



# “The Structure of Scientific Revolutions”

By: Thomas S. Kuhn

Third Edition

**Course:**

**Research Methodologies and Methods**

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**BOOK REVIEW**

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## In the name of God the munificent the merciful

Thomas Samuel Kuhn (1922-1996) masterpiece and most referenced book, *The Structure of Scientific revolutions* brought the “Paradigm” to exist in 1962, as conception and scientific tools and also a theory to become one of the useful method in scientific analysis, Kuhn as one of the most influential 20<sup>th</sup> century philosophy of science by this enterprise mainly pointed natural sciences, but his theory found itself more successful in social sciences than the Natural campus and most welcomed by scientists of social campus and subsequently make a revolution to analyse social phenomenon and it shows itself effective in “problem solving” in social field. Kuhn’s method is the outcome of his dominance over historical trends and theories of science philosophy, especially his conversance over natural sciences theories like astronomy, physics and chemistry, as frequently exemplified in his book explanations to verify his theory.

The paradigm takes meaning in the concept of “normal science” and development of sciences that “for a time provide model problems and solutions to a community of practitioners”. Normal science or conventional period of a science situated against “Scientific Revolution”, the tendency that every science experiences during its history and the development of any science will be happened throughout the shifting between the normal science and the scientific revolutionary.

The conception of Paradigm as a theory, is trying to have a clear Description-explanation on how one dominant scientific theory at the exact time is entering in its normal science phase, to have “puzzle-solving” role or ability to find “acceptable solution” for its suppositious problems of a science. It wants to say how a “scientific community” shapes around a theory or how they interact with each other, and when a dictated paradigm encounters with its weakness period by facing “Anomalies” that make question of its credibility, then what will happen to its supporters and by which mechanism a formed scientific communities terminated by appearing hesitation over its scientific ability, and gradually leads the paradigm to a *scientific revolution* point and ultimately it shifts from an exist paradigm to a new one. And why one paradigm is replaced by another one or what will be the quality and procedure of “shifting”. Furthermore, Kuhn’s aim showed the mechanism of “incommensurability” among different paradigm devotees that is highlighted in the book.

Kuhn’s theory in somehow is a kind of “Structure” theory. Its final goal is to analyse the normal science structure that read out a paradigm and science development. Kuhn believes that when anomalies relax the foundation of a dominant paradigm, it will alarm for a “crisis” that perhaps it will show the time for scientific revolution and necessity of emerging new theory and paradigm that ultimately should have more capacity for problem solving. Kuhn by exemplifying space theory indicated that had ruled history of astronomy sciences for centuries, as it is listed by him, Ptolemaic astronomy, Aristotle, Galileo, Copernicus, Newton then Einstein, that each of them tasted being in the position of normal science and they passed pre and post-paradigm atmosphere and each of them became normal science or “common Disciplinary Matrix” of their time that a community of scientists with a common values, methods, tools and techniques, and also with a unification of theoretical and even metaphysical approach collect around itself, and finally replaced by their successor through a scientific revolution path. Kuhn by using some others’ science theory as an example wants to say, it is a common trend of all sciences and it is repeated during scientific history.

Kuhn paradigm shift is not a "*Gestalt*" commuting and shifting between Duck and Rabbit, therefore a shifted person from one paradigm to new one will not return to previous one, and a kind of incommensurability will govern between two paradigm's followers.

Despite, Kuhn's theory is efficient; the question is why we should trust Mr Kuhn's theory that is concentrated on a natural-logical scientific shifting trend in philosophy and history of sciences. That is a cyclic and an on-going process, so who knows maybe in near future, the time of Kuhn's theory also finish and his logical philosophy also adequate to the history of scientific.

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