

## **Paradigm as a method in the political science**

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### **Abstract**

Following Thomas Kuhn's notions toward fundamental sciences has been very useful for scientists and his notions presented a new perception of the science progress and forgetting some of the scientific frameworks. When Thomas Kohn paid attention to the history of science, he noticed that there was another possible meaning for science rather than its traditional meaning. Since humanities confront various methods, theories, and scientific laws, the political science passes its scientific progress process along with other sciences. In between, paradigm plays an important role in scientific evolutions as a scientific method. Social and political thinkers saved politics from limits of positivism with the help of Kuhn's paradigm. Thomas Kuhn's paradigm is a new method to know sciences, therefore, the process of accepting a paradigm in the political science is accepted with considerations. In fact, the political science has taken a step from pre-science period to normal science, and then from normal science to evolutionary science. In the present paper, the processes of producing political science, accepting paradigms, and turning it into a scientific method have been studied. The purpose is to determine paradigm as a methodology not only for fundamental sciences but also for other sciences.

**Key words:** paradigm, methodology, scientific revolution, political science, philosophy

### **Introduction**

In the new period, the scientists of the political sciences have provided a better scientific position for politics. The political science tries to know what politics is. Since the political science is related to all aspects of life, it is inevitably related to other sciences. Therefore, the political science has an important position among other sciences especially social sciences and it attracts interested individuals to itself and educates them (Alem, 2001, p:17). Though the political science is about political action and it investigates people and governments' political behavior, it is independent of political act as a field of science (Bashirieh, 2001, p:19). Over the past 2500 years, different findings have been achieved in political sciences during a historical process and also political sciences have seriously changed (Manouchehri, 2011, p:3). Political science has grown through the humanities and it needs scientific methods. The methodology is an issue that it presented in different fields of human knowledge such as political science (Kazemi, 2007, p:3). Various scientific methods, different political theories, different political findings, and works of political science scientists have a key role in the flourishing of political science. It is necessary to get familiar with new scientific methods. Thomas Kuhn's paradigm is a new method in order to know

the science. Kuhn provides the opportunity to present a free depiction of science and provide more space for social science and its release from methods of natural sciences (Moeini Alamdari, 2010, p:43). In the present paper, Kuhn's paradigm is studied as a scientific method in the political science.

### **What is paradigm?**

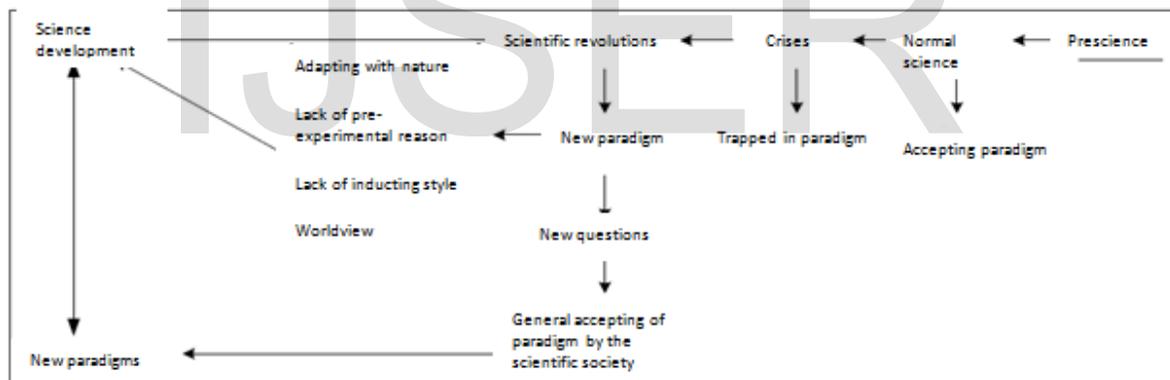
After publishing "the structure of the scientific revolutions", Kuhn accepted that he had applied paradigm in an ambiguous way. In his inserted note (1970) of his book, he distinguishes the general meaning of the term paradigm from its specific meaning. He called the general meaning as "the origin of principles" and the specific meaning as "the pattern" (Chalmers, 2010, p: 109). Paradigm is originated from the Greek word of "paradeigma" and its original word in a platonic term. Today, paradigm means a world view and a general theory (Geopolitics: internet source). It encompasses the concept of "pattern and example". Paradigm is a term which is applied in the philosophy of science and it refers to principles that dominate an individual's insight into things and the world (Edgarmon, 2006, p: 16). The general meaning of paradigm refers to a mental framework that intends to dominate an individual's insight into the total events of the world. The specific meaning of a paradigm refers to a certain area of the world, it reveals the rules, and it determines the interpretations toward the issues. In a general definition, paradigm includes a collection of principles that determine a certain realm and teach you how can behave here in order to be successful. Paradigm presents a pattern to solve problems (Abdolahi: internet source). Thomas Kuhn applied paradigm in order to present a way to determine sciences growth and development. He explored the history of science and noticed that traditional determinations of science were not in agreement with historical evidence. Therefore, he tried to present a theory related to science; a theory that was in agreement with the historian events from his perspective. Any paradigm define a ream and makes rules that dominate that realm. These rules are very important and success is the result of exploiting them (Persianblog: internet source). Some believe that one cannot define paradigm, however, it could be recognized. On the other hand, some others believe that it is a world view and general theory based on which an individual could study the details of the realm. It is a dominant framework that teaches its advocates how to think about things and solve problems. Paradigm encompasses world view, assumptions, beliefs, norms, techniques, symbols, and values that tell the advocates what the problem is and how one could solve problems by taking advantage of the paradigm. To him, a current theory is not a paradigm, but the situation in which the theory is formed will be called a paradigm (Persianblog: internet source). Paradigm includes theoretical assumptions and principles related to their use that belong to the special members of a scientific society. Paradigm organizes scientists' activities in order to solve puzzles and problems (Chalmers, 2010, PP: 108-109). Paradigm is the method of solving puzzles and a framework to understand components of a collection of questions, models, and perspectives. Therefore, paradigm is a meta-model that arranges scientists' activities. In fact, paradigm helps the scientist decide what subjects should be studied, what questions should be answered, and what rules should be followed (Moeeni Alamdari, 2010, p:39). Now, it is time to determine the position of science in the philosophy of science. In the process of developing science, humanities confront various methods, theories, and scientific laws. The political science passes its scientific process development along with other

