CYBERNETICS AS A FOUNDATION FOR ALTERNATIVES TO HIERARCHICAL THINKING: IMPLICATIONS FOR MANAGEMENT

Larry Richards
Executive Vice Chancellor for Academic Affairs and Professor of Management and Informatics
Indiana University East

The idea of recursion (or circularity), a central feature of cybernetic thought from its beginning, suggests the possibility of non-hierarchical organizations. Realizing this possibility in everyday life has been problematic for many reasons, including the difficulty of imagining any economic organization that is not reward-, achievement-, or goal-oriented, a way of managing that seems to require a hierarchical structure. Hierarchy is simply the way we think about dealing with complexity—we divide things into groups or categories and then subdivide them, and so on. People get assigned to manage each group and a CEO at the top manages the whole. Our language and its logic do not readily support alternative ways of thinking, and the hierarchical, reward-oriented way of thinking is reinforced by the political-economic systems that imbed our organizations and most other aspects of our everyday lives.

So, attempts to create more democratically governed, non-hierarchical organizations result in matrix, circular and other forms that still have an underlying (or default) hierarchical structure; even Stafford Beer's viable systems model is presented in a hierarchical form. However, Beer spent the last years of his life developing a group interactional process called syntegration that is embedded in a non-hierarchical structure. The structure is based on a polygon with 30 edges, 12 vertices and 20 faces called an icosahedron. Each edge is a person, each vertex is a project or task, and each face represents how projects are interrelated through the people doing them. The structure is dynamic and holds together as the default structure, even as temporary hierarchies are formed to get things done. This development represents a different way of thinking that requires support from both the early cybernetic ideas of feedback, control, information and communication, and the more recent cybernetic ideas of reflexivity, autonomy, avoidance and conversation. Beer was, of course, strongly influenced by Norbert Wiener, including his book *The Human use of Human Beings*. We are now at a point where Wiener's vision of a world where commercialism and militarism do not provide the primary criteria for global decision-making can be imagined. Desires as goals are replaced with desires as constraints, and managing to achieve goals (and rewards) is replaced with managing to avoid the undesirable—means and ends become indistinguishable.