



THE HUMAN CHILD.  
PSYCHOPHYSIOLOGY OF PROGRESS  
AND REGRESS

**В.Ф. Базарный**

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**ДИТЯ ЧЕЛОВЕЧЕСКОЕ.  
ПСИХОФИЗИОЛОГИЯ  
РАЗВИТИЯ  
И РЕГРЕССА**

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Москва  
2009

**V.F. Bazarny**

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**Bazarny V. F.**

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The book of Doctor of Medical Sciences V. Bazarny is based on thirty-year scientifically-basic research of scientists, proving negative influence of modern education system on quality of development and health of children. The data is represented that is destroys the physical and mental development of new generations as does not correspond to genetic, motor and sensory nature of the child. V. Bazarny asserts that the ultimate goal of the epoch and the meaning of people life are in rebirth of strong spirit person, in his incarnation. He offers training, free from the instructively-programming informatics forming the children's own vision of the world and their own mental activity, and the return of the early childhood in the conditions of family-patrimonial education of children.

The book is intended for teachers, tutors, educators, psychologists, medical professionals, parents, and also statesmen who could make a difference in the present adverse situation in our life.

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## INTRODUCTION

The life convinces us that all the base characteristics determining the species moral and sensible contents of people is not given at birth cut and dried. Initially the life of each human child coming to this world is based on the subordinate programs of reflex and instinct. And this means that from our birth we are no more than a wildling. And therefore peoples in their spiritual history developed techniques and technologies of agricultures, with the help of which each older generation enculturated (hominified) each new growing generation by the long and literally sacrificial toil. And that is why the recreation of the human essence is compared to the growing of the enculturated orchard in the allusive language of symbols in the holy writings.

And it only means that once the Creator handed down the relay baton to us to be His co-creators for ever and ever. And the great disaster waylaid the peoples and even the civilizations which striving for other values and meanings of life lost the skills of the experienced gardeners in the growing of the main fruit of the human life — moral and sensible contents of people. Than people on the pharisaically deceitful ground left the orchard to coexist with the wild growth, coexist with the liberal freedoms equal to them. And once the unlucky orchardist suddenly saw the once blooming orchard of spiritual and sensible life being ousted and overgrown by the more viable weed living by the laws of instinctive freedoms. The history of the development and collapse of the past civilizations seems to have been formed in such cycles. — And the modern civilization is developed according to the same self-liquidation scenario.

That is why if we really want our moral and sensible history of our genealogical trees from family to family to continue, we must know at least the laws of the scientific agriculture of people. During 30 years I addressed the famous scientists— professors and academicians from the Russian Academy of Sciences, the Russian Academy of Medical Sciences and the Russian Academy of Education with the following question: Can you name any laws on the basis of which we should hominify every child coming to this world? The same question was asked to the large audience of teachers and psychologists — professional experts in upbringing of children. But no reasonable answer was ever given. So by which laws do we recreate people? And should we surprise after that at those tragic processes of the dehumanization of people which are inexorably increasing in the modern civilization based on the material values, instinctive freedoms and striving for the eternal heavenly pleasures?

The world-known thinkers have already made their clear statements on that account. Here is just one typical conclusion — the sentence to the modern civilization: *For these two years I have understood two truths: the first one is that what happened should have happened, and the second one is that it happened not only in our country, but all over the world. The peoples are captured by fury, malice is crawling about the Earth. The peoples are morally degrading, the personality is growing wild and deteriorating... One thing is clear, though: homo sapiens is not able to overcome feud and war as one of the ways of the regulation of the species population* (I. Vassilev, 1995)<sup>1</sup>.

Anticipation of the decline and the great collapse of the modern civilization that lost the laws and technologies of agricultures in the recreation of people can be found in the research works and conclusions of the modern Western experts: Oswald Spengler, Francis Fukuyama, Immanuel Wallerstein, Samuel Huntington, Patrick Buchanan, Michael A. Cremo and others.

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<sup>1</sup> “Pravda”.

How many mistakes we have already made in the urgent problem of the recreation of moral and sensible generations of people! Paraphrasing Napoleon’s words about the mistake being worse than a crime, we can assert that the mistake in the chain of interchanging generations will become worse than any crime in the long run. This is an evolutionally crucial tragedy already! And the mistake imposed on the society as an ethic and moral way of life has even more terrible consequences.

The civilization is known to have been developing on the basis of technological development. But we have not seen into the fact that this basis had no room for the hand-made moral and sensible progress of the person, the person as the measure of all the values that are not given to us cut and dried but inculcated and enrooted by the long toil of the family and society receiving the human child coming to this world.

On the one hand we have a genial hypothesis by F. Engels about the fundamental role of the orthograde posture, of the hand and speech in the development of the creative moral and sensible person. On the other hand this genial hypothesis has not been experimentally tested in the real practice of the recreation of people in the modern technological civilization. And as a result they started recreating people on the qualitatively another educational basis. They started bringing up new generations by inculcation and enrooting of manually antidexterous, sciatically-immobilized, stoopingly-bonded educational dynamic stereotype alien to the nature of the sensible person, by virtual cognition detached from the world of feelings, cognition by the dead letters, figures, schemes, cognition by others eyes, not by their own ones etc.

And after this educational pattern had been introduced in Russia it was noticed with surprise that for some reason the indispensable attributes of such education became wan complexion, hemicrania, crooked bad spine, gout, psychoneurasthenia, schizophrenia, pince-nez, walking stick and often... consumption. It was most pronounced at the initial stages of the universal compulsory education. We learn from the proclamation of

the noblemen of Nizhny Novgorod to the Monarch: *The children are sent to school being healthy and return to their parents mutilated, lop-sided, short-sighted, good-for-nothing, ignorant, getting prematurely old.*

Having thoroughly studied the well-being and the quality of children's development in this Western educational pattern imposed on the society, D.I. Pisarev wrote as early as in 1865: The fact was noticed a long time ago already that school has a special influence on children, more clearly expressed in the physical state. *This influence is expressed in the fact that the former freshness, liveliness and ruddy health of children are replaced with apathy, languish and morbidity. Some of them even stop growing up: most of them lose their former careless gaiety and their look becomes somewhat sullen and tremulous. This influence often affects the mental state: children hebetate, lose their former giftedness and get some morbid nervous irritation — the sign of lassitude. Therefore those saying about the degradation of mankind under the baleful influence of school are not entirely mistaken* "Pravda" (The Teacher, 1865, № 9, p. 316).

It was in as early as in the middle of XIX century that the doctor Edward Clark from Harvard cried havoc about the fact that with the introduction of this educational pattern the civilization entered an age of the degradation of the body and healthy child-bearing. It was he who found out that after school girls get exility of the body, anemia which disturbs the normal course of pregnancy, including the quality of babies development. And many of them completely lose their reproductive abilities.

At that time the famous doctor Lamanne (France) brightly and figuratively wrote about the well-being and the quality of children's development at school: *There were and still there are a lot of arguments about overfatigue. For a healthy and strong child school requirements are not at all excessive, but quite unbearable even for the healthiest material to remain healthy at the system reigning at our school, neglecting physical education, and therefore the harmful effects of the perverted educational practice cannot but have an impact on youngsters and adults...*

*That is why when it is time to attend classes we see the children's ruddy cheeks turning pale, hear constant complaints about feeding problems, indigestion, headaches and others and, in other words, the phenomena of the real neurasthenia... But here the child has finished school, and all the same influence of the false system of upbringing continues... The nature claims its rights but the falsely directed instinct of the youth makes us seek the substitutes for the lost childhood in dubious entertainments, debauching the mind and the body Most of them die first of all because at this age exhausting chronic diseases take a great number of victims: those who survived witness clearly by the morbid nature of their ideas that their nervous system is shaken heavily. For most students it is the time to take exams being a kind of a special test for neurasthenia... One when doing this work gets a neurasthenic headache that makes him a complete idiot and unable to work, the other gets nervous indigestion, the third one completely loses his courage. After passing the exams most students nervous system is so shattered and exhausted that they are not already capable of any further activity...*

*If there is a complete lack of nervous energy the poor victims of the abnormal upbringing (education — note of V.B.) commit suicide or at least are a sight of the people broken down physically and mentally. (Quoted by: M. Platen. Treatment with the health of nature. M., Press, 1994).*

Under the influence of the unquestionable facts of the destructive influence of school on physical and mental health of children and teenagers the biggest world congress ever on school health had to be held in 1904 in Nuremberg. The public interest in this congress is proved by the fact that 1510 representatives and guests from practically all over the world took part in it. The speeches of the congress participants concerning the future of the civilization were alarming. Let us take for example just one typical speech of the doctor Zemerad from Bohemia: It is often terrible to look at the 6-year-old child entering school. *Pallid face, the whole organism is extremely exhausted. 8-year stay at school is very harmful for health*

*of these weak creatures. Before 14-year-old girl was strong, well-developed... a true fiancée. Now it is a weak, slim and pale girl with thin arms and legs. The same is true of the boys (S. Yanushewski. The most important tasks of modern school health. The report on the business trip to the Nuremberg International congress on school health. Odessa, 1904).*

Let ask ourselves the following questions: Are we *actually* moral and sensible creatures if during the past century none of the states of the world thoroughly studied the reason why school at the stage of childhood so sweepingly ruins physical and mental health of new generations of the people? And anyway, in what direction will the person develop historically if we replaced the evolutionally significant sensory-motor stereotypes of the development and hominization of new generations by those alien not only to the sensible person's nature but also to the nature of the life itself? And if we did not do anything during these centuries to save children and grandchildren who are the basis of the peoples history, than are we those who we pass ourselves off as in our eyes?

And as a result civilized humanity, without knowing it, launched in the chain of generations, on the one hand, the phenomenon of the non-recreation of species potentials of the moral and sensible contents of a person, on the other hand — the phenomenon of depletion of fertility of viability, viability that could cause the ill due to school generation with exility of the body to leave behind even less viable one. Since the people say: The evil field with evil yield.

Thus, the tragic consequences of such education, and actually, of the recreation of new generations of the people have been spoken about by medical specialists for two centuries already. And our problem is that all these proclamations were based on the highly specialized human pathology which can be treated (but never can be cured) with classical medical means and pharmaceutical substances. At the social level all this, in the long run, manifested itself in the development of evolutionally significant epidemics of high death and sickness rates, extinction of the breeding potential,

increasing of the dehumanization of people in the form of mental deterioration, the decay of families, serious crimes (violence, burglaries, murders, suicides etc.).

The modern learning process is known to be based on the devilish trinity of compulsion (discipline, obedience and... punishment) 10—12-year instructively programming saturation of poor children's heads with the information (knowledge — in the pedagogical slang). Saturation beyond not only children's own physically sensual experience, but also beyond their natural cognitive need, their own motives, and as a result, meanings and interests. And such approach is considered a state mechanism of the recreation of the spiritual and creative potential of the people! Isn't it a revolution of our outlook on the nature of people, on the mechanism of upbringing of new generations of the people? And it was great I.P. Pavlov who showed that if we input the unmotivated in the feelings (emotions) information into the brain, i.e. input it out of interests, than the centers of suppression and rejection of such information are formed in the cerebral cortex. According to the official conclusions nowadays up to 90% of children at school take no interest in their studies. It means that school prepares and gives out into the social life not only human essence bonded and suppressed by force, but moreover, prepares actively forgetful, pedagogically neglected generations of people.

In these conditions the mechanisms and technologies of agriculture of the moral and sensible people recreation give up the mode of life of the so-called civilization more and more often. Numerous phenomena of Mowgli-children should have prompted us probably the main primary mechanism of creation of people long ago. The person is initially given some superior ability (that is not scientifically studied) not only to the embodiment into the offered image — model of life, but also to the re-embodiment into other types of biological life. It has been already proved many times that if the child did not see and imprint orthograde people it will remain at the stage of the cursorial quadruped ... animal forever. Here is a bright example of the scientifically unperceived ability of the human

child to the embodiment into the image and likeness of everything visible and audible, into the image and likeness of everything imprinted.

Let us remark here that the ability to the reincarnation of people into other forms of life is reflected in myths and tales of different peoples of the world in the allusive language of symbols. Such embodiments and re-embodiments, as noticed in legends, are related to the special interaction of our body with the powers and the Earth (hit against the Earth). Unfortunately, experts in ancient myths often interpret these legends not as the universal method of rendering the truths in the sensually-experienced language of symbols, but as the reflection of the primitivity of world perception and world reflection of primitive people. But even the Law of the Lord (4<sup>th</sup> edition, 1987) states that holy writings are also written in the allegorical and allusive language of symbols and therefore nobody must understand these words literally (p. 9).

To a certain extent the science proved that the main biogenetic mechanism of embodiment and re-embodiment of people into other forms of life is the process of emotional imprinting of the offered model (mode) of life at the stage of childhood. And genetics has nothing to do with it if the fact has been already proved that no qualitative differences were found out between the genetic resources of a man and pithecoids.

Thus, proceeding from the universal (genetic) ability of people to the embodiment at the stages of early childhood into the model offered by adults — the image of everything visible and audible, some requirements of life in the human community appear. If the world of adults surrounds its children by the image of enculturated moral and sensible life, starts bringing up the children by the laws of formation of the moral human soul, of the body soaring in the hosanna, as well as of handwork and speechwork, than we will get perfect people as a result. And on the contrary, if under different deceitful innovations, reforms and modernism we ignore the eternal laws of the hominization of children, moreover, if we let them see and hear the scenes of violence, blood and sex, as a result

we will grow the newest population of bloody sexual maniacs ready to liquidate everybody who will jeopardize their instincts and needs.

And we see how for more than one decade common people under the pharisaically-liberal slogans have been skilfully creating the new sort of people (by the external anatomic feature) — liquidators of their like and, first of all, destroyers of people, especially girls and women.

If we tear a green fruit off the fruit tree and sow a green seed into the soil, what will be the life tree like? Scrubby, ill, gnarled. And pray God if it will bear 1—2 small tasteless fruits more, though its genetic resources remained intact. And we do not think over the fact that by the same laws of immaturity and greenness we recreate one generation after another through the mechanism of school.

The modern fundamental brain science proved that the strategy of the conscious behavior of people is determined not by the sum of the instructions and the information utilized in their heads but by the logic of scenes and plots from the life around us that are imprinted in the memory of feelings. That is how the world-famous expert in the field of brain science, Carl Pribram writes about it (1975): *So, in many respects, the problem of behavior is the other side of the image. The image is a reflection of the organism's environment in the organism itself, and the behavioral act is a reflection of what is inside the organism in the environment.*

This work offered to a dear reader is an attempt to scientifically comprehend the eternal laws of the hominization of people. The work is a 30-year experience of the author and his students. It represents the real facts of the destructive influence of the classical educational pattern on the quality of development including mental, moral and physical health of new generations of the people.

The battery of studies completed proved that such educational pattern in the chain of interchanging generations provoked the syndrome of infantile and degenerating involution of people (SIDI) accompanied by the gradually increasing of the viability and by the dehumanization (growing wild).

It is surprising but this is pointed out not only by experts but also by the Ministry of Education and Science of the Russian Federation itself. Here is one of his official statements: after the first year of studies 60—70% children get the first syndromes of mental deterioration (letter № 220/11-12 of 22.02.1999).

In Western countries as early as in the 50's of the XX century they found out the phenomenon of the mass extinction of children's ability that tore us out of the subordinate life of reflex and instinct — imaginative mind. Experts called this syndrome dehumanization of people. Later, in 1970—1980s the syndromes of burnout as well as of the Attention Deficit Hyperactivity Disorder (ADHD) were described. As the research carried out under our supervision showed all these syndromes are manifestations of the evolutionally significant regress (degradation) of people at the stage of childhood, stipulated, first of all, by the classical educational pattern.

Under our supervision the alternative health-developing educational pattern which was approved as early as in 1989 by the Ministry of Health of the Russian Federation under the title Mass primary prevention of the school forms of pathology, or health-developing principles of the construction of the educational and cognitive activity at kindergartens and schools (the authors are V.F. Bazarny, L.P. Ufimtseva, V.A. Gurov, E.Y. Olado) was developed and presented in this work.

In 2000—2001 the program underwent a repeated examination by the representative group of respected scientists under the supervision of the Scientific Center of Children's Health of the Russian Academy of Medical Sciences (the head is the academician A.A. Baranov). The result of such work was the issue of the positive conclusion and the certificate of the National Sanitary and Epidemiological Service of the Russian Federation (№ 77.99.95.3.T.000674.07.01).

This educational pattern implies the building of the learning process by the laws of emancipation of species potentials through supporting the mode of upright (orthograde posture), including the freedom of the body-kinetic, orientative-trying energy in the three-

dimensional space; by the laws of imprinting of cause-and-effect logic of the imaginative current changing in the time, as well as the creative transformation of the imprinted images in handwork and speechwork.

To implement these principles they developed ergonomical furniture, power-consuming machines, equipment of sensory didactics in the mode of visual horizons, as well as physiological and ergonomical modes and teaching technologies which are protected by 44 patents for inventions and useful models. In accordance with the conclusion of the Scientific Council № 37 of the Academy of Medical Sciences of the USSR this trend is recognized as a discovery in the world science and recommended to be used in the wide practice of the domestic system of education (regulation № 2 of April 17, 1986). There were positive conclusions of the respected institutes of the Russian Academy of Sciences, the Russian Academy of Medical Sciences and the Ministry of Health of the Russian Federation about the positive (and even surprising) results of children's education on the developed physiological and ergonomical basis. Different developments were demonstrated at the exhibitions of the USSR and Russia and awarded diplomas and 2 gold, 3 silver and 4 bronze medals.

The results of the wide-scale educational experiment carried out in Russia (by the example of more than thousand of educational institutions) with the use of training technologies consistent with the developing child's nature are summarized in the 3-volume edition of the Material of the All-Russian forum with the international participation Education and healthy development of students (M., 2005). But nevertheless such experiment is just the beginning of the transfer of the health-destroying domestic system of education to the health-developing basis.

This experience was stated by the author at the Commission of science, culture and education of the Parliament Assembly of the European Union (May, 2005) and received an authoritative support and positive conclusion. The scientific conclusions are included in the report of the member of the Commission of science, culture

and education A.A. Korobeynikov at the Parliament Assembly of the European Union Education with the aim of harmonious development students with the aim of harmonious development of students (2006).

This work is intended for parents, teachers, psychologists, doctors, heads of the educational and healthcare systems, statesmen, and those citizens who are ready tooth and nail, on the legal basis, to stand up for the child's superior right — the right to the free healthy, creative and moral development including that in the learning process, for those who want to be sure about the children, the future of their people.

I wish to express my gratitude to my colleagues in collaboration at the Research institute of Medicine in North Pole of the Security Office of the Academy of Medical Sciences of the USSR, to those who supported this trend in the scientific community, in authorities of all levels, and covered it in mass-media. But I am specially indebted to kindergartners, teachers, medical workers and heads of kindergartens and schools — to thousands of people who applied our educational technologies and proved the viability and perspective of such education and upbringing of students by their own many years experience.

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## Section I. FROM CONCEPTION TO APPEARANCE

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### *Chapter 1*

#### **About the creation of child in the image and likeness of the imprinted life around us**

The life sometimes sets cruel experiments on the person. Let us suppose that a human child from the church-going and strictly observant family found itself among the wolves and a few years later such creature for some reason only shows the wolfish, not a divine essence. It remains a person only by its external anatomic features.

This is a central psychogenetic law of the creation of people at the stage of childhood in the image and likeness of the model of life imprinted in the memory of feelings. The science tells us about the evolution of people, about the progress in our development. But why for some 2—3 years can a child evolve into the wolf — Mowgli forever and irretrievably? Where do its human evolutionally significant genetic resources and human essence suddenly and forever disappear?

Thus, in contrast to other forms of life it is only a person who is given a universal species essence — readiness at the stages of early childhood to the embodiment into other types of biological life. The mechanism with the help of which such transformation (evolution) occurs is the mechanism of *imprinting* of one or another video sequence, one or another imaginative logic of life in the memory of feeling.

If the child imprinted the image of wolfish behavior, wolfish sound and gesture signaling in the memory of feelings — it forever became a wolf in mind. If it imprinted the images (scenes) of blood and sex taken from mass-media, the population of bloody sexual maniacs and serial killers will grow up among us before the society could say Jack Robinson. If the child imprinted the image of the

perfect spiritual, sensible and moral life in the family and society, it can potentially become a perfect person.

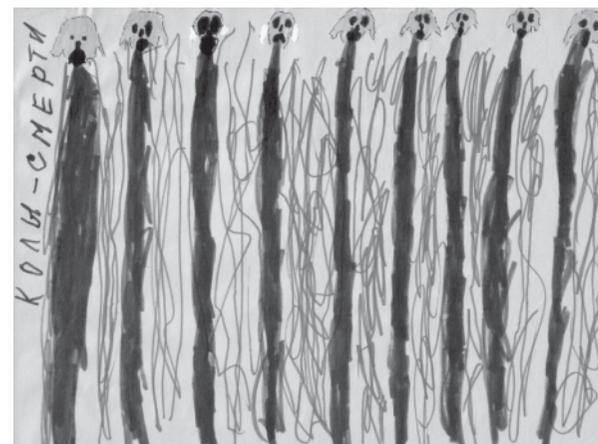
Let us give just a few bright examples. Working in 1990s at the kindergarten № 7 of Sergiev Possad (the head is V.M. Kostrikova) as a scientific consultant we paid attention to the following circumstance. Some children for some reason suddenly started drawing the chequered snowmen with black circles (Fig. 1). When analyzing this situation it was found out that the previous day the kindergartner of this group was dressed in the chequered skirt and the white blouse with black buttons.



*Fig. 1.* The picture of the chequered snowman with the vertical row of buttons also depicted in the tree (the previous day the children were impressed by the chequered skirt and white blouse the row of black buttons that the kindergartner was dressed in)

Here is another example. A kindergartner consulted me when some of her children started painting weird bloody scenes (Fig. 2). When analyzing this situation it was found out that some days ago she used “The manual for teachers of primary school” (G.A. Bashkhanova with co-authors, Syktyvkar, 2000) at the lessons with children. This manual contains a letter matrix (p. 158), and the line “Have ridden a hedgehog” (the picture of a hedgehog). As children are impressed

by everything unusual, they were so struck with the scene to ride a hedgehog that during several days they had been painting the needles piercing the bleeding body. Due to anticipation of pain these needles increased to the size of huge stakes. That is what the child’s imagination means! That is what the misunderstanding of the child’s soul by the world of adults means! It’s not given us to foretell how our words will echo through the ages, — wrote Tyutchev, as if warning from itching of similar pedagogical innovations. All this points at the fact that imprinting for children is a mechanism of formation of their inner life, their authentic spiritual essence — the inner outlook on the world (soul — in the language of spiritual doctrines).



*Fig. 2.* Impressed by the imaginative scenario “Have ridden a hedgehog” the children paint the needles increased to the size of pegs piercing the bleeding bodies and sticking right in the heads

Let us remark here that the most illiterate peoples intuitively felt it and always tried to protect children from imprinting of the scenes and images of life alien to the person’s moral nature. And in Russia at the time of the empress Elizaveta Petrovna the special regulations on the protection of children from the contact with

vicious scenes and images were issued. In particular, in the “Collection of institutions and instructions concerning upbringing of the noble and bourgeois young people of both sexes in Russia with other regulations in favor of society” (St.-Petersburg, 1780) it was clearly stated: “Knowing that not everything that is understood by the mind gets to the heart, there must be the most natural moral teaching, and first of all *taking away everything that has a shadow of vice from the ear and the sight*”.

So what power should we consider a people’s one (democratic): the one that allows children to imprint the blood, violence and sex from morning till evening? Or the one that issued special instructions concerning careful upbringing of children and demanded “to take away everything that has a shadow of vice from the ear and the sight”! And if everything that mass media (the means of the mass development of instinctivity) brought nowadays to the children’s sight is freedom and democracy, what must be the dictatorship and enslavement of the people with the help of mass-media like?

So far being an expert I see what army of young people with specific detached and cold (glassy) eyes (the schizoid’s look) flickers on our telescreens. But it was as early as in 1979 that Kazanetz found out the following regularity: in the block of flats where a schizoid lives, the frequency of this psychopathology in once healthy young people turned out to be 5 times higher than in the neighboring blocks of flats. Here is an influence of an evil eye through the mechanism of imprinting.

Therefore the human look is a concentrated expression of the special energetics of the soul including its pathologies. Imprinting of the other person’s look with the soul pathology by the children is a weapon of mass destruction of the children’s souls. And now imagine how many children are struck with the schizoid’s look from our telescreens?! It is truly said: “The sights you see will drive you mad” (Deuteronomy 28:34). No wiliness, such as if you don’t like, switch off the TV-set is not appropriate here. Nowadays the TV-set is an environment of human life. And our children are high and low in this environment, striving to cognize all the secrets of adults. And they do it!..

The authentic quality of human life cannot be built neither by the laws of revolutions, nor by the laws of present capitalist freedoms, freedoms for inferior instinctive passions. The authentic quality of human life can be created by the special spiritual and moral upbringing of children. The authentic quality of humanity and human life only can be built by the laws of the completeness of imprinting at the stages of childhood of the morally-purified model of human life.

Here we cannot do without dictatorship — the taboo — on everything immoral, on everything that is harmful for the spiritual, moral and physical development of children. And this provision can and must become the most important provision of the Constitution of the socially-oriented state and society. Other laws must have subdominant meaning.

## *Chapter 2*

### **The scientifically rational perception of the sinful and moral conception of the human child**

We showed above that imprinting of the imaginative scenes of life and their emotional experience is a process of the creation of the child’s inner spiritual sphere, the creation in the image and likeness of the imprinted essences. From this point of view the first sexual contact is one of the most intense emotional experiences, and, consequently, their imprinting into the long-term memory of feelings, imprinting as the mechanism of encoding of people’s inward nature quality. Any emotional experience (and it is scientifically proved) is always accompanied by the activation of a certain set of hormones. They launch the work of any hidden genetic programs of development (creation). Hence the emotional experience is always accompanied by the modeling of genetic responsiveness.

The first sexual contact for young men at the subconscious level is his self-assertion as a man in the eyes of a woman. And such self-assertion results from mental complexes, from infantilism. A girl is

another matter. A new life will be conceived and develop in her utero. Here the following law of imprinting and consequent sensual effect operates: what was experienced by the woman (bride) at the moment of conception will forever remain as the trace memory of feelings, as the emotional genetic code for the rest of her life. The instinctive effect of the sensual imprinting and self-creation, including the adequate essence of the future child depends on whether the woman was absorbed in the instinct of the fear to get pregnant, or in the instinct of physical sensual EGO delight.

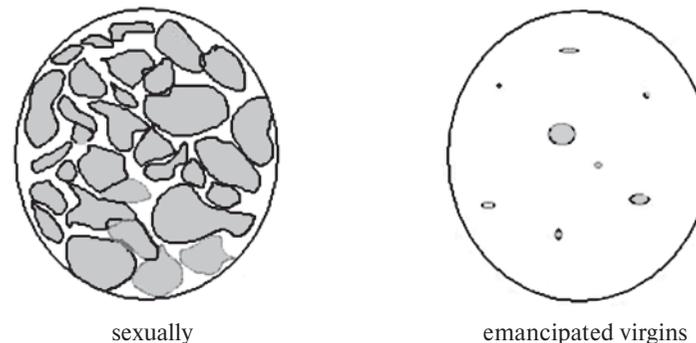
And what if we add to this a zebra effect, i.e. discharge by each sexual partner of his physical energoinformational potential on the woman's body? Who measured that energoinformational chaos that such a loving sexual lady takes on? Who measured the tragic consequences of all these energoinformational zebras for the future children?

And on the contrary if the woman (bride) at the moment of conception is absorbed in the elevated feelings for a new life, if her feelings are in the dominance of holiness and responsibility for the creation of a child, another effect appears. In the first case the consequential effect is an emancipation of purely instinctive programs in self-development, including the deep alienation mother's feelings (soul) from the future child. In the second case the sensual effect is a truly spiritual conception, including the union with the future child by the laws of vivification of the feelings concentrated on the child by the spirit of holiness and love. The first conception is always sinful, the second one is pleasing to God.

The fact has been known from ancient time that occasionally (accidentally) conceived child (against the background of striving for self-delight), as a rule, quickly refuses its mother's breast and gladly takes the breast of the mother that conceived and gave birth to a desired child. The research found out that 70—80% of children with infantile cerebral paralysis have the parents who not only conceived them accidentally (on the occasion of sex), but also until 3—4<sup>th</sup> month doubted if to give birth to a child or not. Here is an example of the effect of mother's emotional experience concentrated on the quality of the future child.

It is known that among all the forms of life it is only a person who is given a special guarding structure, supporting virginal purity of maternal passages. And it is given for the only purpose — for the sake of conception of new life in the conditions of special physical and moral purity. Conception is an interpenetration of the two protein structures of semen from quite different genealogical trees 3a human life. The science knows immunogenetic disparity of foreign proteins. But for the sake of new life an egg cell turned out to be practically devoid of immunoprotection. That is why conception must take place literally in the ideally sterile (germfree) environment. And this fact is well known by the doctors who carry out artificial insemination. For this purpose they use ideally clean (sterile) instruments and test tubes. Doctors know that penetration of any germ into the environment of an egg cell is harmful for its health including the health and quality of the future child.

At our request the obstetrician-gynecologist sowed the swabs taken from maternal passages of the sexually emancipated girls and virgins in the special environment. Among the first ones the growth-supporting environment literally crawled with various germ hordes. These germ colonies that took roots in the maternal passages, are liquidators of the babies conceived in sin. The virgins had quite a different picture (Fig. 3).



*Fig. 3.* Germ populations grown in the environment of the swabs taken from the girls maternal passages

And what if we add to this that accidental sexual contacts, as a rule, are accompanied by alcohol consumption (to say nothing of drugs)? And all this only means that the so-called sexual revolution is an efficient tool of the reduction of the population and even destroying of the history of those people that could not bring up the children in the subinstinctive strength of mind and moral purity. In Russia it is one of the reasons why healthy babies practically disappeared from maternity homes. In particular, out of every thousand of babies, 800—900 have some congenital defects, — reports the Head of the Scientific Center of Children's Health of the Russian Academy of Medical Sciences, the academician A.A. Baranov (1997).

Nowadays the society is not able to maintain the army if cripples and disabled people already. And what will happen tomorrow? We shall have to pay a heavy price for the feast of instincts at the stage of youth for the rest of our life. That is what should be taught at school instead of those books where the worms long ago replaced all the ideas and knowledge about spiritual and moral essence of people.

### *Chapter 3*

#### **9-month period of the baby's prenatal life is a basic stage of the consequential strategy of the person's development**

We can often hear and read not only in the socially popular press but also in the specialized medical literature: 9-month period of the prenatal development of the fetus. At the same time, as the spiritual doctrines justly say, as applied to the moral and sensible person we must talk about the 9-month of prenatal development of the human child (baby) but not the fetus. The fetus is a purely biological notion. Interrelations in the system mother — fetus of animals and a person qualitatively differ. In animals these relations are programmed by the laws of instinctive feelings and algorithms of instinctive behavior.

Any spiritual and emotional experiences and impressions of mother already take part in the creation of the child's future spiritual essence. It is surprising but some doctors recommend pregnant women not to be nervous and not to have emotional experience. But emotions have not only depressive but also spiritualizing effect. And the more a woman is absorbed in the environment of the spiritual emotional elevation and spiritualized experience, the stronger a favorable effect on the spiritual and emotional development of a child will be.

We cannot but pay attention to the myth about the equality of men and women, the equality which feminists and suffragettes so zealously fought for, — is the equality of women for the labor equally competitive with men. Eventually it turned out to be an equal right to the equal taking away and alienation of both mothers and fathers from the child. And this resulted in the exaltation of unmarried mothers and overthrow of the holiness of maternity. But history of the people can continue if authentic maternity is not overthrown into the labor equally competitive with men, but surrounded by the universal care and exalted in holiness.

Much is spoken about the necessity of environmentally sound various nutrition and environmentally sound water for pregnant women. It is clear that in the modern corruptedly-market system of the socially-political life the most vulnerable and affected part of our life turned out to be a pregnant mother, her health, her future child's health, and health of the whole generations of the future people.

What right to the healthy development of the human child can we talk about, if nowadays for the sake of the curiosity of some people and due to the criminal incompetence of others all the babies at the stage of prenatal development are irradiated with hard ultrasound (ultrasound investigation)? And this happens considering the fact that the research of the respected domestic expert in the field of quantum genetics P. Garyaev convincingly proved that ultrasound irradiation of the baby has a pronounced destructive genotopic effect.

