

Paradigms and paradigm shifts (from Wikipedia)

The word paradigm is used to indicate a pattern or model or an outstandingly clear or typical example or archetype.

Paradigm comes from Greek παράδειγμα (*paradeigma*), "pattern, example, sample" from the verb παραδείκνυμι (*paradeiknumi*), "exhibit, represent, expose" and that from παρά (*para*), "beside, beyond" and δείκνυμι (*deiknumi*), "to show, to point out".

In rhetoric, *paradeigma* is known as a type of proof. The purpose of *paradeigma* is to provide an audience with an illustration of similar occurrences. This illustration is not meant to take the audience to a conclusion, however it is used to help guide them there. The original Greek term παράδειγμα (*paradeigma*) was used in Greek texts such as Plato's *Timaeus* (28A) as the model or the pattern that the Demiurgos (God) used to create the cosmos.

Thomas Kuhn [1] suggests that certain scientific works, such as Newton's *Principia* or John Dalton's *New System of Chemical Philosophy* (1808), provide an open-ended resource: a framework of concepts, results, and procedures within which subsequent work is structured. Normal science proceeds within such a framework or paradigm. A paradigm does not impose a rigid or mechanical approach, but can be taken more or less creatively and flexibly.

Another use of the word paradigm is in the sense of "worldview". For example, in social science, the term is used to describe the set of experiences, beliefs and values that affect the way an individual perceives reality and responds to that perception. Social scientists have adopted the Kuhnian phrase "paradigm shift" to denote a change in how a given society goes about organizing and understanding reality. A "dominant paradigm" refers to the values, or system of thought, in a society that are most standard and widely held at a given time. Dominant paradigms are shaped both by the community's cultural background and by the context of the historical moment. Hutchin [2] outlines some conditions that facilitate a system of thought to become an accepted dominant paradigm:

- Professional organizations that give legitimacy to the paradigm
- Dynamic leaders who introduce and purport the paradigm
- Journals and editors who write about the system of thought. They both disseminate the information essential to the paradigm and give the paradigm legitimacy
- Government agencies who give credence to the paradigm
- Educators who propagate the paradigm's ideas by teaching it to students
- Conferences conducted that are devoted to discussing ideas central to the paradigm
- Media coverage
- Lay groups, or groups based around the concerns of lay persons, that embrace the beliefs central to the paradigm
- Sources of funding to further research on the paradigm

Paradigm shifts tend to appear in response to the accumulation of critical anomalies as well as the proposal of a new theory with the power to encompass both older relevant data and explain relevant anomalies. Perhaps the greatest barrier to a paradigm shift, in some cases, is the reality of paradigm paralysis: the inability or refusal to see beyond the current models of thinking.

1] Kuhn, T. S. (1970) *The Structure of Scientific Revolutions (2nd Edition)*, University of Chicago Press.

2] Hutchin, Ted (2013) *The Right Choice: Using Theory of Constraints for Effective Leadership*, Taylor and Francis, Hoboken, p. 124