

## God's Point of View: Polymorphism: What Business Systems can Learn from Living Systems?

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The concept of polymorphism which is popular in natural sciences has been used by Walmsley (2008) emphasizing the polymorphism of consciousness in Lonergan (1972)'s sense. There is a possibility of introducing a polymorph model of reality based on the notion of information. Going back to Wiener (1948)'s definition of information as "negative entropy" i.e. "negative disorder" or "degree of organization", information is defined as patterns of (self)-organising matter and energy at the micromolecular, neural, cultural, bureaucratic levels and in artifacts such farms, social and economic systems, corporations and software. Information creates an ecological continuity between the inorganic, the organic, and the artificial through a parallelism between levels of control (Beniger, 1986) and levels of consciousness (Fuchs-Kittowski, 1991).

This ecological continuity implies that reality (metaphysics), knowledge (epistemology) and behavior (ethics) are problems of information because they conform to a cybernetic model that views "things social as interacting processing systems" (Beniger, 1986) and "appreciate[s] the importance of communication and control in all such systems." (Beniger, 1986) Polymorphism implies integrating substantive (subject matters and their representation or data), semantic (meaning), behavioural (procedures) and teleological (or goal-oriented, functional) aspects in both organisational structures and business processes. This can be done through information processing i.e. enriching the immediate data of experience with meaning and value for the purpose of decision-making. In the context of polymorphism, business systems can learn from important features of living systems:

- (1) **Businesses as holographic systems** i.e. favoring integration over fragmentation through embedding vision, systems and structures and corporate culture in each component of the organisation through the Stafford Beer's principle of recurrence.
- (2) **Focusing on throughputs rather than outputs:** designing businesses as **value networks** rather than **value chains** and ensuring flawless processes at each level of value creation through Total Quality Management (TQM).
- (3) **From universality to transversality:** traditional business models imply top-down linear bureaucratic models which implies a "command and control" management style and standardization for the sake of mass production. Polymorphism implies that each customer is unique and a "sense and respond" (to customer needs) approach is better than a "make and sell" strategy;
- (4) **From hierarchies to heterarchies:** This implies basing decision-making and problem-solving not on power and ownership but on knowledge. This change leads to different patterns of empowerment and sharing of rewards. The distinction between management and staff becomes irrelevant because power is no more at the top of a pyramid but at

different nodes of complex networks where different members of a team share resources and information. This creates a flat, networked model of organisation that is ruled by equality rather than domination.

- (5) **From Cutting Edges to Cutting Across:** This implies shifting from designing organisations as stable closed entities to dynamic open systems through disruptive innovations, outsourcing and establishing organisational structures which go beyond the boundaries of one single organisation such as joint-ventures, consortia, conglomerates and strategic alliances;
- (6) **From competition to collaboration:** When value creation is based on knowledge rather than ownership or power there is a different understanding of the relationships between different players. The crude individualistic understanding of competitions is replaced by vertical integration (the suppression of hierarchical barriers) and horizontal integration (the formation of cross-functional teams). This new way of doing business has been called by Burn et al. (2002:xv) “coopetition”.
- (7) **From warfare to trust:** The marketplace is no longer conceived as a battleground or a dangerous place, where one must be very careful in order to brave the fury of the enemy and unveil the enemy’s traps. Polymorphism implies inter-organisational systems that link organisations to their customers and suppliers.