

**ABOUT POSSIBLE MECHANISMS OF THE SOCIAL MANAGEMENT:
Part II. “MILITARY” AND “CIVILIAN” MECHANISMS**

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1. INTRODUCTION

As it was described in [1-3], a *social management (SM)* may be considered as one of numerous 3-rd order NSP-s providing transferring the energy originally generated by the Big Bang. As Big Bang is considered to be the beginning point for all objects creation, and humans are in fact one type of the Big Bang creatures, the human participation in the energy transferring is mandatory condition for our Universe successful evolution. Besides, improving of the participation by governing the people is very important for providing such evolution. Such improving develops continuously by the relevant actual tasks formulation. Sustainable industry development is one of the contemporary actual task, to successfully solve that by improving SM is also very important.

The notion about SM as a 3-rd order NSP was declared based on formal features of the Universe evolution (time moments of the beginning and possible finishing the evolution) together with detail analysis of some specific features (3-stages) of any management processes. Under the above assumptions the analytic solving of the constitutive nonlinear differential equation of the early developed approach [4-6] provides the revealing two possible regimes (modes) of the NSP development which were associated with “military” and “civilian” mechanisms of governing people. Some specific peculiarities of the mechanisms were revealed and discussed by means of ACF values computer calculations analysis. It was particularly shown, that the military management mechanism is characterized by the one type ACF delay–time dependence, which is monotonously decreasing up to zero with the time. Meantime the “civilian” mechanism has three types of the ACF delay–time dependences. One type of the dependencies is increasing one with the delay-time, but two others - decreasing, that corresponds the Dooms Day or full disordering in humans behavior. Besides, it was mentioned based on the analogy principle [6,9] that succession of the mechanisms development play an important role in duration of whole NSP, without catastrophic braking. Aim of the article is to analyze possible successions of the military and civilian development mechanisms in detail.

2. MILITARY AND CIVILIAN MECHANISMS OF A NSP DEVELOPMENT.

As it was mentioned above, the mechanisms are results of the constitutive nonlinear differential equation of the approach [4,6] solving. The equation has a form:

$$\frac{d^3 s}{dt^3} - 3 \frac{d^2 s}{dt^2} \cdot \frac{ds}{dt} + \left(\frac{ds}{dt} \right)^3 = 0 \quad (1)$$

And the analytic solutions are as:

$$s_1(t) = \ln \frac{A_1}{2 - \left(\frac{t}{\hat{t}_1} - 1 \right)^2} \quad (2)$$

$$s_2(t) = \ln \frac{A_2}{2 + \left(\frac{t}{\hat{t}_2} - 1 \right)^2} \quad (3)$$

Graphically, the time dependencies are shown on Fig.1. As it seen, the dependencies of the both types are not periodic. One of important task to be solved for any nonlinear differential equation solutions is evaluation of the stability of them [6,7]. For this specific case the problem was solved in [8] and shown that the stationary specific points for the 1-st (“military”) mechanism are “saddles”. The result means a non-stable, non-periodically changing the state of any macroscopic system macroscopically moving according to the 1-st (military) mechanism of the NSP development.

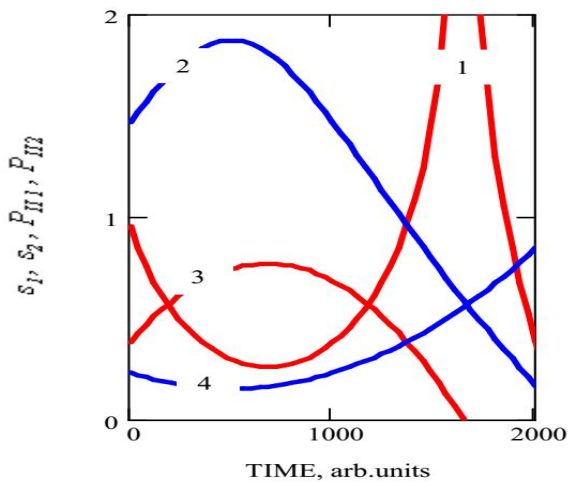


Fig.1. Calculated time dependencies of the basic parameters of the approach for the two ($j=1,2$) revealed regimes of the NSP development: s_j (lines 2, 4), P_{ij} (lines 1, 3).

periodic changes for an object states due to each mechanism (1-st and 2-nd) development have time limitations which are defined by the relations (2) and (3) respectively; - reaching both the limiting times (see equation (2) and (3)) means stopping the NSP of transferring Big Bang generated energy by the corresponding regime (1-st or 2-nd); - whole amount of energy transferred after the Big Bang by a macroscopic object is a sum of two energy components each of them is transferred during the NSP development according the revealed mechanisms: 1-st and 2-nd one; - inactivation both mechanisms of the Big Bang transferring means fool stopping the overall NSP energy transfer or end of the Universe evolution that we shall consider as impossible.

