

Hierarchy of the Sciences

- Comte's second best known theory, that of the hierarchy of the sciences or classification of sciences is intimately connected with the law of three stages.
- Just as mankind progresses only through determinant stages, each successive stage building on the accomplishments of its predecessors; so scientific knowledge passes through similar stages of development.
- But different sciences progress at different rates. "Any kind of knowledge reaches the positive stage early in proportion to its generality, simplicity and independence of other departments."

- Since time immemorial thinkers have tried to classify knowledge on one or the other basis. Early Greek thinkers had made a tripartite classification of knowledge.
- These were Physics, Ethics and Politics. Bacon made the classification on the basis of the faculties of man namely memory, imagination and reason.
- The Science which was based upon memory is called History, imagination is poetry and reason is Physics, Chemistry etc

- Comte classified knowledge on the basis of observation of scientific or positive level of human thinking.
- The main aim of the classification of science by Comte is to prepare the background and basis for the study of society, Sociology, a science invented by him.
- On this also he determined the methodology of sociology. Comte thought that each Science came into being not arbitrarily. It has come to seek the “Laws” of a particular kind or level of facts which man had encountered in his experience of the world.
- Each Science is concerned with some definite event or subject matter and these constitute the subject of its study.

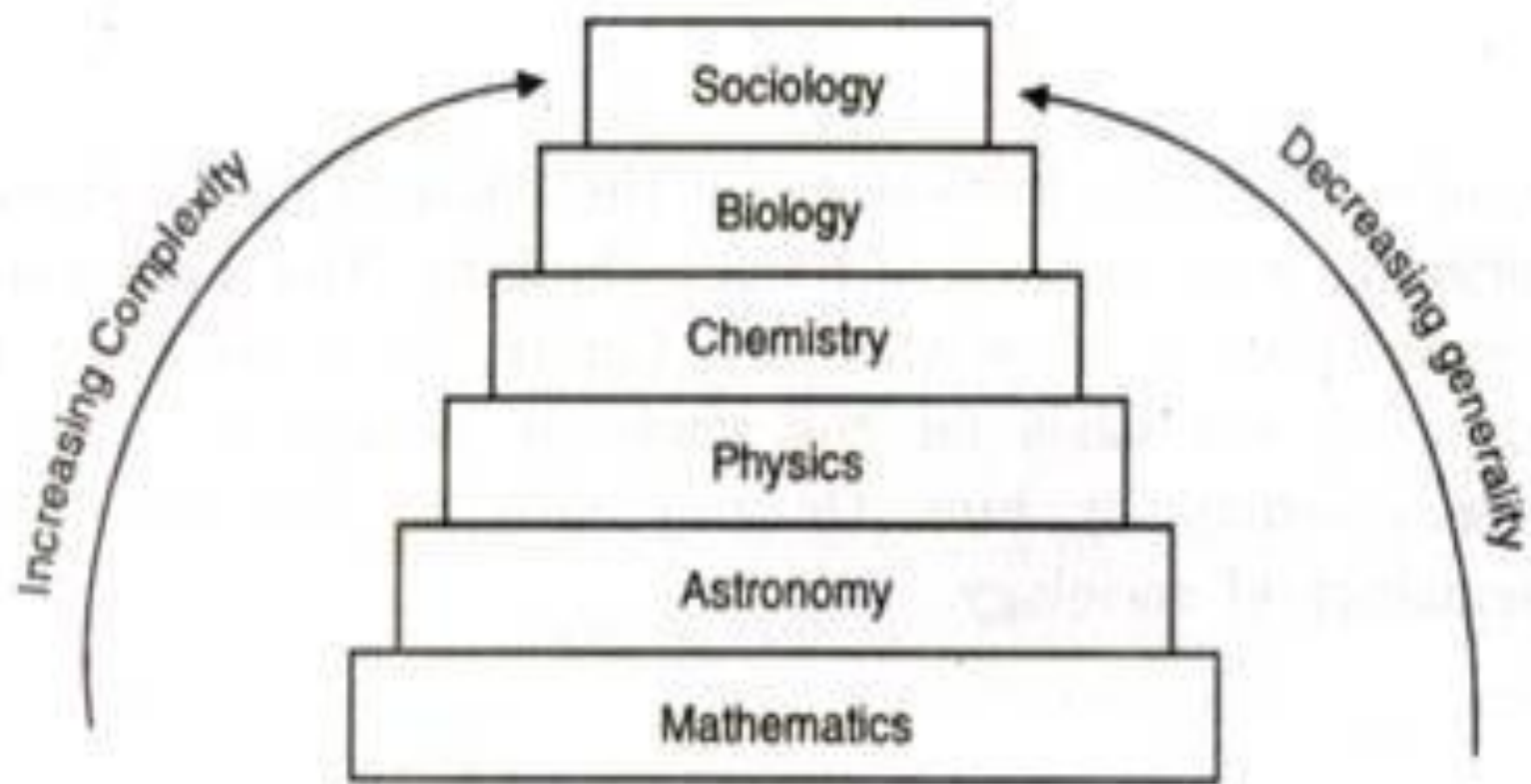
- Comte spoke of sociology is the “crowning edifice” of the hierarchy of sciences.
- He did not mean that it is in any sense superior to any other science; but only that it serves to bring all other sciences into relationship with each other, in the overall intellectual history of man.
- Comte says, Astronomy, the most general and simple of all natural sciences develops first. It is followed by physics, chemistry, biology and finally sociology.
- Each science in this series depends for its emergence on the prior developments of its predecessors in a hierarchy marked by the law of increasing complexity and decreasing generality.

