# **Revolution in Theory and Practice**

John Conbere & Alla Heorhiadi

#### Abstract

Thomas Kuhn wrote that scientific theories can change incrementally, or in a revolutionary way. Revolutions are hard as people need to change their beliefs about how things work. We argue that the Socio-Economic Approach to Management is a revolutionary management theory. One cannot simply add SEAM onto the existing mode of management; it calls for a new way of thinking.

Key words: SEAM, Scientific revolution, TFW virus.

The Socio-Economic Approach to Management (SEAM) was born in 1973 as result of the doctoral dissertations of Henri Savall who was very curious about the mismatch of classic management theory and what he was observing in practice. Two years later Savall with his colleagues created Institut de Socio-Économie des Entreprises et des Organisations (ISEOR), a French research center in the field of strategic management. ISEOR conducts SEAM interventions in organizations and trains interveners-researchers who can carry out the SEAM method and collect data about how SEAM works in organizations. Over five decades, SEAM has been implemented in more than 2,200 organizations, 72 industries, in 48 countries. Over 700 young researchers have been trained at ISEOR. ISEOR's work has led to the creation of master's and bachelor's degree programs in other universities in different countries. It is also possible to get PhD and DBA degree in SEAM.

Given such history and results, one wonders why half a century later, SEAM is not in the mainstream of management. Previously we tried to answer this question (Conbere & Heorhiadi, 2015), but we could not stop exploring different angles of the issue. In this article, we looked at the work of Thomas Kuhn about revolutions of scientific theory.

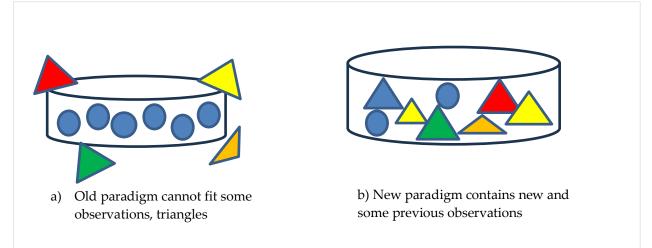
#### Thomas Kuhn and revolutions of scientific theories

Scientific theory starts with observations of phenomena. Observations do not exist in a vacuum. Observations need a story that explains their significance and meaning. This story comprises a theory. Theories tend to evolve as new observations add to understanding of the phenomena. According to Kuhn (1996), a dominant scientific theory is a paradigm.

Scientific theories are never perfect. As time goes on, scientists observe new phenomena that do not fit the existing paradigm. The number of observations that do not fit the old paradigm grows until one day, someone posits a new theory that includes the outliers. This is when a scientific revolution happens, or a paradigm shift. The old paradigm becomes obsolete and has to be discarded like in the case of Copernican scientific revolution, when a helio-centric model of the solar system replaced a Geo-centric model. Or at times, two paradigms may co-exist as they work in their own context, e.g., the classical Newtonian physics and quantum physics.

Figure 1 is the graphic representation of how paradigms shift. The first image has a container that includes blue circles. It represents a theory that neatly hosts earlier observed phenomena. Triangles of different color represent new observations that do not fit in the old container. These observations are ignored at first. Later, a new theory is posited, and this new theory takes into account the new observations. This theory is a new container, and it is able to hold new observations along with some of the old observations. This is the second image on the graphics, which includes triangles and circles.

#### Figure 1.



Graphic representation of a paradigm shift

An example is the revolution of the theory of light. In Newtonian physics, light was described as corpuscles. In the nineteenth century physicists were taught a recent discovery, that light is composed of waves. That is the situation pictured in "a" in Figure 1: the corpuscles are the blue circles; the triangles represent waves. The older theory of light being corpuscular was rejected. With the advent of quantum mechanics early in the twentieth century, light was understood to be both wave and corpuscle (which was given a new title, photon). The new paradigm (the second graphic image) broke the old rule about light, that it had to be <u>either</u> wave

or corpuscle. While the dual nature of light is common knowledge now, it was difficult for scientists to shift to a new paradigm and accept that light could be both particles and waves.