sciences. In between, paradigm as a scientific method has an important role in scientific changes. The scientific study of politics is known with the investigation of ups and downs associated with the experimental approach. These ups and downs affect the experimental study of politics and reflect in the experimental theories of the politics (Moeeni Alamdari, 2010, pp: 19-20). Such approaches have paved the way for making methods in the political science. Quasi-positivism and positivism are the most fundamental scientific methods in the political science. The progress of the new political sociology as a part of the new political sciences is the result of development of positivism in social sciences. Social scientists in the 19<sup>th</sup> century attempted to apply natural sciences in order to have a better recognition of the society and government. In fact, the originality of experience and positivism were the basis of understanding the new social sciences. In contrast with the old political science, the new sociology and modern political science avoided critical evaluation and tried to find the general laws of the social phenomena via describing phenomena, categorizing them, and induction. In the west countries, the origin of social and political sciences should be found in Saint Simon's and Auguste Conte's works. The positivism is a science that the validity of its principles depends on the concrete and experimental evidence which could be proved (Bashrieh, 1997, p:23). According to positivism, scientific determination refers to cause-effect determination. The main objective of a scientific research is to predict observable phenomena (Moeeni Alamdari, 2010, p:26). Therefore, political science could be experimental in the sense that that correct and incorrect data are obtained via direct observation, personal experience, and current history (Alem, 2001, p:46). Positivism has had a considerable effect on development of political and social sciences in the 20<sup>th</sup> century (Bashrieh, 1997, p: 23). The other attitude toward political science is explained based on behaviorism. The approach of behaviorism is the representative of positivism (Moeeni Alamdari, 2010, p: 27). According to behaviorism, political behaviors and processes are studied and issues such as mental and moral environments are ignored (Bashrieh, 1997, p: 24). Scientific methods and approaches such as functionalism, structuralism, criticalism, interpretationalism, and cancellationalism have been very effective in humanities especially political science. Paradigmatic approach which is discussed in the book of "the structure of scientific revolutions" indicates the separation from positivism and experimentalism. The political and social scientists took advantage of Kuhn's paradigm to save political science from limitations of positivism (Majidi, 2010, p: 124). Thomas Kuhn believed that attempting to have a rational structure was useless. He believed the relativism and declared that knowledge was merely an induced ideological framework. To him, humans perceive the world from different intellectual-doctrinal frameworks (Seifzadeh, 2002, p:8). Kuhn introduces some criteria in order to assess the priority of a theory to another one. The criteria have been mentioned as follows:

