

**MINIMALISM
and
LARGE SCALE SYSTEMS CHANGE
in
CLIENT ORGANIZATIONS**

If we are serious about creating a new model of organization, one that is non-linear, non-reductionistic, and non-hierarchical, i.e. non-Newtonian, then we have to examine the implications of such a model for the kind of work that we do.

One thing to consider is the paradigm that “more is better” in organizational interventions. Generally, this is taken for granted. Large consulting organizations dealing with total quality and re-engineering interventions often mount an almost military assault on a company they are consulting. First, they send in legions of consultants to study the system, without regard for the very real possibility that, by their selection of what to study and how to study it, they are already changing the system. Then, when their studies are complete, they design interventions that are organization-wide, massive change efforts which are designed to impose new order in a system assumed to be linear.

One example of this model at work is Re-Engineering as formulated and practiced by Michael Hammer and others. Subsequent articles, some by the leading advocates of Re-Engineering themselves, have asserted that the failure rate of Re-Engineering is 50 to 75%. Explanations for this failure rate are suspect when all preserve the validity of the model and place the blame for the failures on factors such as lack of understanding on the part of client companies of what was really involved or failure of nerve on the part of client companies.

It is possible that something far more important and far more basic is involved. Consider the view that organizations (and, indeed, the people who make them up) are chaotic systems. Chaotic systems are non-linear and therefore are dealt with through significantly different models in mathematics and physics, and further call for a different logic than linear systems. Chaotic systems are far more complex than linear systems, and the work done in mathematics and physics on chaotic systems provides some insight into how these complex systems function. When viewing organization as a chaotic system this raises some very interesting possibilities with regard to organization-wide consulting engagements.

One of the first and most striking aspects of chaotic systems one encounters in beginning to learn about them is the phenomenon of “Sensitive Dependence on Initial Conditions” (SDIC), sometimes colloquially called “the butterfly effect.” SDIC, a well-researched and documented phenomenon in chaos theory, refers to the frequency with which, in chaotic systems, a very small disturbance or input can cause a disproportionately large effect.

Along with this is the phenomenon of “cause at a distance” which indicates that, when assessing cause and effect in a linear model, the effect may show up at a location that appears to be far removed from the original disturbance. Further, the exact nature of this effect will be, to a degree, unpredictable, and will never be known for sure at the time of the disturbance, although intelligent probability estimates are possible. (Hence the “butterfly effect” whereby weather scientists conjecture that, given the chaotic nature of weather systems, a butterfly flapping its wings in Hong Kong may be the stimulus for a hurricane in the Gulf of Mexico).

All of this must give pause to those of us who are serious about the value of a “chaotic systems” paradigm for organizations. It calls into question the value of large-scale systems interventions and major reorganization efforts. It suggests we consider applying *minimalism* in the work that we do. First of all, seek the smallest possible intervention that will make a difference, and secondly recognize that even with a minimal intervention the possibility of unpredictable results exists, and that possibility expands exponentially as the magnitude of the intervention increases. Then, decide with the client whether the task at hand calls for a maximizing of false positives (apparent results when none are there) in order not to miss any positive effects, or the more conservative path of maximizing false negatives (seeing positive results as negative because, for example, of where the threshold of measurement has been set) in order to ensure that we make no mistakes. Finally, design the intervention for the early detection of unexpected outcomes, both positive and negative in order to tune the intervention at appropriate intervals reinforcing the positive results and putting in corrections when there are negative results.

Adopting the view that organizations are chaotic systems brings into play that possibility that new orders can emerge rather than be imposed. Chaotic systems are not amenable to imposed order. In fact the greater the change attempted, the greater is the probability of an unintended negative result. This may account for the high failure rate for large-scale re-engineering efforts. The emergence of new order as opposed to the imposition of a new order requires that organizations and their people be willing to come to grips with designing process structures that allow for unpredictable change — processes that take into account that the better any system works the sooner it brings into existence results it was not designed to deal with. Processes designed to cause the emergence of order from chaotic systems take into account, among other things, that organizational change has a wide bandwidth with regard to the frequency and amplitude of change across the organization. These processes that allow for emergence are themselves by design change-amenable.

Intelligence and caution demand that the rules to be followed must be first the prime rule of Medicine, *primum non nocere* (first of all, do no harm) and second the rule of minimalism — do as little as possible.