Changing paradigms may look simple in graphics, but it is important to understand three things. First, paradigms are deep seated beliefs which are taken for granted and not questioned. For example, before Copernicus, people did not question the theory about the earth being the center of the universe. If they were to question the theory, they were considered crazy. Second, any observations that do not fit the familiar paradigm get discarded or ignored. For instance, the placebo effect does not fit the traditional medical paradigm. It is observed but ignored. Third, there is always a tremendous resistance to a new paradigm. The Catholic Church's imprisonment of Galileo for his theories is perhaps the most famous example of resistance.

As Kuhn noted, the assimilation of a new paradigm "requires the reconstruction of prior theory and the re-evaluation of prior fact, an intrinsically revolutionary process that is seldom completed by a single man and never overnight" (p. 7). In other words, the scientific revolution is a process of the destruction of old beliefs and the acceptance of new beliefs. To embrace SEAM, managers need to abandon some of the theoretical constructs that are at the heart of the dominant mental model of management.

#### **Management Science**

Management Science inherited the positivistic rules of the hard sciences. The predominant theory of management in the western world originated in the late 1800s, when most of the workforce was uneducated people who came to cities in search of jobs. The educated people were owners of businesses, leaders, and engineers who designed work processes. The goal was to make as much profit as possible to enrich the business owners. Scientific management was born and shaped by three men. Frederick Taylor, an American engineer, developed "scientific management." Henri Fayol, a French mining engineer, developed a general theory of business administration. Max Weber, a German scholar, developed the theory of bureaucracy. At that time, the ideas of these individuals aimed at making the workplace more efficient, and collectively these ideas formed the paradigm of modern management.

Henri Savall and his colleagues challenged the existing paradigm of management. We call the old paradigm scientific management, using Taylor's term. Henri Savall and his colleagues described the destructive and dehumanizing results of managing according to the existing management paradigm. The scientific management paradigm sees economic human beings as rational beings who need to leave the rest of their human nature outside of the workplace. When people are hired, they sell their soul for the privilege of being paid and they must obey all organizational rules that are imposed on them. The workplace is fractured; it is

broken into many separate silos so that there is an unnecessary division of people. The organizational system is filled with heartless processes, as the needs of the organization are more important than the needs of the individual. As a result, people lose interest in their work. Yet the worst is that people become blind and come to believe that this is a normal state of things, and that change is not possible. (Heorhiadi, Conbere, & Hazelbaker, 2014; Worley et al., 2015).

### SEAM as a new management paradigm

Times changed, organizations evolved and there have been observations that do not fit the paradigm of old management theory. These observations posit questions that cannot be answered through the lens of the old paradigm. For example, if now the workforce is highly educated, then why is it that in most organizations leaders see themselves as the primary problem-solvers? If employees are the biggest asset of the workplace, then why are employees so quickly fired in a time of crisis? If modern accounting accurately represents the financial state of an organization, then why are hidden costs, which can be up to \$100,000 per employee per year, ignored?

To answer these and other similar questions, one needs a new paradigm of management. And this paradigm is SEAM. Socio-Economic refers to the importance of attending to the socio, or human, side of the workplace, as well as to the economic side. People are as important as profit. The primary generator of value in an organization is the development of human potential, so respect for all employees is essential. Modern accounting does not measure much of what happens, so in SEAM the hidden costs (the value of the time, wasted resources and missed opportunities) are measured. Reducing hidden costs is the source of resources to develop human potential. The employees from all levels of the organization are involved in reducing hidden costs.

Table 1 illustrates some examples of basic beliefs about the workplace of traditional management theory and SEAM. One can expand the table, but it is already obvious how different these paradigms are.

employees and the community

# Table 1.

Traditional management theory	Socio-Economic Approach to Management
The purpose of business is profit;	The purpose of business includes growing

Beliefs of the two management paradigms

employees are tools to generate profit

Accounting accurately shows the entire financial situation	Hidden costs account for about 40% of what happens in an organization, and reduce efficiency
Hyper specialization is the key to productivity	Cohesion and sharing information across organizational silos are the key to efficiency
The source of organizational value is capital	The source of organizational value is the development of human potential
Leaders know more so they should fix problems that arise in the organization	People involved have the knowledge needed to correct the problems
Leaders deserve more compensation	Employees deserve a fair share of the organizational profits

# Non-compatibility of scientific management and SEAM

In our consulting experience, people get excited when they first hear about SEAM. They try to implement SEAM philosophy to improve their workplace, through group projects and management tools. One of the factors that slows down the dissemination of SEAM in the modern workplace is that one cannot simply embrace SEAM and keep the scientific management paradigm. The two paradigms are not compatible. It is either the scientific management paradigm that are compatible, but the underlying philosophies cannot coexist.