"prediction especially quantity-based prediction, balance between daily issues and different solved problems", and "simplicity, vastness, and compatibility with other museums". Such criteria make the comprehensive and scientific values (Chalmers, 2010, p: 129). Relativism might be a tolerance-look at the scientific process. To him, the theory is not supposed to neutrally report the reality, but the reality is formed in a theoretical framework. Kuhn took his theory with a French tradition into an English tradition. To do so, he introduced the concept of paradigm (Majidi, 2010, p: 129). Some criticized the political science and declared that it cannot turn into a paradigm. The political sciences are always changed in different directions. Therefore, evolution in political sciences is

attributed to paradigmatic cycle or dominance of different styles. Since the nature of human behaviors makes it hard to predict social sciences, omitting the condition of verification for being practical by Kuhn made the political sciences more apt to be scientific (Moeeni Alamdari, 2010,P:44). After publishing the book of “the structure of scientific revolutions”, David Truman and Gabriel Almond took advantage of Kuhn’s ideas in their speeches in the American political science assembly. They assessed the political condition by using Kuhn’s notion. In 1969, Gabriel Almond applied Kuhn’s topics for expressing the history of political science. He organized his speech in relation with three subjects of “making a comprehensive theoretical categorization from America’s political theory in 18<sup>th</sup> and 19<sup>th</sup> centuries”, “developing the professional political science in the United States from the beginning of the century up to the 18<sup>th</sup> and 19<sup>th</sup> decades in the form of Kuhn’s paradigm”, and “the emergence of a new paradigm in the last decade of the 19<sup>th</sup> century”. Therefore, paradigm is a method based on which Almond determines the cause of changes in the development of the political theory “(Majidi, 2010, pp: 133-134). In the new periods, the process of accepting paradigm of the political science has been accepted by some considerations. The political science has moved from the prescience period to the normal science, and regarding the present mentality of scientific society it is possible to introduce paradigm as a method in the political science.

**Figure 1: the development of science and new paradigms**

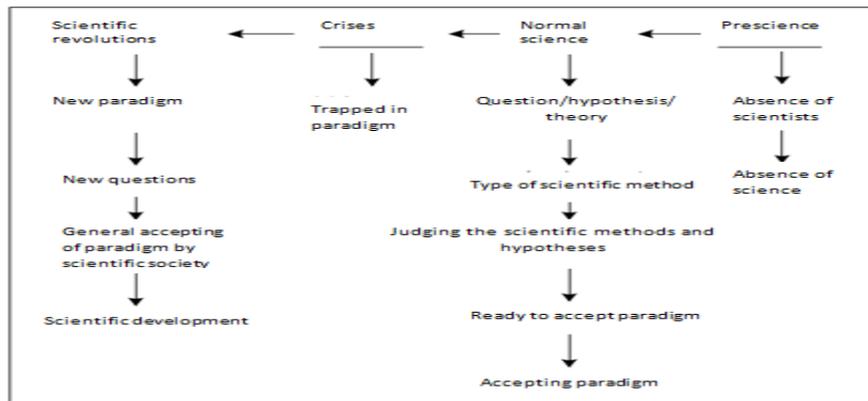


**Methodology**

The research method is descriptive-analytical and it studies scientific phenomena based on causality. It takes advantage of library studies and also taking notes.

According to the present paper, the following figure indicates stages of producing science and the process of scientific organizational paradigm:

**Figure2: stages of science production**



The word “method” is originated from the Greek word of “Meta” that means “during” and the word “Odose” that means “path” and it means passing through a way in order to achieve a purpose with specific order and sequences. Methodology is the task of a branch of philosophy that critically analyzes specific methods of adapting general structure of theory in different realms of human knowledge (Kazemi, 2007, p: 28-29). In order to produce knowledge, it is needed to have access to findings of theories, hypotheses, methods, and scientific questions. The issue of methodology pays attention to philosophical concerns. Different ontological and epistemological directions leads to different methodological orientations (Marsh, 2009, pp:38-39). In fact, different methods, theories, and findings attempt to help one achieve the true knowledge. Based on a capable scientific methodology, what kind of improvements is allowed and what kind of them is not allowed (Chalmers, 2010, p:103). A specific scientific method might not be needed to achieve truth; however, epistemology and ontology determine the position of methodology. The most comprehensive methodology does not make a historian and incorrect methodologies do not lead to incorrect scientific results, but it indicates that the historian has misinterpreted correct principles of the methodology. Methodology is only the reflexive understanding of things that have proved their values in the practice. Methodology is not a necessary condition for a successful intellectual activity, just like the knowledge of anatomy which is not a necessary condition for correct form of walking. In fact, a professional scientist who tries to determine the objectives of his research based on the external methodological notions cannot pass the way very successfully (Weber, 2003, p:175). The presence of methods and also making methods in order to reach science should seriously be considered and paradigm should also be considered in the framework of advantages and disadvantages of the scientific method and process. The paradigm refers to the fact that the mentality of a scientific society about the puzzles it is supposed to solve should take the place of rational rules, moreover, scientific achievements which are generally accepted need to be applied as a model to solve problems of scientific fields (Moeeni Alamdari, 2010, p:39). In fact, paradigm is a scientific method that encompasses many of the scientific methods in order to convert into a scientific method and solve scientific puzzles. In this process, the scientific crises lead to scientific revolutions and based on the observation on the mentality of the scientific society, the created paradigm moves toward science production. Paradigm balances the conflicts of scientific methods, and it is a meta-model that encompasses many of the scientific methods in order to match the

