1.1D: Sociology and the Social Sciences

Learning Objectives

- Analyze the similarities and differences between the social sciences

As a social science, sociology involves the application of scientific methods to the study of the human aspects of the world. The social science disciplines also include psychology, political science, and economics, among other fields. As a generalization, psychology is the study of the human mind and micro-level (or individual) behavior; sociology examines human society; psychology focuses on mental and thought processes (internal), whereas sociology focuses on human behavior (external). Political science studies the governing of groups and countries; and economics concerns itself with the production and allocation of wealth in society. The use of scientific methods differentiates the social sciences from the humanities.

The Development of Social Science

In ancient philosophy, there was no difference between science and humanities. Only with the development of mathematical proof did there gradually arise a perceived difference between scientific disciplines and the humanities or liberal arts. Thus, Aristotle studied planetary motion and poetry with the same methods; Plato mixed geometrical proofs with his demonstration on the state of intrinsic knowledge.

During the 17th century, a revolution took place in what constituted science, particularly with the work of Isaac Newton in physics. Newton made a sharp distinction between the natural world, which he asserted was an independent reality that operated by its own laws, and the human or spiritual world. Newton’s ideas differed from other philosophers of the same period (such as Blaise Pascal, Gottfried Leibniz, and Johannes Kepler) for whom mathematical expressions of philosophical ideals were taken to be symbolic of natural human relationships as well; the same laws moved physical
and spiritual reality. Newton, along with others, changed the basic framework by which individuals understood what was scientific.

Figure 1: (left) Isaac Newton, 1689: Isaac Newton was a key figure in the process which split the natural sciences from the humanities. (Right) Natural laws: Kepler’s law, which describes planet orbit, is an example of the sort of laws Newton believed science should seek. But social life is rarely predictable enough to be described by such laws.

In the realm of other disciplines, this reformulation of the scientific method created a pressure to express ideas in the form of mathematical relationships, that is, unchanging and abstract laws. In the late 19th century, attempts to discover laws regarding human behavior became increasingly common. The rise of statistics and probability theory in the 20th century also contributed to the attempt to mathematically model human behavior in the social sciences.

In the attempt to study human behavior using scientific and empirical principles, sociologists always encounter
dilemmas, as humans do not always operate predictably according to natural laws. Hence, even as Durkheim and Marx formulated law-like models of the transition from pre-industrial to industrial societies, Weber was interested in the seemingly "irrational" ideas and values, which, in his view, also contributed to the transition. The social sciences occupy a middle position between the "hard" natural sciences and the interpretive bent of the humanities.

Key Points

- In the 17th century, scholars began to define the natural world as a reality separate from human or spiritual reality. As such, they thought the natural world should be studied using scientific and empirical methods.
- The pressure to discover mathematical relationships between objects of study carried into the study of human behavior, thus distinguishing social sciences from the humanities.
- By the 19th century, scholars began studying human behavior from a scientific perspective in an attempt to discover law-like properties of human interaction.
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Key Terms

- **humanities**: The humanities are academic disciplines that study the human condition, using methods that are primarily analytical, critical, or speculative, as distinguished from the mainly empirical approaches of the natural sciences.
- **science**: A particular discipline or branch of learning, especially one dealing with measurable or systematic principles rather than intuition or natural ability.
- **social science**: A branch of science that studies society and the human behavior in it, including anthropology, communication studies, criminology, economics, geography, history, political science, psychology, social studies, and sociology.