The society starts realizing the falsity of the formula the doctor knows everything and he is always right more and more often. Let us take for example the most economically and informationally developed country in the world — the USA where a patient's rights are protected by tens of laws and where diagnostic and medical equipment is much more perfect than ours, the country where you are admitted to the private practice only after 10 years and more of continuous studies etc. The result is that around 100 000 people die every year in the USA due to medical errors. And it does not mean that American doctors are stupid. It means that the categories health — ill health turned out to be too complicated for our medical self-conceit.

So what happens then in our country, considering that we do not have such equipment, such laws and the certificate has no an elementary mark of quality any more? What highly-qualified aid can be in these conditions if most of the students already pay for their studies, i.e. actually buy their certificates?

That is why the young people's health must be taken care of since childhood, and to be more exact, from the very conception of new life. I am deeply convinced that the future is not in the curative medicine, but in the discovery and perfection of those life potentials that the Creator has once put in us.

And all the same, what can we recommend pregnant women? Most of all, they need spiritual attention of the state, people around them and the close relatives. Besides, they should keep to bed as little as possible, walk a lot by moderate restorative steps. They should meltingly think of the future child, sing lulls (since before the birth), listen to the Russian folk songs, classical music (Mozart, Chaykowski, Vivaldi and others) more often.

They should engage in the moderate physical labor everyday, walk outdoors more often, look at the sky, contemplate the stars, think of the eternal and sensually and emotionally accustom themselves to the eternity of the future child's life.

Theoretically the state should organize special clubs for the pregnant where future mothers could attend free lessons and lectures

given by experts etc. However it is only possible if the present commercial and corrupted ideals and the scale of values of our political life change. I am convinced that sooner or later, but the states will have to choose as their supreme idea and meaning of life, as the symbol of the country — mother with a baby lying on her chest.

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## Section II. BIRTH

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### *Chapter 1*

#### **The human child's innate passion for survival and hominization**

So, the child has come to this world, it is taken home with its mother after the maternity home. What to begin with? How to organize the baby's life so that it grows up physically and mentally healthy and happy? Fortunately, the Creator put the large reserves of life in it.

The children are known to have the highest survival rate at the technogenic catastrophes. And being an expert I admire that passion for survival and those powers of life that a child has. For example, a boy named Alvaro from the USA spent 45 min. under the surface of water and managed to survive, his brain working normally. Thereby the child, a guardian angel of human life, broke all the present scientific canons of the medicine.

But let us return to the home of that young family, that mother whose baby was conceived and born in love, from love and for the sake of love. The most important thing for the true development and hominization of the child at the baby stage is a physically-contact and verbally-emotional union of mother and the child, the union in the absolute tenderness and love of the baby, deep insight and understanding of its desires and requests.

Misara Ibuka (Japan) once wrote a clever book "It is already late after three" (M., Knowledge, 1992). It is a really remarkable work. The author paid much attention to the education of the child's mind and intelligence. Unfortunately, in this book he did not say a single word about how to form in the child the main thing that tore the person out of the world of brutal instincts and exalted him/her into the Creator's spiritual heights — the soul. And it does not seem to be accidental.

The Western psychological science from the time of W. Wundt (1879) solemnly declared that it is only chemical processes that take place in the human brain. People have no soul and cannot have it.

Analyzing the world achievements in the field of brain science (including those of the Nobel prize winners), the greatest legacy of the fathers of the native psychophysiology (I.M. Sechenov, N.E. Vvedenski, A.A. Ukhtomski, I.P. Pavlov and others), and taking into account our 30-year experience of research in the field of the age-specific senses psychophysiology, we come to the firm conclusion that the most important thing is not the children's brain informatization, but the early purposeful formation of the stable structure of sensual dominants directed at the good, accumulation of the lofty images of the spiritualized human aspirations in the memory of feelings, painstaking formation of creative hands and speech.

In the structure of hominization of the child the formation of intelligence is of a subdominant consequential nature with respect to the process of the voluntary and emotionally-meaningful components of the soul. It is no mere chance that, talking about the fine human qualities, we have in mind a sense of honor, self-regard, love, beauty, courage, paternity (for young men), maternity (for girls) etc. But the way to such transformation of feelings and their elevation in the spirit is long and difficult. Nothing will be done occasionally without our sacrificial love and labor.

The research (but the people always knew about it even without our research) convinces us that the basic things spiritualizing the primary instinctive feelings and hominizing the human child are continuous (not less than 2 years) breast feeding, constant singing of lulls, cradling, longstanding affectionate communication with it against the background of deeper and deeper associations of the words with the images of the world. Later it is a transition to an upright, painstaking formation of the clever (creative) hands, singing soul and imaginative, deeply sensible speech. We shall focus on it below.

## *Chapter 2*

### **The life until one year: in the halo of maternal love, in the rhythm of mother's heart**

Young mother with a newly-born baby is advised by everybody (through mass media, some experts and so on), for example, on that holding and carrying a baby in arms is harmful and it spoils the baby. And the great mind-programming mechanism of interrupting of the hominization of new life has been launched. How delightful and pleasant it turned out to be for millions of young women! Of course, tied a baby's arms and legs, (i.e. swaddled), threw it into the beddy-bye (pram) and what a relief for arms and no fatigue. And if the baby starts crying day in and day out it seems to be a birth injury, as they say at the maternity home. But if only doctors and such mothers could imagine for a moment that pain and suffering that is experienced by the baby cast away from mother's body radiating warmth and placidity ...

9-month life of the baby in mother's utero is a life in the rhythm of mother's heart and breath. This is a life under the all-guarding mother's voice, its sound vibration. As a result these rhythms and vibrations turned out to be deeply in tune with the baby's feelings, including the feeling of safety.

But suddenly the sensual umbilical cord connecting the human child with mother's all-guarding paradise is cut off. At this moment the baby's organs of senses are literally attacked, as by the artillery explosions, by the sounds, images, rhythms, vibrations unknown before. They all are alien to the baby, and they are deathly in the language of the biogenetic logic. The baby at once starts calling: "Help! Rescue! I am afraid!" And the only means of such call is its cry. But omnipresent experts whisper: Holding in arms is an old-fashioned patriarchal method of grandparents. Now everything is in a new way. Holding and carrying babies in arms is bad, it will spoil them.

We examined 97 children at the age of 5—6 years old whose mothers, as a rule, seldom held babies in arms and tried not to take them in arms when they were crying, and 62 children of the same

age whose mothers tried to take them in arms every time they were crying. By the quality of the speech, mental and motorial development they turned out to be quite different children.

The first group of children started walking almost 1,5 months later and pronouncing words 2,5 months later in comparison to the children of the second group. The functionality level of the central nervous system among the children alienated from mother's arms, was lower for a fact (2,12 against 1,7 c.u.,  $p < 0,05$ )<sup>1</sup>.

The first group had the development of speech and graphic abilities of hands at the qualitatively lower level. Moreover, in the first group some or other symptoms of autism were found in 77 children (79,3%), and in the second group — in 17 (27,4%). In other words, we have all the symptoms of backwardness of those children whose mothers took them in arms least of all.

## *Chapter 3*

### **Breast-feeding of the baby (not less than for 2 years) is an absolute condition of its healthy development and hominization in love and strength of mind**

In my neighbors house a dog named Irma lived for many years. The first thing that struck at the sight of her snout, was her deep, sad look reproaching people. But that is not the most surprising thing. Once Irma dug out from somewhere under the snow a puppy with broken legs thrown out by people. She brought the puppy home in her teeth and Galya, the mistress, decided to see what will come out of it. From morning till evening Irma was motherly licking his wounds. And the puppy took her nipples more and more often. And the miracle happened! Milk appeared in Irma's nipples! Gradually the baby came to life, got on his legs and recovered. As a result it grew up into an athlete, twice as big as its foster mother. This is an

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<sup>1</sup> Hereinafter see the methods of research in the Appendix "General Methods of Research".

example of the divine maternal love not only of her biological child but of all the weak unprotected children.

People long since notice that if the animal's child is not fed by mother's breast, in future it can lose its parental instinct forever. The same can be observed in people. It was thought that the child should be fed by mother's breast. And even if mother died in childbed, than grandmother would put the baby to her breast and her great love eventually would lead to the production of true woman's milk.

But what will happen to the maternal feeling of love if doctors compulsorily start isolating newly-born babies from mother's breast for 36 hours at maternity homes? Such practice was introduced in many countries of the world as early as in 30s of the XX century, and how many scientific theories were offered to prove this diversion! How many generations of medical students were disoriented on that account by scientists at medical institutes: the baby made a difficult way at birth and it should have a rest; mother should have a rest after difficult delivery and so on.

The fact that mother's milk cannot be substituted by any other nutrition was proved by the history of the peoples including fundamental scientific works (see *E.M. Fateeva with co-authors* "Encyclopedia of breast feeding in orthodox" Russia, 2006). It was wonderfully told by the founders of the scientific family upbringing B.P and E.A. Nikitins— bearers of the authentic nationally educational values. That is why I strongly recommend every family expecting a child, to read the works of this invaluable experience.

The research carried out under our supervision allows to add some following strokes to everything well-known and proved. Feeding with mother's breast is a special genetically needed act of the sensual and spiritual union between mother and the baby. This is a foundation, uniting and mutually enriching mother and the child with spiritual love and placidity. For a child it is an act of neutralization of all the fears and stresses which attack immature sensual systems. Besides, it is an act of development of:

- basic voluntary (sucking) rhythm which is the basis of all the biorhythmal vegetative and mental sphere;

- enrooting of the tonus of the sympathetic nervous system;
- respiratory organs;
- speech muscles;
- cardiovascular system etc.

If only young mothers could for a moment feel all that happens in the soul of the baby prematurely alienated from the breast. It is an inexpressible feeling of pain, fear and offence at the undeserved alienation and actual banishment from the sensual all-guarding maternal paradise. Such children quickly and often plunge into the mental pathology: autism, depression, feeling of isolation and fatality. Denial by mother experienced by the baby is imprinted for the rest of its life. Such children will subconsciously never forgive their mothers the sufferings settled in their souls forever. The experience convinces us that the children fed by the senselessly cold, dummy and bottle stepmother will remain cold to their mothers and their future children forever.

At hearing that many mothers will start justifying themselves: the child refused the breast itself. Yes, sometimes babies of mothers that got pregnant accidentally refuse the breast of such mothers and take the breast of other babies mothers whose dominants of feelings were concentrated on the future child. The children happen to refuse the breast of smoking mothers and of those who consumed beer, medicines etc.

But the most important thing is that many modern mothers subconsciously wish their baby to refuse the breast itself. For such mothers the sexual attractiveness is more important than the child itself.

Here is an opposite example. In Sergiev Possad there was a group of young mothers whose milk disappeared at the maternity home. After the quality chat with such mothers milk appeared at their breast at home and they successfully fed their baby until 2—3 years old. That is why we, people in white, have the greatest responsibility for the disappearance of mother's milk.

Below we shall represent the actual data obtained on the basis of collaborative (with Ph.D. in Medicine N.F. Kazachkova) scientific research, carried out in 1980's under the aegis of the Research institute

of Medicine in North Pole of the Security Office of the Russian Academy of Medical Sciences. To find out the stable regularities we examined the children living in the middle latitudes of the Russian Federation (Krasnoyarsk) and in the North (Norilsk). For this purpose we examined 60 preschoolers fed (until one year old) mother's breast and 58 preschoolers fed artificially in Norilsk. 59 preschoolers fed by breast and 57 preschoolers fed artificially were examined in Krasnoyarsk. The children's age is 4—4,5 years old.

***Development of children with different types of feeding living in the northern region of the Russian Federation***

The research determined that the type of feeding had a principal influence on the quality of the development of the superior integrating, coordinating and reflecting functions of the central nervous system. In particular, it was found out that the functionality level (FL) among the artificially fed children turned out to be at the lower level in comparison to the children fed by mother's breast (1,9 against 2,23 c.u.,  $p < 0,05$ ).

Among the children not fed by mother's breast we registered those with the disequilibrium in Romberg's position 2,3 times more often and 2,2 times more often — with the disposition to the muscular jerk responses including those in the process of efforts finely coordinated in the space (Fig. 4). The analysis of Ashner's test data found out that the quality of vegetative reaction of the artificially fed children also was at the lower level. In particular, the variation curve, reflecting the distribution of Ashner's test indices in the group of the artificially fed children shows a greater number of children with perverted and zero reaction (Fig. 5).

These data point at the fact that the artificially fed children had more frequent and deeper disorders in the central and vegetative nervous system as the basic life systems. They also confirm that in those prematurely alienated from mother's breast and fed artificially the most fundamental systems providing systemic responsive

integration of the child including their coordinative abilities, turned out to be underdeveloped.

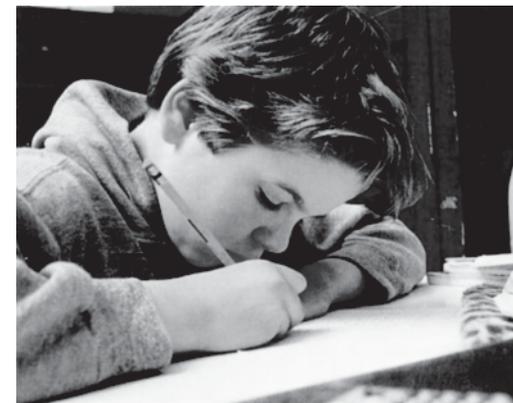


Fig. 4. The children not fed by mother's breast are disposed to the embryonal muscular jerk responses to a greater extent

***Ashner's test***

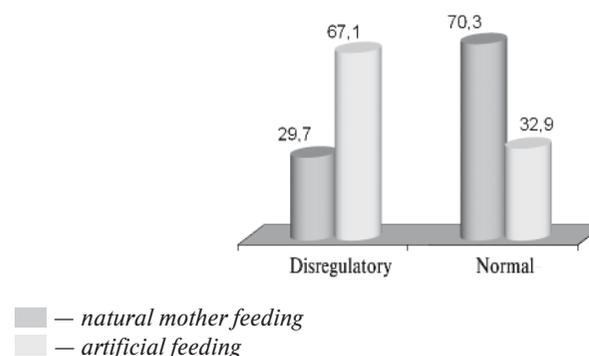


Fig. 5. The structure of preschoolers vegetative reaction with different types of their feeding at the baby stage (Norilsk, %)

Undoubtedly, such situation could not but affect the functional status of all the systems of the developing child including the

development of its voluntarily coordinative, and in the long run, superior psychomotor and spiritually mental functions. Let us consider these statements by the example of the visual analyzer.

It is determined that artificial feeding contributed to the disorganization in the development of the systems with fine complementary structures, in this case refracting optico-physiological systems of the eye. It manifested itself in the accelerated (in 1,4 times) formation of the stronger refractivity of the eye (0,82 Dptr against 0,59; Fig. 6). Besides, the increase in the number of various disorders in the metric contingence of the optico-physiological system of the eye (anisometropia, different types of astigmatism,  $p < 0,05$ ) is characteristic of the artificially fed children.

The analysis of the variational distribution of the indices of the spheric (harmonious) refraction in the compared group also finds out considerable differences. For example, the cut flat curve with the pronounced positive asymmetry (0,85) and positive kurtosis (1,59) is characteristic of the group of the artificially fed children. The group of the children naturally fed by breast which is consistent with nature, is characterized by the unimodal curve with insignificant positive asymmetry (0,15) and negative kurtosis (-0,51). These data point at the fact that at the breast-feeding the graphic distribution of indices approximates the normal (harmonious) binominal curve.

In this age interval the differences of refraction indices depending on the child's sex were found out. In particular, in the group of the artificially fed girls the tendency to the decrease (in 1,4 times) of the percentage of refraction harmonious for this age (hypermetropia) and prevailing of the enhanced refraction, in this case, emmetropia ( $p < 0,05$ ) was found out, in comparison to the boys. In the opposite group of the girls the tendency to the decrease of harmonious refraction (in 1,2 times) was also registered. It means that at the artificial feeding the process of organogenesis of the girls turned out to be somewhat more vulnerable in comparison to the boys.

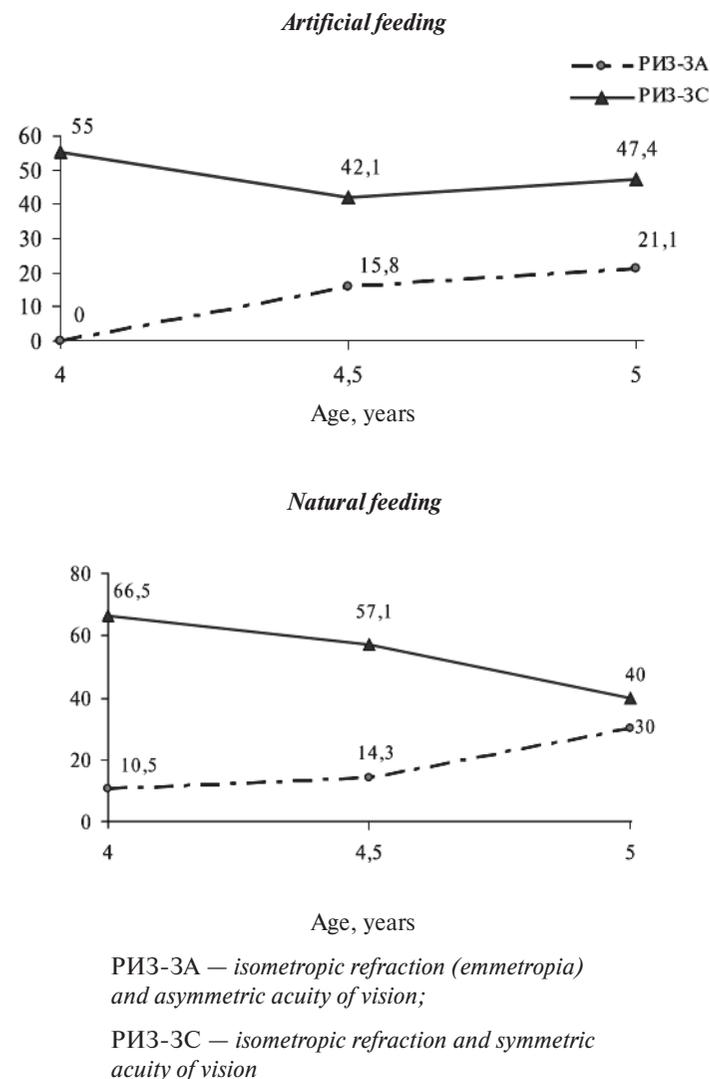


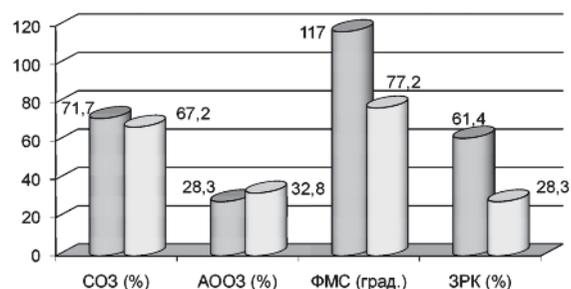
Fig. 6. The structure of the contingence of the refraction symmetry and acuity of vision of the preschoolers at the different types of feeding (Norilsk)

The special characteristic of the development of the sense of space is reflected by such index as the depth vision. And among the children fed by the breast it turned out to be higher for a fact (1,3 against 1,7 cm).

The artificially fed preschoolers index of the functional retinal mobility (FRM) turned out to be lower than that at the natural feeding by 39,33 grades ( $p_0 < 0,001$ ; Fig. 7).

In the artificially fed children this curve is offset to the lower indices.

#### Ashner's test



■ — natural breast feeding  
 ■ — artificial feeding

CO3 — symmetric (between eyes) acuity of vision (SAV);  
 ACO3 — asymmetric acuity of vision (AAV);  
 ФМС — functional retinal mobility (FRM);  
 ЗПК — eye-hand coordination (EHC)

Fig. 7. The state of the functions of the vision system of the preschoolers at the different types of feeding (Norilsk)

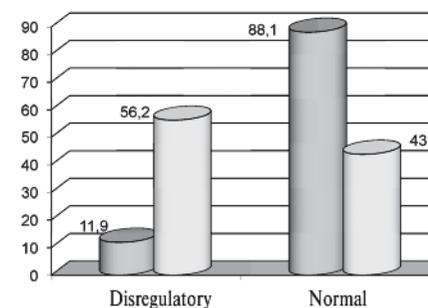
Considering the organism integration we have all the grounds to assert that such imbalance in the structurally morphogenetic organization is of the systemic nature and manifests itself in different insignificant at the first sight microanomalies which have been neglected by obstetricians and micropediatricians for a long time.

#### Development of the children with different types of feeding living in the middle latitudes

Like in the northern region, the artificially fed children are characterized by the tendency to the lower characteristics of cerebral competences of the central nervous system (1,82 against 2,09 c.u.). Among such children we registered those with the disequilibrium in Romberg's position 1,9 times more often and 1,8 times more often — with the disposition to the muscular jerk responses including those in the process of writing. Their eye-hand coordination was at a considerably lower level as well.

The analysis of the mean values of the heart rate fall at Ashner's test found out that the artificially fed children are characterized by the decreased vegetative reaction ( $p_0 < 0,001$ ) and by the increased reaction at the natural feeding consistent with children's nature (Fig. 8). The artificially fed children had perverted reactions more often.

#### Ashner's test



■ — natural breast feeding  
 ■ — artificial feeding

Fig. 8. The structure of preschoolers vegetative reaction with different types of feeding (Krasnoyarsk, %)

Besides, the artificially fed children also had the imbalance of the systems with finely complementary morphogenetic architectonics. In particular, the artificially fed children had different refractivity (refraction) between the right and the left eyes (anisometropia) 1,3 times more often, as well as the different refractivity in different meridians (astigmatism) — within each eye 1,3 times more often as well (Fig. 9).

Like in the northern region (though to a lesser extent) the artificially fed children had a more intense age-related enhancement of refraction that reflects imbalance of the epigenomic processes of the morphogenesis (canalized character of the epigenetic trajectories— according to C.H. Waddington, 1970).

The analysis of different indices of acuity of vision (AV) found out that among the artificially fed children there are more children with AV below 1,0 ( $p < 0,05$ ) by 16,7%. The group of the children fed by the breast mainly contained the children with AV equal to 1,0 and even higher (relatively by 11,1% and 5,6%,  $p < 0,05$ ). And at the breast feeding the high gradations of acuity of vision had been found out by 4—4,5 years old already in 41,1%. At the artificial feeding they did not exceed 15—20%. The latter points at the fact that in the group of the artificially fed children a delay in the systemic development of the basic sense of vision and its functions is registered.

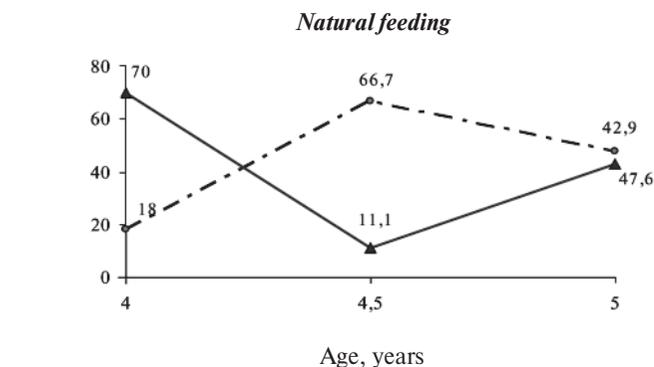
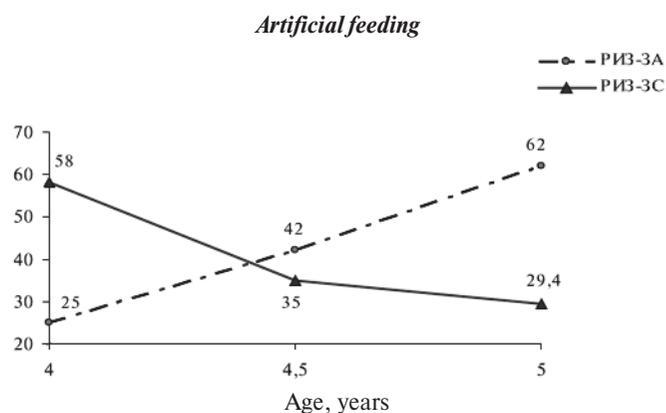


Fig. 9. The structure of the contingency of the refraction symmetry and acuity of vision of the preschoolers at the different types of feeding (Krasnoyarsk)

In the compared groups acuity of depth vision (DV) of the artificially fed children was 1,13 cm, and at the natural feeding it was higher by 0,33 ( $p < 0,001$ ). The artificially fed preschoolers had lower indices of functional retinal mobility as well ( $p < 0,01$ ), (Fig. 10).

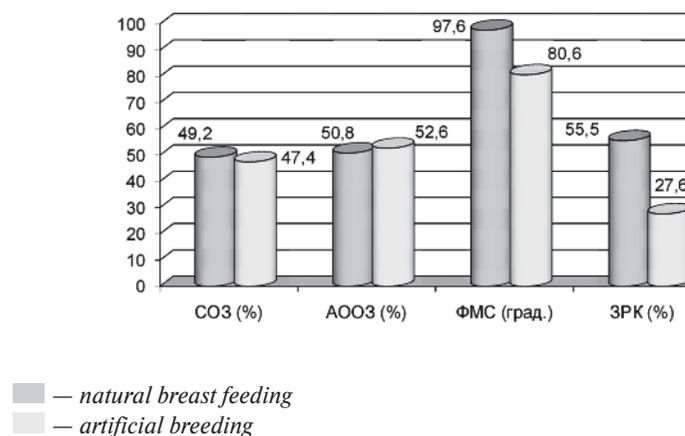


Fig. 10. The state of the functions of preschoolers vision system at the different types of feeding (Krasnoyarsk)

Besides, such children had the symptoms of autism, fears, aggression, impulsive reactions 3,7 times more often in comparison to the children fed by mother's breast.

The data obtained convince us that as long as the person exists, nothing will ever replace for a child the natural breast feeding and its constant physical contact with mother's breast. But how many millions of people have been already grown up at the artificial feeding! Grown up by mothers who cannot live without work neither physically nor spiritually, by those who are not only bored but also often depressed by being with a child.

We already pay a heavy price for such maternity equal with men. Autism, fear, depression, aggression, underdevelopment of the children prematurely cast away from mother's breast (but actually from maternal love) are inexorably increasing in new generations. The families decay more and more often, the army of street children is growing. The critical mass of the spiritual decay of loving hearts is inexorably increasing. Let us think of it!

#### *Chapter 4*

### **A cradle is a universal hand-made device serving to balance baby's rhythms with the gravity of the Earth**

Long before the technical civilization has dawned, the Russians, the Ukrainians, the Byelorussians, the Chuvashs, the Bashkirs, the Tatars, the mountain tribes; the Komi, the Chuckchas, the Hunty, the Mansy, the Nganasians, the Dolgans (Far North of Russia), the Khakases and the Mongols (the Central Asia), the Egyptians, the Moroccans, the Ethiopians (Africa), the Chinese, the Vietnamese, the Koreans, the Cambodians (South East Asia) and all other people on the earth brought up their babies in a pendant swinging cradle. It means, that when a child in his breast-feeding (nursing) period is in a pendant shaking cradle, it does something to the baby's cultural development, his humanizing. We do not realize it though. At the same time it's only natural for the baby. As paradoxical as it may

seem, the science has not only ignored such a method of culture, but, as well as many other things originated in national pedagogics, has simply rejected it. But if we take a closer look, it seems obvious enough to accept it.

It's common truth that the 9-months period of baby's prenatal development according to biological (genetic) time is much longer than all his future life. It just takes these 9 months from 2 small cells to develop into a little human being. All this process takes place in the liquid environment which supports the development of a child, actually being in zero gravity. And now try to imagine: after this zero gravity the child suddenly finds himself in the environment of huge gravitational pressure, including "heavy" (by pressure differences) gravitational rhythms.

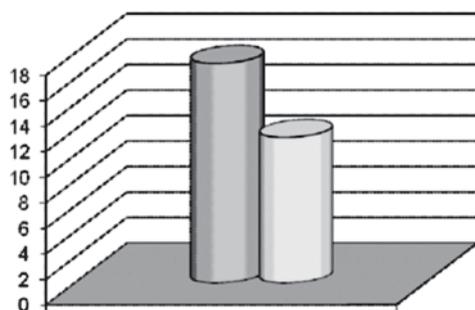
That is why the generalized pressure in the baby's body, muscular tension and convulsiveness of movements can characterize the baby's health after it has just left a parent's womb. This tension will disappear only after the coordination of the baby's body rhythms, including his voluntary movements, to the rhythms of the Earth (the gravity). But this coordination takes a long period of time and parental help.

The cradle serves right for the shifting of the static gravity pressure vector to the vibratory-waving rhythm. While the baby passes different points of space as the cradle is swaying, it experiences kind of zero gravity states (when the cradle reaches the highest point and stays still for a moment). The baby also experiences the moments of the strongest gravity pressure when the cradle passes the point closest to the ground. So, we can make a conclusion, that the cradle helps to shift a one-directional gravity pressure vector to a more terrestrially adapted life-supporting wave.

As special research have proved, a human life represents a hierarchy of subordinate, synchronized with each other (by response ratio) algorithms: it goes from the highest genetic rhythms to the lowest voluntary conscious actions. So, the cradle is an absolutely necessary special technology which allows the baby to slowly and carefully adapt to the terrestrial gravity.

In 80s of the XX century we supervised an experiment at Research institute of Medicine in North Pole (N.F. Kazachkova). The following test have been performed on the basis of RAMS. Two groups were formed. Mothers of the 1<sup>st</sup> group left their babies in cradles and the second group put the babies into usual beds. The following results have been obtained: the babies in cradles sleep better, cry less, and suck their mother's breast better. The muscle tension in their bodies disappeared quicker, as well as the convulsiveness got less. Eye nystagmus was lower. It resulted in the fact that their eyes could focus different objects earlier, i.e. they had conscious stare.

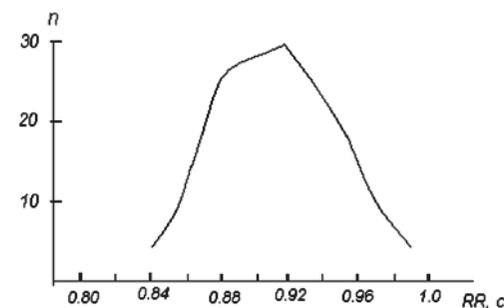
They had cooing 2—3 months earlier, they started pronouncing their first words. Almost no fear and stiffness could be traced. 1,5—2 months earlier they could stand up and try to walk. If they tried voluntary conscious actions, they experienced almost no muscle tension. So, when the inner gravity rhythms are formed, it means that not only their inner vegetative rhythms, but also their spiritual backbone, their stability under outward adverse factors became better.



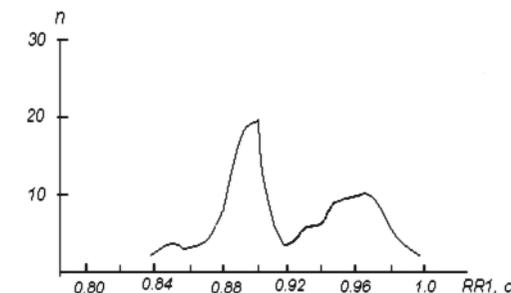
■ — children brought up in a cradle;  
 □ — children brought up in a low-ground swaying bed.

Fig. 11. Average sight distance at work among students of 1—2 years of primary school who have been brought up in a cradle

Positive effects after cradle nursing could be seen at all further stages of ontogenesis. For example, when the children wrote, they didn't experience muscular tension. As a result they didn't have to bend over their copy-books (Fig. 11). Above it, their handwriting, drawing was better and they even had an ear for music. Their speech was more independent and better formulated. They feel almost no fear. They had high nervous stability for stresses.



children brought up in a cradle;



children brought up in a low-ground swaying bed.

Fig. 12. Variational distribution of cardio intervals of 1—2 year students, primary school

So, to sum up, we can say, that after hanging cradles have disappeared from our educational facilities, our children's body

coordination, motor-voluntary functions, including speech and handheld activity became worse. This resulted in the overall functional capacities of basic the life-sustaining systems decrease (cardiovascular, respiratory, a gastroenteric path, discharge, etc.). (Fig. 12).

Speaking about this fact on a more wide scale, the cradle rejection resulted in decrease in corporal-functional and intellectual-psychological level across the nation. But, at the same time, it gave a chance to revalue the great meaning of folk education and, more specifically, the value of Russian swings.

So, all the facts mentioned above, served as a basis for us to start working in that direction, and so, together with a famous Russian folk instruments craftsmen I.V. Moscalenko, we patented an invention of musical cradle, which produces gentle rhythmical sounds as it sways. Special “sports” devices attached to the cradle for older children were designed and patented. It’s important to draw your attention to the fact, that Boris Pavlovich and Elena Alekseevna, the Nikitins, always emphasized the necessity of such devices for small kids in teaching process.