historical evidence. Paradigm is not always in agreement with scientific progresses; however, it attempts to deal with critics. It should be accepted that there are conflicts, disadvantages, and revocable notions in the scientific methods. Anyhow, many of the scientific achievements results from scientific methods and knowledge. As a scientific and disciplined method, paradigm plays an important role in the progress of the political science.

Therefore, the research questions have been presented as follows:

1. Is it possible to apply paradigm as a method to the political science?
2. Does paradigm help to obtain a different experience in the political science?
3. Is the application of paradigm in humanities an effective scientific method?
4. Is Kuhn's paradigm scientific enough to be generalized?
5. Is a paradigmatic framework recognized in the scientific notions of the ancient periods?

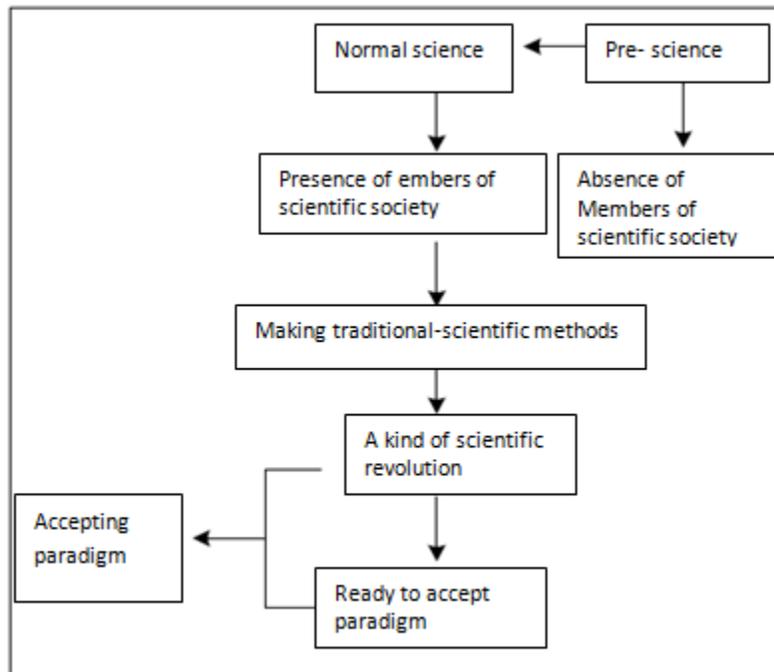
### **Paradigm as Thomas Kuhn's heritage**

Thomas Kuhn's works could be divided into three periods. The first period is 1950s that include historical narratives of science. The historical narratives of science have been studied based on the book "Copernican revolution" (Moeeni Alamdari, 2010, p: 37). In the early 1960s, Kuhn indicated the evolution of science in his book "the structure of scientific revolutions". Kuhn selected paradigm to assert that some of the accepted samples of a current scientific action could provide models that reveal specific scientific research traditions (Kuhn, 1990, p:20). Kuhn's idea of progress of a science could be summarized as follows: pre-science- normal science- crisis-revolution- new normal science- new crisis. Different activities that occur before the emergence of a science will be purposeful after changing into a paradigm that is accepted by a scientific society. Paradigm includes general theoretical assumptions that belong to the members of a scientific society. Researchers within a paradigm do whatever is called normal science by Kuhn (Chalmers, 2010, pp: 107-108). In order to explain the scientific evolution, Kuhn applied the concept of paradigm. An evolved science is observed and guided by a single paradigm. Paradigm defines criteria of the research within the science that it observes. The nature of paradigm is so that it cannot be precisely defined. However, it is possible to describe some of its components. Theoretical assumptions and laws, is one of the components that could be compared with the main components of "Lakatos" research program. Therefore, Newton's motion laws are part of the problem of Newton's paradigm and Maxwell's equations make part of the paradigm associated with the classic theory. Moreover, paradigms include common methods of matching the fundamental rules with several different positions. The other parts of paradigms include some of the general principles of metaphysics that guide the research within the paradigm. (Chalmers, 2010, pp: 109-110). Kuhn believed that general acceptance of a paradigm by the scientific society was the criterion to form that paradigm. To him, a scientific study was possible only via the framework of paradigm. Therefore, when there were no paradigms and research activities and the science was not still established, it was the stage against the science (Chalmers, 2010, p: 39). According to Kuhn's paradigm, the political science in the ancient period is studied to determine the position of paradigm in that period.