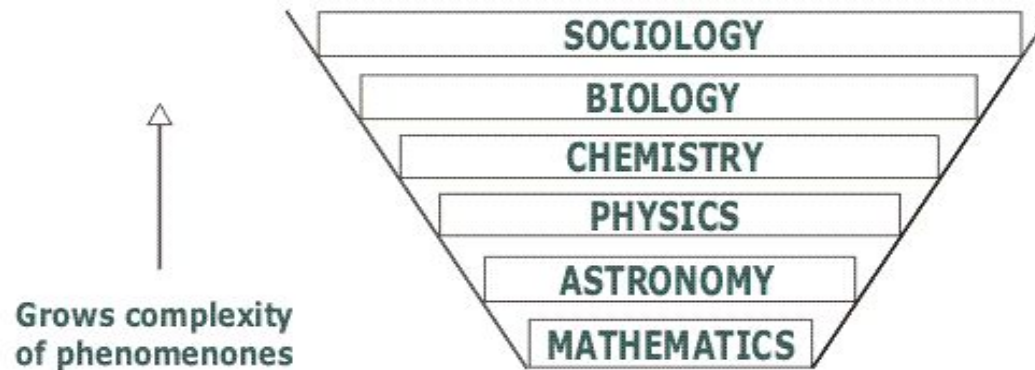
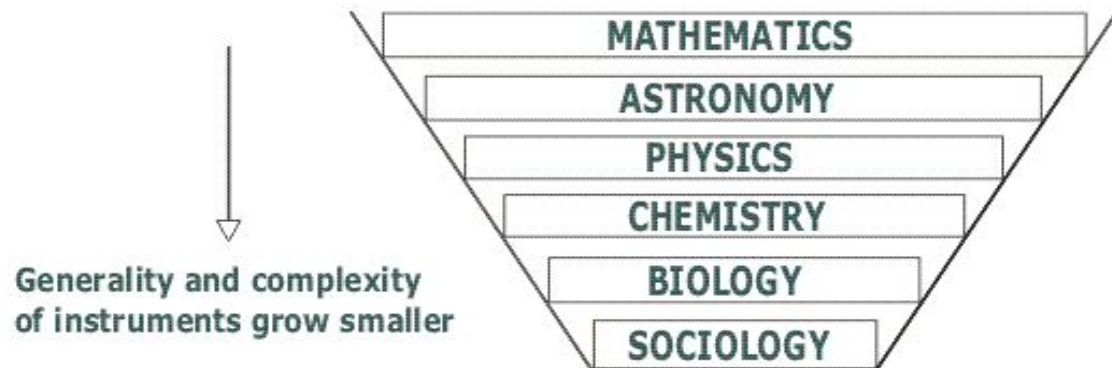
- According to Comte behind and before all these sciences however lies the great science of mathematics—the most powerful instrument the mind can employ in the investigation of natural law.
- The Science of mathematics must be divided into abstract mathematics or the calculus, and concrete mathematics embracing general geometry and rational mathematics. So we have thus really six great sciences.

- The classification of sciences follows the order of development of the sciences. It indicates their social relation and relative perfection.
- In order to reach effective knowledge the sciences must be studied in the order named. Sociology cannot be understood without knowledge of the anterior sciences.

- Comte arranged the sciences so that each category may be grounded on the principal laws of the preceding category and serve as a basis for the next ensuing category.
- The order hence, is one of increasing complexity and decreasing generality. The most simple phenomena must be the most general – general in the sense of being everywhere present. I
- In the hierarchy, Comte places mathematics on the lowest rung and the topmost rung is occupied by Sociology.

Hierarchy of Sciences





It was possible to arrange the sciences systematically in a way which coincided with:

- 1. The order of their historical emergence and development. Sciences have developed in course of history.
- 2. The order of their dependence upon each other. A science cannot develop without dependence upon each other.
- 3. Their decreasing degree of generality and the increasing degree of complexity of their subject matter.
- 4. The increasing degree of modifiability of the facts which they study.

- The modifiable facts are one which can be modified. Sociology deals with social phenomenon which undergoes constant modification.
- In establishing the hierarchy of sciences, Comte also distinguished the methodological characteristics of the various disciplines.

- **Sociology:**

- In the series of classification of Sciences, each science depends for its emergence on the prior developments of its predecessors in a hierarchy marked by the law of increasing complexity and decreasing generality.
- The Social Sciences, the most complex and the most dependent for their emergence on the development of all the others, are the “highest” in the hierarchy. “Social Science offers the attributes of a completion of the positive method. All others.... are preparatory to it.”

- Although sociology has special methodological characteristics that distinguish it from its predecessors in the hierarchy; it is also dependent upon them. It is especially dependent on biology, the science that stands nearest to it in the hierarchy. What distinguishes biology from all other natural sciences is its holistic character.

- Comte invented the specific hybrid term sociology which rests in turn upon biological, chemical, physical and astronomical knowledge and uses Mathematics as its tool.
- The positive method which has triumphed in all abstract sciences must essentially prevail in history and politics and culminate in the founding of a positive science of society, namely sociology, which is the root of all sciences.
- Sciences are no longer analytic but necessarily synthetic. In the inorganic sciences, the elements are much better known to us than the whole which they constitute, so that we can proceed from simple to compound.

- According to Comte, the social organic science is sociology. It is relatively new science. Being young it has not yet attained the status of a full-fledged science. Sociology is still a growing and developing science. However; it is quite clear that sociology is gradually moving towards the goal of a definite science.
- Comte spoke of sociology is the 'crowning edifice' of the hierarchy of sciences. He did not mean that it is in any sense superior to any other science; but only that it serves to bring all other sciences into relationship with each other, in the overall intellectual history of man.

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