

## **Progress in social sciences: Is it a paradigmatic revolution or an evolutionary process?**

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Are there paradigmatic revolutions in the progression of social sciences or is it merely an evolutionary process? According to Popper, advancement of science occurs by falsification of existing theories (Di'ez, 2007). Bunge argues that science evolves through on-surface research programs and in-depth research programs (Barrachin, Ripoll & Gagob, 2004). However, the Kuhnian view is that science progresses through paradigmatic revolutions (Cony, 1993; Dogan, 2004; Eckberg & Hill, 1979; Elguea, 1985; Graham & Dayton, 2002). This paper argues that there are no paradigmatic revolutions in social sciences as the meaning of the concept professed by Khun, who introduced it to the natural sciences. It is further argued that the concept 'paradigm' have been misused by social scientists due to the vagueness of the meaning, or in trying to legitimize social science as a science, while it was never meant by Khun to be used to the social sciences in the first place. Finally the writer argues that the progressions in social sciences occur through an evolutionary process culminating the work and contributions of many a generation of researchers may it be through interdisciplinary or hybridization.

The word paradigm was first used by Kuhn in his 1962 publication 'The Structure of Scientific Revolutions' (Graham & Dayton, 2002). According to Kuhn (as cited in Elguea, 1985) paradigms are universally recognized scientific achievements that for a time provide model problems and solutions to a community of practitioners. They are the source of the methods, problem-field, and standards of solution accepted by any mature scientific community at any given time. The basic stages of Kuhn's history of (natural) science paradigm are the following: pre-paradigm; normal science; crisis and, possibly, extraordinary science; and normal science again once the crisis is resolved (Stanfield, 1974). Contrary to the meaning given in natural science, the word paradigm used in social science gives a different meaning. For example, in analyzing social theory, Burrell and Morgan (1979) introduced four paradigms (functionalist, interpretative, radical humanist, radical structuralist) that define four views of the social world based on different meta-theoretical assumptions about the nature of science and society. According to them, these paradigms fall into two independent dimensions referred to as subjective objective dimension and sociology of radical change and sociology of regulation. However, their four paradigms are founded on mutual exclusiveness of views of the social world, proving a distinct way to analyze social life. Therefore the word paradigm refers to 'a distinct way of seeing' according to social science. But according to Khun, the concept paradigm has been used to elucidate scientific revolutions, where he emphasizes that an old paradigm will only be retained until and unless a new paradigm arises to replace it (Stanfield, 1974). In social sciences according to Burrell and Morgan (1979) many paradigms can exist in one time. Therefore it seems that the word 'paradigm' is been loosely used in social sciences to merely provide meaning to different world views.

Revolutions that were described by Kuhn can be seen in the history of natural sciences. For example, in physics the Einsteinian revolution changed the Newtonian paradigm and introduced new axioms and assumptions with respect to space and time (De Silva, 2004).

The notion of evolution fundamentally contradicts Linnaeus' belief that species are issued in pairs from the hands of the Creator, as well as the Newtonian view of floating static-eternal world of matter in empty space (Portugali, 1985). In biology, Darwinian natural selection replaced the distinctions given by Lamarckian evolution, determining the direction of other scientific disciplines such as ecology and evolutionary research (Graham & Dayton, 2002). If there have been occurrences of paradigmatic revolutions in natural sciences, does it necessarily mean that there are paradigmatic revolutions in social science? It is therefore important to distinguish the two sciences to make a clear point. According to Walle (1932), social sciences differ from the natural sciences in terms of having a greater difficulty of experimentation, non-recurrent character of their phenomena, the greater number of factors operating, the greater difficulty of determining the influence of each factor. For example Dogan (2004) highlighting the same argument affirmed that chemical substances keep indefinitely the same composition and are identical in all latitudes unlike social phenomena. According to him unlike natural sciences, contextual diversity and social change are two important parameters in all social sciences. Both parameters resist ambitious paradigmatic generalizations (Dogan, 2004).

If there are no paradigms in social sciences as the meaning to it given by Khun, why is it that social sciences have borrowed the term? According to Monge and Nosnik (as cited in Elguea, 1985) have claimed, that scholars have attempted to search for a paradigm in social sciences hoping that such a discovery would legitimize their status as scientific. However, these attempts to use Kuhn's model of scientific change have been far from satisfactory (Eckberg & Hill, 1979; Elguea, 1985). Kuhn himself agreed that social sciences fall into the category of immature sciences and it behaves differently from natural sciences due to its pre-paradigmatic condition (Eckberg & Hill, 1979; Elguea, 1985). According to Elguea (1985) analysts have misused Kuhn's work and concepts in ways which he never intended, stretching their meaning beyond its limits and in addition they have also used his terminology without either being fully aware or at least without considering the seriousness of the implications of his model. This could be due to the ambiguity in the meaning Khun himself attributed to the meaning of paradigm. According to Masterman (ac cited in Morgan, 1980) Kuhn himself used the paradigm concept in not less than twenty-one different ways.

There seem to be little argument that there were paradigm shifts in natural sciences where new views replacing the old and eventually influencing the forward movement of that science. But the question is whether there are such shifts in social sciences. There are some scholars who have argued that paradigm shifts do occur in management science giving examples such as the shifts in thinking from economic order quantity models of inventory to just-in-time constructs, and shift in emphasis from efficiency to flexibility in modern high-tech manufacturing (Learner & Phillips, 1993). For some scholars, elitism is the most powerful paradigm against the Marxist paradigm, in the domain of political economy, rational choice is elevated to the rank of paradigm. In psychology, many psychiatrists are mobilized around the Freudian paradigm (Dogan, 2004). But can we consider these examples as a 'paradigm shift' in social science in general? Are there in the social sciences instances of paradigmatic upheavals comparable to those created by Copernicus, Newton, Darwin, or Einstein? Can the theories of Keynes, Freud, Chomsky, or Parsons be described as paradigmatic? (Dogan, 2004). According to the author, there are no 'such' paradigm shifts in social sciences. Then, the question remains how does it in fact progress? Stember (1991) points out that progress in social sciences occurs through interdisciplinary work as there are overlapping areas and borrowing from each other.

Dorgan (1996) goes a step further by arguing that this progress should be referred to as hybridization and not as interdisciplinary because according to him the process of hybridization consists, of borrowing and lending concepts, methods, theories, and praxes; and the point of contact is established between sectors and not along disciplinary boundaries. This confirms the notion that progress in social sciences can be seen as an evolutionary process where knowledge is transmitted from one generation of researchers to the next, one adding in or citing to the work of another. Therefore I support my argument that progression of social science occurred and is occurring through an evolutionary process by the contributions of many a generation of researchers may it be through interdisciplinary or hybridization, and not by paradigmatic revolutions according to the general meaning of 'paradigm' articulated by Khun.