### **Political science in the ancient period (classic paradigms)**

Thomas Kuhn's paradigm is generalized to the ancient period as the main variable of the present paper. The purpose was to study the production of political science in the ancient period based on the pragmatic method. According to the hypothesis of the present paper, Kuhn's paradigm is considered as a scientific method which is adaptable with its pre and post periods. In the ancient periods, the scientists did not attempt to merely make scientific methods; they tried to discover the philosophical nature of the notions. Therefore, philosophy should be considered as a notion that observes all intellectual thoughts. The theoretical or conceptual interpretation of philosophy indicates that great works of political notion are disordered (Queenen, 1995, p:12). Today, human's sciences are divided into different fields, however, the main objective of them has always been to perceive the truth of the world (Kazemi, 2007, P: 34). In relation with the ancient period the question was whether theories and methods were prior to political action and whether the political action was in agreement with the theory. In fact, the relation of theory and practice, and priority or recency is one of the most important epistemic discussions which is considered in the political philosophy (Ghaderi, 2000, pp: 22-23). According to Kuhn's depiction of the method of science progress, there were pre-science period normal science period and scientific stages in the ancient periods. Moreover, naturalistic political science, the method of thinking about political good, metaphysics, and theories of the political perfection are all the common outputs of thought and science in the ancient period especially in the field of philosophical philosophy. According to Kuhn's analysis, the pre-science process in the ancient period was turned into normal science by the scientists and a kind of accepting paradigm has been formed in this process. Socrates, Plato, Aristotle, and other thinkers of the ancient period had played an important role in establishing sciences especially political sciences in the ancient period. Socrates has written no books, his method to teach was based on the oral questions and answers. Hegel believed that Socrates was one of the historical world characters who had created the notion of questioning everything. His purpose was to discover the truth via addressing faults (Taheri, 2001, pp:5-14). Plato was the founder of philosophy especially the political philosophy. Therefore, no one better than him could indicate the relation between thinking and politics in relation with an intelligent individuals' intellectual and philosophical conduct (Abdolkarimi, 2006, p:99). Plato was not a revolutionary philosopher; however, his theory was the essence of all the following revolutions of the world (Taheri, 2001, p:60). Aristotle was a professor in all of the human's science fields except from the mathematics (Taheri, 2001, p:64). Aristotle could be called a bridge-maker who linked existentialism to naturalism. He accepted and reviewed rational Platonic essences as the basis of these thoughts about the rational-political society (Bloom, 1994, p: 153). Therefore, scientific members of the ancient period transferred the society from the pre-science period to the normal-science period via making questions, hypotheses, and different theories. The paradigm includes general theoretical assumptions, principles, and applications that belong to members of a specific scientific society. Researchers within a paradigm do whatever is called "normal science" by Kuhn (Chalmers, 1999, p:108). The scientific revolutions in the ancient periods led the process of science development to paradigm-accepting.

**Figure3: normal science and accepting paradigm in the ancient period**



## Conclusion

Paradigm could be defined in different ways; however, the present paper intends to determine the position of paradigm as a kind of methodology in the fundamental and also other sciences. The political science intended to apply proper scientific methods to pass its way. In this paper, the paradigm is determined as a method in political science and the political science is analyzed based on the paradigmatic method by generalizing Kuhn's paradigm in the political science of past and present periods. The investigation of political science based on paradigm provides a different attitude toward the politics. Velin declares that paradigm is a new attitude toward issues and this attitude is different from the usually accepted styles. Moreover, Plato, Aristotle, Marx, Machiavelli, Hobbes, Locke, Galileo, and Newton are considered as the origins of a paradigm. He believes that each of the above scientists look at the political science based on a new style, make their questions, and answer the questions (Majidi, 2010, p: 136). Therefore, the process of producing political science, and the process of accepting paradigm and converting it into a scientific method have been studied by generalizing paradigm to the past periods as the classical paradigm and also generalizing it to the new period as the modern periods. Based on the hypothesis of the research related to paradigm, a better understanding of the political science is achieved and it seems that paradigm could be applied as a scientific method in the political science.

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