## *Chapter 5* **The value of a lullaby**

“In the beginning there was the Word...” states a Christian wisdom. Speaking about a newly-born baby I’d say that “in the beginning there was a lullaby coming out of the loving gentle mother’s heart”. It’s not just romance. The longest genetic period of a human being takes place at a mother’s womb. It takes place in the absolutely safe from the outward sensory-unknown environment — the baby exists in the familiar and dear surroundings of his mother’s voice.

As the baby comes into the world, his senses experience the pressure of absolutely unfamiliar sensory stimulants. So, his mother’s gentle and dear voice serves as a shield-protector for the gentle and

fragile baby’s sole. The mother’s voice calms the baby down. We call this a lullaby.

A lullaby is the first word which expresses all the depth and strength of his mother’s love and spiritual tenderness. That is the “Word” which characterized the holy mother’s love and which helps the baby’s sole to shape itself, it gives the baby the sense of security as he comes into the world.

A lullaby is that spiritual power which helps the baby to escape out of a strong “grip” of his instinctive fear and rises him up to the dimension of the mother’s defending voice. A word of a lullaby is the only word which comprises in unity the spirit of an image and the sole of love.



*Fig. 13.* Fears and aggression dominating the drawings of children whose mothers didn’t sing to them.

Our special research has proved to the fact that aggression and fear 4 times dominated the drawings of children who didn’t hear their mother’s lullaby, compared to those who at least sometimes

heart his mother singing. Do you remember, that fear is one of the strongest instincts on the animal level. All other instincts go along with this strong sense. True, The Creator is Absolute Love...for the child.

Numerous tests and researches showed that it is problematic for a baby to humanize into a spiritually mature, sole, free from fears and psychocomplexes personality, if he haven't heard his mother singing to him (it is better if she sings in the rhythm of the swinging cradle). There are many recorded lullabies nowadays. Although the voice in the recordings is beautiful, it is not a familiar mother's voice. It is obvious that these recordings will be useful for mothers-to-be and actual mothers but not for children. The songs can be used at preschool institutions, at orphanage houses, as well as they can be used to play for children at special institutions. A lullaby insonified by a loving mother is just as important for a baby as his mother's milk. Let's repeat it once again, during 9 months of prenatal development the baby memorizes and gets used to his mother's familiar and dear voice. Only this very voice can give him the sense of protection, happiness and love. That is why, only mother should sing a lullaby.

I hear complaints from young mothers quite as do not know any lullaby and thus can't sing to their babies. That is another example of alienation of a mother from her baby at the stage of its early childhood. That is why since 1979 we strongly recommend separate education of boys and girls at pre-school institutions. Cars, tanks, guns, automaton can not go along with dolls and lullabies. It is recommended that girls at pre-school educational institutions make soft-bodied dolls with the help of their mothers and grandmothers, compose lullabies and sing them.

We'd like to cite some songs, poems and lullabies composed by children together with their mothers and grandmothers at the beginning of 90<sup>s</sup> of XX century at pre-school institutions of Voskresensk town. The author really believes that these songs, lullabies, humorous catchphrases, tongue twisters should be sung in the native language.

Я/С № 39

Баю-баю, баиньки,  
Спи, сыночек маленький.  
Пусть тебе приснится сон,  
Самым добрым будет он.  
Спи, мой мальчик маленький,  
Мой цветочек аленький.

*(М. Лапоногова, мама)*

Баю-бай, баю-бай,  
Моя кукла засыпай.  
Пусть моей красавице  
Ее сны понравятся.  
Пусть приснится ей лиса,  
Ведь в лесу она краса.  
Пусть приснится зайка,  
Зайка — побегайка.  
Спи, усни, моё дитя,  
Черноглазая краса.

*(Р. Пчелкина, воспитатель)*

Ночь пришла,  
Ночь пришла,  
Все вокруг затихло.  
Звери спят, птицы спят  
Взрослые и дети.  
Все темно, все темно,  
Ничего не слышно.  
Ночь наступит  
Надо спать ложиться.  
Песенку пою,  
Баю- баюшки, баю.

*(Таня Хашинова, 6 лет)*

Д/С № 57

Баю, баюшки, баю,  
Баю девочку мою,  
Баю сладенькую,  
И хорошенькую,  
Баю маленькую,  
Распригоженькую.  
Смотрит зайчика в окно,  
На дворе давно темно,  
Спи мой сладенький, усни,  
Долгий сон к себе мани.  
Баю, баю, баю — бай  
Поскорее засыпай.

*(Т. Седнева, воспитатель)*

Спи, усни мой голубок!  
На полях лежит снежок.  
Всю он травушку закрыл  
И цветочек завалил.  
Скоро солнышко взойдет  
И все снова зацветет!  
Ты за зиму подрастешь  
И гулять с мамой пойдешь.

\* \* \*

Наступает ночь.  
Ты устала, дочка.  
Ножки бегали с утра,  
Глазкам спать давно пора.  
Ждет тебя кровать.  
Спи, дочурка, сладко!  
Крепкий сон тебя возьми,  
Пусть во сне увидишь ты  
Маму, папу и цветы!

*(Н. Будылкина, воспитатель)*

Д/С № 31

Баю-баюшки-баю,  
Баю, деточку мою.  
Спи, сыночек, засыпай,  
Мирно глазки закрывай.

В колыбельку уложу,  
Складну песенку сложу.  
Складну песенку сложу,  
Дрему в гости приглашу.

Дрема по дому брела,  
К колыбельке подошла.  
К колыбельке подошла  
Тихо песню завела.

Баю-баюшки-баю,  
Не ложися на краю,  
А ложись ты в серединку  
На пуховую перинку.

Баю-баюшки-баю,  
Баю деточку мою,  
Спи глазочек, спи другой  
Спи, сыночек, дорогой.

*(Г. Макеева, воспитатель)*

Баю, баю, бай,  
Спи, мой мальчик, засыпай.  
Спи скорей, усни дружок,  
Выйдет солнце на лужок.  
Будет ярко нам светить,  
Будут гнезда птицы вить.  
Много света и тепла  
Принесет во сне весна.

\* \* \*

Ой, люлень, да люлень,  
По горам идет олень.  
На рогах он дрему носит  
В каждый дом ее заносит.  
В люльку дрему он кладет,  
Тихо песенку поет.

\* \* \*

Соловей поет в лесочке,  
Ай лю, лю, ей лю, лю.  
Пусть притихнут все листочки,  
Баюшки, баю.

Спи, сынок, мой голубочек,  
Вырастешь большой.  
Вон на небе темном месяц  
Светит золотой.

Устилает землю снегом,  
Словно серебром.  
Видишь: собралися сказки  
За твоим окном.

Вот и поезд дальний едет.  
В нем игрушки спят.  
И пекут ватрушки мамы  
Для своих ребят.

Спи, сыночек, мой прекрасный,  
Баюшки, баю.  
Пусть приходит к тебе дрема  
В колыбель твою.

\* \* \*

Баю-баюшки, баю,  
Сыну песенку спою,

Как мой милый будет спать,  
Буду я его качать.

Ты, мой милый, дорогой,  
Быстро глазоньки закрой.  
А закроешь, сон придет,  
Свою сказку принесет.

В ней и зайнышка живет.  
Он морковку там грызет.  
А лисичка любит петь  
И на елочку глядеть.  
Вот уж ночь на дворе.  
Спит собачка в конуре.  
Спят и птички, и волчок.  
Ляг скорее на бочок.

Баю-баюшки, баю,  
Сыну песенку спою.  
Как мой милый будет спать,  
Буду я его качать.

*(Д. Гавриш, воспитатель)*

Я/С №5

Баю-баю, баю-баю!  
Нашу дочку я качаю.  
Спи, девчушка, засыпай!  
Баю-баю, баю-бай!

Спят игрушки и зверушки,  
И жучки и паучки.  
Тишина стоит кругом,  
Давай, доченька, уснем!

*(С. Тетеркина, воспитатель)*

Спят игрушки в уголке,  
Спят на полке сказки.  
И моя дочурка спит,  
Закрывайтесь глазки!

Ты играла целый день.  
Ты устала очень.  
Поскорее засыпай,  
И спокойной ночи!

Завтра будет новый день,  
Снова, как награда!  
Баю, баю, баю, бай,  
Спи моя отрада!

\* \* \*

Баю, баю, баиньки,  
Прискакали зайньки.  
Песню запевали,  
Ванечку качали.

Баю, баю, баиньки,  
Засыпай, наш маленький.  
Подрастешь немножко,  
Поскачешь по дорожке.

*(В.И. Скокова, зав. я/с № 5)*

As our experience shows it, regular girls communication with their soft-bodied dolls, singing them lullabies to bed is the basic step in imprinting the senses of motherhood. This imprinting happens at the primary extra-sensory stage of transformation and spiritualizing of the first senses of a girl. Those mothers who have taken their babies off their breasts at an early stage, those who have deprived the babies of love, of lullabies, and gentle words risk paying a high price!

## Chapter 6 Speech and games in baby's development

In the first 3—4 years of child's development no one should deprive a baby of his great and the most important spiritual teacher in life — his loving, tender mother. During these stage of baby's life forms the direct correlation between the images of a spoken word and the images of the world around him. It gives him an opportunity to experience the imagined images to the full extend as if they were real. So, if this stage for some reasons (lack of time, others) will be ignored, these children (future young people and grown-ups) tend to remain emotionally and spiritually immature.

I can observe a common situation in many parks and boulevards. Young mothers gather there to chat, and tend spend more time communicating with themselves rather than with their children. The babies just stare in front of them full of sadness and solitude. At the same time, a healthy baby is really active, and can spiritually develop and grow only in conditions of emotional communication. Mothers need to refer to their babies in words.

We tested the speech skills of 37 students of 1—2 years of primary schools. Those whose mothers didn't work until their kids were 2—3 years old and so could speak to the kids. 29 students under test lack their mothers attention due to some reasons mothers had. The students of the 1<sup>st</sup> group showed only 18,9% of deviations in speech production (read, in mental sphere), while this index reached 21 student (72,4%) in the second group.

I'd strongly recommend studying the following works for those women who really wish to be attentive loving mothers for their babies. "First age. Childhood. Folk wisdom in Russian folklore." (editors: V.P. Anikina, V.E. Guseva, N.I. Tolstoy, — Moscow: "Literature", 1991). See also such books as The Nikitins, B.P. and E.A. "We and our children" (Moscow; "Young guard", 1980); "Healthy childhood without medicine and injections" (6<sup>th</sup> edition, corrected and modified. "List New", Moscow, 2001) etc.

We shall cite below some extracts out of “First age. Childhood. Folk wisdom in Russian folklore”. These are methods helping to develop speech and thinking process.

### ПЕСТУШКИ И ПОТЕШКИ

Ах ты, деточка,  
Золотая цветочка;  
Виноградная веточка,  
Сладкая конфеточка!

\* \* \*

Тритатушки, три-та-та!  
Вышла кошка за кота,  
За кота-котовича,  
За Иван Петровича.  
Ходит кот по лавочке,  
Водит кошку за лапочки.

\* \* \*

Идет коза рогатая  
К маленьким ребятушкам:  
Кто молока не пьет,  
Кто сиську не сосет,  
Того рогом бьет, бьет, бьет!

\* \* \*

Идет коза рогатая,  
Идет коза бодатая:  
Ножками — топ! топ!  
Глазками — хлоп! хлоп!  
Кто кашки не ест,

Кто молока не пьет,  
Того забодает, забодает.

\* \* \*

Ладушки, ладушки!  
Где были? — У бабушки.  
— Что ели? — Кашку.  
— Что пили? — Бражку.  
Кашка сладенька,  
Бражка пьяненька,  
Бабушка добренька.  
Попили, поели, —  
Шу-у-у — полетели,  
На головушку сели.

Ладушки, ладушки,  
Где были? — У бабушки.  
— Что ели? — Кашку.  
— Что пили? — Бражку.  
Кашка маслененька,  
Бабушка добренька,  
Шук, шук — полетели!  
На головушку сели.

\* \* \*

Сорока, сорока!  
Где была? — Далеко,  
Кашку варила,  
На порог скакала,  
Гостей созывала.  
Гости не бывали,  
Каша пригорела.

И этому дала,  
И этому дала,

И этому дала,  
И этому дала, —

А ты мал-маленок:  
За водицей не ходил,  
Дров не носил,  
Кашку не варил.  
Шу-у-у! полетели —  
На головушку сели.

\* \* \*

Большаку дрова рубить (большой палец),  
А тебе воды носить (указательный),  
А тебе печка топить (безымянный),  
А малышке песни петь (мизинец),  
Песни петь да плясать,  
Родных братьев потешать!  
Песни петь да плясать,  
Родных братьев потешать!

\* \* \*

Идут четыре брата  
Навстречу старшему.  
— Здравствуй, большак! — говорят.  
— Здорово, Васька-указка,  
Мишка-середка,  
Гришка-сиротка  
Да крошка Тимошка.

### ПРИБАУТКИ

Синичка, синичка,  
Воробью сестричка.  
Воробей-воришка  
Залез в амбаришко

Клевать просо  
Своим носом.

\* \* \*

Гуля, гуля-голубок,  
Гуля сизенький,  
Сизокрыленький,  
Всем миленький.

\* \* \*

Стучит, брянчит по улице,  
Фома едет на курице,  
Тимошка на кошке —  
Туды ж по дорожке.  
— Куды, Фома, едешь,  
Куды погоняешь?  
— Сено косить.  
— На что тебе сено?  
— Коровок кормить.  
— На что тебе коровы?  
— Молоко доить.  
— На что тебе молоко?  
— Ребяток поить.

\* \* \*

— Бабушка Ульяна!  
Голова твоя кудрява.  
Садись-ко в сани,  
Поедем-ко с нами.  
Там на базаре  
Коза в сарафане,  
Утка в юбке,  
Курочка в сапожках,  
Корова в рогоже —  
Нет ее дороже.

\* \* \*

Тили, тили, тили, бом!  
Загорелся Кошкин дом.  
Кошка выскочила,  
Глаза выпучила.  
Бежит курица с ведром,  
Заливает Кошкин дом.  
А собачка только лает,  
Ничего не помогает.

### ДРАЗНИЛКИ

Иванушка-простота,  
Купил лошадь без хвоста,  
Поехал жениться,  
Привязал корытце,  
Корытце мотается,  
Невеста улыбается;  
Корытце упало —  
Невеста пропала.

\* \* \*

Тили, тили, тилишок,  
Иванушка — женишок,  
Тили, тили тесто,  
Машенька — невеста.

\* \* \*

Машенька — невеста,  
Съела горшок теста,  
Вася — женишок,  
Убрался под шесток.

\* \* \*

Как по речке по реке  
Ехал рыжий на быке.  
Рыжий красного спросил:  
— Чем ты бороду красил?  
— Я ни краской, ни помазкой,  
Я на солнышке лежал  
Кверху бороду держал.

\* \* \*

Красный рыжего спросил:  
— Где ты бороду красил?  
— Я ни краской, ни замазкой,  
Я на солнышке лежал,  
Кверху бороду держал.  
Красно солнышко взошло,  
Мне бородушку сожгло.

### ПОДДЕВКИ И ОСТРОТЫ

— Тебе поклон послала.  
— Кто?  
— Маша.  
— Кака Маша?  
— Свиныя наша.

### СКОРОГОВОРКИ

Свиныя белорыла, тупорыла,  
Полдвора рылом изрыла.

\* \* \*

У нас на дворе-подворье  
Погода размокропогодилась.

\* \* \*

Шит колпак,  
Да не по-колпаковски,  
Кто бы тот колпак  
Переколпаковал?

\* \* \*

На дворе трава,  
На траве дрова.

\* \* \*

Белогубы огурцы,  
Молодцы белопупы.

\* \* \*

Три корабля лавировали,  
Да не вылавировали.

\* \* \*

В печурке — три чурки,  
Три гуся, три утки.

\* \* \*

Добры бобры  
Идут в боры.

\* \* \*

Съел молодец  
Тридцать три пирога с пирогом,  
Да все с творогом.

\* \* \*

Раз — дрова,  
Два — дрова,

Три — дрова.

\* \* \*

Идет с козой  
Косой козел.

\* \* \*

Хохлатые хохотушки  
Хохотом хохотали:  
Ха! ха! ха! ха! ха!

### СЧИТАЛКИ

Раз, два, три —  
Полетели комары!

\* \* \*

Месяц-заяц  
Вырвал травку,  
Положил на лавку,  
Кто возьмет —  
Вон пойдет.

\* \* \*

Ниточка, иголочка,  
Синенько стеклочко,  
Рыба карась,  
Ты убирайсь!

\* \* \*

Аты-баты — шли солдаты,  
Аты-баты — на базар,

Аты баты — что купили?  
Аты-баты — самовар,  
Аты-баты — сколько дали?  
Аты-баты — три рубля.

\* \* \*

Катилось яблоко  
Мимо сада,  
Мимо сада,  
Мимо града.  
Кто поднимет,  
Тот и выйдет.

## Chapter 7 First steps

In 70—80s of the 19<sup>th</sup> century F. Engels in his work “Dialectics of nature” (1896) recorded his ideas on the mechanism of historical humanizing of our ancestors. The prior role was given to the orthograde posture and the transformation of hands into the organ of creative work and labor. “*Gradual perfection and transformation of a hand along with the transformation of a foot and adjustment orthograde posture, by all means have affected all other systems and organs of the body due to the law of coordination. But, this affection is so poorly examined that we can only state its presence in general*”. Special emphasis in humanizing of our ancestors F. Engels put on speech development.

WE can also refer to a famous biogenetic law by E. Gekkel: “*Ontogenesis is a short and quick repetition of phylogeny, based on the physiologic functions of heredity (reproduction) and adjustment (eating)*” (cited from I.I. Shmalgausen, 1969).

More over we can refer to well-known laws of Lamarck on exercising in body and its organs development. He proved that those organs which animals cease to use and exercise, gradually diminish

and disappear in the next generations. This process can not be reversed.

In 1893 L. Dollo proved the law on irreversibility of morphological changes of unexercised organs: “*An organism can not reverse, either fully or partly, to a state which has already been lived through by his ancestors*”.

During the last decades, classical genetics have appeared with its “basic” statements and rules. The main are considered as follows:

- independence of “life” and genes functioning from outward conditions;
- independence of “life” and genes functioning from body activity and its organs functioning;
- accidental and exceedingly rare mutation of genes (one for 10—100 thousand of generations).

Juggling by such genetics, our heredity is our doom. Basically it may mean, that it doesn’t really matter if you exercise your body or not, you can lead a simple comfortable life of a coach-potato, breath in ecological poisonous air, or breath in fresh air of Siberia, it doesn’t make great difference whether you eat genetically modified food or you consume only natural and fresh food. These statements say that basically it doesn’t affect you genetic resources. Even if life shows it quite obvious that it works the other way round, still: “do not trust your eyes”.

At the same time, in 30s of the XX century T.D. Lysenko and I.V. Michurina proved, basing on Lamarck’s research proved that: our heredity signs changes have certain, not occasional character. They follow the changes in life conditions of life forms, as well as the environment of the body activity. Such genetic “modifications” occur rather often. And these are real genetics, not a myth.

Modern quantum genetics have proved to the fact that under stress, genome reacts to it and starts a program of changing of inherited behavior and qualities.

More over, this process affects 3—5 future generations. We’d like to point out your attention that a talented American scientist Barbara Maklintok was awarded a Noble prize for her discovery in

1983. Her discovery proves that one of the mechanisms starting mutation of genes is stress.

This discovery is directly related to our topic. According to the director of Research Institute of sanitary science and health of children and young people Russian Academy of Medical Science after V.R. Kuchma (2005—2006), 80% of children are under chronicle stress nowadays. This means that stress-genetic character of education change the genes and qualities of humankind from childhood.

Ask yourself: what processes can start if we shift from the only natural body posture (vertical) into stiff-bended position of a “student”? Add constant school stresses to the combination. It seems like we tend to form a stable sedentary form of a person starting from his first age, then continuing at pre-school nursery institutions. It looks like the period of vivid impressions from life was changed into virtual lifeless world of letters, numbers, schemes.

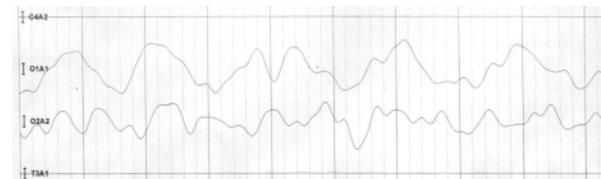
For many specialists it is obvious and they write about the fact that 11—12 months period for a baby is extremely important as his speech production and hand creativity start to form themselves. It is after the 1<sup>st</sup> year of his life when his primary  $\alpha$ -rhythm forms. “A complicity of rhythmical activity as a result of progressive forming of the structures of the brain is traced” (K.K. Blagosklonova, L.A. Novakova, 1994). Unfortunately, none of the authors points out to what extend these radical changes are affected by the absolutely new, evolutionary important body posture — virtualized position and orthograde posture.

During my practice at Children’s ophthalmology hospital in Krasnojarsky Krai and after that at Research Institute of medical problems of Far North USSR the following regularities have been singled out:

- only after child’s orthograde posture shift his primary, and thus imitative, searching motor functions start forming into structured in time and space voluntary psychomotor acts, and later in mental-psychic abilities;

- only after child’s orthograde posture shift his primary unconscious speech experience (cooing) gradually forms into conscious words, i.e. words awaking out of emotional memory images of the world;
- only after child’s orthograde posture shift his primary “clutching-biting-throwing” motor experience transforms into more conscious activities of “transformation” of the surrounding world.

*a) encephalogram before orthograde posture;*



*b) encephalogram after orthograde posture*

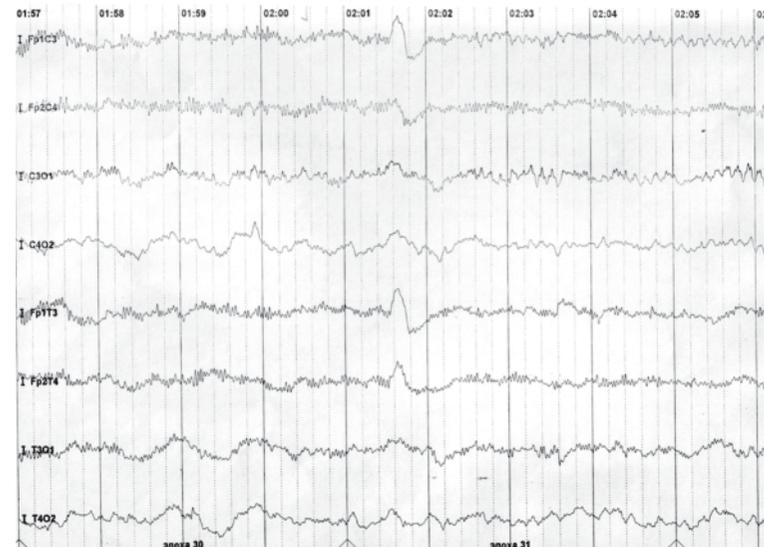


Fig. 14. The first sensory  $\pm$ -rhythm after baby’s shift orthograde posture

But this way takes a long time — time to shift from convulsive-searching reactivity to fully shaped and formed actions, and thus more clear and precise holographic images of the world. Research conducted under our supervision by one of our staff members N.B. Kulibiakina, testifies to the fact that first traces of  $\alpha$ -rhythm directly correlates with orthograde posture shift (Fig. 14).

Besides, perfecting of hand activities and speech production is based on child's abilities of form his first convulsive-searching actions according to the laws of rhythm and plasticity. These laws gradually shift off his muscular tension present in the whole body. Thus, a Creator, a creative human being appears forming his cordial-muscular and mental-psychological being as a kind. He develops out of these first convulsive-searching programs.



educational process on the basis of orthograde posture dominating in the learning process



systematic sedentary position

Fig. 15. Gradual image of a "person"

Research conducted under our supervision by one of our staff members — M.A. Nenasheva, L.V. Daragan, A.S. Kopylova — show that it is only after baby's orthograde posture shift his spiritual universal powers are formed, rising human beings up to spiritual dimension of the Creator, the "wings" of creative thinking. The thinking which allows rising above the situational-reactional thinking up to spiritually (mental) experienced dimension of time

and space. And visa versa, when we refer to classical model of an educational process, these creative thinking decreases and even fades away (Fig. 15).

"Megapolis-Express" magazine wrote (№ 3, January 22, 2002): "A new school has been constructed in Yalta. Its students can not only sit during the lessons but they can also take upwards or lying positions.

As a Ukrainian paper comments, there are special desks at this school, which a student can lift up if he is tired and work standing by it. For those who have a wish to lie down during the lesson, there are special carpets with thick hair, students can take their books down with them. There are special geometric figures on the ceiling to provide eye relaxation.

The director of this unusual school says that all these devices help students to develop their creative thinking and to preserve their healthy bearing.

He also complains that modern students lack creative thinking, but not the students of his school. These "lucky" students are also good at expressing their feelings. "so, if they used to draw Bodies cut to pieces, teeths, clows of monsters, — he points out, — now there are drawings are really happy and inspiring".

Bear in mind, that the most important, but treated roughly, the most helpless, moment is the period of freedom of conscious-voluntary rhythm of efforts (for example, graphics). Psycho-motor rhythm, resulting in mentally-emotional, is based on low-frequency conscious -voluntary rhythm as it is included into the structure of high- frequency occasional-voluntary rhythms. It happens as a result of the long process of reconstruction of automatic rhythms into totally new hand-made images rows and proportions (Fig. 16). The only mechanism providing it is the perfection of rhythmical efforts due to orthograde posture habit, which causes gradual alignment low-frequency conscious -voluntary rhythms with occasional high-frequency rhythms.

A.A. Hachaturian in his great fundamental work "Comparative anatomy of cerebral cortex of a person and monkeys" ("Science", 1988), having studied the world's researches in this sphere, have

made a conclusion, that there is only one difference between a human and higher class of primates — the integration of sensory and motor central spheres of the brain into a sole sensory-motor cortex. The author writes: *“This fusion of the two central spheres into a sole sensory-motor cortex gets us a chance to realize their true structural-functional interdependence. Such fusion of two completely different central spheres into a sole functional apparatus — sensory-motor sphere of the brain — is possible only at the higher levels of evolution”*.

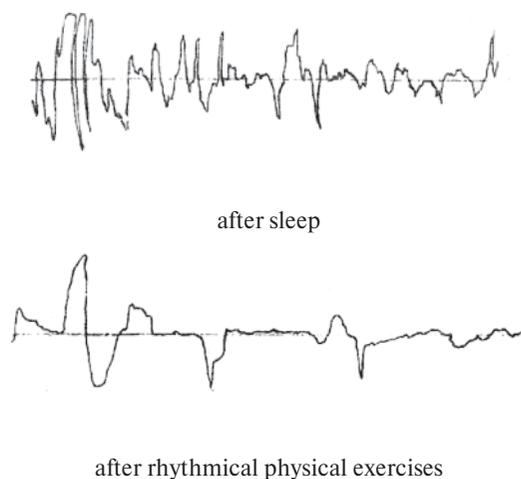


Fig. 16. eye movements

What is this power that emerges only with the shift to the orthograde posture and which unites “the sensory and motor central spheres of the brain into a sole sensory-motor cortex”? A boy named Eugene from Nazarovo town of Krasnodarsky Kray gave us an answer.

... Once, when I still had practice at Children’s ophthalmology hospital of the Far North (1972—1977) I was traveling by train.

During one of the stops of the train a young mother entered the compartment with a small and very restless boy of 3—4 years. I took a notice that the boy’s movements of his eyes, hand, of his head didn’t coordinate. It was obvious that the boy had a Serious mental deficiency. We started talking with his mother and she told me their story. It happened so that when the boy had just started practicing his first steps, he could get hold of the first aid kit and eat all kinds of drugs from it. There came an 8—10 days period of convulsive syndrome. It was obvious that the cortex was seriously damaged. Regardless of a serious medical help it proved to be impossible to “collect” the motor and mental-voluntary functions of the brain.

While I was watching the convulsive-pulsive movements of the boy I was taking some notes in my notepad with a pen. I didn’t even notice as the child was so quick as he got close to me and took the pen out of my hands. He managed to depict some wavy lines in my pad. I gave him a pen, put him on my laps and suggested him to draw. But all his attempts were similar — they were just very thin wavy lines and curls.

It took me along time to realize that *a child’s ability to rhythmic efforts and actions is closely connected to the orthograde posture*.

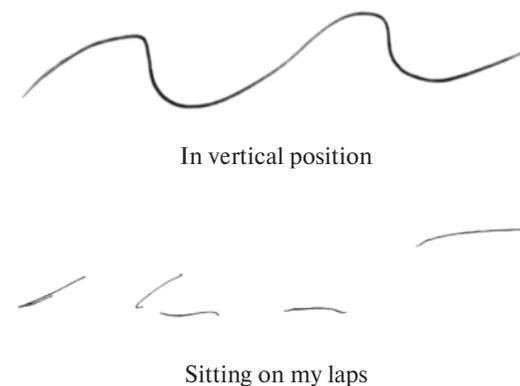


Fig. 17. Graphic attempts of the boy

I was wondering if this quality is true only for human beings. But, no! Our Russian scientist made a discovery (N.A. Ladygina-Kots, 1946). Actually she was bringing her baby up together with a monkey-baby called Iony. She watched the difference in their behaviors at an early stage. I will just cite some points from her dairy: “*Iony watches me every day as I take notes of his behavior. He sees my notepad and a pencil — my constant companions. He tries to reproduce my actions. He tries to take the pad and pencil from me and do the writing. I resist him; don’t want to give the pad and my pencil. Then he starts crying and insisting stronger. When he gets them he is obviously very happy. Sometimes he bends in an “ark” over the paper, resting on one arm. His other arm is free. He rests only on the pencil. He is very serious and begins to draw...*

*Usually Iony takes the pencil just like a human baby, but then he starts shifting it from hand to hand and make scattered wavy lines, as thin as a spider web (emphasized by V.B.), as if he tries his abilities. Then he realizes that he likes it a lot and makes more stable wavy lines.*

While doing his “writing” exercises he opens his mouth, sticks out his tongue, moves it — shortly, shows all the signs of the concentration on activity.

As he keeps practicing, I can see his progress. He stops shifting the pencil and draws for a long period without rest. His lines become longer and more precise. Sometimes he writes crossing lines one after another...

Then I try to teach him, to show him how... I put him on my laps and try to reproduce simple patterns, crosses, for example. But all his enthusiasm quickly vanishes; he becomes dull and uninterested, just like a student.”

The conclusion is evident: a human is different from a primate by his acquired ability to make organized in time and space rhythms of efforts and relaxing. These rhythms are closely connected with our upright posture, the characteristic of the mankind. It casts light to some facts — why healthy normal kids are restless and should always move; why it is so important for them to make constant

rhythmic efforts; and why they always seem to be creating and transforming something.

## *Chapter 8* **Action and freedom**

There is an obvious fact proving that regular natural sensory stimuli benefit the active functionality of genetic resources. If the outward sensory stimulation decreases or if the active work of senses is somehow suppressed, genetic work of a body (genetic or biological time) becomes so slow that the body literally enters the phase of anabiosis.

Unfortunately, there is a “common” truth, telling that genetic recourses can efficiently function regardless of the interdependent connection of the inner environment and body activity. So, this mistake prevents us from realizing and scientifically proving the sensory model of genetic recourses sustention and thus, the existence and normal functioning of life-sustaining systems.

At the same time, it is common truth, that it is practically impossible to bring up a healthy generation “at a window-sill” (the complex combination of factors in conditions of closed rooms and bounded space — V.F. Bazarny, 1979—2007). I’d like to point it out, that our classic model of lessons in classes as a model of educational process is a bright example of bringing up children in closed rooms and bounded space. We shall discuss it more precisely below. Right now we shall take a look at a sole example.

Our very “important” in their own eyes parents, psychologists and teachers, educated in conditions of such bounded “waterproof” environment can notice the following tendency concerning their children. Their young students do not show any signs of growth during an academic year, while anyone is surprised meeting them after their long break during summer time and can hardly recognize them. This is a bright example of suppressed reactivity (expression) during their studies. The meaning of this process lies in our genetics

as it was the method of our bodies adjusting to the constantly changing physical, emotional, social and microbe-viruses environment. It is the sequestration of carefully imprinted human kind potential.

