowledge, became the preoccupation of scholars.
- Doctrinal substance became less important than the method.
- Scholars found it applicable to the study of the entire field of thought and knowledge.
- Discovering Order and Regularity became the objective of the analysis of observed facts.
- The doctrine of historical and sociological determinism (the application of the principle of causality) became important.

## The method of Positivist Social Science

- The positivist method of production of social knowledge was the 17th century scientific analysis adapted with emphasis on the following:
  - a) the particular rather than the general,
  - b) observable facts rather than principles, and
  - c) experience rather than rational speculation.

# Problems in Bringing the Social under Science

- Complexity of the subject matter and its irreducibility
- Interrelated phenomena, too many to be amenable to establish any causal sequence
- Human Life is too subtle and every social event too unique to be compatible with scientific investigation
- Cultural, historical and situational differences from place to place making behavioural generalisation extremely difficult
- Knowledge of social phenomena itself is a social variable and human subjects of experimentation are likely to behave abnormally if they are aware of what is happening to them
- Human behaviour is not predictable

## Limitations of Social Science

- David Hume was sceptical in the faith in reason remained unshaken.
- An empirical study of the nature of man, said Hume, reveals not an identical set of motives but a confusion of impulses, not an orderly cosmos but chaos. Hume here comes close to demolishing the entire rationalist philosophy of the Enlightenment--its natural rights, its self-evident truths and its universal and immutable laws of morality.
- Real life experiments are necessary for social knowledge to evolve as science. The lack of possibilities to conduct such experiments precludes the possibility.

## Science vs. Social Science

- The adoption of Newtonian models by social sciences is precluded by the contrast between the social and the scientific objects
- Science grounds itself in observation and confirmation and disconfirmation of theory.
- Interpretative science deciphers meanings, from a human perspective of social objects, dynamics and systems according to culture.
- Gaining knowledge through looking into ones own mind and subconscious to see what we can learn about our self, consciousness and humanity is not science.