

## Chapter 8.5

# A New Approach to a Theory of Management: Manage the Real Complex System, Not its Model

**Donald C. Mikulecky**

*Virginia Commonwealth University Center for the Study of Biological Complexity, USA*

### ABSTRACT

An organization is defined by the performance of function which is different from the way the organization is put together by its designers. An example is a business. The organizational chart is a poor way of understanding what actually goes into performing a task. The problem arises because of misunderstanding about to how events are caused. There is not just one type of causality, but there are four distinct kinds leading to closed causal loops. The causal entailment allows us to identify “functional components” that do not correspond to entities in an organizational chart or its accompanying job descriptions. Functional components are defined in a specific context and are destroyed if that context is altered significantly. By comparing a relational analysis of organizational functions with the standard organizational chart and its intent for getting things done, many problems in management can be given an explanation and thereby be solved

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### INTRODUCTION

There must be a reason for the call for new ideas in management theory. That reason lies, at least in part, in the failure of previous attempts to set down such a theory. This chapter will examine the misconceptions that led to those failures and how to proceed naturally using modern ideas resulting from the acknowledgement of those failures. It is significant that we are looking at cybernetics and systems theory for new ideas. Both cybernetics and systems theory have been with us for some time. The infiltration of all aspects of human culture by technology is becoming as much a way of life for our youth as automobiles were in my youth. Thus we are forced to ask whether we are looking in an empty barn for the horses that escaped when the door was left ajar. The answer lies in the semantics that frame the context for interpreting those words.

There are two related areas where progress that has been made can be of great help to us. The first is in philosophy itself. Here we have many contributors to select from, but we can focus on

a few who will provide us with the advances we need to cast management theory in a context dictated by these advances. First and foremost is the radical, but useful, idea that the philosophy we have been so enamored with since the 18<sup>th</sup> century enlightenment may have fallen behind the way we live and do things today. There are a number of ways to approach this need for updated philosophical foundations, but we will focus on three and among them, one in particular. George Lakoff, founder of the field of cognitive linguistics in the 1970's has provided us with an alternative view of philosophy (Lakoff and Johnson, 1999; Lakoff, 2008) that has come a very long way in a rather short time in the sense that it has been the source of or lends support to new ideas. In fact, much of the philosophical basis for Rosen's work is given a solid foundation by Lakoff in spite of their having no references to each other's work. Along with his challenges to traditional philosophy, we have Soros (2006) and earlier, at the University of Chicago where, as we will see, much of this unfolded, Leo Strauss (1964).

It is necessary that this chapter has to be about words and their usage as much as anything else. Language is a prison for us when it comes to new ideas. We are forced to use the language we have and to try to overcome the difficulty that presents to us when we think we understand something in a new way. Therefore, it will be necessary to develop a vocabulary that puts new meaning to old words and to develop a history of the new ideas for their novelty is not in their chronological age, but in their failure to be thoroughly understood over a considerably long period of time. In some perverse way, the moment of history in which we were called upon to try to shed light on the use of cybernetics and systems theory in management theory has made the job considerably easier than it would have been even a relatively short time ago. The reason for this is the context of our current political, commercial and economic status worldwide and, in particular, here in the United States. A good summary of the "crisis" is given by Soros

(2008). More will be said about these contextual influences as the ideas are developed.

Let us begin by reintroducing some of the words with which we will be dealing and their commonly accepted meanings. Then we will begin to put those definitions into the context of this narrative, which will be a substantially difficult task due to the many inherent contradictions with which we will be forced to grapple.

No word could be better chosen to illustrate the points just made than "cybernetics". Cybernetics is a term that refers to a collection of ideas relating machines to human beings. We need not delve too deeply into its varied meanings and its history for this has been done quite well by N. Katherine Hayles (1999) in her very thorough narrative about information and its relationship to the human beings who generate it. It would be good if one were to read her book before tackling the ideas in this chapter for the idea of applying cybernetics to management theory will be very dependent on how one answers questions she raises. The chapter will provide sufficient detail from Hayles and others to make that digression unnecessary. The same will be true with the other authors whose work will be heavily relied upon as this approach to management theory is developed. The same will also be true for the application of systems science, since it will be the theory of complex systems that dominates all others. Most of what is said here about systems science will be built upon the writings of the late Robert Rosen, who was a great friend, colleague and mentor. We will cite his many works as they are drawn upon in the development of our narrative. One of his latest works deals with the issue of cybernetics in the spirit of criticism he has refined over fifty years in the area of systems theory as well. In his discussion of psychomimesis, Rosen puts our problem into perspective from the onset.

*Weiner provided the ultimate in mimetics with his idea of reproducing every behavior of an organism by, in effect, setting coefficients in a*

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