Let's move on. Everyone knows that sensory affect is interdependent on motility. This connection is unconscious, basing on reflections and genetics. It was obvious even in ancient times that baby's active movements are the necessary conditions of his healthy physical and mentally-spiritual development. Many classical works on Psychology and natural science are dedicated to this topic. Our native scientists in psychophysiology proved that a human activity, his movements are not just a physical expression but are treated to a greater extend as a mental process.

I.M. Sechenov (1947) wrote: "All the diversity of outward expressions of our mental activity is basically expressed in one sole thing — muscular activity. On the other hand, ...Muscle activity is so very personalized and subjective — its results reach the brain in a shape of an effort".

"When the muscles "sleep" the brain "sours", — according to I.P. Pavlov (1949).

We shall show below that if the baby's muscles remain passive, more over if they are stiff and strained (ex., if the hand-writing is not fully formed and it is stiff), the brain activity simply "blocked". So, the imprinted sensory images just fade away and "scatter around" (although mental forms are formed on their basis). It's not by accident that N.A. Bershtein (1947) put special emphasis at child's intensions to the perfection of the skills (the freedom of rhythm. — *V.B.*) of voluntary (conscious) actions (efforts, movements). "Lack of automatic skills result in great pressure on conscious mind which has to analyze every technical detail of every effort of an action" (N.A. Bershtein, 1947). This is the basic and most important idea of the scientist's work which every teacher should memorize well and remember it every time when he makes a child to do speed-writing to a stop-watch (according to the pedagogical methods described in works of the Ministry of

Education and Science of the Russian Federation №1561/14-15 on 19.11.98).

A solid work is written by E.K. Davydova about movement as a special biogenetic informational signal (to be more precise, about a meaningful sign. — *V.B.*) which is called "Movement as a signal" (Moscow: "Science", 1986).

The following facts concerning actions and movements are really interesting as they describe the primary value of movements in child's development. This important value in life-sustaining functions and in forming creative thinking of a child helped the Ancient Egyptians differentiate a motor-active body and call it a spiritual body (*sahu*). This body is always in search, makes constant efforts, movements and acts. There is also a physical body called *khat*. This body is fixed and therefore it is doomed to slowly increasing extinction of not only its thinking abilities, but the very life itself ("smoldering", "corruption", "decay"). So who is wiser? Whether we are, while we have proclaimed the physical development of a body as a moral and ethic norm (i.e. static development, i.e the development of "decay"); or the Egyptians who respected the development of an active searching body, and thus capable of creating images. We have rejected the idea of mental (spiritual) body.

Well, surprisingly, but even the Old Testament speaks about the voluntary muscle as about a symbol of a holy content of our life. It was described as:

"high muscle", "stretched muscle", "holy", "strong", "great".

A great Russian scientist, a specialist in age-physiology of a child (1982) scientifically proved that a child's development is actually impossible without active moving. Another great Russian scientist, specializing in backbone and manual therapy, V.A. Bogdanov gave an expressive metaphoric name to his work "The backbone — the king of health" (2001).

Think about the number of scientific works done by the Academy of Sport and Physical Education of the Russian Federation. If we wanted to name them it'd take to write the whole volume.

On the whole, it has long been proved by science that all the capacities of the basic life-sustaining systems (cardiovascular, respiratory, gastroenteric path, etc), even the thinking and genetic spheres of life function due to the energy and algorithms of corporal movements and voluntary conscious efforts. I can even compare vegetative and spiritual life of a child to a quick and clean stream. This “stream” exists due to unceasing exchange processes — this is a constant dissolution and synthesis of billions of cells. The efficiency of this “stream” gives the “pressure” to the corporal-bodily activity. As soon as this stream gets “stuck” in sedentary lifestyle, everything gets weak and flat as in stagnant waters.

All the facts mentioned above give us the right to sum up and say that the youth is different from the old age by its activity, and thus, flexibility of the body; the old age is characterized by stiffness. But death is differentiated by stillness and steadiness.

The main conclusion of the research under our guidance is in the following idea: the active movements of a child let his main “bioreactor” turn on — the genetic resources at every level of the body organizational structure: from a cell to the main life-sustaining systems (the central and vegetative nervous systems, cardiovascular system, respiratory organs, gastroenteric path, discharging organs, reproductive systems, psychomotor functions etc.).

Finally, it is only on the basis of motor activity that a healthy body, spirit, soul can develop, as well as an active moral position in life, the very essence of a human being as a united and sole thinking and life-proof kind.

But 10—12 years of sedentary-stiffed education make the body totally emotionally and motor stiff. It blocks the bioreactor of life, it blocks all life-sustaining systems, all life potential. It is a “castration” of the spirit and soul, of all the essences of the human kind. For generations it would mean a decay and “corruption” of the life of a human kind.

We don’t seem to take time to think that all the educational process is based on stiffness and blocking the emotional-motor body of a child, natural to vivid impressions, to active moving and its

own creative thinking. That is why an image of a student is an image of the old age descending on the shoulders of our children. That is a slowly increasing decay of life through its “smouldering”.

### *Chapter 9*

#### **A hand-made soft-bodied doll as a method of folk pedagogic bringing out the senses of love, tenderness and motherhood in little girls**

Just as the cradle and a lullaby, a hand-made doll can be found in many national cultures. This fact shows that it is so very natural to a girl spirit, and more over forms a human-forming spiritually-moral beginning.

A doll is an emotional image of the future child that a girl will have. Constant conversations with a doll, its swinging in the girl’s arms, singing goodnight, changing clothes is an early emotional imprinting of tenderness, and love for the future baby, it’s an active process of learning an image of a mother, of the future motherhood. Special researches have proved that if a girl didn’t play with her doll, it will be problematic for her to become a sincere loving mother.

Who has actually tried to analyze why all loved, hand-made soft-bodied dolls were substituted by the soft toys — all kinds of animals? We help our girls to bed giving them a toy-dog, a bear or some other kind of an animal. But it is only natural then that all love and tenderness will be projected at these dogs, teddy bears, cats, but not on an image of a child. As a result a woman could give out her life for her beloved dog. So they do. That is the mystery of creating, or actually of destroying the sense of motherhood at the early extrasensory stage of early childhood.

In late 80 — early 90s I worked at preschool educational institutions of Strizevoy town. Doing the monitoring of some schools I noticed that Barbie doll had become very popular among little girls. I addressed the mothers demanding them if it wasn’t obvious

for them that they literally corrupt the girls soles by this image of a “a sexy girl”. That’s what I got in reply: “Well, she’s very beautiful!”, “the whole world plays with the doll!” etc.

So, I suggested to do a test: call out 5 girls who have made their dolls with their mothers help; those who play with bought at a shop dolls; and 5 girls playing with Barbie dolls. So, some days later, 15 ladies were introduced on the stage of the conference hall. I asked them to imagine themselves as mothers of their dolls. I asked them to hold and gently embrace their “babies”. The girls who had made their doll had a quick reaction and pressed their dolls tightly to their hearts. To their hearts! The next group with bought dolls were perplexed. They had some uncertain movements: they either pressed them to their bosom or stretch their hands out with dolls in them. But the real miracle happened to the ladies holding Barbie dolls. Their faces became tight and they threw out the dolls.

The girls were asked a question: why were you born as a girl? A Barbie owner answered: “To be pretty” (read “sexually attractive”) — V.B.) A hand-made doll owner said: “So that children can always be born.”. Our further research proved that a Barbie doll brings out an egocentric sexual orientation; while a hand-made soft-bodied doll teaches them the essence of motherhood. Besides these facts, the results have shown that even the central nervous system functional abilities was lower for the girls owning a Barbie compared to such indexes of the girls, playing with a home-made dolls (1,7 against 2,2 u.e. respectfully,  $p < 0,01$ ).

The time for realizing and choosing simple vital truths has come. As life shows it, no wonder that many grown-ups cannot resist their memorized in their childhood harmful for their kids sexual values. So why be surprised that the “strong” and supposedly strong-willed part of the human race cannot give up smoking. So why should we demand this “labor” from a “minor half” of the human race? Why should they give up their imprinted in their childhood habits?

## Chapter 10

### **For boys playing the role of warrior and defender from an early age is fundamental in their development of masculine characteristics and strength of mind**

A great many things have been said and written by politicians about the rebirth of Russian nation. No matter which point we approach searching for decision of this national problem, it will eventually come to upbringing of boys as true defenders of their country, and girls — as real mothers. If it’s not done, the rest will be automatically ruined.

Nowadays the idea of making a true masculine young man out of each born baby-boy and an honest feminine young woman out of each girl takes chaotic forms in most people’s minds. As a result reading the “Medical newspaper” we come across the following articles:

*“Men became petty... Doctors and sociologists beat alarm — stronger sex in danger!”* (“Medical newspaper” dated 26.03.2004);

*“Will your son become a father? Future men must be supported today, not tomorrow — considers a child andrologist Prof. Dmitriy Tarusin. The reason is that 64% of men’s problems come from childhood* (“Medical newspaper” dated 18.10.2006);

*“Masculine fertility is endangered”* (“Medical newspaper” dated 01.12.2006) etc.

*“We disappear as species... Men’s reproductivity turns to be much worse than that of women”.* (“Medical newspaper” dated 27.04.2005).

This phenomenon is far from being only Russian. It’s long since the epidemy of male (masculine) characteristics disappearing in men has struck developed countries. It received wide coverage both in special scientific and popular press. For example, the quality and the quantity of fertile semen taken from a European is being inexorably reduced over the last century. More often a male “Y” chromosome is found in manlike women and a female “X” chromosome in womanlike men. It points out that the process of devolution and degradation has already obtained a genetic basis.

Why is machismo of boys and young men dying before our eyes? But who of parents, teachers and authorities seriously thought over the question: is it correct the way we bring up our boys? Who applied to the wisdom of last generations and compared boys upbringing in folk educational cultures and today?

There's such a widespread idea as "We live in a different time". But it's not instant "innovations" but eternal laws of reincarnation that each previous generation must use to reproduce masculine nature and male characteristics in boys and feminine nature and female characteristics in girls. Moreover, while anima initially dominates in girls, boys don't have such a predetermination.

A girl is born with a double "X" chromosome, while boys are born with one masculine "Y" chromosome and one feminine "X" chromosome, i.e. in genetic features boys are born as a semiwoman-semiman. And great disasters fell on those nations that had refused from long and hard process of boys upbringing by the laws of their masculinization. In ancient times peoples always paid special if not foremost attention to the task of boys turning into brave men. It's necessary to overcome the initial "semiwomanly" nature. It's possible only if we fight a *fear* instinct. That is the only way to achieve moral courage which turns boys into brave guys and real men. (Note that girls get rid of fear only with the feeling of protection and love on the part of a guy or a man). Boys nature itself is initially oriented to trials overcoming fear. War games and trials take a special place here. In natural conditions boys group together and play only with boys, whereas girls — only with girls.

But who will our boys turn to, who will they become if they are initially, at the stage of the highest sensitivity to personalization (and reincarnation), blended among elder (in spiritual and genetic age) girls? The point is to mix boys and girls with different chronological age in preschool institutions and then at school. Who will our boys become in these conditions if:

- girls have qualitatively different favours, games, interests, fantasies, imagination etc.?
- uncertainty and fears dominate in them?

- girls will obligatory impose on boys their purely feminine games, priorities and favours, i.e. their basic features?

Who will our boys become if they find themselves under feminine control correcting their behavior, making them as obedient, assiduous, goody as girls? What if the life of growing up boys will turn into a life-time race from one dominating woman to another? If the main scheme of women's upbringing is to infix fear in boys minds. Being afraid to fall, hurt oneself, injure something, cut oneself, stumble, sneeze, cough etc.

Generally speaking, from birth to graduation from school boys turned to be submerged into female uneasiness, concern and fears, into female visualization of what good and bad things are, into female adaptability to life conditions, female wish for eternal protection etc. As a result boys turned to be created according to female emotional templates. And if it's natural for girls upbringing, for boys it's a radical destruction of their nature.

This destruction caused awful consequences for society and future families. Complexes of woman-like guys and men, raised by women, turned to be irresistible. Lawyer and psychologists know that practically all gigolos, homophiles, drug addicts, serial maniacs and killers, pedophiles and other degenerates have the main common feature: male immaturity, inability to bear responsibility, woman-like mentality.

Our "connoisseur" may give various explanations for family principles, social achievements and longevity of the Japanese. Studying this phenomenon I come to the main conclusion: Japanese miracle is based firstly on preschool education and secondly on early and deep masculinization of boys and feminization of girls.

As early as in 1980s we analyzed drawings made by two groups of boys aged 4—6 y.o. One group (87 children) was brought up among equal in chronological age girls and naturally under rigid control of nursery governess. Boys from another group (33 children) had no girls among them in preschool educational institutions. Such boys played together with elder boy-tutors. Of course, their life was full of games (tricks) connected with risk and trials. Such activities

included war games, various competitions, fighting, tree climbing, shelter building etc.

The boys from both groups were offered to draw things they wanted to experts at the moment. Drawing analysis revealed that boys raised in preschool institutions among girls and under control of governesses showed signs of concern, fear and typically female perception 3,7 times more often (Fig. 18).

It is found that if a boy doesn't overcome his fear initially, in especially sensitive (extrasensory) period, he will firstly develop in female pattern and secondly will acquire deep complexes resulted from uncertainty and inferiority.



*Fig. 18. Fears in the drawings of boys who had been raised in preschool institutions together with girls and under control of women*

Consequently, forced joining of boys and girls according to chronological age into common groups in educational institutions, and also protective methods of upbringing in feminine manner are harmful for adequate boys development, for their masculinization. Certainly, masculine qualities are more shrewdly and precisely estimated from a woman's point of view. Elena Yakovleva directly speaks "About coward men" as of a great national disaster ("AiF",

no. 24, 2007). And some call such will-less and weak-minded men as "trembling creatures".

That is an inexorable logic of feminine young men creation, men whose will and strength of mind were not developed in their childhood, young men who find themselves in the toils of psychic and biological degradation. The great disaster consisting in non-reproduction of masculine young men in social educational institutions has already struck family principles. It's a tragedy to give birth to an only child (a boy) and then to press him down against the ground with all-protective blind female care. It's a tragedy to bring up boys without a father. It's a growing spiritual incompatibility of woman-like men with women, their mutual rejection and inevitable decay of family ties. Eventually it's a start for decay of peoples and countries. In such conditions female faith, hope and love cannot conquer all-mighty instincts gripping once resolute and morally strong young men. Voluntary body will and strength of mind developed from early years — is the only way to raise masculine young men, able to conquer their lower instinctive beast.

For many years we've been searching for an explanation on what scientific basis boys and girls are joined in common groups in preschool and school institution. Moreover as they are joined according to chronological age, though it's known that girls are much (at least 2—3 years) older than boys in genetic and spiritual age, and as a result in school maturity. There's no any scientific basis, but still it's put into practice. This means we've got abused incompetence.

All these facts, as well as deep study of boys and girls imagination, allowed us at the end of 70-s, XX century, to offer and propagate parallel separate upbringing of boys and girls in kindergartens and schools, including active engagement of well-deserved men to boys classes. Moreover, the shield, the sword and different mechanisms and devices, including joiner's and fitter's tools became the main attributes for creation of boys environment.

This has been broadly covered in "Uchitelskaya gazeta" and other editions. Generally speaking, by this time we have gained

considerable experience in boys upbringing according to male pattern<sup>1</sup> in some regions of the Russian Federation. It's clear that the most restrictive point in such upbringing is first of all unfounded, proofless basis of educational system. The second reason is that there is no special order and state policy for engagement of young men to pedagogical institutions of higher education.

At present time we have quite a good law "On Child's Main Guarantees of Rights in Russian Federation". Article 4 "State policy aim in favour of children" prescribes "...assistance to physical, intellectual, psychic, spiritual and moral development of children, as well as development of patriotism and civic consciousness, realization of child's personality in favour of society". In view of the above it is obvious that "realization of child's personality", as well as all aims of state policy cannot be fulfilled in current conditions of asexual or to be more exact female system of boys upbringing.

For boys "realization of child's personality" means development of voluntary body will, courage and strength of mind, i.e. development and upbringing of boys according to masculinization laws. We all must finally understand the following: boys upbringing in female pattern is a socially unrealized discrimination of boys development in male pattern. All this demands an urgent reform in educational system management, development of educational process on person-centered basis. Especially, as the official doctrine of national educational system is person-oriented.

Singles mothers raising their sons can hardly play a special role when handling this essential national challenge of boys upbringing (raising of masculine boys (men), ready to bear responsibility for their family and country). And we've got millions of them. They know perfectly well that with current speed of life and survival they cannot provide the boy with an elementary masculine upbringing. So, it should be done by professionals in the sphere of educations— tutors and teachers. Also it's necessary to conduct a clear-cut state policy.

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<sup>1</sup> Refer to sites [www.obrzdrav.ru](http://www.obrzdrav.ru); [www.hrono.ru/proekty/bazarny/](http://www.hrono.ru/proekty/bazarny/); [www.bazarnyj.narod.ru](http://www.bazarnyj.narod.ru)

## Chapter 11 Fairy tale and spiritual education

A fairy tale is a universal method, reconstituting at childhood stages moral structure of sensual and emotional spheres. Unfortunately, this great educational method of folk epos and culture was rejected by us (just as many other things) as "patriarchal". And now those basic characteristics of humanity that distinguish us from the rest of the animal world and make us a homo sapiens are falling to pieces in front of our very eyes.

From common sense point of view there's nothing clearer, than understanding of the fundamental role of fairy tale in spiritual development of a child. This statement was wonderfully phrased by a Russian philosopher Ivan Ilyin: "*A fairy tale fascinates and provokes dreaming. It gives a child the first feeling of something heroic — a feeling of trial, danger, mission, effort and victory; it teaches to be courageous and loyal, to contemplate human destiny, complexity of the world and the difference between verity and falsity*". *It fills his soul with a national myth, with those images in which people see themselves and their destiny, giving a historic look back to the past and a prophetic one to the future. In fairy tale people keep all their wishes, knowledge, suffering, humor and wisdom. National development is incomplete without a national fairy tale...*"

Another explanation of a folktale is given by L.S. Vygotskiy. Particularly, the author states that a fairy tale is a method which brings to a child's mind "*false ideas, not corresponding to the truth and reality*". In his opinion under these conditions "the child remains to be dull towards the real world, he finds himself isolated in unhealthy and dead atmosphere, mainly in the kingdom of fantastic myths". That is why "*...all this fantastic world is extremely depressive for a child, and undoubtedly his depressing power exceeds the child's resistance capacity!*"

Judging from this point the author comes to the following conclusion: "*We have to agree with the judgment demanding full exclusion of all fantastic and foolish ideas by means of which a child is*

*usually raised. Upon that it's extremely important to note that the most harmful things are not only fairy tales...* (See.: L.S. Vygotskiy, *Pedagogical psychology*. M.: Pedagogika, 1991. — P. 293—300).

But did the classicist of psychology really understand that the world perceived by a child and by us is quite different? For a child our world is full of miracles and magic. And what about the adults? No miracles. A pure dry informational rationalism and cynicism. How about the birth of a human infant that with our help can become an absolute Godman? Isn't it a miracle? Though if all of this is estimated through the prism of cynicism and animal instinct, then of course there's only pure sex and no miracle.

Let's consider other attempts to understand the essence of fairy tale. According to the "Body of ethnographic concepts and terms" published in 1991 by the Academy of Sciences of the USSR together with Academy of Sciences of the GDR under the general editorship of Academician Y.V. Bromley (USSR) and Professor G. Strobach (GDR), a fairy tale is defined as "a form of oral folk prose with dominating aesthetic function".

Here a fairy tale is regarded not as a "dead atmosphere" and "foolish ideas", but as a special "aesthetic function". Note that according to the classification offered once by V.F. Miller, this "Body..." divides all tales into three main groups: fairy tales, beast tales and common tales.

There's almost no difference between this classification and classification offered by the mythological school: mythological tales, beast tales and common tales. A wider classification is given by Vundt (1960):

- Mythological tales — epic;
- Fairy tales;
- Biological tales and epic;
- Beast epic;
- Tales "about origin";
- Mock tales and epic;
- Moral epic.

With the postulate that "studying of formal regularities predetermines the study of historic regularities", a famous fairy tale specialist V.Y. Propp defined the main topic of his work as follows: "It (fairy tale) must be transformed into formal structural features, as it's done in other sciences". As a result, having analyzed one hundred tales from the collection "Russian folk fairy tales" by A.N. Afanasyev (volume 1—3, 1958), V.Y. Propp concluded that they have the following common morphological structure:

- I. One of family members leaves home (leaving).
- II. The character is addressed with a prohibition — prohibition.
- III. The probation is violated — violation.
- IV. The antagonist tries to make a research (researching).
- V. The antagonist is given information about his victim (giving).
- VI. The antagonist is trying to cheat his victim in order to possess it or its property — catch.
- VII. The victim yields to cheating and involuntary helps its enemy — aiding.
- VIII. The antagonist does harm or damage to one of the family members -sabotage.
- IX. One of family members lacks something: he wants to have something — lack.
- X. The character learns about the disaster or lack, he is appealed to with a request or an order and sent somewhere — mediation.
- XI. The searcher agrees to counterstanding — beginning counterstanding.
- XII. The character leaves home — dispatching.
- XIII. The character is tested and prepared for receipt of magic remedy or helper — the first function of giver.
- XIV. The character reacts to the actions of future giver — character's reaction.
- XV. The character receives a magic remedy — supply.
- XVI. The character is carried, delivered or taken to the place where the searched object is situated — transfer between two kingdoms — guiding.

XVII. The character and his antagonist begin fighting — fighting.

XVIII. Antagonist wins — victory.

XIX. Initial disaster or lack is eliminated.

XX. The character comes back — coming back.

XXI. The character is chased.

XXII. The character escapes from chaser — escape.

XXIII. The character arrives home or to another country unrecognized — unrecognized arrival.

XXIV. The false character lays unreasoned claims.

XXV. The character is offered a difficult task.

XXVI. The task is fulfilled — fulfillment.

XXVII. The character is recognized — recognizing.

XXVIII. The false character or sabotaging antagonist is unmasked — unmasking.

XXIX. The character is given a new look — transfiguration.

XXX. The enemy is punished — punishment.

XXXI. The character gets married and his wedding is celebrated.

But can this formal intellectual explanation of a fairy tale help us to understand its true hidden methods of influence on deep emotional feelings, including imagination processes of a child? The point is not only to realize outward formal, logical, verbal and rational features of fairy tales. The point is to understand the most essential thing — their inward unconscious psychoemotional structure.

And finally, the most important question: can this formal and logical understanding of a fairy tale become a conscious instrument by means of which a creative teacher might start making creative fairy tales for children. Unfortunately this question cannot be answered positively until we discover not only formally logical structure of a fairy tale, but also its subconscious sensitive psychoemotional structure. What is meant here is emotional ground of character intentions and actions (functions), which help to develop in the child's soul some sensory and emotional patterns (dominants).

It cannot be omitted that trying to make a complete functional analysis instead of structural formal one, V.Y. Propp came to some very important (from our point of view) regularities in their structure:

First of all, the functions of fairy tale characters are extremely permanent; secondly, their functions are very limited; thirdly, all the functions follow in strict logical order; fourthly, all fairy tales have got similar structure.

In this connection instead of formal logical approach we analysed emotional and subconscious structure of Russian folk tales, presented by A.N. Afanasyev (A.N. Afanasyev “Russian folk tales” M.: Khudozhestvennaya literatura, 1977).

As a result we came to a deep conclusion that fairy tales influence not the rational and verbal (mental) world of the child, but its sensual and emotional sphere, i.e. his subconscious mind.

Besides, almost all folk tales are oriented to develop in the child a constant system of moral, aesthetic, sensoaffective dominants. It turned out that frequent listening of tales develops in the child steady vectors of emotions. It also helps to form stable sensual and subconscious stereotype.

The cornerstone of this subconscious sensual stereotype is structuring and differentiation of the good and the bad in initial reflex and instinctive affects, and also formation of steady orientation to the good, sympathy for pain and suffering of another person, non-admission and rejection of evil etc. And this is the most essential thing for development of humanity in each born human infant. In relation to a child, a future adult, we must realize the following: humanity development is the main factor in humanization of the new generations.

As for moral development of a man, it's possible first of all in early years. It can be developed only in eternal struggle with one's own flaws, i.e. in one's struggle with our lower animal nature.

In relation to early age all these statements are rather well covered in “Christian upbringing of children” (1905). It's pointed out here that a child's soul is initially inclined both for the good and the bad. That's why from the very beginning it's essential to

divert the child from the bad and orient to the good, to develop a habit for the good. The reason is that *“in early age the child accepts and remembers everything that he hears: principally, that’s the time when children’s life is inclined either to the good or to the bad. If from the very beginning a child is diverted from evil and led to the right way, the good becomes dominating, as it’s not so easy to go over to the bad side when one’s habit motivates for the good. This feeling, excited, supported and deepened from the first years of life, becomes an inner core that can keep the child away from anything wicked and unholy”*.

Consequently, from sensual and emotional side a fairy tale is meant to develop in the child at extrasensory stage essential principals of morality and spiritual ethics of human life. It represents a basic spirit developing “technology” that will divert initial directives of the soul from the bad and lead to the good; that will develop an “inner core” protecting growing generations from “anything wicked and unholy”.

The above mentioned allows to state that folk tales represent in their sensual and emotional orientation a universal technology of spiritual development, necessary for continuous struggle with evil patterns in human’s low nature; a technology for active development of child’s moral principals at subconscious level; a technology for development of active aesthetic attitude to fundamental contradictions of human nature — the good and the bad. Consequently, from emotional and sensual point of view a fairy tale is an initial aesthetic system of coordinates which is used by a child for measuring of his voluntary will and attitude to the world. It is a universal basic spirit developing mechanism that spiritualizes the child and shapes his primary moral structure of good personality at the main stage of human development, i.e. a super sensitivity stage.

Such understanding of a fairy tale allows answering many secrets of its traditional structure. For example, why is its action usually developed around initially weak, helpless, good-natured, deceivable and even naive, sheepish people (animals)? Or owing to what power

do initially helpless, weak, good-natured creatures eventually become strong and wise characters, evil conquerors? Or why for instance here in Russia Ivanushka is initially foolish, while Vasilissa is as a rule wise etc?

*In primordial categories of weakness, gullibility, helplessness, naivety and kindness a child (usually a boy) learns his senses, i.e. on unconscious level there’s a projection of child’s feelings and conscience to a certain character.* After this projection this character’s life is inseparable from his own. All feelings and adventures of this fairy tale character turn to be the experience of the child itself. This is the basis for the whole spirit developing mechanism of a fairy tale, a mechanism of emotional transformation and exaltation of feelings and as a result humanization of a child.

From adults eyesight all children are initially “naughty”. From the point of view of the child’s nature it’s connected with their concentration on their own sensitive experience, their own sensitive perception, emotional trials and feelings. In morphological structure of V.Y. Propp it is expressed in “violation” (insubmission) of adults prohibitions and punishment of “violation”.

And then there’s a full development of trials and adventures experienced by a “naughty” character. In this way the child’s feelings initially projected to character’s adventures allow him to “come through” all the trials, and also to experience a whole range of feeling: craftiness, betrayal, disbelief, lies, envy, weakness, cowardness, bad luck, defeat on the one hand, and friendship, strength of mind, wisdom, love, triumph etc. on the other hand. And everywhere there’s feeling tempering, movement to spiritual exaltation: from lies to the truth, from envy to generosity, from hate to love, from disbelief to faith, from fear to courage, from naivety to wisdom, from defeat to triumph, from the bad to the good.

And only after he has gone “through water and fire”, only when he has bathed in “boiling and icy water” of life trials, after he has gone through craftiness, injustice, envy and other human flaws and overcame them (in himself), the character becomes wise, strong

and invincible, i.e. spiritually mature. From this very point of view a folk tale corresponds in his inner sensual and emotional structure to the main law of Christian spiritual development: the law consisting in transformation of lower, instinctive, self-centered feelings and their exaltation through trials in new spiritual quality and strength of mind. Trials are nothing else but spiritual suffering. This suffering is connected with painful denial of one's lower instinctive nature. The result of this struggle is either a triumph of mind strength or on the contrary downfall to one's primary instinctive animal essence.

Consequently, from the point of psychoemotional analysis a fairy tale prepares the child's feelings and spirit for future trials and in this way develops a certain social immunity — a spiritual basis for those trials that will obligatory occur in his life journey. First of all, the trials, which may occur on his way of socially important development and recognition.

Fairy tale is a universal way to show children on subconscious level the logic of future life, to embed in their subconscious the algorithm of spiritual strength and moral behavior in case of any temptation, particularly in complicated reality situations. From this point of view a fairy tale does not result from the influence of "primitive" cultures and mythological consciousness of a primitive man. It is the perfect, and ultimately, eternal and irreplaceable way of spiritual development, based on human two-faced nature, on the great truth of life. And life convinces that "illiterate" (compared to our arrogant "bookish" intelligence) but deeply moral and wise grandmothers could tell or invent a fairy tale best of all.

As far as in the beginning of 1990s 251 children have been examined in preschool institutions of Sergievo-Posad and Voskresensk. Scientists together with tutors and teachers estimated peculiarities of children's psychoemotional structure depending on whether fairytales had been read to them or not. For this purpose emotional, behavioral, and psychological features were studied in organized groups of children. At that each organized group was taken both as "experimental" and "control", which practically excluded any collateral factors.

The children have been closely watched for certain periods of time. At the first period (2 weeks) fairy tales were not read to children at all, while at the second stage (1 month) they were read almost every day. In the course of such observation experimentalists estimated peculiarities of interpersonal relationships and dreams. Special attention was paid to analysis of imagination condition (drawing test). The children were purposely analyzed for demonstration of fear, courage, selfishness, altruism etc. Russian folk tales by A.N. Afanasyev were taken as a basis. It must be pointed out that the experimentalists chose fairy tales about the most dangerous adventures of a character, about his intense struggle (as the phrase goes, to the last drop of his blood), about selfishness and mercy, love and hate, life and death etc.

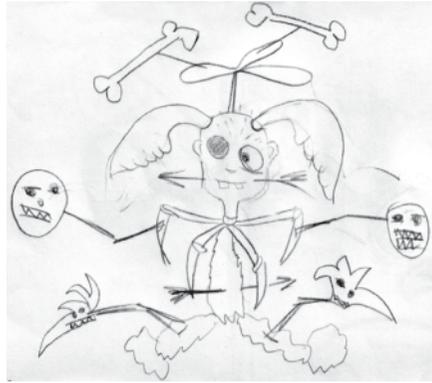
This research gave a lot of test materials, worthy for theory and practice of new generation upbringing. Detailed description of obtained data is a subject for a separate monographic work. Herein we will just consider some of the most essential conclusions.

The most unexpected thing for us was as follows. In spite of the fact that the children were regularly read highly emotional fairy tales, in which the character has dangerous adventures and survives due to intense struggle, the behavioral and psychoemotional status of most children (especially boys) has improved. It was followed by improvement of imagination, a good balance of inhibitory and exciting processes, reduced demonstration of selfishness, growth of children's emotional activity, curiosity, altruism (Fig. 19). A feeling of uneasiness and fear has noticeably reduced. At that it must be pointed out that improvement of psychoemotional status was also stated by parents.

Received test data change the perception of a fairy tale as a "childish amusement", display of "foolish ideas" and "mythological consciousness". First of all, as the fairy tale exerted such a positive influence on psychoemotional status of the child, it means that it is close to his spirit and his immature imagination. This is the only direction of research that is worth following for theoretic studies of folk tale phenomenon.



*Thrilling fairy tales were read*



*Fairy tales were not read*

*Fig. 19. Children's demonstration of uneasiness and fear*

The fact of reduced fears (especially in case of boys) even under the influence of “scary” fairy tales means the following. Fairy tale is a great “releaser” of excited imagination energy, a great transformer which sends it from uncertainty (fear) world to the world of a definite fancied image, action, behavior i.e. to the world of strong mind. That’s why a man raised without regular listening to folk tales when being a child has a different emotional structure of values, another mental structure on sensual and subconscious level. More frequently these complexes result from uncertainty and fear. Verbally (mentally) children and teenagers seem to give a correct estimation of the good and the bad. However at the first trials and temptations true attitudes of non-transfigured (instinctive) subconsciousness will prevail over intellectual logic. That’s what usually happens.

In these conditions rapid recovery of true folk tales in the family, preschool institutions, as well as arrangement of a special “fairy tale” channel, not perverted by instincts, is our chance to save good oriented part of our new generations.

