

# Kozyrev on Possibility of Decrease of Mass and Weight of the Body Under the Action of Time Active Properties

(Review by Kozyrev's article, edited by Alexander V. Frolov)

Kozyrev's experiments showed that Time has active properties besides its passive property of duration. These active properties are: direction of its course and density, which stipulates the extent of its activity. As a result, Time can act on these processes and on the condition of substance as some physical reality. During this, an interaction takes place, which leads to the situation that density of Time itself will change under the action of the processes taking place nearby. Relation between different processes can be provided through this change of Time properties.

By Kozyrev, all comes to the Future from the Past, and only Time enters the Present from the Future. A common course of processes leads to the system entropy increase. That's why a reversed action of Time active properties should bring a vital origin to the World. This origin counteracts to the common tendency of destruction and death. Experience shows that near the processes, which increase density of Time, organization of substance really increases. But some mechanical actions are required for such reorganization. That's why mechanical change in substance should be observed but not only a physical change.

To find out the essence of these mechanical changes,

**... decrease of the weight of the bodies should be discovered in the processes of a big increase of entropy.**

N. Kozyrev considered a simple scheme with irreversible phenomena, which should appear with absolutely inelastic collision of the bodies. Let's assume that two bodies with the masses  $m_1$  and  $m_2$  collide. They move with the speeds  $v_1$  and  $v_2$ . We will use international coordinate system. One of these bodies is immovable regarding this coordinate system. Let it be the second body, and therefore,  $v_2=0$ . Then the total impulse of the system  $P$  and its kinetic energy  $T$  before the collision will be defined by their values for the first body:

$$P_1 = m_1 v_1 \quad T = \frac{P_1^2}{2m_1} \quad (1)$$

The bodies get total speed after the inelastic collision. According to the law of momentum conservation, there is still

$$P = P_1 \quad (2)$$

Kinetic energy of joint bodies  $T$  will be different. Let's designate their total mass as  $M$ . Then

$$T = \frac{P^2}{2M} \quad (3)$$

From this according to (1) and (2) we can find

$$T = \frac{m_1}{M} T \quad (4)$$

Then  $T < T_1$ , and therefore, the inelastic collision is possible only in the case, when a process of reconstruction of bodies structure takes place. This process absorbs their mechanical energy. The entropy of the system increases in this phenomenon, which combines mechanics and thermodynamics. **The process of reconstruction of inner structure of the bodies should develop not only in Time, but also with its active participation.** With this, the law of momentum conservation will remain in force, because it is based on general properties of causality. From these properties it follows that with any changes of causal relations the equality of action and counteraction should be fulfilled, and therefore, compensation of all inner forces of the system. In other words, Time does not carry impulse and cannot break total impulse of the system. That's why, whichever the role of Time was, kinetic energy after the collision will be defined by the same expression (4) as in the classic case of common, non-active Time, because its derivation is based only on the law of momentum conservation. Time activity prevents from dissipation of energy and increase of entropy. That's why mechanical, i.e. kinetic energy of the system should be more than the value, which follows from the formula (4) with  $M=(m_1+m_2)$ . **But as it follows from the formula (4), increase of  $T$  is possible only in the case, if the decrease of total mass of the bodies takes place in the process of their joining up:**

$$M < m_1 + m_2 \quad (5)$$

This conclusion inevitably follows from active properties of Time and the law of momentum conservation. It should be proved by experiment, and then it will be the second proof of existence of Time active properties after astronomical observations of instantaneity of processes. This proof will be decisive and especially obvious.

Of course, **decrease of mass takes place not due to the decrease of quantity of substance, but due to decrease of inert mass, i.e. coefficient of acceleration in the second Newton's law. Time is included in this law, that's why the value of the coefficient can depend on its properties.** Now it is important to note only this principal possibility. If it will be proved in experiments, then we can investigate the mechanism of the

phenomenon on the basis of this possibility. According to Einstein's principle of equivalence, gravitational and inert masses should be identical with each other. That's why the decrease of weight  $Q$  should take place with an elastic collision according to the expression  $Q=Mg$ . **This conclusion allows to make a simple experimental test by comparison of weight of the body before and after the collision.**

We should also note, **that due to the decrease of weight, i.e. acting of the Earth on it, conservation of momentum is not broken, because the acting of the body on the Earth decreases on the same value.** Even the first experiments showed, that during the collision of bodies with irreversible deformation **the decrease of their weight really takes place.** It was made a weighing of the bodies with the weight up to 200 g on the analytical balance with a scale factor of 1,4 mg (it is the limit of normal work of this weighting machine). To control and weight heavy bodies up to 1 kg, the technical weighting machine of the first class with a scale factor of 10 mg was also applied. During these experiments it appeared that decrease of weight doesn't disappear immediately after the end of collision process, but remains and gradually diminishes with the time of relaxation about 15-20 min. This very important circumstance makes the experiments much simpler. We have enough time for an accurate weighing and we get a possibility to observe the gradual weight recovery. In further experiments we weighted a hard elastic body (ball bearing) after the collision with non-elastic plate (lead) and, vice versa, we weighted lead after its collision with a hard base (masonry floor). Then we made the experiments with weighing of deformable box after numerous sharp shakings of the hard bodies placed in it and, vice versa, weighing of the lead grit after the strikes in a hard box. We determined the weight of the box with all its contents as well as the weight of the box and the weight of its contents separately. **These experiments showed that the only body that losses its weight is the body, in which the process of irreversible deformation takes place.** We should expect such result according to general theoretical ideas. According to these ideas, the difference of causes and effects could be found only in irreversible processes and, therefore, the course of time with its active properties. The diagram of weight decrease of a tin box having the weight of 108 g after numerous shakings of small steel balls placed in it is shown on the Fig. 1 as a typical example.



