Chapter 19
Leader-Member Exchange and Transformational Leadership in Chaos and Complexity

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ABSTRACT

Since the attribution model of leadership, a long way has been made in the literature of leadership. The newest approach to leadership against the 'average leadership model', is the leader-member exchange model of leadership (Dienesch and Liden, 1986). Furthermore, being a very attractive topic in leadership transformational leadership is gaining more and more importance. In addition to all these, today's chaotic and complex environment has made changes to organizational mechanisms and relations. As a high need of analyzing leadership in these constructions, here one of the most important issues in leadership literature which are, leader-member exchange and the concept of transformational leadership will be analyzed throughout chaos and complexity. The aim of this chapter is drawing a conceptual framework of leader-member exchange and transformational leadership from the perspective of chaos theory and complexity.

INTRODUCTION

By contrast with the Newtonian Paradigm of equilibrium, chaos theory asserted different structures to explain the substantial mechanisms of todays' changing environment and its elements. This is because, according to Newtonian paradigm, the environment and its components were predictable and stable themselves staying in equilibrium. They were structured in such a way and both the internal and external factors were under control. In contrast to Newtonian Paradigm, conditions are changing and emerging. Firstly introduced by Lorenz, the nonlinear dynamic systems has been the explanatory factor for the unpredictable patterns of flow (Lorenz 1963).

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On the other side, leadeship studies are developing day by day. In todays world it is not possible to behave along with the old leadership studies especially under the rapid changes explained by chaos theory. So the leader-member exchange concept introduces an important perspective in leadership studies which implies that there is no typical and avarege way of leading.

In addition, the other prospective concept of transformational leadership can be derived from and held in accordance with leader-member exchange. Exploring these relationships under the umbrella of chaos and complexity, reflects the aim and scope of this chapter. To go under a deeper study, firstly chaos theory should be analyzed in the next section.

EXPLORING CHAOS THEORY

Investigating the origin of chaos theory, it can be understood that it emerged out of the field of biology in contrast to the Newtonian paradigm, which was tied to the fields of physics and math. (Tetenbaum & Laurence, 2011) Lorenz, while working on weather systems, have made contributions for the 'Chaos Theory.' According to him chaotic systems have been defined as: 'Processes that appear toproceed according to chance, even though their behaviour is in fact determined by precise laws' (Lorenz 1993) After deveploping a really simple meteorological model which based on differential equations, Lorenz worked this prospective model on his computer, discovering a very small difference in the beginning circumstances which led to prospective changes in the weather predicted by his own model over time (Pritchard, 1996).

The basis for the new science of chaos theory asserts that the environment is full of randomness and uncertainty. While the environment is characterized by surprise, rapid change and confusion and seems mostly out of control. If the meaning of chaos is analayzed, the word itself is not anarchy or randomness. Surprisingly, chaos is order, but it is the invisible order. And also chaos is not merely the result of noise or interference, or even insufficient kowledge. Chaos implies inherent "uncertainty principle'' not like how we perceive the world but like how the world actually works (Cartwright, 1991).

Based on the stable equilibrium and periodic bahavior, the chaos theory has been widely used in many interrelated disciplines. As the chaos theory was derived form the studies in the field of nonlinear dynamics, social scientists have widely used these nonlinear dynamics in their researches. The reason is that chaos theory provides the basis for understanding the uncertainities and unpredictable figures of social sciences. One of them is especially social sciences. (Kiel & Elliot, 1997) As the scope of this reading section is about leadership, it will be understood deeply that chaos theory is also correlated with leadership studies.

Generating the Basis for Chaos Theory

The new science of chaos theory proposes that the environment is full of randomness and uncertainty. And the environment is characterized by surprise, rapid change and confusion and seems mostly out of control. Inspite of the fact that chaos theory incorporates elements of chance, it is not random disorder. On the contrary, chaos theory attempts to understand the behavior of systems that cannot be predicted linearly and additionally, it doesn't show conventional cause-and-effect manner over time. Furthermore, if the chaos theory is taken as a whole body, these systems manifest definite patterns and structures (Murphy 1996).