As for television tales with fairy characters, Shrek adventures, action movies with blood and sex and similar things, all them are substitutes of true fairy tales, appealing to the deepest spirit developing emotions of a child. The major problem of folk tales is that their word structure is often not clear to a modern child. What can we do about it? Firstly, fairy tales always belong to oral folk arts, not dark arts. From this point of view printing a fairy tale means killing it. It’s killing in terms of creative improvisatory invention of a fairy tale. Secondly, a fairy tale is always based on evil manifestations typical for a certain historical period. In these conditions mothers, fathers, grandparents may and should become “inventors” of folk fairy tales.

Tutors in preschool institutions may and should also become special tellers and inventors of “folk” fairy tales. For this purpose we arrange special seminars for tutors of preschool institutions. For example, we offer them the following “modern” evil schemes which they may use when inventing (often together with children) a fairy tale by themselves. “It was getting cold and dark in the forest. An abandoned child was lying and crying under the bush...” Or another scheme: “Once upon a time there were two girls. One of them was trying to collect as many expensive toys as possible, and another one wished to understand her destination in this world...” It’s offered to continue the story about adventures of these girls who found themselves among unknown people etc.

Fairy tales by A.S. Pushkin, many of folk tales from the collection of A.N. Afanasyev are well taken by children. As they say, the point is in understanding and love for children. To be more exact, the most important thing is to put the child’s values before the rest benefits of adult life.

## *Chapter 12* **Freedom and space**

The active role of space and continuous flow of various natural sensory and especially movable stimuli to sense organs in the

development of neuroepithelial brain structures is fundamentally covered in monographic works. First of all it is a voluminous guide “Problems of physiological optics”, unique in its scope and depth (Publishing house AN USSR, 40s — 50s of the 20<sup>th</sup> century).

We can also refer to such works the following: “Chrestomathy in sensations and perception” (under the editorship of Y.B. Gipenreiter and M.B. Mikhalevskaya; Moscow University Publishing House, 1975); N.N. Vassilevsky “Ecological physiology of brain” (Leningrad: “Meditsina”, Leningrad dept. 1979); “Visual pathways and brain activation system” (Moscow: Nauka, Leningrad dept., 1982; executive editor Y.T. Kratin); “Psychophysics of sensory and sensorimotor processes” (Moscow: Nauka, 1984); “The role of sensory inflow in development of brain functions” (Moscow: Nauka, 1987; executive editor: E.M. Maksimova, K.V. Shuleykina) etc. As for the works of R. Gregory “The Intelligent eye” (Moscow: “Mir”, 1972), V.D. Glezer “Vision and thinking” (Leningrad: “Nauka”, 1985), V.F. Bazarny “Children’s eyesight. Problems of development” (Nauka, SO, 1991) and others, they point out that sense organs and first of all visual analyzer is meant not only to reflect the outside world, but also to form inner (spiritual) worldview (the soul in spiritual studies).

Analyzing these and other fundamental works it’s not hard to come to the conclusion: perception of natural movable stimulus in space this is a special irreplaceable form of activity stimulation and development of neuroepithelial brain structures on the one hand and formation of inner sense memory “collector” on the other hand. As an example we will cite outstanding discoveries of Hubel D. and Wiesel T.N. (1962), Hubel D. (1974). Using delicate neurophysiological tools they showed that at different location and distance position of objects there are absolutely different brain cells reacting to them. This discovery shows that anatomical architectonics of brain cortex is a unique “mold” of 3D world space.

*“The feeling becomes objective in contemplation. A person submerged into contemplation is in direct connection with it, so,*

*contemplating he’s got no other existence except the mentioned space and time existence” (Hegel, 1970)*

From this point the development of our brain was following the space through active exploration by means of legs and transformation by means of hands. That’s why any limitation of space, including inflow of all variety of natural sensory stimuli to sense organs always causes activity suppression not only for feelings but also for their end link — brain analyzers. Systematic limitation of outer sensory stimuli inflow to sense organs is always a deprivation (depression) of neuroepithelial brain structures.

What’s why domination of limited bookish patterns in children’s lifestyle (education) activates only a tiny part of neuroepithelial brain structure while the others remain depressed. In generations it causes underdevelopment of brain cortex and eventually its reverse development. We all noticed what relief we feel when tearing our glance away from our working place, from our papers (computer) and looking into endless space. We feel it especially well when we come out to open air and realize how tiresome and destructive for health the work which is connected with regular subtraction from space, from the whole variety of natural stimuli due to usage of close inactive vision.

Influence of such labour on psychic and physical health was brightly described as early as in 70s of XX century by a famous German specialist in ergonomics Krause-Liebscher: *“Complaint are not limited by eye discomfort, they also include decline of general condition or abnormality of other organs or systems. However at the beginning patients usually complain of eyesight disorder, for example “fog in front of the eyes”, “twinkling” and other eyesight disorders during the work at near distance. Also there are complaints of working efficiency reduction, inability to concentrate attention. Further on patients feel pains in forehead or back of the head, sometimes tingling or heartache at night, fear, obliviousness, insomnia, faintness, giddiness, timidity, nervousness. In some cases such patients have a special stereotype head position, a pose, specific for execution of delicate operations and control of small mechanisms. Usually it’s impossible to*

*find organic disorders for a single examination. After patient's examination a physician often reveals functional abnormality, such as variation of arterial tension with collapse tendency".*

As early as in 1970s European scientists stated that eyesight strain of schoolchildren is equal to that of people doing intensive visual work. Do parents every day sending their children to school really think about the following: if adults with their physical and psychic maturity obtain "insomnia", "fear", "timidity", "nervousness", "heartache at night" and even "faintness" in case of regular concentration of eyesight on small and close objects, what will happen to kids with their genetic desire for movements, with their physical and psychic immaturity? Unfortunately, for most parents the main problem is not the child's tragedy at school but a place where the child could be sent to.

It seems we will finally have to realize the ancient wisdom in arrangement of life environment. What is meant here is the perfection in architecture of Ancient Egypt, China, Maya people, Greece, India ect. that is based on delicate feeling of space and visual perspective.

There's a thrilling architectural perfection in Pompeii composition, a palace in Red Fort: a broad window to the space from above and a pool, reflecting the sky under it, surrounded by a garden. Everywhere there's a unity of perspective and space, both man-made and natural. Those who have been to India certainly admired the art of space extension by means of figured screens and mirrors. And this is not only a point of beauty. In folk Tibetan medicine space is represented as one of primary elements that form the basis of every essence, including man's health and development.

Studies made under our supervision based on the department of physiologic and clinical peculiarities of sensory systems development belonging to the Institute of medical problems of the North, USSR (on the example of native Northern ethnic groups), showed that a permanent sensory contact forms an adequate ecological feeling, thinking and acting. It's known that the most characteristic peculiarities of traditional ecoenvironment, where the

visual system of native Northern ethnic groups is developed, including its higher reflective brain functions, is a broad panoramic view, respectively small number of objects, low speed of objects mobility in space, small colour range during a continuous polar winter, abruptly changed by rich colours within a short polar summer. Even traditional activities of native ethnic groups oriented to support of their life (hunting, deer farming, fishing) usually don't exceed the limits of man's natural, sensitive and ecological attitude to nature.

This very ethnoecological environment feature explains peculiarities of visual perception and action of Northern people, revealed by our employees. It's a subtle feeling of space combining with a high need for searching visual activity in case of distant vision; a subtle feeling of entire visual perception of objects in space and relatively low ability for elementwise analysis of various sets, especially in case of distant vision; a developed feeling of objects localization during distant vision and a relatively low ability for a long-lasting execution of coordinate visual and manual operations; relatively high ability for visual and imaginative (artistic) thinking and an extremely hard for them informational and verbal type of local school structure; a relatively high adaptability to functioning in natural conditions, including photoextreme ones, and a low adaptivity for a long-lasting influence of artificial and especially blinking lighting (TV screens, luminescent lighting ect.)

The given data indicate that development and functioning of visual analyzer and brain in general reflects their deep ethnoecological orientation to the space and natural environment. In these conditions a special meaning of regular sensory contact with nature is felt especially well at the stage of children development when optic-vegetative and sensory-psychogenic balance with environment is formed.

Based on the aforesaid the problem of sensory body synthesis with natural environment is seen especially well at the stage of scientific and technical revolution, when indoor areas and limited space turned to be the most characteristic feature of microhabitat.

And how much wisdom and truth is put to the notion as “kindergarten” by the great Froebel! It means that early childhood must be spent in the garden and nowhere else. Only warlocks could later substitute this word by such a cold, lifeless notion, as “children’s plant” and then “educational institution” (i.e. usual school).

Considering synthesis of space-perspective vision and theory of education the works T. Campanella, one of the greatest medieval thinkers, deserve our special attention. “On outer walls of the temple and on the curtains... there are stars depicted with indication of their force and movement in three rhymes. Mathematic figures are drawn on the inner side of the first circle wall... Their size corresponds to the size of the wall, each of them has a suitable explanatory inscription in one rhyme...”. Discussing T. Campanella’s idea with A.V. Lunacharskiy V.I. Lenin pointed out: “I think this is far from being narve, and with certain changes could be adopted and used by us right now” (see “On the way to beauty. About arts community”, 1986).

Unfortunately, we managed to develop and realize this idea only at the end of 1970s in XX century and only in a limited number of kindergartens and schools. The quality of development and health condition of those children whose educational process was based on distant “broadside” vision and moving didactic material is described in detail in the above-mentioned monography “Children’s eyesight. Problems of development”. We will partially return to this issue in a separate section.

### *Chapter 13*

#### **Upright, mind and activity of genofond**

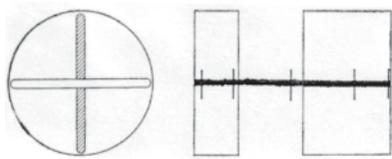
Most ancient spiritual theories state that the life on the earth, especially human life, is deeply and intimately connected with cosmic rhythms. The works of an outstanding Russian scientist A.A. Chizhevskiy were an essential contribution to scientific understanding of this connection. His theory was continued by a

leading researcher, our contemporary, one of the founders of cosmophysical anthropological ecology, academician V.P. Kaznacheev. One of his last works is named “Human noospheric ecology and economy” (authors V.P. Kaznacheev, A.A. Kiselnikov, I.F. Mingasov. Novosibirsk, 2005).

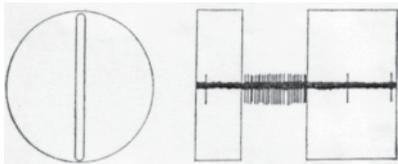
The latest discoveries in the physical field show that all cosmic bodies are interconnected by means of a special spiritual energy called torsion (N.A. Kozyrev, 1980, 1982, 1991; G.I. Shipov, 1993). At that the primary moment of cosmic torsion interaction is a wave (in the language of spiritual theories “vivifying” wave).

We will still have to realize the deepness of hypothesis, expressed by F. Engels, that humanizing of our far ancestors is connected with their transfer from horizontal body position, specific for animals and reptiles, to vertical one, specific only for the human. As a specialist studying psychophysiological processes, accompanying children’s transfer to dominating vertical position, and vice versa, to sedentary-bent dynamic stereotype in organization of educational process, I’m most of all astounded and amazed at the following. Firstly, our “humanized” skeleton acquired a characteristic species shape — the shape of ideal wave, i.e. the spine represents a kind of frozen cosmic wave “pattern”. Secondly, unlike other creatures, the human is given an additional vertebra — Atlas, which by its structure and special location keeps the head in raised position, over the horizon. Actually, out of all life forms only the human is given the right to this vertebra that is meant to raise our sense of space and perspective above the horizon of “grounded” life and to direct our glance and our secret thoughts up, to the eternity of the skies.

The Nobel prizewinner D. Hubel (1974) discovered the following. The author suggested looking at a vertical and horizontal slot. At that he recorded electrical potentials of brain-cortex neurons. It turned out that the cells very well (actively) answered to the vertical slot and showed almost no reaction the horizontal one. (Fig. 20). It’s clear that the vertical slot made the eyes going up along the “inspiring” vertical upright, while the horizontal slot restrained them.



Reaction to the horizontal slot



Reaction to the vertical slot

Fig. 20. Reaction of brain-cortex cells

Domination of limited bookish patterns in children's perception during their development is a domination of reduced corporal-muscular visual and tactile holograms and as a result of reduced impetuous, up-to-the-minute values and life sense of people who once were spiritually sensible. Any sane man would be surprised at the following thing. Why through the whole epoch of the so-called "enlightenment" official science didn't study how children would develop if we keep a specific corporal vertical line with a raised head in educational process or if we let them keep a sedentary-bent position with their head down?

We paid a special attention to the following discovery of electrophysiology specialists. They noticed that at vertical body position a special energy is activated and moved upwards along the legs. This phenomenon was called an ascending energetic activation. Unfortunately, it was not studied further on.

After a number of researches on sense development physiology, carried over under our supervision, it was stated that the basis for energetic activation is a high-frequency activating sympathetic tonus

of life and an energetic rhythm inspiring people's feelings and ideas. This rhythm begins from our feet and spreads up along the body, activating all vegetative and psychomotor life systems. Through vestibular and cerebellar mechanism this energy rhythm definitely brings not only developing nervous flow, necessary for reactivation of specific information and genes, life sustaining among them, but also a special collecting function, synchronizing all corporal ergoinformational algorithms (high-frequency to low-frequency) (Fig. 21).

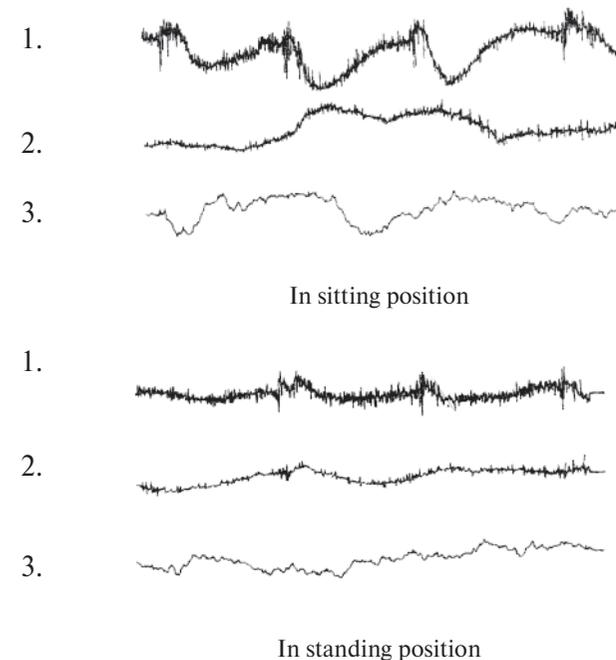
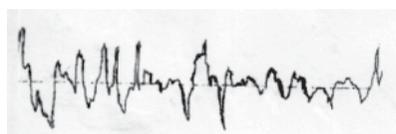


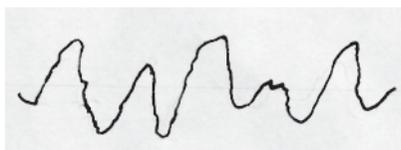
Fig. 21. Electrical micromotion activity of the body and its organs

- 1 — electromyogram of the hand;
- 2 — electromyogram of the gastrocnemius muscle;
- 3 — micromovements of the eyes.

It's established that a reactivating effect of nervous flow, including collection of various energoinformational contours is directly proportional to development of corporal upright (in Christian language "hosanna") in early years. It turned out that the activity (capacity) of this rising energy flow depends on matching degree of body vertical vector and gravitation earth axis (cosmic as broadly understood). And visa-versa, if vertical body vector deviates from gravitation axis, there is firstly a violation of vibrational moment rhythmic structure, secondly, growth of spastic neuromotor cohesions and thirdly gradual reduction of algorithm range (capacity). We confirmed the phenomenon earlier stated by V.S. Gurfinkel, Y.M. Kots, M.Y. Shik (1965): while body weight was artificially increased (by means of putting additional weight on the shoulders), vibrational moment and neuromuscular energy potential of the body was not decreasing, but increasing (Fig. 22).



without additional weight



with additional 5 kg weight put on the shoulders

Fig. 22. Vibrational moment of vertical body

The abovementioned allowed to conclude the following: bioenergy and movement of this rhythm are beyond the body structure. As for proportion of capacity and rhythmicity of vibrational body moment while approaching of body upright to gravitation axis, they allowed us to think that their basis is gravitational and

vibrational earth moment (alias electro-magnetic, torsional-photonic). The same rhythm that on this basis transforms into body vibrational moment was defined by us as somatic gravitational and torsional rhythm of life (SGTRL).

From this point to "collect" a body means to collect a whole range of sensual contours (informational algorithms) of corporal arrangement into one synchronously functioning and energy-informative whole. It can be possible only by means of connecting corporal "structure" to the outer rhythm — the driving and conducting gravitational and torsional rhythm of the earth and the sky.

The question is not just in "mechanical" connection of corporal "structure" to outer gravity vibration. Together with V.P. Novitskaya and V.A. Gurov it has been stated that in conditions of corporal upright and voluntary will activity our body utilized a special photonic and torsional energy. Particularly it revealed in the fact that on arrangement of children's education in the mode of corporal upright (orthograde posture) fluorescence (glowing) of blood cells 2 years later was 2,3 times stronger compared to children that had been educated in traditional motorlimited sedatory mode (for details see Section III, Chapter 1).

It's established that penetration and distribution of SGTRL along the body involving various vegetative and psychomotor rhythms is accompanied with vegetative, mainly sympathicotonic, activation resulted from body upright with straightened shoulders and raised head ("king hosanna"). This is the very position that provides full opened plasticity of neuromotor algorithm wave structure. And vice versa, disconnection of corporal rhythms from SGTRL is accompanied by extinction of vegetative activity with domination of parasympathetic tonus, specific for embryo-like bent body. In these conditions we can watch reduction of fully opened neuromotor algorithm wave structure, up to acute cohesions.

It's revealed that the initial basic rhythm used for primary structuring of high-frequency corporal rhythm into psychodeveloping low-frequency rhythms is a step rhythm. Gradually during adaptation to orthograde posture step rhythm becomes a basic rhythm

that tunes not only vegetative life rhythms (cardiovascular system, breathing, smooth muscle rhythms of digestive tract etc.) but also psychodeveloping voluntary rhythms of body efforts (Fig. 23).

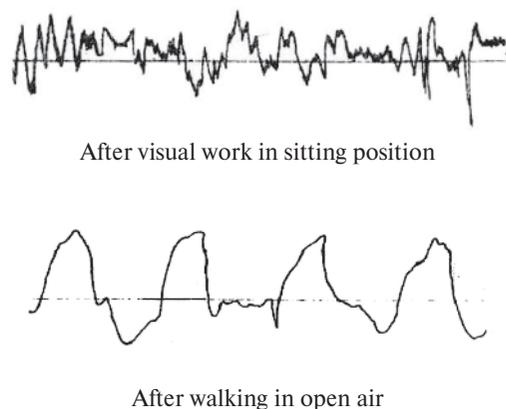


Fig. 23. Rhythms of smooth muscle systems (by the example of eyes micromovement)

Thus, SGTRL directly relates not only to supporting of wholesome high-frequency movements that are the basis of functioning life systems, but also for development of all those things that made us rise over the world of purely instinct (psychomotor) rhythms, constructing our spiritual and psychic sphere: consistent speech, manual, graphic, music abilities etc.

It's revealed that all low-frequency (weak energetic) voluntary (psychomotor) abilities of people are developed in childhood based on their connection to high-frequency (high energetic) automated rhythms, proceeding in the body due to SGTRL. At that for connection and application of these rhythms it's necessary to arrange not just one-minute physical training brakes but regular training and development of brand new rhythms — voluntary ones, against development of creative efforts (actions). And it should be done not during just one-minute brakes but as a part of children's lifestyle.

In these conditions the efficiency of connection and application of voluntary rhythms with SGTRL is provided by two principal points: firstly, a strictly rhythmical structure of volitional efforts; secondly, minimization of efforts in time, when every effort (muscular tension) is followed by micropause (rest), necessary for restoration of plastic and energy substances, including those that are required for proper blood flow in capillaries and vessels, and generally speaking for sustention of metabolic processes on optimal level.

This statement can be related to basic laws of psychoergonomics that must be applied for any human activity, and especially child's education. We'll note that only this opinion helps to realize that calligraphic writing with a fountain pen is an efficient voluntary mechanism necessary for wave and rhythmic organization of life rhythms. It can be understood why reduction of calligraphic writing with rhythmical efforts and introduction of fast writing with constant efforts made on a ball pen did irreparable harm to body and psychic development. That's why in long-term perspective upright development and freedom (automatism) of voluntary rhythms in early and late childhood is an obligatory condition for sustaining of vegetative life functions, reactivation and release of specific informational and genetic algorithms, and also for appearance of psychodeveloping motor functions and consequently spiritual and mental abilities.

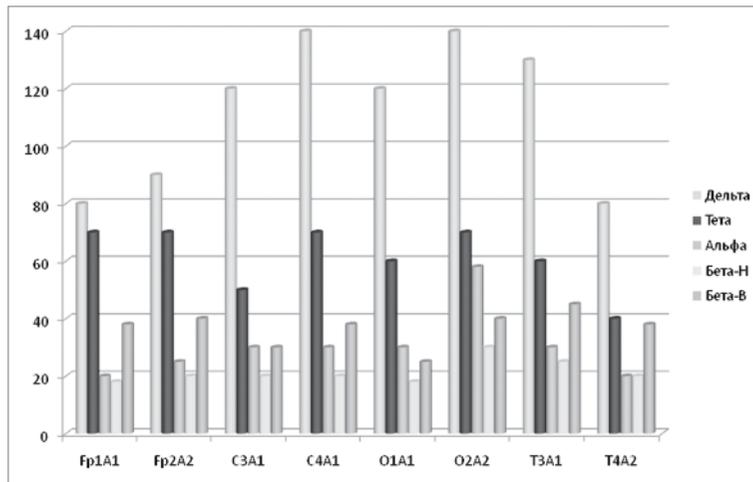
Body upright and freedom (automation) of voluntary rhythms undeveloped from early childhood cause enslavement and reduction of life algorithms. This is enslavement and "sequestration" in generations of specific programs and eventually extinction of corporal and spiritual life.

Let's trace the above mentioned by the example of speech function<sup>1</sup> development — the basic function for formation of child's consciousness. In particular, as researches showed, a real achievement in speech development and vocality freedom of a child

<sup>1</sup> The research was carried out in cooperation with the scientific worker of the laboratory N.V. Kulebyakina.

is connected with orthograde posture. From this moment all basic psychomotor abilities (verbal, manual) are developed in movement, motivated by desire for knowledge, discoveries and transformation of everything seen and heard in handwork.

*THistogram of results of the analysis (maximum amplitude uV)*



*Histogram of results of the analysis (frequency Hz)*

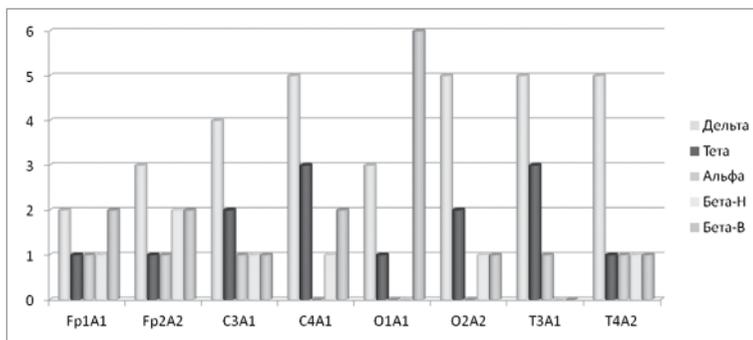


Fig. 24. Cortex BEA amplitude and frequency characteristics of a 1.5 y.o. child at unentrenched orthograde posture due to legs paresis

Only the child's synthetic corporal, sensitive and creative activity in space is an absolute condition for development of neurodynamic processes and cerebral cortex (CC) structures. Truly, brain development follows active exploration of space by means of legs and transformation of the world by means of hands and tongue. Particularly, spectroscopic analysis and kicksorting of brain electrical potential (BEP) in case of a 2-month baby showed that slow activity waves dominate in cerebral cortex (Fig. 14). Such BEP results are specific for this age and indicate immaturity of body projections in cerebral cortex, and consequently, immaturity of psychomotor abilities, including psychoverbal ones.

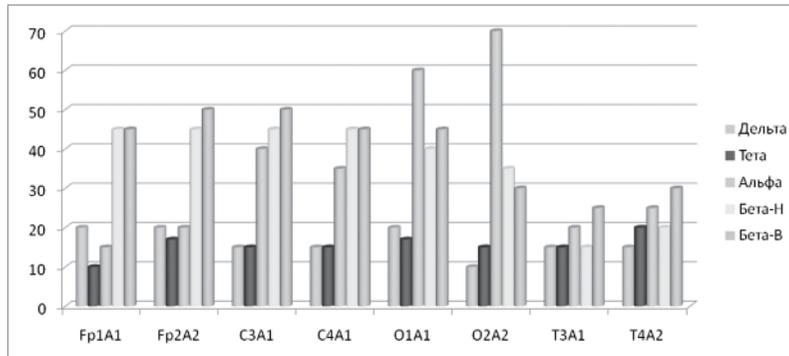
It's known that by the age of 1.5 y.o. a child masters orthograde posture and makes the first steady steps in verbal development. At this time bioelectrical activity (BEA) of cerebral cortex (CC) is revealed in domination of basic sensory  $\alpha$ -rhythm with correct zone arrangement in occipital region. Let's give an example stating that appearance and development of psychoverbal functions are directly connected with the child's orthograde posture. We considered BEP of a 1.5 y.o. boy with infantile cerebral paralysis and legs paresis. Despite the fact that by age the child could make some manipulative manual actions with objects, his verbal development was at the level of babbling of separate indistinct syllables. Bioelectrical activity of cerebral cortex was represented by slow activity waves and domination of beta-rhythm in occipital and central regions (Fig. 24). BEP spectral analysis showed domination of right S-hemisphere in amplitude and frequency band.

Then we analyzed BEP of children of similar age with developed body upright and psychoverbal abilities. The general characteristics of cortex BEA was domination of  $\alpha$ -rhythm against slow activity (Fig. 25). As for domination of right hemisphere in spectral indices, it's normal for the given age.

That's why any suppression of entrenching orthograde posture, including corporal motoric and voluntary activity of the child in space (for example, by means of sedentary lessons in children's preschool institutions) causes an extremely destructive influence

on brain development, including development of verbal (spiritual and psychic) abilities.

*Histogram of results of the analysis  
(maximum amplitude uV)*



*Histogram of results of the analysis (frequency Hz)*

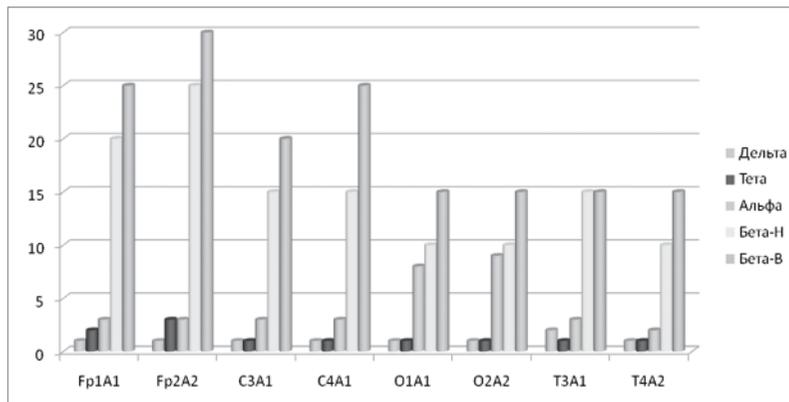


Fig. 25. Cortex BEA amplitude and frequency characteristics of a 1.5 y.o. child with entrenched orthograde posture

Our researches convince that during systematic “seating-on-the-chairs” lessons (which by the way are very convenient for tutors

and teachers) pathologic development of upright, based on different pathologies of spinal column, is quickly enrooted in children. Experts’ reports indicate: that even in Moscow, such an advanced in science and medicine city, among graduates of preschool institutions pathology of posture is diagnosed in 96—100% cases.

In order to investigate how spinal column development deviations from the appropriate generic plan (ideal posture) influence brain development we have examined electroencephalography of children with differently formed upright. Electroencephalography was registered for 25 teenagers at the age of 14. Children subjected to tests were united into two groups: group I included pupils with relatively adequately developed upright (posture), group II — pupils with obvious defects in upright development.

Electroencephalography was registered in two positions: sitting and standing. These positions were chosen to trace the effectiveness of brain energy activation at various orientation of body to gravity center line. Quantitative characteristics of certain frequencies of brain electrobiological activity gave possibility to evaluate distribution of rhythms and to define connection between them in EEG spectrum.

Electroencephalography analysis of right and left cerebral hemispheres has revealed that organization of their electrobiological activity varies depending on the position of body in gravitation space. Thus, EEG spectrum did not show considerable dependence of frequency rhythms organization of the left hemisphere (s-hemisphere) on posture in space among pupils with relatively well developed upright, although in vertical position total power density in frequency ranges was higher than in sitting position ( $p < 0,05$ ). It indicates high stability and reliability of electrical (energoinformational) activity of cerebral cortex among children with stable and well-developed upright (Fig. 26).

Analysis of s-hemisphere energy activity level characteristics between two groups revealed that they dominate in group II in all frequency ranges, especially in vertical body position (Fig. 27). It is remarkable, that posture changing causes radical structure changes

of cerebral activity in alpha, beta, gamma ranges and sharp spikes. Thus, in group I when sitting position is changed into standing one the frequency range of slow waves decreases, while in group II — significantly increases. And vice-versa, power of main harmonic rhythm (alpha-rhythm) in group I when the position is changed from sitting to standing evidently increases in comparison to indices in group II. Based on the results it can be supposed that vertical position of the body together with stable posture activate s-hemisphere by main harmonic d-rhythm of EEG and inactivate it by frequency range of EEG slow waves.



Fig. 26. Organization of frequency rhythms of cerebral cortex electrobiological activity for well-developed posture

This fact is also proved by evaluation of right hemisphere (d-hemisphere) electroencephalographic frequencies organization in pupils with differently developed upright. Thus, when in group I high total power density was observed in delt-a, tet-a, gamma-

frequency ranges ( $p < 0,05$ ) and relatively low in alpha, beta ranges in upright position comparing to its values in sitting position, in group II higher electrobiological activity level of brain in standing position in delt-a, tet-a ranges ( $p < 0,05$ ) and relatively low in alpha, beta, gamma ranges, sharp waves comparing to its values in sitting position were observed.

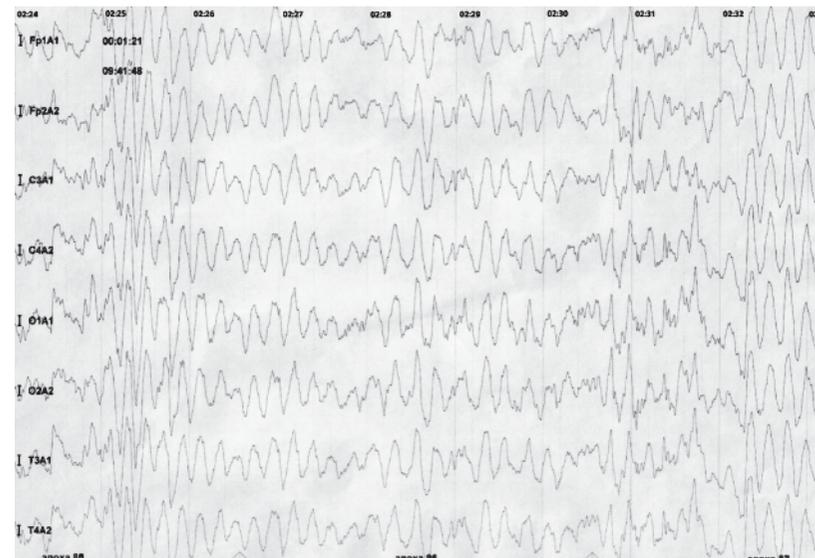


Fig. 27. Organization of cerebral cortex frequency rhythms for defects in upright (posture) development

Obtained data reflects more distinct specialization of hemispheres, efficiency of corticosubcortical relations and reliability of brain support in children with well-developed upright. It is determined that, in erect position activity of s-hemisphere increases by EEG main harmonic rhythm and activity of d-hemisphere decreases. As it was mentioned above, left hemisphere plays a leading role in formation and saving of all types of speech (inner, oral, written) in primary and in senior school ages as well.

Additional researches by means of specific example showed domination of left hemisphere in activity of cerebral cortex at psychoverbal functions and upright formed according to age. EEG was registered for a 9 year old boy. Electroencephalography showed electrobiological activity shaped in two main  $\alpha$ - and  $\beta$ -rhythms with correct zonation in occipital and central parietal regions of the head respectively. Consequently, development and settlement of child's bipedalism against sensomotor enrichment increases rapid development and specialization of brain structures, including potential of his speech development. And it is proved in actual practice. It was found out that children with stable upright suffered from speech functions defects 2—3 times rarer than children whose posture had been adversely influenced in the process of lessons on the chairs.