For instance, in both paradigms of management leaders are supposed to lead. However, in the scientific management paradigm leaders lead by deciding what should be done, including how to solve all significant problems that arise. One difficulty is these leaders do not have sufficient information to make truly informed choices. They lack knowledge of hidden costs. They lack information from employees throughout the organization because they do not listen to them, or the employees do not tell them what they see out of fear of the leader's negative response. In SEAM the leader leads, but in a much more participative manner. In SEAM the interventions bring to light the perceptions of employees, perceptions that scientific management leaders seldom hear. They have the knowledge of hidden costs.

In scientific management, the purpose of business is profit. The needs of employees and the community take second place. When threatened with financial crisis, the normal response of the scientific manager is to fire people, or in the smarmy jargon of the paradigm, to "right size." The damage to individuals, to families and to communities is often ignored. Yes, there may be severance and benefits and job location assistance, but the damage is done. Finances are more important than people. Or to be more precise, short-term finances are more important than people.

In one intervention we worked with a CEO who was new to the company. The CEO was very participative in his style. He solicited ideas, shared his thoughts and feelings, allowed himself to be vulnerable. The leadership team wanted to trust him, but years of fear-based management left the team unable to trust him. Resolving the trust issue was the first of the SEAM projects the team took on. The old model of leading through fear, and the SEAM model of leading through openness and participation conflict; one must choose one or the other.

Another example is an organization where we were teaching managers to use SEAM management tools as part of the SEAM intervention. One manager, who was extremely busy and overworked, was delighted to adopt the delegation tool. However, he delegated only the performance of tasks to his subordinates, without delegating the authority to make decisions. Every time the subordinates did a task, the manager had to review it, and being very busy, the reviews of the tasks were piling on his desk. In the end, not only the work was duplicated, but the time of completion of the tasks was delayed. The manager's old paradigm that employees must be checked on how they did the task created more dysfunctions and hidden costs. The scientific management tendency to try to control everything is not compatible with the SEAM experience in which the knowledge and experience of all employees is valued.

In another organization, to help with workplace improvements a project group was formed. Employees were happy to assume ownership of changes and were eager to work collaboratively on the needed improvements. A young woman, who volunteered to lead this project group, began to tell people how to fix the problem rather than facilitating a dialogue of how other saw the problems. She insisted that she knew the solutions. The group members stopped attending the meetings, and eventually the project group broke up. This woman was so indoctrinated in the old paradigm in which leaders have all the solutions and tell people what to do. She just mimicked the behaviors of her previous leaders. Later, a new group was formed, a new lead volunteered, and the group enjoyed collective effort of understanding the root causes of problems and finding solutions to address those causes. The young woman unconsciously acted like the old managers she had experienced, unaware that her behaviors were not compatible with SEAM.

The example of the young woman trying to lead a SEAM project group in the scientific management style illustrates how blind many people are when they try to move from one paradigm to another. The old habits that shape how people work do not disappear with knowledge of SEAM. Time and experience are needed before people can discern the difference between scientific management and SEAM.

Through years of teaching organizations to apply SEAM, we ran into the same issue when people tried to squeeze SEAM into the old paradigm of management. And every time we had to help managers change their way of thinking about management and work. In fact, the most difficult work of all of the SEAM process, in our opinion, was holding back people from slipping into the old management paradigm.

#### Conclusion

Scientific revolutions of theory are difficult because people have to give up beliefs about how the world works and accept new beliefs. This process is hard and, usually, resisted. There is a commonly held dominant theory of management, one that began with Taylor, Fayol and Weber, which SEAM challenges. It is tempting to try to keep the old paradigm and simply add SEAM to one's management practices, but this approach fails. Helping leaders to change their management paradigm is the hardest and the most important task of SEAM intervenerresearchers.

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