

# Paradigm shift



**ASSIGN  
BUSTER**

And I knew I will not be able to finish reading it and give a reaction in a week so I looked for a summary of the book, instead. And there were a lot done by different people/organizations. From the various summaries I read, I found the book interesting because it was not a conventional science book. Yes, it talked a lot about science but the paradigm shift that Kuhn wrote about got my interest. The 'scientific revolutions' were true and believable and somehow, I agree with them.

Science, or normal science as Thomas Kuhn put it, is the process of gathering facts o build hypotheses that explain different phenomena in the world. It is a 'research firmly based upon one or more past scientific achievements, achievements that some particular community acknowledges for a time as supplying the foundation for its further practice. ' And this is the science that almost everybody knows. This is the science I know. I couldn't care less what those new achievements are. I just watch the Discovery Channel and surf the internet and they would tell me what is new and how things happen in just one click.

In this book, I could almost feel how scientists burn their time for research, proving theories and the like. How happy they must be once their research is successful and becomes basis for explaining how things work. Some even have become legends in their discoveries. I could never imagine myself doing the things they do. It's a good thing that most of everything nowadays have already been researched about and explained by the geniuses of old times. These smart ones must have also been repulsed by the paradigm shift that Thomas Kuhn introduced.

Well, I believe that they know about this shift but Kuhn putting this into black and white and for all the world to read would have put the scientists into an uprising had they been all alive today. I need structure AT Clientele  
Revolutions explores ten sinology AT Dealer Tanat governs the acceptance of new concepts and innovations in science. Kuhn showed that the history of science is not one of linear, rational progress moving toward ever more accurate and complete knowledge of an objective reality. Rather, it's one of radical hafts of vision in which a lot non-rational and non-empirical factors come into play.

Kuhn showed that the theories of various scientists (like Einstein and Newton) were all self-contained and " incommensurable" with one another. They lack a basis of comparison in respect to a discovery normally subject to comparison. There was no steady accumulation of truth in the form of objective knowledge about the physical universe. Instead each theory was a revolutionary break from the previous theory, resulting in the arbitrary replacement of one conceptual matrix, or worldview, by another. Once the matrix changed, the way science was done and applied was fundamentally different.

This matrix was described by Kuhn using the word " paradigm. " A paradigm, in his formulation, is a constellation of facts, theories, methods, and assumptions about reality that allows researchers to isolate data, elaborate theories, and solve problems. The chief characteristic of a paradigm is that it has its own set of rules and illuminates its own set of facts. Because it is self-validating, it tends to be resistant to change. A new paradigm is almost always the work of a young person or someone new to the field.

<https://assignbuster.com/paradigm-shift/>

It is never immediately accepted by the scientific community. It may gain ground because of some dramatic and unforeseen verification, but the choice between competing paradigms ultimately comes down to personal conviction. New paradigms tend to be more successful in accounting for and predicting phenomena. They do not arise deliberately. They are usually a product of a sudden and unstructured event. And, like a puzzle, theories (or previous scientific beliefs) are seen in a new way and this permits its solution.

Kuhn pointed out that as long as a paradigm is successful at explaining observed phenomena and solving problems, it remains dominant. But as new phenomena begin to contradict it, the paradigm succumbs to increasing doubt. And as anomalies multiply, it is thrown into crisis. At this stage, what is needed is the articulation of a radically new theory or insight that can explain the apparent contradictions. In this way, long periods of "normal" science are followed by brief intellectual upheavals that reorder the basic theoretical assumptions of the field. This paradigm shift means change.

It's not a smooth and gradual process. Transformations are violent because they necessitate the destruction and reordering of our most basic conceptual frameworks. And I completely embrace this insight. Everything inevitably changes. Yes, scientists gave a lot of their time and effort for all their theories. Too bad (for them), new ones may be able to dispute their beliefs. And too good (for us, 'normal' ones), we don't have to do the hard work. But then, that is just how everything works, including science. Science changes. Science shifts. Science revolves.