Altogether on the basis of researches the following can be stated. Good posture with raised head formed in the early ages provides:

- utmost (optimal) level of brain electrobiological opportunities, including their plastic and rhythmic arrangement;
- maximum level of time three-dimensional synchronization of brain electrobiological potential;
- maximum level of main sensor  $\alpha$ -rhythm demonstration;
- maximum level of frontal cortex regions;
- minimal level of stress- tense waves;
- minimization and full disappearance of sharp waves (spikes);
- optimum interrelations of left and right hemispheres.

In general the state of energoinformational space of cerebral cortex in conditions when upright is ideal and the head is raised up points out that ideal posture plays a fundamental role in synchronization (consistency-conciliating) of energoinformational algorithms of cerebral cortex. And vice versa, the following features are revealed if sitting-bent body dominates in educational process:

- decrease of energy potential and cortical activity;
- decrease of rhythmic organization and wave shielding of electrobiological potential;

- lowering of time three-dimensional synchronization in organization of electrobiological brain potentials;
- certain depression of main sensory  $\alpha$ -rhythm;
- fragmentation of electrobiological brain potentials against appearance of whole regions with depressed electrobiological activity;
- significant chaotic character, mosaicism and unsteadiness in organization of electrobiological brain potentials;
- extinction of functional activity of frontal cortex regions, responsible for task-oriented volitional activity;
- damage of interhemispheric interactions by way of functional asymmetry smoothing or not adequate amplification of asymmetry between left and right hemisphere;
- increase of waves reflecting stress-tense condition of electrobiological brain activity;
- increase of sharp spikes.

In general this complex of changes observed in electrobiological space of brains under the conditions of compulsory indolence and systematic sitting, we defined as a syndrome of global dissociation and fragmentation of biofield's integrity — syndrome of energoinformational body “consistency” (“conciliating”) “disassembly”.

Alongside the following unexpected phenomenon should be mentioned. Complex of changes, observed in energoinformational (algorithmic) space of brain in the conditions of systematic sitting in a crooked position is peculiar to changes, observed at schizophrenia. And it does not look like a mere coincidence. Here disorganization of somatic-sensitive basis in brain activity organization is meant. Traditional sedentary way of educational process arrangement on the one hand, suppresses input of natural sensory stimulus to sense organ, on the other hand — leads to deviation of gravitational balance of the body. And as a result we are talking about partition and disorganization of integral sensual-muscular projection of body in brain space.

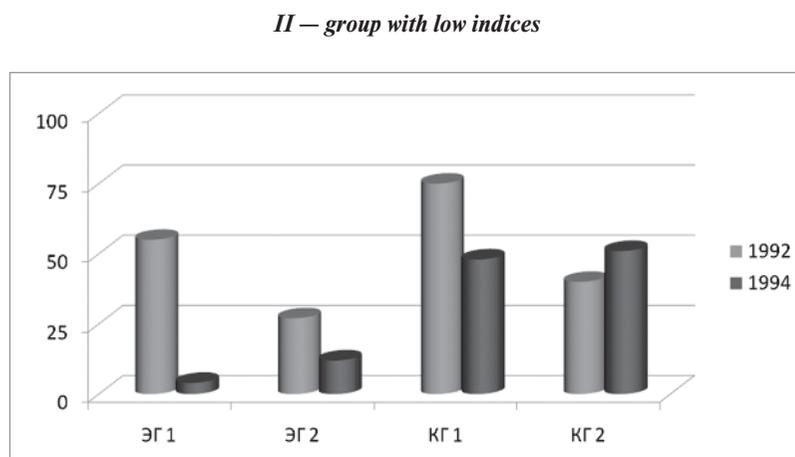
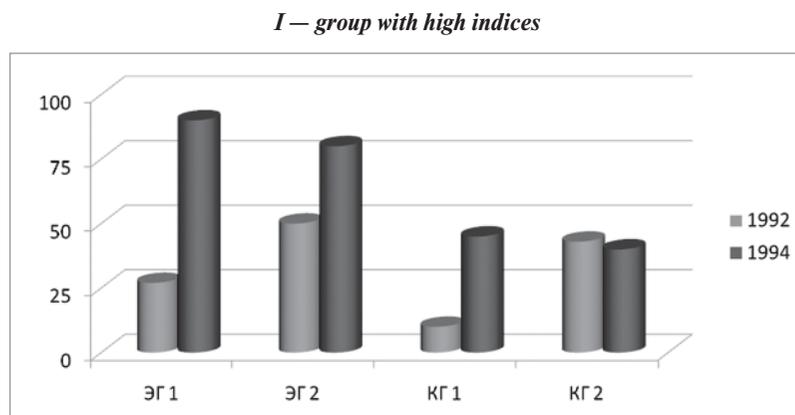


Fig. 28. Characteristics of imagining of children in the process of school education

*ЭГ — group, taught in dynamic (movable) mode*

*КГ — group, taught in standard sedentary and indolent mode*

There were researches carried out under our supervision (M.A. Nenasheva, 1998; L.V. Daragan, 2005), giving an answer to the main question: how can creative imagination, which is the

core of children’s cogitative abilities, develop and settle, if such active children from the early ages are “chained” to seats, and their eyes are “glued” to point-fixation space of letters, figures, schemes? And vice versa, if their upright is maintained during lessons. It turned out that, the so called “wings” of creative imagination, which allowed us to escape from “materially-minded” animal-situational life and to elevate to spiritual space of the Creator, fade away from year to year in children sitting in a crooked position. (Fig. 28).

Carried out researches also determined the following extremely important circumstance. A position of the head in three-dimensional space turned out to be the central mechanism in supporting of this or that genofond activation level, including autonomic nervous processes supporting life. It was explained by the fact that raising of the head is accompanied with vegetative activation against sympathetic domination, lowering — vegetative suppression against parasympathetic domination. Moreover it was reflected even in such a life-supporting rhythm as cardiac rhythm (Fig. 29).

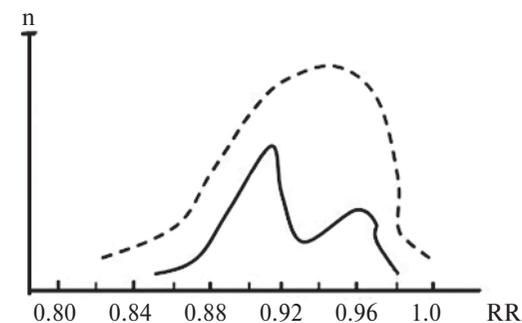


Fig. 29. Variation distribution of RR interval at

--- raised head (at 10–12°)

— lowered head

But after all, sympathetic (as well as parasympathetic) hormones — are substances of direct genetic effect. That is why the following consequence of bent-educational child's stereotype is absolutely logical. In particular, it was found out that a phenomenon of genofond activity depression was detected at systematic sitting, as a consequence, certain suppression of such a severely genetically dependent parameter as growth. Only liberation of children from educational ("sedentary") training (during winter and summer vacations) released genofond activity, which led to a definite jump-like increase (Fig. 30).

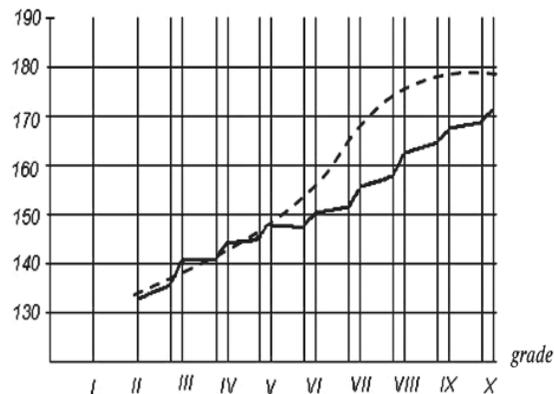


Fig. 30. Dynamics of pupils growth, taught

- taught in dynamic positions mode (working at high desk, free walking in the classroom);
- taught in motionless sitting position mode

Obtained data allows to negate the assertions made by representatives of "classical" genetics that genofond activity is independent of body activity. This data proves absolutely contrary things: position and activity of body in three-dimensional space determine genofond activity level and, as a consequence, measure of liberation of life support species program. Optimum level of

genofond activity is recognized at ideal posture settled in childhood.

All mentioned above allows to assert: genofond does not have energy potential for self-realization and self-actualization in itself. Its activity is a secondary category in relation to the activity of sense organs receptor system, and first of all in relation to the activity of vestibular analyzer. Taking into consideration that vestibular-cerebellar-muscular system determines not only the position together with equilibration and balance of body in gravitational space, but also dosage and proportion measure of voluntary building structure of consciousness, vestibular analyzer was given a more exact definition — gravitational analyzer.

Proposed sedentary-bent pattern of children's education arrangement is nothing less than formation of generations with upright axis deviated from gravitational ground vector, nothing less than man-made destruction of base parameter of our species type — upright, and as the result, damping of main "bioreactor" ensuring our specific viability — genetic responsiveness.

## Chapter 14 How a thought creates

We are destined to live in a period when young people with increasing frequency complain of declining memory. Mechanism of this frightful syndrome lays on the surface.

It's known that conceptual framework of national school is built on the so called verbal (separating from senses-informational "footless-armless") basis. Both teachers and parents strongly believe that just information, injected into children's heads beyond their own sensitive impressions and muscular efforts, is namely the thing which will turn them into morally reasonable people. Meanwhile such world-wide famous specialists in field of brain investigations (I.P. Pavlov, Charles Sherrington, John Eccles, A.R. Luria, Wilder Penfield, Karl Pribram and others), each of them dedicated the

whole life to searching for that mystic substance in the head where memory is stored, finally came to religious or mystical view of this problem. But the most important thing is that they failed to find any “storages” of memory (engrams). Charles Sherrington, a Nobel Prize Laureate, declared in the end: “We should consider that the problem of reason and brain connection is not only unsolved, but missing any grounding for its solution” (quotation from Wilder Penfield, 1989).

Complex of age-dependent sense psychophysiology researches carried out under our control let us come to the following conclusion. All activities, practicing in school during 10–12 years, do not have any relation not only to psychophysiology of liberation and development of a child, but also to formation of his own cogitative and creative faculties. We controlled the performance of the following simple experiment. A group of 4-grade pupils (14 children) was requested to remember 10 single and double random figures, and after that to reproduce them by heart. The experiment consisted of two stages.

On the first stage children, the same as in school, were motionless (in sitting position). On the second stage the same children were given the same task. The difference was that children were allowed to move freely during execution of the suggested task. Besides they were offered not just figures refined from images of emotive meaning, but figures integrated into various conceptual image-bearing plots. Children had to reproduce the task by heart one day later.

Here we provide one of such plots. “New Year was coming. A team consisting of two men, five women and thirteen teenagers went to a village, where fir-trees were grown up. They cut down 61 fir-trees and loaded them into the bus. But as soon as they were ready to go, a pack of 18 wolves obstructed a road. All of them were hungry and their eyes were terribly sparkling. It was a fortune that the men had two rifles. They made 37 shots, but shot only 6 wolves, the rest of them ran away. The wolves were loaded and the team went back. For the killed wolves they were rewarded with 77 and 95 rubles”.

### *Results of the investigation.*

In the first case 8 children couldn't recall any figure, 4 pupils recalled 1 figure each and 2 pupils — 2 figures each.

In the second case:

1 pupil recalled 3 figures;

1 — 4 figures;

4 — 5 figures;

3 — 6 figures;

4 — 7 figures;

1 — 8 figures.

The experiment showed that existing pure informational (verbal) teaching techniques, separated from senses and images, do not have scientific basis and are alien to sensitive-motorial and emotional meaning nature of a child. The root source for the development of adequate world view, and as a result cogitative and creative faculties, is primary sensuous excitement spread all over the body. It expresses in explosive convulsive-searching reactions of the body, aimed at gradual creation of synthetic three-dimensional (holographic) tactile-muscular-visual world model.

What is meant here is voluntary mechanism, on which basis initially separated tactile, muscular-vestibular and visual senses, meant for forming and localization of somatic-sensual sign in space, overlap. We are talking about building (consistency) of qualitatively new three-dimensional world model — spiritual-imaginary, from initial indefinitely-searching spatial localization. A model, found on mechanisms of primary visual imprinting and newly reconstructed by hands — tactile-muscular (voluntary). Only long-term exercises on tactile, muscular, vestibular and visual-localization senses overlapping make unshapen sense sign, spread all over the body, begin to arrange into structured patterns, set and release into space as holographic images (models) of the world.

From this point of view a thought — is a somatic-tactile sensual image taken and released into free space. An image, released into space by means of vision, movements and voluntary body efforts. An image, transformed in hand-made activity and associated with

a word. But a thought — is not yet cogitation, since cogitation is an ordered system of thoughts, i.e. a system of thoughts, structured in logical cause-and-effect figurative scenario.

All mentioned above let us represent the process of cogitative faculties formation in a child the following way. Primary “thoughts” are a “swarm” of sensitive-tactile affects (signs) having no structure and localization neither in time nor in space. Their orientation in time and space is possible only with the help of emotional meaning dominant. It is that “lighthouse” delayed in time, which light should attract a “swarm” of thoughts. And “wings” for this flight are provided by gravitational energy, processed by somatic-muscular vestibular-cerebellar system (voluntary will).

As a whole our works convinced (in ancient times “illiterate” peoples felt it and brought up their children in a right way without teachers), that memory belongs to sensitive-motorial, muscular-volition emotional meaning affect. Finally a child memorizes only the thing which impressed him, the thing he overcome and created by his hands.

That is why informational-senseless (verbal) framework of educational system launched destructive process of world view increasing from generation to generation, which in fifties of XX century were defined by western specialists just as “dehumanization” of people (Itten, Madeleine Veluz Pagano, Louie Marshar and others). After school reforms performed in sixties-seventies of XX century, when all subjects that could truly develop a child (labour, artistic, physical, music education, handwork activities and so on) were finally expelled from curriculum, cases of mental disorders (on evidence provided by Prof. Smirnov V., the main psychiatrist of the Ministry of Defence (USSR)) increased almost 12 times.

It is clear, that in such conditions reducing the weight of schoolbooks can not improve the situation. Today the question of saving children is acute more than ever. It can be achieved by means of radical change of targets and tasks of the whole educational system.

## *Chapter 15* **About the importance of handwork**

A 4 year-old child (if common conditions are provided) is like an ant — always searching for, carrying, assembling, disassembling. It is an illustrative example of capability to learn and create world by means of handwork from the early stage of childhood. While creating by hands a child always mumbles something to himself, i. e. he is spiritualized by images associated with words.

But do we follow these laws of the Creator and speech creation development of a child in educational institutions? Places where work more than a million of professionals in education field — teachers, tutors, psychologist, etc.

We send a child to school so that he stays and “develops” there for many hours, months, years in body motionless (indolence) and manual involution, that is he remains in circumstances of total enslavement of senses, body and hands. So that he learns by heart abstractions having no connection with real life. A famous teacher innovator V.F. Shatalov (1998) writes, “that everybody is so excited about “loading” of information into children`s heads, that a child is allowed to open his mouth once a day for not more than 1,5—2 minutes. But it is well known to the science that the most wide representation in cerebral cortex of normal people finds our arm, its hand and fingers representation (Fig. 31). Non involvement of hands into adequate handwork at the early stages of childhood — means non involvement of vast regions of the advanced (man-made) cerebral cortex into activity, which as a result leads to depression and regression of the regions.

Notable native neurophysiologist, academician N.P. Behtereva (2007) insisted that brain, on the one hand, tends to “bring to automatism any repeated activity”, but on the other hand — “if almost all our activity turns into such automatic mode ... a man can quickly grow stupid and old”. To the question asked by a reporter of “Teachers newspaper” “What can save us from getting stupid?” N.P. Behtereva responses: “Creation. Ultimate tasks, which can be

solved only by means of our intelligence”. Right here a trap of world view is hidden.

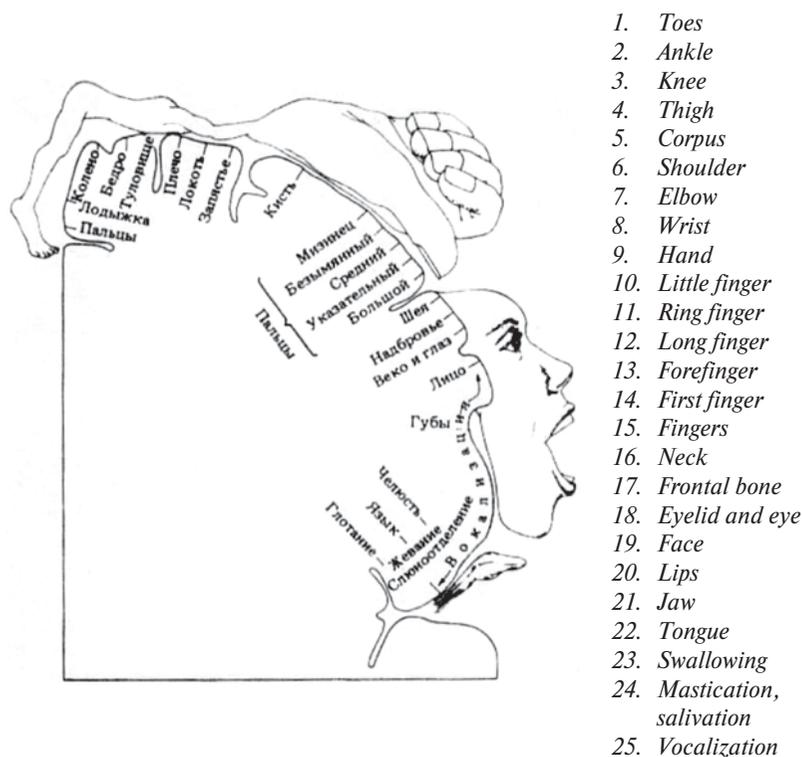


Fig. 31. Representation of different parts of body in cerebral cortex

Here we can't miss to mention a founder of national psychophysiology — I.M. Sechenov. We should turn to his central idea about the place and the way of children (and also adults) creative thoughts appearance. The great thinker having all arguments in hands demonstrated— creative thought does not appear by itself in our heads. It originates only from the depth of creative (voluntary — V.B.) muscles (creative hands — V.B.). Here is the way the great thinker wrote about it: “All psychical acts without exception, if they are not

complicated by an emotional element, take place by means of a reflex” (i. e. sensitive-motor act. — V.B.). At that it is determined that in the process of psychogenesis it is not information but muscular sensation (effort — V.B.) which “in analysis of its feelings units eye ability and ear property” is primary.

And only sensations “received” from eyes and ears and fixed on muscular segment “sink in consciousness as some effort”. Consequently, true creative thought appears only in such creative muscular effort-activity. And it means that mentation and muscular efforts are inseparable in children. Another question is that these efforts can always progress and become automated (free) in plastics and rhythms. For example, as it happens with virtuoso musician. As it happens with master — hand Creator.

That is why it is not activity automatism but verbal “intellectualism” and muscular passivity leads to “getting stupid”. Besides, the same stupidity can be a result of activity performed in conditions of somatic-muscular constraint (convulsiveness), i. e. against the background of shapelessness rhythms and plastics (automatism) of efforts.

This main thought was confirmed in the XIX century by I.M. Sechenov: a thought of a sound minded child (adult) is looped and intimately connected with sense and movement (effort). “The infinite diversity of the external manifestations of cerebral activities can be reduced ultimately to one phenomenon — muscular movement. Does a child laugh at the sight of its toy, does Garibaldi smile when they expel him for excessive love of the fatherland, does a girl tremble at the first thought of love, does Newton create world-governing laws and inscribe them on paper — everywhere, in every case the ultimate fact is muscular movement. So that a reader could accept the fact somewhat quicker I'd remind him about a frame, created by folks' intelligence and which comprises all expressions of brain activity, his frame is — a word and an action. Under action folk's intelligence implies, without any doubt, any external mechanical activity of a man, which is possible only by means of muscles. And under word it is you, my kind reader, due to your education, who should imply, a known

*combination of sounds, produced in larynx and mouth cavity again by means of the same muscular movements”*

Consequently, referring to I.M. Sechenov, one’s own thought — is one’s own sensation, embodied into one’s own muscular effort. Child’s primary need to create with hands — is the need of senses (soul) to implement their own thoughts. To suppress a need to create the world with one’s own hands — means to kill the ability to create one’s own thoughts. But we refuse to understand how dangerous it is, especially for a child, to be engaged into the so called “intellectual” (merely informational) activity “refined” from senses and muscular movements, that is the way our school follows all through the period as a child’s getting adult.

Analysis of human science world achievements proves: evolution of creative brain, including spiritual-mental abilities of people, proceeded in accordance with law of handCreator. A man-creator — is a man-master, perfecting the potential of his skillful (clever) hands from childhood all through his life and owing to this — potential of creative abilities of intelligent brain. This was the main purpose of national cultures and folk pedagogy.

Researches carried out under our supervision prove that development of creative hands plays primary role in formation of basic spiritual essence of people — creative imagination, and as a result creative mind. That is why classical “legs involutive-sedentary” and “manual” school leads to quick extinction of creative imagination (inner spiritual vision), creative abilities of brain. In particular, during initial three years in such school, productive creative imagination decreased by 2 times, integrity of world view — by 4 times, sensation of space and time — by 2 times, increase of mechanical instructionally programmed tasks — by 3 times (M.A. Nenasheva, 1998 — Fig. 32).

Consequently, the basic characteristics of our creative mind do not correspond to the things school cares about during the whole period of children growing up. It turned out that the basic features of our creative mind is inner spiritual-creative world view, recreated in each child, including — capability to experience space and time spiritually. It is possible only through inculcation and recreation

the ability to “fly” on the wings of creative imagination. It is stated that: distance of “flight” on the wings of creative imagination (spiritual vision) is directly proportional to exploration of world space by child’s own legs, and figurative capacity of creative imagination — is directly proportional to degree of recreation world images by child’s own hands (modeling, drawing, designing).

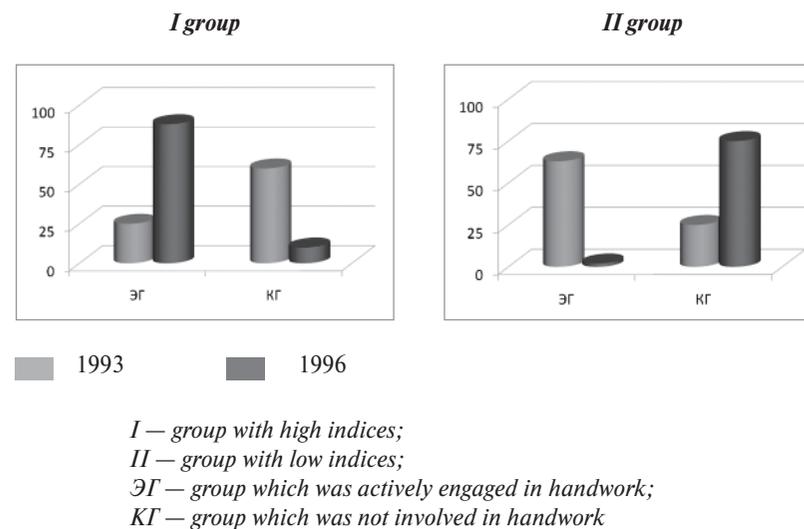


Fig. 32. Dynamics of creative imagination in the process of school education

Received data facilitates a deeper understanding of the greatness of words said by the great Greek philosopher Heraclitus, lived in the VI century B.C.E. To realize the reason why he compared mind with an enormous space, “the borders of which are unattainable even going along each path”.

Here a natural question arises: which direction will the evolution of our creative brain move, if interchanging generations are educated in “eg involution” and “manual antidexterity”? It is natural to expect that such mode of “education” will cause regress processes of neuroepithelial brain regions, responsible for hand voluntary actions control.

Researches carried out under our supervision found out that such school gradually breed a qualitatively new subspecies of a man once had been a man-Creator. Distinctive features of such subspecies are extinction of creative abilities of hands and brain against transformation of mind into instructively-programmable biointellect (zombie intellect). At the same time somatic-motor psychotype begins to change radically. What is meant here is accumulation of a syndrome of “seal-fin deformity” and awkward hanging arms (“orangutan-like arms”) in generations. It indicates the increase of convulsive-explosive motor reactivity, spasmodic damages of body, uncontrollability of one’s own instincts and passions and also epidemic of mental disorders. Here is the source of attention deficiency syndrome with hyperresponsiveness which has already affected children. (refer to Section III, Chapter 5).

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### **Section III. CHILDREN AT SCHOOL**

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#### *Chapter 1*

#### **The demonstrative criticism of education system which was developed during the Age of Enlightenment**

The previous parts of the work allow to understand, why in the course of the human child upbringing the spiritual doctrines are compared to a garden. A human being will remain a human being until being CoCreator, making a new human quintessence of every human child who comes to this world — integral inspired by creativity and beauty of whole-hearted reason.

But what becomes with all of us if on a childhood stage at reproduction of new generations we will be deprived of all that “agriculture”, by means of which the people humanized each child and which we have partially described above? If we are deprived of space at a stage of the childhood, all sensory wealth of a live life: colours, light, images, movements, cradles, inspiring feelings and lullabies, laborious and long introduction of the child in speech creating, the world of fairy tales, handmade creating, in feasible child labour and many other things. Instead of these humanized ways of education, turned out by national cultures for millennium, for all period of growing to “bury” live feelings of the child in walls which are named by such an attractive word for the uninitiated, as learning-cognitive space (a school class). And in these walls to impose the child such method of learning of a virtual life at which even adults “plunge into a sleeplessness”, “night pains in the field of heart”, “faints”, “collapse” and even strokes and heart attacks.

In his book “What means psychology” (M, “World”, 1996) well-known Canadian psychologist J. Godefroy quotes the following “the Letter of the teacher”:

“The most part of a child life and a teenager is connected with school. Therefore influence of school system on intellectual development of the child can be rather considerable. In this

connection we have the right to expect that all should be made at school for the purpose of abilities developing of everyone as better as possible. And what we have actually?

More often the usual school system constitutes a life direct opposite. All here has stiffened and is subordinated to rigid rules. The child coming to school, gets to the world “the pupils learning anything you like, without asking even a question on sense of knowledge absorbed by them if only eventually to receive the diploma. These children are looking forward to that day when they should not learn anything more. The child will face examinations on which nobody will absolutely learn anything new and everyone says that he has already learnt and has acquired. He will see teachers as pupils supervisors, but not as assistants for solving of problems, these teachers behave as true poachers — they place traps everywhere and create artificial difficulties in such quantity which the person will never face in everyday life.

However the most valuable quality of the pupil of traditional school — obedience. “The good pupil” is a quiet child, speaking nothing without permission, answering only those questions which he is asked and just the way he is demanded. We have already spoken, what consequences it can result in at children with high creative abilities, but low level of “intelligence”.

The Doctor Guillame from Neuchatel specially studied dynamics of development and health of children at school under the influence of educational process. (quot. by: D.I. Pisarev, 1865). Here his data is:

Pupils number .....	731
Spinal column curvature .....	218
School goitres.....	414
Chronic headache .....	296
Recurrent bleedings.....	155
Total: Illness cases .....	1083

Thus those years the author confirmed: all listed illnesses are generated exclusively by school studies. And here is how rather

authoritative those years in Europe the French doctor Laman wrote about it (quot. by: M. Platen, 1994):

*“...That is why when classes are being held at school, this is apparent, how ruddy cheeks of children turn pale, as constant complaints to absence of appetite are heard, indigestion, headaches and other, as, otherwise, the phenomena of true neurasthenia are developing... But here the child has overcome school, and still the false educational system continues to make the impact... The Nature declares the rights, but false directed instinct of a youth forces to search substitutes of the lost childhood in the doubtful entertainments, seducing soul and body. Many, very many of them perish first of all, because at this age exhausting chronic illnesses take away especially many victims: the escaped ones clearly testify by unsound character of the ideas that their nervous system has received a strong shock. For many at this time the examinations period comes which are as though special test on neurasthenia... One at this work receives a neurotic headache which makes him to be «a full idiot» and incapable of work, the other suffers the nervous indigestion, the third absolutely loses any courage. Upon termination of examinations the nervous system of many is shattered and exhausted to such degree that they are not so capable to any further activity...”*

At full breakdown of nervous energy unfortunate victims of wrong upbringing (education. — V.B.) commit suicide or, at least, present us a spectacle of physically and mentally absolutely broken people”.

Eventually, under the influence of incontestable facts in 1904 in Nuremberg the World congress on school health was obliged to convoke. There many outstanding physicians and hygienists were discussing the tragic influence of the imposed educational model on development and health of children already before representatives of the world community. Only one extract should be quoted from the report of doctor Zemerad (from Bohemia), who was authoritative those years: *“As it is often terribly to look at the six-year child arriving in school. Deathly pale, all organism has reached utmost degree of exhaustion. Eight-year stay at school affects the health of these weak beings very harmfully. Before a 14-year-old girl has been strong, well*

*developed ... a true bride. Now she is a weak, thin and pale girl with thin hands and thin legs. Boys are same also”.*

Unfortunately, congresses, forums are convoked, departed and ... are forgotten. But underdeveloped with “bodies feebleness” and the whole of especially school chronic diseases young men leave after themselves still weaker painful descendants. It is enough to remember for the doubting, what body and strength of mind our great-grandfathers possessed, what were our grandfathers and fathers, and what we became. What our children and grandsons became.

Many experts have started talking about tragic consequences of incessant educational experiments with children, covered up by “innovations” and “reforms”. Eventually, at the associated session of 6 academies (October, 2006) the president of the Russian Academy of Medical Sciences M.M. Davidov has publicly declared: “among school graduates we do not more have healthy young men”.

Outstanding domestic scientific academician A.A. Baranov reveals more precisely the tragedy which has staggered our people: *“There is a physical degradation of modern children ...”*. (“*The Moscow member of the Komsomol*”, from 22.02. 2007y.). As a result I. Bestuzhev-Lada draws an implacable conclusion: *“A human being slowly is coming to an end ...”* (“*the Medical newspaper*”, № 68 from 04.09.2002y.)

In XIX century the Swiss thinker-teacher Adolphe Ferriere wrote following pathetic words about the educational principles:

*“The school was created how the devil ordered. The child loves the nature, therefore he has been closed within four walls. The child likes to understand that his work has any sense, therefore everything has been arranged in a way that his activity is not of benefit. He cannot be immovable — but he has been forced to be immovable. He likes to work with his hands, but he has been taught theories and ideas. He likes to speak — but he has been ordered to be silent. He aspires to understand — but he has been ordered to learn by heart. He would like to search himself for knowledge — they are given to him with hands down.*

*... And then children learnt to what they never would learn in other conditions. They learnt to lie and pretend.*

*And here what occurred. As well as the devil wanted, some people became exhausted, became languid and passive, lost any interest to life. They lost happiness and health. The Love and Kindness were gone. Thoughts became boring and dull, souls hardened, hearts became embittered.*

*And the school was lost which was so dexterously thought up by the devil”.*

We did not even hear those who tried to hint us in a language of poetic truths:

“Что значит знать....  
Вот, друг мой, в чем вопрос.  
На этот счет у нас не все в порядке.  
Немногих, проникавших в суть вещей  
И раскрывавших всем души скрижали,  
Сжигали на кострах и распинали,  
Как вам известно, с самых давних дней ...  
Пергаменты не утоляют жажды.  
Ключ мудрости не на страницах книг.  
Кто к тайнам жизни рвется мыслью каждой,  
В своей душе находит он родник...”.

Ах, господи, но жизнь-то нелегка  
А путь к познанию дальний...  
Глядишь — его на полпути  
Удар от прилежанья хватит.

(И.В. Геме, “Файсм”)

Obviously, A. Ferriere parable about the devil’s suggestion of educational model, is not too far from true.

## Chapter 2 Breakdown or adaptation?

There is a significant amount of the works in the literature, specifying that the beginning of school education causes deep

functional infringements in the basic life-support systems of a child. This is decrease of the general working capacity, the general vegetative tone, the abnormality of mobility of nervous processes, sympathetic — parasympathetic balance, reduction of blood oxygen saturation, growth of sickness rate and etc. (V.M. Zubkov, 1982; E.B. Zueva, 1978; N.A. Ivanov, 1982; G.M. Ryzhenko, 1974; A.I. Fedotchev, 1978; W. Schmits, 1960 X. Zdunkeiwicz, 1968).