Fig.1

We can see here the decrease of weight of the body as a result of non-elastic collision and its gradual recovery. For this experiment the technical weighting machine with dampener was used. Decrease of the weight is given on the ordinate axis, and time of weighing is shown on the abscissa axis. This time was counted out from the moment, when the effect on the box took place. The weight recovery (really not full) took place here and in other experiments during about twenty minutes. The remaining small difference from the initial weight disappears only in ten hours. The full recovery of readings of weighting machine gives the control of experiment accuracy and shows the real loss of weight, which was observed.

Perhaps, the delay in changes of weight is called by the fact that increase of weight and inert mass should lead to the gradual increase, a consumption of additional energy is required for the weight recovery to the normal condition. Due to dispersion of speed, slow particles can take this energy from interaction of the particles of higher speeds and thus recover their mass. **The loss of total heat energy occurred due to this process will lead to the inflow of heat from environment and to the gradual recovery of mass of all particles of the body.**

*Editor's note: This statement is one more correlation link between "heat" and "time", which follows from the aether's conception of time.*

The time necessary to this process should be rather more though it is considerable with the time of heat relaxation in the body that was really observed. Another feature of the weight recovery lies in the asymptotic approach of the weight not to its initial condition, but to somewhat smaller value, which remains much more period than the time of relaxation.

**Thus, the body can exist in some another condition besides its usual condition of the mass. This condition is almost stable, but with smaller mass and weight.**

This stability is possible in principle, if the recovery to the bigger mass itself represents the process, which leads to its decrease. Since during the collision only a body that losses its weight is the body, in which the process of irreversible deformation takes place, so it should be connected with the physics of the deformation itself. That's why the effect of lightening should be observed with any irreversible deformation independently on its reason.

This conclusion is fully proved by experiment.

A record of oscillations of indicator of analytical balance is given on the Fig. 2. This record was made after the vastly crumpled thin copper sheet having the weight of 40,2 g was placed on the pan of the balance.

As we can see from this figure, the initial effect of lightning of the sheet reached 6-7 mg with the gradual recovery to its common weight in 15 minutes. The usual weight is shown by the lower line of recording. In the case of reversible deformation the change of weight of the body is not observed. So, compressed rubber or compressed steel spring shows their common weight. We should expect such result, because the **entropy of the system doesn't change with reversible processes** (as well as with elastic collision). That's why **decrease of the weight of the bodies should be discovered in the processes of a big increase of entropy**. It appeared, that initial heating of the bodies really leads to the very significant decrease of their weight.

Studying of this phenomenon gave a big material, which allows deeper understanding of the way, how active properties of time call decrease of mass and weight of the body.

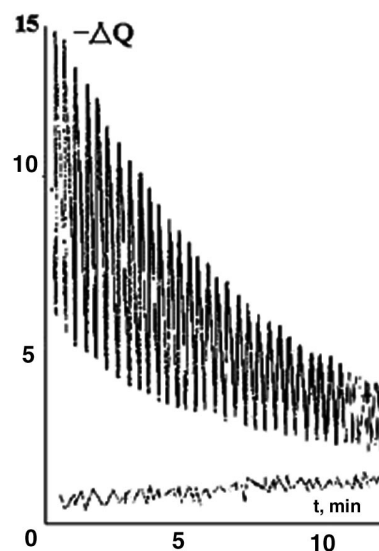


Fig.2

## The Causal Mechanics

by Kozyrev N.A.



Review by Alexander V. Frolov

*This is a short review on research work of the well-known Russian scientist Nikolai A. Kozyrev. Most of these papers are not yet published in English. There are important practical applications for new technologies, which are based on Kozyrev's theory and we'll be discussing this in our book. There is a project to publish an English language book about the time rate control technologies that will include all Kozyrev's papers devoted to this topic.*

### "The Nature of Stellar Energy Based on Analysis of Observational Data"

A conclusion about stellar energetics was made from astronomical observations: any given star is a machine that transforms incoming energy into heat radiation; there is no inner source of energy inside the star. The possibility of using incoming energy-flow exists in all area of space-time. ***It is proposed that through the power of some active properties, time can influence the energy of matter, and thus, time is a source of life in our universe.*** The density and other parameters of stellar matter in the mode of transformation (time-flow energy into heat energy) are calculated. It is concluded that output-energy depends on the volume of matter. It was proposed that time is not simply spreading, but being created throughout the universe at any given moment and for this reason telecommunications by means of time-properties can be produced as instantaneous signal instead of electromagnetic methods, which have some limited velocity.

### "Cause or Asymmetrical Mechanics in Linear Approximation"

N.A.Kozyrev calculates the qualities of stellar matter where it is a transformer of time-form energy into heat-energy. It is concluded that the transformation involves several electrodynamic processes, but, generally, any closed mechanical system can also produce energy if it is an asymmetrical system. ***The asymmetry for mechanics according Kozyrev is a cause-effect asymmetry and if the mechanical system includes the non-reversible cause-effect connection it can take the energy from time-flow.*** (In my opinion, this is the theoretical basis for any kind of over-unity systems. Editor)