



Short Communication

Copyright© Martin Vlček

Thinking of Living Systems

Martin Vlček*

eFunctionality Group, Prague, Czech Republic

*Corresponding author: Martin Vlček, eFunctionality Group, Prague, Czech Republic.

To Cite This Article: Martin Vlček*. Thinking of Living Systems. Am J Biomed Sci & Res. 2025 25(5) AJBSR.MS.ID.003363, DOI: [10.34297/AJBSR.2025.25.003363](https://doi.org/10.34297/AJBSR.2025.25.003363)

Received: 📅 January 31, 2025; **Published:** 📅 February 07, 2025

Abstract

Based on the mutual analogy of various living systems, the essence and meaning of thinking is sought. The foundations of knowledge of systemic management of society are based on modeling the economy based on the development of stock values. This is a relatively objective basis for most of the following statements. And the principle of reasoning “per analogiam”. Thinking is found in a simplified form as a gradually approaching process of evaluating the dissatisfaction of elements, finding its partial solution and acting on the corresponding regulatory units. The essence, reason and persistence of left-right politics in living systems are described.

Introduction

The starting point for managing a living system is the dissatisfaction of its elements – in human society, in cellular organisms, water molecules [1]. This dissatisfaction is first evaluated, aggregated and, if significant enough, causes a state of consciousness. This state initially develops as thinking and eventually results in movement into the surroundings of the object. Thinking is a management activity that ultimately leads to such an impact on Production Units (PJ) – in society, these are enterprises, in animals, cells – that the initial dissatisfaction is eliminated or at least minimized.

Regenerative Agents and Laterality

Every living system needs inputs or generally regenerative means of two types for its regeneration: “food” of a specific type, hereinafter called the core, and means enabling and facilitating the use of the core – hereinafter called the shell. Management is based on the analysis of dissatisfaction and branches depending on whether the solution is found in the effect on the production of the core or shell. In a general view, it is a solution that is to a greater extent common, “collective” for the entire system – the shell, and a solution focused on predominantly individual needs, is analytical and allows the elements to choose – the core. In management, laterality is thus created, known in humans as the difference in the

abilities of the left and right hemispheres. In society, left-wing and right-wing government policies.

In all living systems, the activity of the PJ is directly dependent primarily on the immediate demand of the elements. Elements – like every living object, more or less dissatisfied at any given moment – feel some regenerative needs and manage their demand accordingly. This is the most effective management of PJ production without interfering with its own regulatory mechanism. This demand is governed, in addition to resolving the element’s dissatisfaction, by its possibilities, given by the amount of exchange units (SU) that each element obtains when it participates in production. In a money society, unknown to other systems.

Dissatisfaction Evaluation

Each element is in a living system in two environments, states. On the one hand, it is involved in some production in production units and on the other hand, it regenerates. The dissatisfaction of the elements is evaluated not when they are involved in production, but during regeneration. Spaces for regeneration – places of residence of elements not involved in production (DM) are homes, sports and other regeneration spaces in society, in animals the cerebrospinal fluid and in plants the xylem. When evaluating dissatis-



faction, a relatively stable structure is created here that aggregates the distribution of dissatisfaction. In society, the parliament, in animals a certain area of neuroglia in the brain stem. In plants, the branching of the root system. This structure reflects the right-left orientation in the expectations of the elements. The activity of this structure is twofold on the one hand, to trigger consciousness and subsequently thinking, and on the other hand, to create boundaries for the functioning of thinking, but also PJ. It is a structure that enables the constant control and triggering influence of the elements. It is the basis of democracy, if the sum of the elements is understood as a "demo".

Thinking

Once the activity is directed to the corresponding area according to the input from the evaluating structure, the activity of the PJs is adjusted and thus a certain correction of their production activity directed to the DM occurs. Thus, the distribution of dissatisfaction that triggered the entire regulatory loop also changes. This leads to the beginning of a new step of thinking, if the dissatisfaction is still relatively significant, or to its cessation. In the case of activity that is associated with outputs to the surroundings of the object, it is not an output to the regenerating PJs, but to those that somehow affect the surroundings. And of course, as a result of this influence, ultimately to a change in the distribution of dissatisfaction within the object.