Detailed researches on studying of influence of academic loads and the established mode of school training on a functional condition and development of the organism major systems of children were executed still by the employees of Research institute of children and teenagers physiology of APS of the USSR (1982). The convincing arguments were obtained, specifying that the established mode of school training leads to systemic abnormalities in the functional state and development of children. In particular, during the learning activity decrease of a sympathetic tone and the growth of a parasympathetic tone, rhythm resistance of breathing and activity of oxidizing processes, content increase of dairy acid in blood, reduction of energy supply of muscular activity, growth of Na/K ratio, qualitative changes in red blood system, constriction and displacement of the variation characteristics of RR intervalgrams, increase of non saving hyperdynamic type of cardiac activity and etc. were observed at schoolboys.

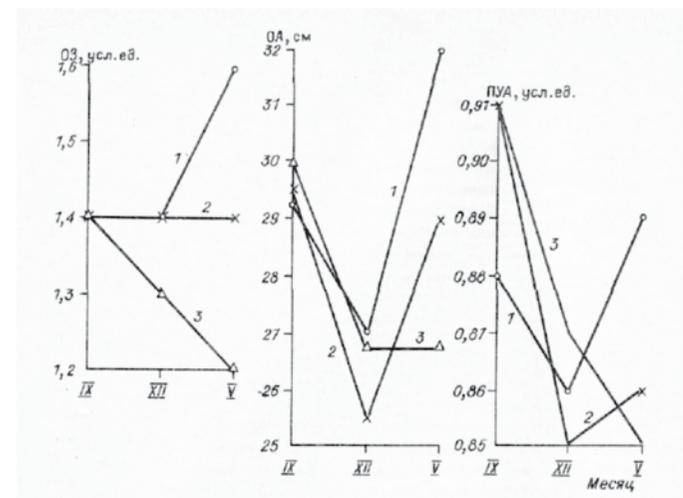
The considerable changes were detected in SNC, characterized by regressive change of EEG, by shift of its rhythm aside lower frequencies, depression of a functional condition and reactivity of nervous elements of hemispherium cerebri, etc. It is necessary to pay special attention to the mentioned deviations which were arising against a background of emergence of abnormal interhemispheric interrelations. Such systematic character of functional changes contributed to decrease of intellectual and physical working capacity of children, their fatigue, abnormalities in physical and functional development, and also for obtaining of various school pathologies.

Unfortunately, in given rather authoritative research and the main item was not studied: sources and mechanisms of “what” and “why”

“the classical” educational model causes deep and destructive affection of children. Neither those years, nor later it was made. Therefore we have been simply obliged to perform this work.

The dynamics condition of the central and vegetative parts of nervous system, spinal column (bearing), and also the main component on which the basic weight of academic loads falls — the visual analyzer, was studied by us in 80th XX centuries among the pupils living in city conditions of central area (Krasnoyarsk), and also northern area (Norilsk) (V.F. Bazarnyj, 1991). 116 first-formers from Krasnoyarsk and 120 ones from Norilsk were subjected to the dynamic supervision. 111 children of the similar sex and age composition were served as the control, continuing to visit a kindergarten (Krasnoyarsk).

The condition of acuity of vision (AV). Initial indices of AV at children testing groups reliably did not differ and made 1,4 (Fig. 33).



1 — Krasnoyarsk, infants;  
2 — Krasnoyarsk, first-formers;  
3 — Norilsk, first-formers.

Fig. 33. Dynamics of functions of infants and schoolboys vision

However, by the middle of academic year at first-formers from Norilsk the tendency to decrease of AV to 1,3 ( $p < 0,01$ ) was revealed, and by the end of academic year — to 1,2 ( $p < 0,01$ ). At first-formers from Krasnoyarsk the given index during supervision did not change. At the same time at children from kindergartens by May a significant growth of AV to 1,6 ( $p < 0,01$ ), reflecting natural process of its ontogenetic development, was observed. Similar dynamics is revealed in such psychophysiological characteristics of vision, as depth vision and stereovision. So, if in September at first-formers the acuity of depth vision (threshold value of binocular parallax) made 1,7sm, but by the end of academic year the differential threshold decreased to 2,3 sm ( $p < 0,05$ ) (the less the threshold of binocular parallax, the higher the acuity of remote vision — *V.B.*).

The aforesaid conveys that, first, at the age of 6–8 years the visual analyzer is in process of formation and development of functions, secondly, that the beginning of school training coincides with this process and brings to their following disorder.

Accommodation condition — is a basic functional-ergonomical component which accounts for the main academic loads in near vision conditions. Initial values of accommodation amplitude (AA) did not also differ significantly among compared children groups and made 29–30 sm. By the middle of academic year there is a significant decrease of AA in all groups of children. Similar dynamics is also revealed in an index of accommodation sustainability (IAS), characterizing tolerance of visual system to proceeding loads in near vision conditions. At infants, despite certain seasonal fluctuations, significant growth of accommodation observed functions is revealed by the end of academic year, reflecting natural course of its improvement.

The received facts testify that the process of further development of functions of both near and remote vision characterizes the analyzed period of the childhood. At the same time the certain environmental conditions, stimulating the general motor and visually-searching efforts of a child in space, are necessary for the

given process supporting. Transfer of children to “a book-sedentary” mode of school training indoors and the limited spaces introduces the factors depressing the general and visually-searching efforts and, as consequence, carrying out of potential possibilities and the further development of vision functions.

Sharp increase of children quantity, having residual strain of accommodation (RSA) — a condition of a chronic muscle spasm, specifies by the end of academic year, that during a school period the visual psychomotor system is in a condition of chronic strain (stress). (Tab. 1).

Table 1

**The condition of residual strain of accommodation (RSA) at different children groups, %**

Group	(At the beginning and at the end of academic year)	At the end of academic year
Infants: Krasnoyarsk	28,3 ± 4,2	25,0 ± 4,1
Schoolboys: Krasnoyarsk	32,8 ± 4,4	35,3 ± 4,5
Norilsk	36,8 ± 4,3	53,7 ± 4,5
Dudinka (native peoples of the North)	22,2 ± 6,9	71,0 ± 7,5

The represented data specifies the following. If at the beginning of academic year the indices of RSA did not differ significantly among compared children groups, but by the end of academic year a specific weight of children number with RSA exceeded the similar index among infants of Krasnoyarsk over 10,3% ( $p < 0,05$ ), of Norilsk — over 16,9% ( $P < 0,01$ ). The first-formers of Norilsk had the index of RSA more, than the corresponding first-former group from midlatitudes over 18,4% ( $P < 0,01$ ). It should be noted that

maximum RSA was observed among the children of native peoples of the North ( $71,0 \pm 7,5\%$ ).

Unfortunately, the problem RSA is often estimated and analyzed within the limits of vision problems only. While this is chronic “focus” of spasmodic neuromuscle strain (stress), which is intimately connected through highly-branched oculovegetative innervation with the most important systems of organism life-support, and most of all, with cerebration, cardiovascular system, vegetative nervous system, vestibulocerebellar system and etc. In particular, such a simple test specifies it: cardio rhythm is even changed at pressing on eyeball (Dadnini-Aschner test). In these cases RSA starts systematic reactions of functionality disorder in the base life-support systems, and first of all, in cortex functions, cardiovascular system, neurovegetative and psychomotor systems and etc.

Emergence of RSA can be clarified only by: radical change of mobile in free space visual-searching dynamic stereotype, so typical of children, with constantly muscle tone of eye-muscles for near-sighted-book type of education with limited-static tone of eye-muscles against a background of systematic impact of factor complex of indoor and limited spaces. Thus it is known that natural phylogenetically permanent functional condition of visual system is high visually-motor pattern-recognition activity. Such functioning type motivates constantly muscle pattern in free space within limits of which eyes muscles, neck, back, feet are in a condition of the coordinated movements and constantly muscle muscular tone.

Concerning the energy of muscular contraction, such type is just the most optimal. Long work in a condition of near sight, typical of schoolboys (reading, writing, drawing), is accompanied by long limited-static strain of eye-muscles, including muscles of a neck, the top shoulder girdle, a stomach and etc. In these conditions one of the leading factors, limiting stability of their functioning, and also provoking to emergence of general and visual exhaustion, is the microcirculation block (Z. Scherrer, 1973). This circumstance explains the elicited fact of decrease of hemodynamic indices of an

eye at transfer of children from a preschool mode to a school one. (Tab. 2).

Table 2

**Indices of eyes hemodynamics on the eve and after 1 year of school training**

Group	RQ, %		a, %		QA, c	
	The right eye	The left eye	The right eye	The left eye	The right eye	The left eye
Children preschool age (6 years)	4,6	3,7	36	37	0,13	0,13
First-formers	3,3	3,2	37	34	0,13	0,13

This data confirms that the functionalities of children visual system are secondary in relation to the general motor and visual-motor stereotype which the primary role belongs to body activity in a mode of the orthograde posture. And the vestibulocerebellar system is of great importance for “energy supporting” in these conditions.

It has allowed us to prove the theory according to which functionalities not only of the visual analyzer but also of a diversity of life-support systems (central nervous system, cardiovascular system, respiratory system, etc.) are defined by functional activity and functionalities of the vestibulocerebellar system and musculo-coordinatory system. This conclusion has basic value not only at working out of the programs of primary prevention of schoolboys visual fatigue and short-sightedness arising on this basis but also at the prevention of a diversity of disorders in base life-support systems.

The functional mobility state of CNS was estimated by means of indices of functional retinal mobility (FRM) and critical flicker frequency (CFF). Significant differences were not observed in initial values of FRM and CFF between compared children groups (Fig. 34). Further only some seasonal fluctuations of these

characteristics at infants were revealed. In the course of training functional mobility indices of CNS were reduced significantly at schoolboys, especially at northerners.

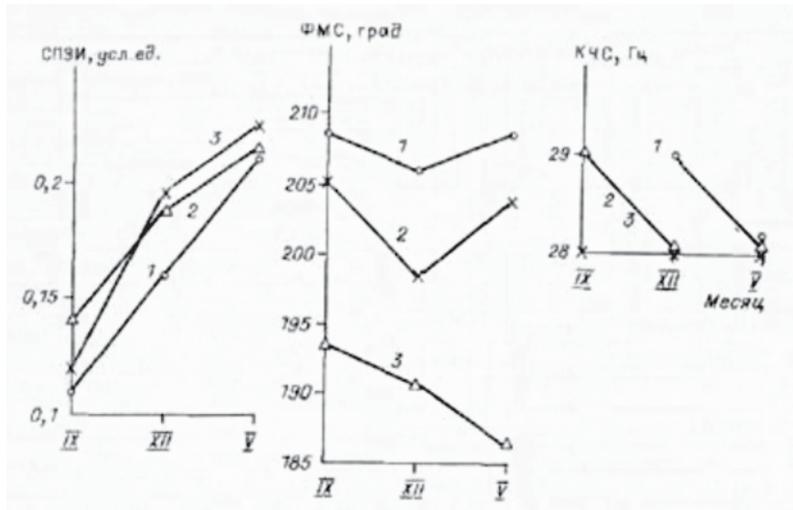


Fig. 34. The dynamics of functional state of children visual system in the course of the first academic year in comparison with the infants vision.

*SVIP* — speed of visual information processing, arbitrary unit.  
*FRM* — functional retinal mobility, in grades  
*CFF* — critical flicker frequency, Hz  
 Month  
 The speed of visual information processing (*SVIP*).

Initial speed and volume indices of visual information processing did not also differ significantly between compared groups of children. The growth of this index was noted during the process of observation in both groups of children. It reflects a definite reorganization, and though with considerable losses, but,

nevertheless, visual system adaptation to work in a near vision mode.

The fact should be taken into consideration that functionalities of the central and vegetative nervous systems of the children who are in school mode conditions were reduced by the end of academic year. In particular, it is pointed out by increase of the number of schoolboys with a disregulatory type of reaction to physical activity test, increase of the electrodermal resistance, reduction of pulse rate and “indices spread” of diastolic blood pressure at increase of “zero” tones, etc. (Fig. 35).<sup>1</sup>

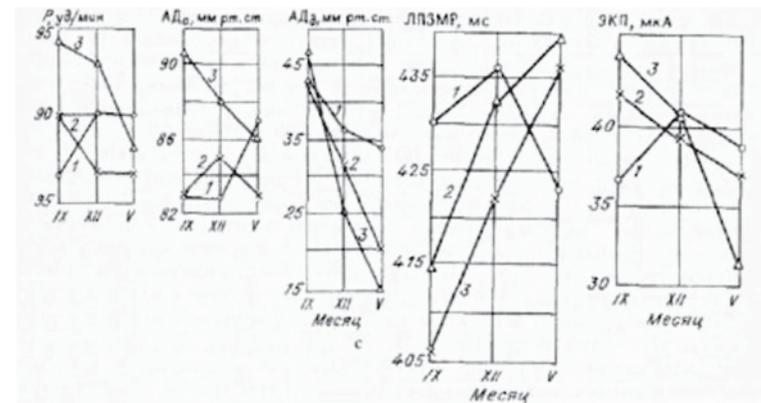


Fig. 35. Dynamics of some vegetative parameters at children in the course of the first academic year in comparison with infants.

*P*, уд/мин — *P*, beats per minute — pulse  
*АД<sub>д</sub>* — *DBP* — diastolic blood pressure  
*АД<sub>с</sub>* — *SBP* — systolic blood pressure  
*ЛПЗМР* — *LPVMR* — latency period of visual motor reaction  
*ЭКП* — electrodermal index

<sup>1</sup> List of used symbols see in the Appendix.

Thus, the most significant changes have been observed at the schoolboys-northerners. Generally, the tendency to increase (development) of these indices was revealed in a group of infants similar according to sex and age composition. Considering the fact that the identified regularities are peculiar to all ecological regions, including various ethnic children groups, and it confirms that they are general and caused by breakdown of free visually-search corporally-active dynamical stereotype and its change on sedentary educational stereotype. How self-confident in “learning” it must be to name this breakdown as “adaptation” process of children to school.

There is a heavy price to pay by children for such our “scientific character”. But the main reckoning is still ahead.

### *Chapter 3* **Pose at writing and stress**

Most every parent and teacher has taken notice of that a child troubles rigidly regimented school lessons, especially writing. A child, who sat upright before, suddenly shrinks a bit affectedly and bows down over a copy-book. Moreover, if you touch child’s arm, shoulder or stomach muscles at this moment, you will feel that all his body is like a solid lump (“stone”) of tense pressed muscles (Fig. 36). Besides his muscular system, his base neurovegetative rhythms are so tense that his breathing becomes convulsive and clogged-wheel. After a while a child can complain that his fingers are growing dumb for some reason. And shortly not only a headache comes but heart pain as well.

It goes without saying that in such situations at home and at school we give endless remarks, like: “Sit upright! Don’t stoop!” After a proper shout a child immediately interrupts his writing and strikes a correct attitude. But as soon as he gets down to writing, he rolls himself into a ball again and his head “dives” downwards. And again a child literally is passing his nose over the paper “squeezing out” his “chicken” scribbles.



*Fig. 36.* Child stooping (slouch) at writing as stress tension and muscular convulsions draining vegetative, spiritual and physical forces of life.

There is no doubt that one paid attention to this pose before. But they tried to resolve this problem by developing new kinds of desks that presupposed the same sedentary immobilized state (SIS).

To prevent an excessive slope of children over a book, copy-book different kinds of rests and crutches, disposed between a forehead or a chin and the desk, were suggested in the West in the middle of the 19<sup>th</sup> century (Schreber, 1858; Geffert and Schuppli, 1880; Senneken, 1881; Kalman and others — cited from: Hermann Conn “Eye hygiene at school”, Poltava, 1887).

As an example we can name a through support-crutch of Kalman (Fig. 37). But what force bowed children downwards that after a few years of such practice children facial parts of skulls were deformed. Therefore, this method of “prevention”, or rather “inquisition”, was refused. The secret of child stooping at school remained unrevealed for the science.

Convinced of their impotence to change anything at school and home, eventually, they stopped to pay attention to this child stooping-senile pose. And no one is required to be a doctor to know

that this school educational pose, enrooted in dynamic stereotype, is fraught with tragic consequences in quality of child development and health.



*Fig. 37. Kalman “upright-holder”*

The scientists of our country tried to resolve the problem of the pose mostly by illumination improvement. But convinced that neither desks nor illumination improved drastically a child pose at writing, teachers and hygienists gave it up as hopeless like a “devildom” against which it was practically impossible to struggle.

Meanwhile, conducted under our direction the 30-year researches in school psychophysiology and ergonomics have revealed that the overwhelming majority of the most serious and common illnesses of educated people (or the so-called illnesses of civilization), leading to restraint in occupational choice, extinction in working capacity, early disability and death, originate from the dominant stress-tensed educational pose of children described above.

It is known that Hans Selie (1936) described the state of organism total stress as a phenomenon of total nonspecific stress reaction, as a stress-syndrome. In addition, the author revealed the

following fact of principle: the reaction of the “stress-syndrome” develops according to the unified “scenario” regardless of whether it is caused by limit stress tension or by any toxic agent (poison).

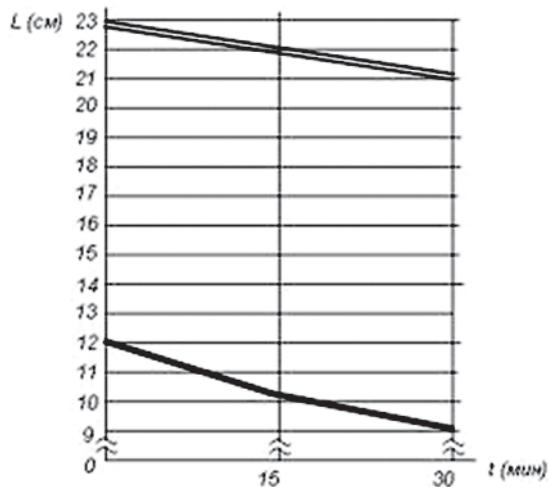
The facts indicate that the stress-syndrome is developing according to recorded in evolution biogenetic program aimed at fast and limit mobilization of all neuromuscular resources of the organism to carry out a rapid saving effort-action. As of children we explain the stress as educational-didactic situation when the organism falls into a certain psychomotor trap (uncertainty). At writing it is a matter of a strict necessity imposed by school to carry out delicately coordinated actions against immaturity of the systems carrying out these actions. The tragedy is aggravated if a child is forced “to study” at a speed as it is requested by the instructional line (№ 1561/14-15 of the 19<sup>th</sup> of November 1998) of the Ministry of Education and Science of the Russian Federation.

Undoubtedly, such limit mobilization of neuromuscular systems can be (and, apparently, must be) short-term since it is accompanied by a “bridge” in a nervous power circuit. Under these circumstances if this state prolongs, immediately takes place the effect of nervous energy escape to nowhere — the process of energy informative “burn-out” and, as a consequence, all thinkable and unthinkable breakdowns in life support systems.

As G. Selie found out, the most distinctive display of the stress-strain reaction was thyroid enlargement and adrenal depletion. In case of unfavorable developments the organism experiences an increasing depletion of all energy informative potentials of life support systems and, eventually, dies.

The 30-year researches of the child stress-strain in educational process that just becomes evident in excessive stooping enabled us to reach a conclusion. If a child with unformed voluntary coordination abilities (speech, writing, reading and etc.) is forced to study in a technical-speed mode (on which a curriculum is based), he finds himself in the circumstances of the exhaustive stress that was described by G. Selie. With all tragic consequences of influence on national development and health quality.

Moreover, as the educational process is intensified year by year, stress-strain, including child stooping at writing, increases inexorably (Fig. 38).



— The Eighties of the 20<sup>th</sup> century  
 — At the beginning of the 21<sup>st</sup> century

L — distance from eyes to the object of visual fixation;  
 t — time of graduated visual exercise (middle latitudes of Russia)

Fig. 38. Visually working distance in the process of strained visual work (reading — writing) in elementary school

Since we did not find works analyzing the situation of the child stress-syndrome while carrying out delicately coordinated acts (writing, for example), we have conducted the whole series of researches. As a subject of the injury we have chosen the systems of a child organism that react to the stress-syndrome to the fullest extent. They are brain hemispheric relations, state of hormonal axis, including adrenal functions, and also state of neurovegetative functions.

We have studied the consequences of different levels of the child stress-strains at educational process on development of basic systems of life support (central and vegetative nervous systems, cardiovascular system, respiratory organs, quality of physical, psychomotor, spiritual and psychological development and etc.). The data received have been published in periodical press during the last 25 years. We shall see below some selective results of these researches.

### *Child stress-strain in educational process, disabling brain hemispheric relations*

Having examined schoolchildren of the first form, we have discovered clear parallelism between the level of child muscular strain at writing and the quality of hemispheric relations (table 3). It was found that, in particular, the more children squeezed and stooped while carrying out delicately coordinated acts, i.e. the less was visually working distance (VWD), the more clearly blood supply disproportion (disturbance) of left and right hemispheres became apparent. In addition, the level of muscular strain coincided with the level of hemispheric dissociation (“breaking-up”).

Table 3

### **Interrelation of muscular strain and hemispheric relations of the first form schoolchildren (at writing)**

Group №	Number of children	VWD, cm	A, %	B, %	C, %
I	9	8,8 ± 0,1	11,1	22,2	34,0
II	19	12,2 ± 0,3	21,1	42,2	32,7
III	7	17,4 ± 0,6	57	42,9	22,1

A — percentage of dominance of left or right hemisphere;  
 B — percentage of cases with coefficient of asymmetry (20%);  
 C — mean value of coefficient of asymmetry (ignoring dominance)

The data received have showed that an internal equivalent of the child external muscular strain is the strain between the left hemisphere (coding perceptual signals to spiritual) and the right hemisphere (perceiving affect scenario of the world). Under these circumstances the muscular (psychomotor) strain of the body reveals immaturity of the mechanisms of sensory control over goal-directed (purposeful) activity of the hands.

We have already written many times in scientific literature that the major role in a child excessive neuromuscular strain and bending over a working area of the table (desk) plays not a visual factor, but the level of disintegration of visual and manual involuntary micro motions (rhythms) (1986, 1991 and etc.). And the maturity of the visual-manual sensory motor “module” determines the maturity degree of manual abilities due to the assembly (integration) of the visual and manual micro motions. Including the degree of elevation of these abilities over the most ancient level of voluntary movements fulfilled according to the law “all or nothing”, and as the result over our primary animal instinct nature. Moreover, the main mechanism of the “assembly” and integration of the visual and manual micro motional rhythms is a vestibulo-cerebellar somatic rhythm (Fig. 21), which we call somatic gravitational and torsional rhythm of life (see part II, chapter 13).

These epidemics of excessive sickness rate, including mental disorders, that have affected Russia today, originate from a deeply penetrating neuromotor stress-strain which is evinced in the stooping dynamical stereotype (SDS).

#### ***Influence of a corporal and muscular strain on the state of vegetative (cardiovascular) system***

We have chosen the tension index (TI) of Baevskiy as the most appropriate model to study a child corporal and muscular strain on the state of vegetative (cardiovascular) system (CS) in educational process. For this purpose we estimated the strain of CS during

15 minutes of visual work of schoolchildren who had different degrees of muscular stress-strain.

We have examined 33 first formers. The average visually working distance was  $11,0 \pm 1,2$  cm in the first group (16 children) and  $26,0 \pm 0,9$  cm in the second group (17 children). It was established that after 15 minutes of visual work the tension index (TI) of the first group of children having the most pronounced muscular strain had gone 29 percent up at the average. While in the second group of children, i.e. having the least pronounced muscular strain, the tension index not even increased but on the contrary had reduced quite considerably — 21 percent.

Thus, the internal equivalent of the external corporal and muscular strain (stooping) is a vegetative stress-strain and, as a consequence, depression and depletion of the neurovegetative rhythms (energy informative mechanisms), under functioning of all basic life support systems, including a cardiovascular system.

#### ***Influence of the corporal and muscular strains on the hormone-endocrine system***

It is known that when the organism is stress-strained, first of all becomes depleted the sympathetic adrenal system — a basic life support system of our physical, emotional and spiritual life, including immunity. As an evaluation indicator of the state of the sympathetic adrenal system in different levels of the child corporal and muscular strain we have taken the catecholamine index in blood<sup>1</sup>.

Two groups of second formers were examined. The visually working distance in the first group of schoolchildren (12 pupils) was  $15,0 \pm 0,9$ , and in the second group (12 children) —  $23,9 \pm 2,2$  cm. It was found out that in the first group of children with more

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<sup>1</sup>The research was conducted jointly with Novitskaya V.P., Professor, and Churov V.N., Candidate of Science.

pronounced corporal and muscular strain the catecholamine level in blood was falling at the end of school year, i.e. a certain degree of adrenal depletion was revealed. In the second group of children with less pronounced syndrome of the muscular strain the catecholamine level in blood at the end of school year was  $0,0144 \pm 0,0007$ , while the children with more pronounced similar syndrome had  $0,0102 \pm 0,0015$  y.e. ( $p < 0,05$ ). A background concentration of serotonin in the first group was  $0,91 \pm 0,01$  y. e., while in the second group —  $0,83 \pm 0,07$ .

It will be recalled that a hormone is a substance of a direct genetic action. Hence, the hormone-endocrine system depletion is a lesion of a genetic sphere. These data emphasize once again that the external corporal and muscular static strains are deeply penetrating, they also affects smooth-muscle systems that is brought under functioning of vegetative life support systems. Under these circumstances a systematic state of children in the corporal and muscular static strains in the process of education (which is caused by ignoring individual personality approach in education, strictly scheduled construction of a basic curriculum (hours, terms), ignoring motives and interests of every child in the process of education, speed orientation at writing, reading, and etc.) has stress deeply destructive impact on the endocrine-hormone system with tragic consequences for genetic, physical and psychical development and health of new generations.

Below are the examples of formation of child convulsive strained (stress) handwriting according to this approach. Taking into consideration the fact that the boys are behind the girls in the genetic age, the stress of boys handwriting is more clearly defined. (Fig. 39).

The conducted researches enable, in the end, to explode a myth of the pediatric science that increasing thyroid enlargement between children — is a definite consequence of iodine deficit which for some reasons suddenly “has vanished” not only from the Russian territory but from other countries as well. While G. Selie had already established that the thyroid enlargement is a consequence of the stress.

Fig. 39. Sixth formers handwriting

The researches conducted under our supervision make it possible for us to affirm: goiter is a natural consequence of continuing day after day chronic corporal and muscular mancipation and the psychomotor strain (stress) of children in the process of education. The indicator of the energy depletion of new generations in alien for children educational process. “Scholl goiter” — is an indicator of people’s entry on childhood level to the phase of viability dying, the phase of intellectual degradation (this syndrome is called abroad the “burning-out syndrome”, “dehumanization syndrome”, “attention deficit hyperactivity disorder”).

As for the “efficiency” of general iodination, the animal study has shown how the “general iodination” can accelerate the processes of involution (i.e. degeneration). Mothers who take this medicine

can give birth to children with congenital malformations. And our “iodists” shall be aware of that.

#### *Chapter 4* **Consequences of immobilized education**

The research was conducted on the basis of examination of 125 first formers (52 girls and 73 boys), 174 third formers (73 girls and 100 boys), and 357 ninth formers (184 girls and 173 boys), living in Sergiev Posad of the Moscow region. Moreover, the first formers and the third formers have been dynamically observed for the following 3—5 years<sup>1</sup>.

#### *Sedentary immobilized mode of education (SIM) at the bottom of emancipation of the genetic activity and infantilization of the new generations*

It is known that chronological age does not coincide with the genetic age — the age of the true maturity conditional on the extent of emancipation of genetic programs and their realization in corporal-functional and spiritual-physical development. In addition, there is a good deal of papers by now indicating that the genetic age of young people is falling more behind the chronological age, i.e. the matter is that the existing system of child education favours the emancipation of the genetic activity and, as a consequence, increasing infantilism of the new generations.

In this research we estimated the genetic age of schoolchildren according to secondary sexual characters. Putting it mildly, the received data puzzled us. It turned out that level of the genetic maturity corresponding to the chronological age was found more

<sup>1</sup>The research was executed under our control by the employee of the innovation and research laboratory of health problem in education of the Moscow Province, candidate of Medical science, L.A. Alifanova.

rarely between the ninth formers than between the third formers. This rate of correspondence occurred only in 49% of cases between the boys — ninth formers, and in 84% of cases between the girls. As for the third formers similar level of correspondence had 52% of boys and 85% of girls (Fig. 40). We particularly note that regarding genetic age the number of “backwards” between the ninth formers was more considerable between the boys in comparison with the girls: 43% against 5% ( $p < 0,05$ ). In addition, the Decour-Dumik index (shoulder size to pelvis size ratio) indicated on involvement of the endocrine system in this process.

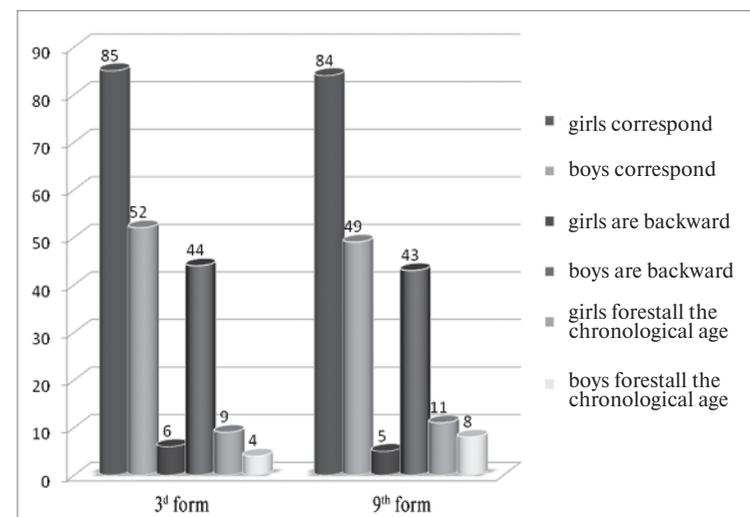


Fig. 40. Level of pubescence depending on the school experience (%)

Therefore, traditional sedentary immobilized mode of education emancipates the reactivity process of the gene pool and, as a consequence, realization of genetic programs; for 10—12 years of education this mode makes young people deeply infantile (underdeveloped) according to the genetic (planned beforehand) plan.

Boys have more pronounced passion (expression) for movements, 5—6 times more than girls. Therefore, the sedentary immobilized

Table 4

**The Dekour-Doumik index depending on the school experience**

From	Value, CFN, cm	Girls			Boys		
		number	NC <sub>CPS</sub>		number	NC <sub>CPS</sub>	
			absol.	%		absol.	%
1 <sup>st</sup> form	$G \leq 5 \div 10 \geq B$	52	50	97	73	71	97
3 <sup>d</sup> form	$G \leq 5 \div 10 \geq B$	73	68	93	100	68	68
9 <sup>th</sup> form	$G \leq 5 \div 10 \geq B$	184	172	93	173	15	9

Note: the difference between the boys and the girls is reliable ( $p < 0,05$ ).

The received data indicate that the sedentary-immobilized mode is a factor of a deep mancipation and comprehensive disorganization of formation process that is proper for a sex, body constitution, including genital one. Boys experienced the most tragic consequences of such mode of education. The situation is aggravated by the fact that teachers (women, as a rule) direct emotionally the education process toward girls. While boys find themselves in the situation of emotional and spiritual deprivation. All these factors allow us to assert that modern combined according to chronological age education of boys and girls is a discrimination of boys development according to the male type that is not realized by the society. This fact has already the long-term grave consequences reflecting on the social-demographic situation in the country. It is the circumstance (undoubtedly, together with ignoring moral laws in bringing-up children and teenagers in the society) that proved to be one of the most important biogenetic sources that affected Russia in the end of a thousand years by male dying out in their working age.

***The sedentary-immobilized mode of education in the basis of disorganizing locomotive and genital systems development***

It is known that realization of a woman reproductive performance is to a large degree connected with the quality of pelvis development,

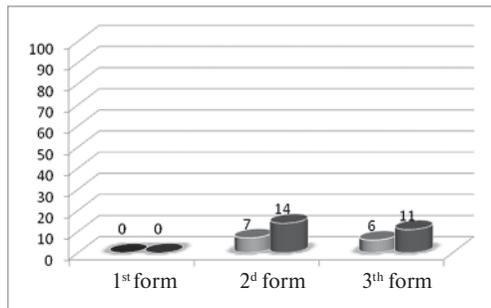
mode had more oppressive impact on emancipation of boys specific programs. That's why we can affirm that increasing demographic problems (first of all "male") are caused by non-realization of the specific programs and, as a consequence, by their "sequestration" in real corporal-functional and spiritual-psychical aspect. The consequence of that is an increasing genetic infantilism and people degradation, and in the first place in the male line, that becomes apparent in an evolutionary-significant regress of the indivisible triune entity: corporal, perceptual and spiritual.