Based on the analogy principle [9] we can describe the above situation using the calculated data [4-6] for the FCC polycrystals. As it was shown by comparing real and computer simulated tensile diagrams, the known relatively big elongation is reached for Cu,Ni, Ag, contrary to Al. A possible explanation of the results is proposed as follows: development of both mechanisms in majority of FCC metals occur without time gaps contrary to Al. In Al the 1-st mechanism develops at the beginning of the deformation and after a gap occurring, the 2-nd one starts to develop. Evidently, during the time-gap any mobile dislocations do not move that leads to the microcracks nucleation and final fracture of a polycrystal.

Each of non-periodic function was interpreted as corresponding to a separate Universe. Taking into account an uncountable number of the solutions (3) it was concluded that there should be arbitrary number of the universes. Such notions are in accordance with such contemporary models as “numerous worlds”, “expanding universe” [10-11], “plane universe”[11], “non-conserving energy”[12,13], negative probability [14]. It should be noted that the existing specific models have rigorous physical foundation, but were proposed as separate ones, building no overall picture due to they have no tiers between each other.

CONCLUSIONS:

- 1- All NSP in our visible Universe are analogous to each other, because they are various components of the whole NSP providing Big Bang generated energy transfer.
- 2- There are numerous well known examples of the analogy in nature, making physical foundation for formulation the corresponding general principle.
- 3- It was shown earlier that the revealed 1-st and 2-nd regimes of time–evolution for a macroscopic objects transferring a various types of energy (elastic, thermodynamic free etc.) are analogous each other and therefore may be associated with “military” (ordered) and “civilian” (disordered, diffusive) mechanisms of an energy transferring
- 4- A management processes was associated with one of 3-rd order NSP-s based on the basic formal features and some specific peculiarities of the SM.
- 5- Based on the analogy principle it was shown that the highest effectiveness of the management processes is provided by practically the simultaneous development of the 1-st and 2-nd regimes of the NSP development, that is in accordance with Thoma Aquinsky principles.

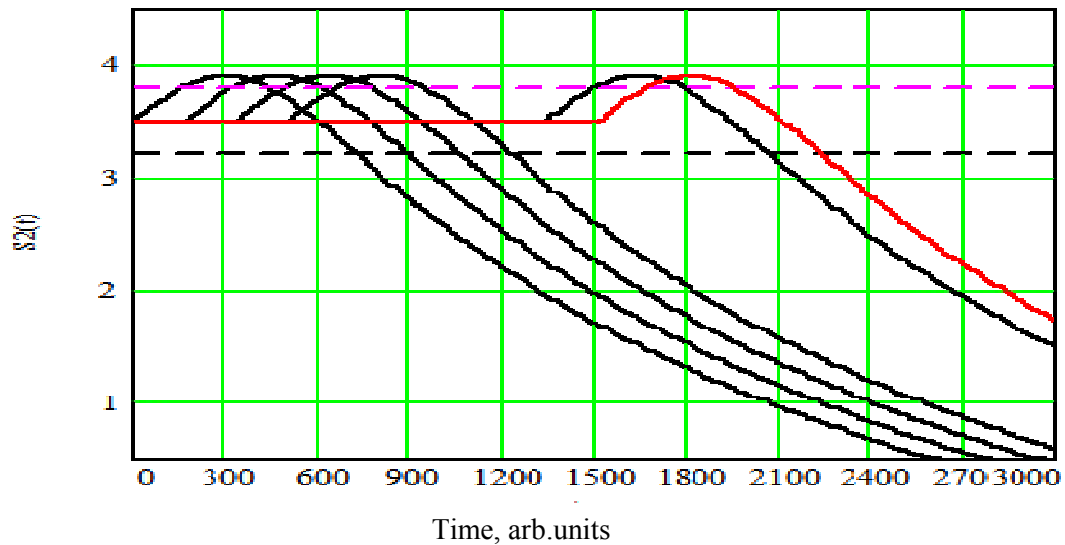


Fig.2. Calculated time dependence of $s_2(t)$ periodically repeated to provide combination of periodic and non-periodic changes of a macroscopic object state. (See text for details)

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