

What Type of Society can make Effective Use of Cybernetics in Management?

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Intellectual processes have a logic of their own and relative autonomy of development. However, they are embedded in a complex socio-cultural context, which enormously influences them. Hence, in order to be effective they have to be designed taking into account the local culture.

Cybernetics was defined by Norbert Wiener as a theory of control via feedback. Its implementation in social systems will depend upon the types of social processes that exist: whether they have feedback or not and what kind of feedback they have – positive or negative. The presence and type of feedback regulate the efficiency of social communication. The type of communication crucially influences any social entity. If communications are free, various, multi-directed, open, and mutually profitable, a community will develop quickly and successfully. Finally, they consolidate society, make it democratic and wealthy. This type of progress is typical for a developed civil society with sufficient social capital.

If social capital is low and civil society is at the beginning of its development, internal communication will have many difficulties and will meet various obstacles. Positive feedback will not always be secured. Communication will be slow, making cooperation less effective and dependent on additional factors like personal connections, power, etc. This is typically the case in authoritarian societies where vertical communication dominates over horizontal and is one-way directed – from top to bottom. Free and equal feedback is not assumed. Communicative processes with zero or negative feedback will develop more slowly, be less effective, and society will be less prosperous.

Using ideas from cybernetics to guide management will have different consequences in these two types of societies. In the first case, cybernetics can improve social communication and, consequently, the governing of the society. All influences -- communicative, cybernetic and managerial -- will act in the same direction and their sum will be cumulative. In the second case, traditions of communication lack corrective feedback, and cybernetic expertise will have no roots in social practices. This will influence the efficiency of management, which depends not only on management procedures but on traditions of communication. The science of managing complex system will consequently encounter many difficulties in development and implementation. The final result will be uncertain given the divergent purposes of the various actors.

Thus, in order to understand the state of cybernetics or the state of governing in a country and the relationships between them, we have to pay attention to the socio-cultural context in general and to the type of internal communications in particular.

In Russia the authoritarian regime destroyed and almost totally eradicated habits of individual initiative, entrepreneurial activity, voluntary cooperation and civic participation, the horizontal links which were emerging before the revolution. The administrative system broke natural relationships between all parts of society, including communication among science, business and production. These relationships have still not been reestablished in full, in spite of the satisfactory development of cybernetics as a science. Now the situation is changing, especially in the area of corporate management. But management of the state has not been reformed yet, and is still largely based on bureaucratic principles.