Thinking of the Society

In society, thinking corresponds to the activity of public administration, or rather the government, which, thanks to its financial and other possibilities, influences certain areas of society. These are ultimately those areas and PJs that are responsible for the emergence, but also the solution of dissatisfaction. Thus, administrative activities arise that are limited by the history of its functioning – laws. The consequence is a partial solution and repeated activity of the administration within the limits of these structures. And possibly further changes to these laws. The main financially limiting law is the State Budget Act. The activity of reconstruction is triggered either at fixed times and intervals, or it is a reaction to the dissatisfaction of citizens. The level of democracy is then, among other things, a measure of the share of stimuli triggered by the dissatisfaction of citizens. And also, the level of dissatisfaction that is a trigger for the administration.

An intermediate step for triggering the administration are various public opinion polls. These potentially lower the threshold for the necessity of a reaction.

Thinking of Animals

In the case of animals, the aggregating and activating structure of neuroglia converges in the thalamus, where, in conjunction with other information about the state of the environment, it triggers the activity of the cortex. This consists of areas specific to the needs of the elements, also called cortical columns. In short, it is an area at the production end of which the elements obtain specific regener-

ative resources. It consists of both neurons and the glia elements controlled by them – mainly, apparently, astrocytes. The elements come here according to their needs as part of their movement in the cerebrospinal fluid. And they head precisely to the places where their needs should be met. That is, specific groups of PJs – neuroglia.

According to the evaluated orientation – laterality – the thalamus activates those parts of the cortex where the corresponding production of glia also flows. It therefore activates those brain columns, which, in their turn, according to the state of the corresponding glia in the background, rebuild this glia. And thus, ultimately affects that part of the production that resolves the dissatisfaction of the elements – water molecules. On the one hand, the activity is visible in the form of action potentials directed towards motor activity – pyramidal neurons of different levels. On the other hand, against the background of this activity as a projection, impact on the accompanying glia, there is the emergence of changes in the production of regenerative needs for water molecules.

In different areas of the cortex as a result of different afferent pathways, information converges here and creates activity – thinking – the material counterpart of which is the emergence of changes, reconstructions in the formation of regenerative needs for elements. Just as in society, it is an iterative process that resolves dissatisfaction step by step. At each moment, a possible event or aggregated significant dissatisfaction in the glia activates the next round of activities in the thalamus, first consciousness, then partial interventions in the cortical columns and partial reconstruction of the PJ in the corresponding parts of the columns.

Thinking of Plants

In the regeneration space of plants – the xylem – the structure of the root system, i.e. the growth root tips and their activity, corresponds to the distribution of dissatisfaction of regenerating water molecules. A larger number of dissatisfied elements flow into the more massive and active root part, connected to the given tips, because it is there that they can acquire the appropriate means for regeneration and resolve their dissatisfaction. In the aboveground part, the regeneration needs of the elements do not arise, only the needs for the functioning of the PJ – i.e. cells. The rest of the dissatisfaction that has not been resolved by the provided regeneration needs is tried to be resolved by thinking.

Just as in the aboveground part of the plant the main growth tip inhibits the lower tips and maintains dominance, so in the root the area of tips on the basis of the corresponding aggregating dissatisfaction inhibits the other areas. Thus, a structure is created reflecting the distribution of dissatisfaction and its resolution in the system. And this on the humoral basis taking place in the xylem. The structure of the distribution of dissatisfaction eventually stabilizes at a level where areas with high aggregation of element demands inhibit other areas with lower aggregation. This results in a slow spillover of influences between dissatisfied elements, an evolving structure, and a corresponding change in the production of PJ – thinking.

Conclusion

Thinking is a manifestation of the involvement of the elements – the demos – in management. It is a living management that not only respects the interests of the demos to a decisive extent, but does not take into account any others. Animal democracy is considerably older and apparently fundamentally more advanced than human democracy. And is therefore a possible fundamental model. First of all, it works in such a way that there is no role for an individual determining “personality”, an element. It is unthinkable for one element to determine, even temporarily, the “course of history”. Everything takes place at the cellular level, i.e. the PJ – not the elements. Animal thinking does not arise at some regular time, but according to need. This is given by the degree of dissatisfaction of the elements. If it reaches a certain value, consciousness starts completely automatically – a living object begins to exist. And thinking

begins to run as a process of resolving this dissatisfaction. On the contrary, if there is no dissatisfaction in the system, there is no need to change anything and activation will not occur.

The aim of this post is to show that life is democracy in “live broadcast”

Acknowledgments

None.

Conflicts of Interest

None.

References

1. Martin Vlček (2025) The Living Water. Medical and Clinical Case Studies (3): 1.