***The sedentary-immobilized mode of education in the basis of degradation of gender and personality oriented body constitution between boys and girls***

The sedentary-immobilized mode of education causes widespread stress-strains and, as in the case with the classic stress-syndrome, described by Hans Selie (1936), leads to depletion of a basic life support system — the endocrine system. We used the text of Decour-Doumik (1950) to estimate an influence of late effects caused by the systematic stress-strains in the process of education on maturing of body constitution between boys (male type) and girls (female type). In particularly, the distance between shoulder and pelvic sizes between normally developing boys is not less than 10 cm, between girls — not more than 5 cm.

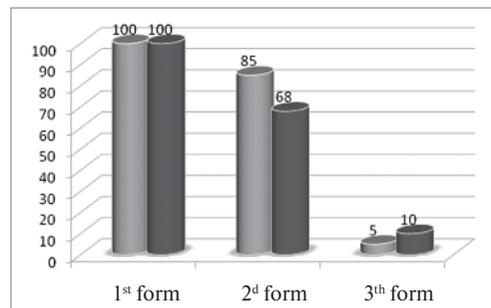
Having analyzed the index of Dekour-Doumik we have established that from the first form to the ninth form the number of indicators corresponding to the clinico-physiological standard (NC<sub>CPS</sub>) has reduced down to 4% between the girls (from 97% to 93%) and almost 11-fold between the boys (from 97% to 9%),  $p < 0,05$ . In addition, 4% of girls and 61% of boys between ninth formers had border levels of the Dekour-Doumik index (9cm — 6cm) (table 4). 30% of young people had different manifestations of the endocrine pathology.

which is on the one hand is a receptacle for internals and fetus and the most important functional component of the locomotive system on the other. At the same time, a woman pelvis with a sacrococcygeal system forms a common parturient canal for movement and delivery of a baby. But neither the parents nor the teachers interest what will happen to the genital constitution of a body, its pelvis and pelvic organs as a common genital functional system after 10–12 years of a sedentary-immobilized the so-called education. Meanwhile, the researches carried out under our guidance showed that only 6–14% of senior pupils had a proportionally developed pelvis, while the overwhelming majority had a pathologically “narrow” and large-wide pelvis (Fig. 41).

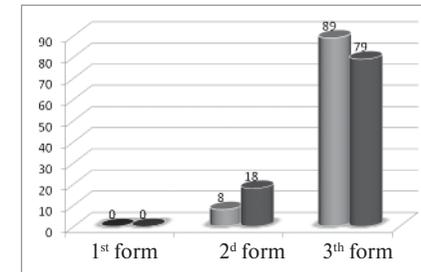


■ — boys ■ — girls

Normally developed pelvis



Narrow pelvis



Large-wide pelvis

Fig. 41. Pelvis characteristic between the schoolchildren depending on the school experience

The most tragic fact here is that systematic seating furthers narrowing of a parturient canal of a small pelvis against an external extension of the pelvis outline dimensions. This is due to the prolapsus and sagital turn forward of the whole pelvis, as well as ossification and advancement of the sacrococcygeal system to the lumen of a small pelvis. The advancement of the sacrococcygeal system due to its transforming from the system of breech fastening and body supporting in vertical position to the “sciatic” “prosthetic support”. It has been established that only straight standing and straight walking contribute to the harmonious development of the “genital” pelvis (Fig. 42).

It is known that state of a foot is an important characteristic of the locomotive system development, including a genital pelvis. The researches carried out under our guidance revealed that a flattened foot prevailed between the students of all age groups (Fridland index — less than 29,0). The following fact indicates that it is the sedentary-immobilized mode of education as a dominant of children way of life that had a destructive impact on a foot development. The Fridland index turned out to be higher between the first formers than between the third formers, and between the third formers it was higher than between senior pupils. It is well know that only the developed foot creating a plastic spring effect

during walking maintains the whole “body construction” in a flexible wave oscillatory state. While the flattened foot — is a strained mancipated mobility of lower extremities joints. It is a mancipated development of the whole body-muscular locomotor system including delivery muscular systems.

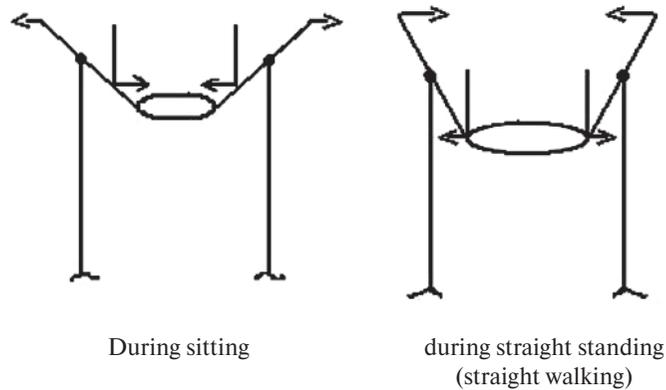


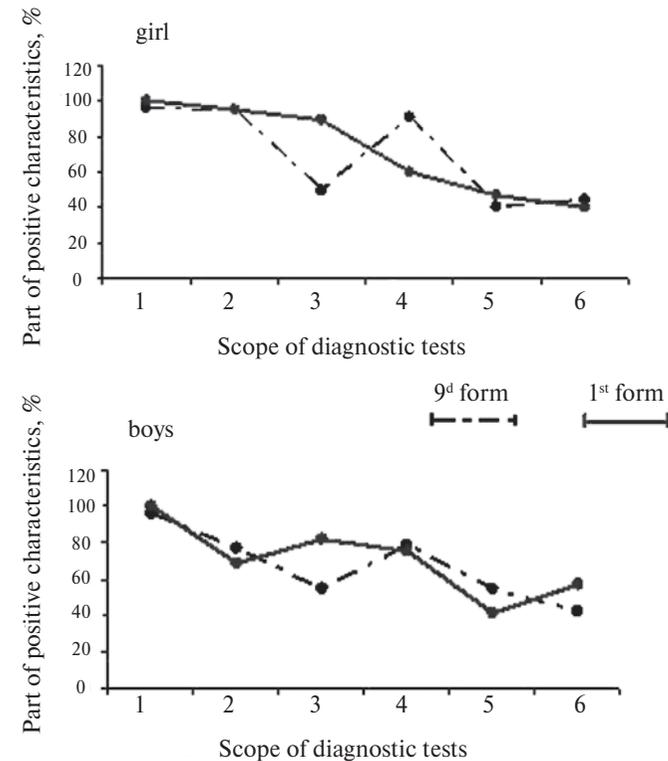
Fig. 42. Allocation of gravitational forces in a small pelvis

In whole, the fulfilled researches revealed that the systematic stay of children in the process of education in the immobilized sedentary-bent pose against strained walk (due to foot flattening) turned out to be in the modern civilization the basis for development of the “body-muscular shell” syndrome described by V. Raikh, or the syndrome of intravital mummification of the body (SIMB) described by us in 2001. It is an underdeveloped body, in which a “flexible youth” has transformed at once to “stiff senility” with its illnesses and diseases.

***The sedentary-immobilized mode of education in the basis of mancipation of sensor-motor and body-coordination systems***

A movement is the most important and the most universal mechanism of interrelations and interactions of an organism with

an external environment. All vegetative functions of the life support, including brain functions, operate only on the basis of motor stimulation and voluntary-volitional efforts. A sensor-motor system is a basic system that determines the motor interrelations of a body with an external environment. Some data about long-term effects of the immobilized child education on some sensor-motor characteristics of children and teenagers are submitted below.



1. Romberg's pose.
2. Finger-nose test.
3. Visual acuity.
4. Hypermetria.
5. Test of turning in circle.
6. Circle outlining.

Fig. 43. Sensor-motor “profile” of children depending on the school experience

The analysis of these data shows that as the school experience grows functional capabilities (FC) of different characteristics of the schoolchildren sensor-motor systems tend to dying away. It is recorded that the quality of some diagnostic tests between the ninth formers are worse considerably in comparison with the first formers (Fig. 43).

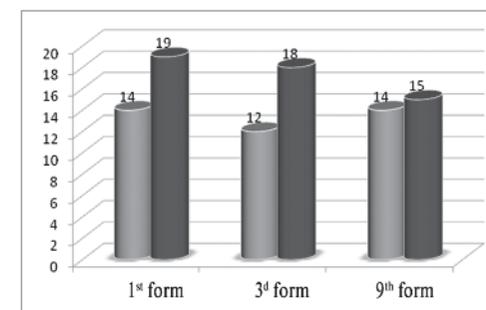
The body-coordination and visual-localization characteristics have undergone the largest changes. In particular, in spite of the fact that the average value of visual acuity varied in the range 1,0—1,3 y. e., for 3 years of education  $NC_{CPS}$  has decreased half as much (between the girls from 85% to 49%, between the boys from 89% to 51%). Between the ninth formers only 14% of girls and 15% of boys had the indicators of the visual acuity corresponding to the clinical functional norm (CFN), which is 3 times less in comparison with the third formers and almost 6 times less in comparison with the first formers. Speed and acuity of the visual-motor reaction has decreased in 3,7 times from the first to the ninth form.

The decrease of functional capabilities (FC) according to the coordination-motor tests is an evidence of a negative influence of the sedentary-immobilized mode of school education on formation of sensor-motor qualities which becomes apparent in intersystem disintegration and the decrease of FC as the school experience grows. Therefore, the systematic stay of a child in the static immobilized strain perverts the psychophysiology of coordination-motor system development. This circumstance is just a “notorious human factor” that favors an inexorable increasing of the anthropogenic disasters on earth, in water and in the air year by year.

***The sedentary-immobilized mode of education in the basis of disorganization of the basic life support systems (cardiovascular and respiratory systems)***

The following circumstance proves the fact that just an organization of a school life, and firstly the systematic stay of children in

the sedentary-immobilized mode during the process of education, moreover in the mode of systematic body-muscular stress-strain and bending over a book, copybook, mancipates the work of pectoral muscles and diaphragm, suppresses development of the chest and, as a consequence, of the respiratory organs. The chest indicator between the overwhelming majority of schoolchildren (70%) was less than 50 which indicates their narrow chest. Only 15% of schoolchildren had a lung capacity (LC) corresponding to the physiological norm (Fig. 44). Just the sedentary-immobilized mode of the education process plays the leading role in this and the fact that the number of narrow-chested children is steadily increasing as the school experience grows (i.e. from junior to senior school) proves it. In particular, only for the three-year period the number of such children has increased on 10% between the girls (from 79% in the first form to 89% in the third form), and 1,6 times between the boys (from 55% in the first form to 86% in the third form). As a result, 93% of girls and 83% of boys between the ninth formers had a narrow chest.

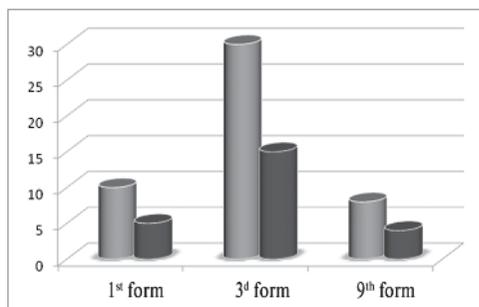


■ — boys ■ — girls

Fig. 44. Dynamics of a lung capacity between the schoolchildren depending on the school experience

It is no coincidence that under such development a normosthenic chest corresponding to the clinical-physiological norm between

all age groups of schoolchildren was not just rare but its share had decreased dramatically as the school experience grew. In particular, for the ten-year period of education the number of boys with a normosthenic chest has decreased 2,8 times (from 45% in the first form to 16% in the ninth form), and the number of girls — 3 times (from 21% in the first form to 7% in the ninth form),  $p < 0,05$ .



■ — boys ■ — girls

Fig. 45. The number of schoolchildren with the HVS depending on the school experience

As the school experience grows and the number of narrow-chested children is increasing, the functional capabilities of cardiovascular and respiratory systems are failing. In particular, an optimal (economical) type of reaction to the load (displacement indicators coefficient from 15% to 50%) was not just rare but its share continued to fall as the school experience grew. Thus, only 28% of the examined first formers had a normal reaction type of breathing, in the third form their number has decreased down to 22%, and in the ninth form down to 2%. At the same time the number of boys with a respiratory imbalance was twice as much than the number of girls. In the first form only 10% of boys and 5% of girls had a hyperventilation syndrome (HVS — a convulsive-strained type of breathing) while 30% of boys and 17% of girls had this syndrome in the third form (Fig. 45).

In spite of the fact that this syndrome is less evinced between the ninth formers, it isn't matter of the normalization of a breathing type. It is the matter of a breathing transition on a qualitatively less functional level.

The systematic stay of children in body-muscular mancipation and the stress-strain could not help having an impact on the heart rate, the state of hemodynamics, including arterial pressure characteristics. It was established that a high arterial pressure (border-line arterial hypertension — BAH) is widely spread between the schoolchildren of all age groups (Fig. 46). However, as the school experience grows, BAH has increased between the schoolchildren, particularly in a junior school.

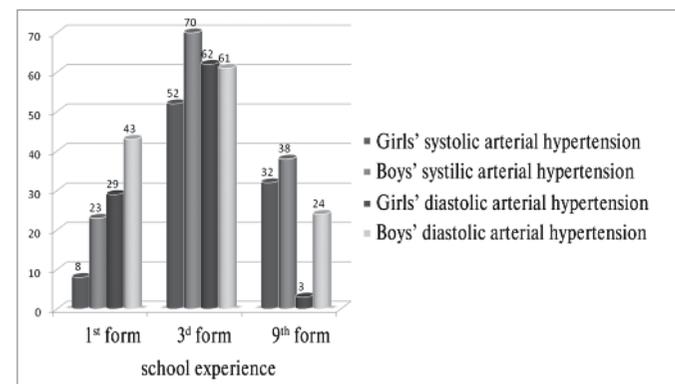


Fig. 46. The number of schoolchildren with BAH depending on the school experience

Meanwhile, an isolated systolic arterial hypertension ( $AH_s$ ) was found more frequent between boys. In particular, between the first formers 23% of boys and 8% of girls had BAH, and between the third formers — 70% against 52%. Between the ninth formers 38% of boys and 32% of girls had the isolated  $AH_s$ . And these are the data with which children are entering their adult life.

An isolated diastolic arterial hypertension ( $AH_D$ ) was found more frequent at a junior school and also between the boys. In particular, between the first formers  $AH_D$  higher than a border level was found between the boys one and a half times as often than between the girls (43% against 29%), between the third formers 61% of boys had  $AH_D$  and between the ninth formers — 24%. These data on the one hand emphasize a high age lability of the hypertension, on the other hand — a negative impact of the sedentary-immobilized mode on it during the education process.

It was revealed that within all age groups the schoolchildren, whose reaction value (RV) of the hemodynamic ensuring activity corresponded to CPN, amounted to 30%. As the school experience grew, the character of hemodynamics between the girls had the signs of an ascending type: the value of the RV was evidently increasing from the value (+0,21) in the first form to the value (+0,25) in the third form and to (+0,32) in the ninth form. Boys hemodynamics developed spasmodically. If in the first form the value of RV was equal to (+0,08), in the third form it had a negative value already (-0,1), and in the ninth form it was equal to (+0,41). Moreover, in the first form the girls had the RV 2 times as often than the boys (17% against 8%). In the ninth form there were only 28% of schoolchildren whose RV corresponded to the clinical-physiological norm.

About the type of the hemodynamic ensuring we judged by the coefficient of shear (CS) of blood circulation parameters (heart rate (HR), arterial blood pressure (ABP), action potential (AP), recovery period time). It was revealed that hyporeactive and areactive types of hemodynamics are more typical for junior schoolchildren. Thus, between the first formers 8% of girls and 8% of boys had the hyporeactive type of the hemodynamics (CS of AP parameters). While between the third formers, 100% of examined children had this characteristic (table 5).

In spite of the fact that the normotonic type of reaction prevailed between the ninth formers (75% of girls and 73% of boys), nevertheless inadequacy and instability of the hemodynamic

ensuring was widely spread at this age. In particular, 4% and 17% of girls and 6% and 20% of boys respectively had the areactive and hyporeactive types of the haemodynamics.

Table 5

Schoolchildren distribution depending on the type of a hemodynamic reaction on a physical load

Type of reaction	Value of shear coefficient	School experience	Girls		Boys	
			persons	%	persons	%
Normo-reactive	from +15 to +51%	1 <sup>st</sup> form	-	-	-	-
		3 <sup>d</sup> form	-	-	-	-
		9 <sup>th</sup> form	138	75	127	73
Hyperactive	More than +50%	1 <sup>st</sup> form	-	-	-	-
		3 <sup>d</sup> form	-	-	-	-
		9 <sup>th</sup> form	7	4	2	1
Hyporeactive and areactive	Less than +15% or negative values	1 <sup>st</sup> form	52	100	70	100
		3 <sup>d</sup> form	73	100	100	100
		9 <sup>th</sup> form	39	21	44	26

This also emphasizes the fact that the genetic “passion” of the boys for movements is much higher than of the girls. Under these circumstances, in the mode of a physical inactivity they experienced a deeper and more intensive stress-strain. The following factor plays the particular role: in the classes, completed according to the calendar age, the boys are found out to be less mature and the loads adapted for the girls are stressful for the boys. Thus, the recovery period of the hemodynamic values does not practically change between the girls as the school experience grows, while it increases at the group of boys (see table 5). Similar changes took place in individual characteristics of a pulse pressure (PP): at the group of girls  $NC_{CPS}$  decreases from 8% to 2% ( $p < 0,05$ ), at the group of boys it increases from 26% to 39%.

It is natural that considering such development of the basic life support systems at all age groups the schoolchildren with indexes of birth-death ratio (BdR) corresponding to the norm ( $NC_{CPS}$ ) amounted to less than 20% (Fig. 47). Moreover, between the boys  $NC_{CPS}$  was found almost twice as rare than between the girls: in the 1<sup>st</sup> form 11% against 15%, in the third form 10% against 19%, in the ninth form 9% against 18% ( $p < 0,05$ ).

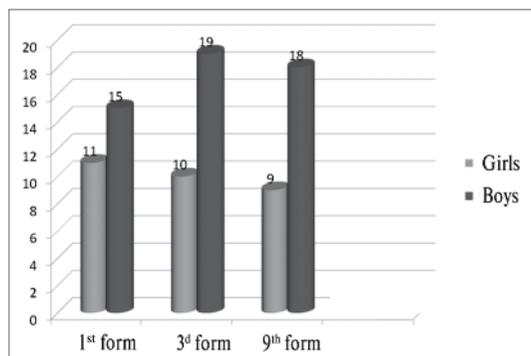


Fig. 47. Dynamics of BdR depending on the school experience

## Chapter 5

### Attention Deficit Hyperactivity Disorder (ADHD) — sources and origin

Not everyone can see the symptoms of imminent tragic processes which according to competent foreign scientists “threaten to swallow up the whole civilizations” (Edwin Ziegfeld, Ozamo Nouri, 1955). An increasing affection of children by the attention deficit hyperactivity disorder (ADHD) we rate as one of such symptoms.

The definition ADHD appeared in the West and was changed repeatedly (Linden M., Habib Th. Radojevic A., 1996; Jensen-PS, Kettle-L, Roper-MT, Sloan-MT, Dulcan-MK, 2001). It entered the

American classification of psychiatric diseases DSM-III, DSM-III-R, DSM-IV that set a wondering itself. As far back as 1965 this syndrome was defined as a “slight brain dysfunction”, in 1980 — “attention deficit syndrome” and in 1987 — “Attention Deficit Hyperactivity Disorder” (ADHD). According to the international classification of diseases (IC6-X) there are two subtypes: attention deficit disorder with hyperactivity and attention deficit disorder without hyperactivity. There is no prize for guessing that the main symptoms of the syndrome are the decrement of a child capability to “gather” and concentrate his attention against a development of the impulsive-explosive convulsive-motor chaotic movements.

In the Russian literature there is a variety of serious researches studying a clinical picture and prevalence of the ADHD between children (Badalyan L.O., Zavadenko N.N., Uspenskaya T.Yu., 1993; Gorbachevskaya N.L., Zavadenko N.N., 1996; Kuchma V.R., Platonova A.G., 1997; Luybar Joelle F, 1998; Katasonova A.V., Gonchar D.S., Kravtsova N.A., 2005 and others).

In whole, the ADHD prevalence between our children reveals a considerable variation — from 2% to 20% (Bryazgunov I., Kasatkina E., 2001). The last data of the Moscow Center of psychological-pedagogical adjustment and correction are shocking: more than 80% of Russian children have one or other symptoms of the Hyperactivity syndrome (Olga Stalmakova, the interview from “Komsomolskaya Pravda” of the 18<sup>th</sup> of April, 2008).

Most probably, such variety is explained on the one hand by scanty knowledge about this phenomenon, and as a result by different interpretation of the ADHD, from the other hand — by use of different technical approaches and different instruments when studying. We emphasize the fact that boys whose genetic passion for movements is 4—6 times higher in comparison with the girls suffer from this syndrome four times as often. This confirms an intimate connection of children mancipation during the lessons in non-movement and muscular strains with the ADHD.

Summarizing the existent researches in the sphere of the ADHD, it is not difficult to be conceived that we deal with the system

destruction of the maturing and development processes of a child voluntary brain cortex. They are:

- delay in morphological brain development;
- developmental delay of a cerebellum;
- developmental delay of the brain systems responsible for a motor control and voluntary attention;
- developmental delay of frontal lobes;
- developmental delay in a base sensor rhythm of brain —  $\alpha$ -rhythm;
- misalignment (“nonwholeness”) of different brain zones as an integral (“composed”) system.

An external manifestation of all these symptoms of a brain deficiency is a misalignment of coordination and purposive movements (actions) against a decrement of the capability to concentrate (productive consciousness). Moreover, the researchers note that the ADHD is accompanied by a mental retardation and psycho-destructive behavior aggravated by a self-centered passion to run everyone against a sexual disinhibition. It was revealed that the children affected by the ADHD with a great difficulty acquire basic educational capabilities developing a mentality: original confident speech, plastic writing, intelligent reading and etc. These factors specify that we are dealing with: major depression and developmental disorganization of brain structures, and above all its higher functions; affection of basic evolutionary considerable specific characteristics of a human main point. Under these circumstances it is terrible to imagine the long-term consequences of ADHD not only on the fortune of a nation, but of the whole civilization as well!

Analyzing the existent works about the ADHD we came to the conclusion that nobody really succeeds in understanding the sources and mechanisms of its development from positions of an enrooted highly tailored medicine. The 30-year research of the ADHD increasing between schoolchildren, originally described by us as the syndrome of a muscular stress-strain exposed while a child tries to carry out purposeful highly coordinated actions, first of all writing,

was found to be a fundamental principle of a subsequent development line of the ADHD. In 1986 we originally named this syndrome as anomalous (convulsive-strained) visually coordinated dynamic stereotype (AVCDS).

When attentively observing children in the process of their studies, everyone will notice how an active energetic child will behave if he is forcibly constrained in movements (for example, at sitting). He involuntarily begins to move restlessly and really suffer. It means that a compulsory nonmotion in the process of education — is violence over an internal extra mobile motor expression of a child that is still unconscious by us.

A great scientist — Sechenov I.M. — has already emphasized the fact that a child’s passion to movements is a “corner stone” in realization of a child’s systematic thought-poetic development (1947): *“There is no doubt that a child’s full dependence on these instinctive aspirations attaches a notably movable characteristic to childhood: a child constantly exercises one nerve or another. This is where a faculty of a comprehensive education of sense organs and movements lies. However, there is another characteristic general for all nerves in consequence of which a child does not keep his attention on one impression for a long time, this is a fatigability of a nerve, its dullness to a long-term activity in the same direction”*.

Therefore, daily various movements of a child — is an absolute necessary condition of “*constant exercising one nerve or another*” and “*a faculty of a comprehensive education of sense organs*”. Let’s see now how children behave who go into the first form for the first time where they are forcibly immobilized forever. For several minutes a child will be seating upright because teachers call him for it and hold him as an example for this assiduity. Shortly explicable languor suddenly seizes him and he begins to move restlessly on a bench (chair). At a time like this he strikes the most intricate attitudes: sometimes bows, sometimes becomes straight, sometimes bends left or right, puts one leg or another under himself and etc. It is clear that some internal growing disturbing impulses are looking ever more persistently for an outlet with the help of extremely

hampered convulsive-chaotic movements on the chair. Meanwhile, a voice sounds strictly: “Ivanov! Don’t turn! Petrov! Sit still! Sidorov! Go out of the classroom!” This is the way how “martyrdom” begins, consisting in a destruction of an active dynamic stereotype so peculiar to a genetic nature of a child. This is the way how the mancipated stagnant immobilized stereotype so alien to a child is forcibly emerged which is more typical not for children but for the old, especially for sick ones.

This is the way how year after year a child’s motor nature is being mancipated and repressed, but it takes only to get up children to their feet and let them have a move (for example, to place desks beyond the ergonomic furniture offered by us), and an extinct look will light up at once. As back as the beginning of the 1980<sup>th</sup> Vera Ivanovna Rogova (a former director of the school № 8 in Krasnoyarsk) has noted: *“Vladimir Philipovich! I know little about health. But I felt at once that school life has radically changed for the better with introducing your desks in the educational process. Formerly, after a ring informing about the end of a lesson, I would feel at my office how in the schoolhouse a great strength burst and broke off the doors, how this powerful stream along the corridors spilt out in the street. As if a spring compressed to the limits is broke out from the vise. As well as children jump to their feet and like sting rush along the corridors and shout to an open space. They rush in order jump there a little. But as soon as children stood behind the desks, everything has changed. Children became calmer and steadier. Aggression decreased at school, school results has been improved. And a school nurse showed me how rare children became ill”*.

This observation should tell the adults that if a child’s physical need for movements is periodically mancipated, some explosive convulsive uncontrolled energetic potential is growing inside a child that often can take (already takes) the worst forms. All these fact gave occasion to study specially the child’s inner world in response to external forcible suppression of his natural passion for movements. The observation was carried out with using various

methods of psychophysiological diagnostics of a functional status of the organism’s different systems (see Appendix).

Firstly, it is established that a periodical mancipation of the child’s innate passion for movements-efforts-actions — is a mancipation and suppression of a main specific capability development, that broke us away from the animal world, — the capability to coordinate and dose purposefully one’s own efforts (movements) in three-dimension space.

Secondly, it is revealed that a movement suppression — is a growing suppression of high-frequency energetic-informative algorithms (of a vegetative motor function), brought under basic life support systems (cardio-vascular, respiratory, electric brain rhythms and etc.)

Thirdly, a compulsory keeping a child in immobilized state during the lesson was found to be a stress-train for him which becomes destructive even for a cellular-genetic level including a real syndrome of “burning out” of a biofield genetic potential (see below).

Fourthly, a compulsory keeping a child in immobilized state during the lesson — is a block of a nervous force flow and entering a child into unbearable languor (unbearable experience of time viscosity) — into a frustration which is gradually becoming a frontier and then a real psychic disturbance.

It was also revealed that while the process of child’s suppression and mancipation in the immobilized mode is increasing, development suppression of a basic sensor  $\alpha$ -rhythm, developmental delay of frontal lobes and also a growth of disorganization display (“taking apart”) on a high energetic-informative frequency level (algorithms) were observed on the one hand. On the other hand, serious adhesions of once plastic wave rhythms were growing which became apparent in a burst impulsion and convulsiveness on a motor level (Fig. 14).

It was also shown that all these processes were progressing against a disorganization of an axial balance and vertical steadiness of a body in a gravitational space against disorganization of coordination

(“organization”) of voluntary purposeful hand actions, including synchronism in operation of different parts of cerebral cortex against the growth of impulsiveness and convulsiveness and, as a consequence, the stress-strain in the process of highly coordinated actions (writing, for example). At the same time the extent of internal stress-strain and child’s slope at writing conforms to the extent of a body-muscular constraint and the ADHD development.

It is established that the extent of the internal stress-strain and ADHD growth conforms to the extent of disorganization of all psychomotor child capabilities (writing, speech, and drawing). The following fact was also discovered: the attention deficit syndrome reflects extinction of intelligent vision and, especially, internal creative imagination, directed towards the future. Consequently, the attention deficit syndrome — is extinction of productive (creative) mind. Thus, ADHD represents an initiate process of mass dehumanization at the stage of a childhood. The dehumanization about which one talked at the top of one’s voice abroad as far back as 1950<sup>th</sup>.

In particularly, professor Etten — a well-known Swiss teacher, participant in international conferences in Lund (1955) and Hague (1957), estimating the whole complex of symptoms typical for the initiate extinction process of child artistic-creative capabilities, declared that the humanity had reached a deadlock in its development. Madlen Veltz Pagano (1955) went to even greater extremes, affirming that all these symptoms reflected unprecedented in the history of a mankind the process of people “dehumanization”. Lui Mashar (1955), estimating the process of artistic imagination extinction between children, came to the conclusion that we were on the threshold of a tragedy — the tragedy of people spiritual-psychical entity distortion in the modern technical civilization.

Shortly, it was reported in the West that between the young people were frequently found the people with a sudden disappearance of memory and the capability to generate their own thoughts. At the same time they have a situational operational-calculating intellect that is capable to operate on the basis of external information and instruction that is zombie-intellect.

Thus, ADHD reflects the processes of cerebral cortex higher capabilities regress due to the development mancipation of voluntary body-coordinated capabilities, and, first of all, visual-manual purposeful actions, at the childhood stage.

*ADHD and biogenetic laws of development.* So the most distinctive feature of a child’s nature is a passion for movements and manual actions. In case of suppression of this passion, the development of higher voluntary psychomotor functions are gradually smothered against return to the involuntary-explosive convulsive-impulsive functions which are typical for lower programs of voluntary movement structure, based on the law “all or nothing”.

Note that as far back as 1947 I.M. Sechenov, founder of Russian psychophysiology, had shown that the quality of a voluntary movement and action of a child reflected the quality of brain processes maturity in the end. A great researcher proved in his studies that this is exactly from regulation and organization of initial indistinct convulsive-strained actions where the formation process of psychoconstructive movements (actions) starts brought under the foundation of thought-made development of a child. *“He that saw beginners playing a piano shall know how difficult for them to practice scales. A poor thing helps his fingers by his head, mouth and body”.*

At the same time many know too well how long and difficult the way is from paralyzing everything and everybody mancipated-strained muscular effort to the emancipated free action based on plasticity and effort rhythms. And we do not think about that all basic psychoconstructive capabilities (artistic capabilities of hands, tongue including spontaneous speech, writing, drawing and etc.) are formed according to the same plan — due to muscular release from “embryonic” energy-losing constraint and mancipating strain and acquisition of energy-saving automatism (freedom) of actions. Let’s remember a number of the fundamental biogenetic laws described by the classics of the natural science.

This is *Haeckel’s law*: “Ontogenesis is a short and fast repetition of phylogenesis due to physiological functions of heredity...”.

These are the laws of “*organs balance*”, worded by J. Sant-Iler and developed in the laws of interdependency and correlation of body parts, framed by J. Kuvie:

- Principle of existence conditions. “Since nothing can exist without fulfillment of conditions that makes this existence possible, different parts of every being must be coordinated in such a way that it will possible for the being to exist as an entity not only in himself but also in his relations with other beings”. This is a principle of existence conditions, also known as a principle of final causes.
- Principle of correlations. “Since all organs of an animal form a uniform system, parts of which depends on each other and functions and counteracts one against other, no change can occur in one part without causing respective changes in other parts”.

*These are the laws of F. Engels* describing the role of a vertical directive of a body and also hand- and speech creativity in development of a human brain.

*These are the laws of functional biogenetics disclosed by Lamark* affirming that animals, changing from generation to generation, form their body themselves. As a result of internal tendency they exercise and develop the organs that are useful for life in the environment they have chosen. The organs which animals do not exercise gradually atrophy and disappear in the future generations, as a result they can not return to the previous mode of existence.

The law of evolutionary function irreversibility of Dollo (1893): “Organism neither entirely nor partly can return to the state that has been already realized by his ancestors”.

A complex of 30-year researches carried out under our control concerning the problem of the body-muscular constraint growing in the generation and inexorably growing convulsiveness of children in voluntary actions convinced us in the main point. Firstly, as we stated above, ADHD can not be explained indeed (and treated) from the position of the existing highly tailored medical science

which does not deal with fundamental laws including problems of child development but occupies with injuries to health.

Secondly, ADHD was found to be a regular consequence of a gross interference of the adults world into the process of formation and establishment of the main genetically conditioned parameter of the specific constitution at the stage of childhood — upright standing and upright walking. Actually the question is that at the stage of the ontogenesis the program of phylogenetic apportionment was considerably suppressed and, as a result, depth emancipation, realization of specific development programs in the ontogenesis, including laborious process of forming controllable voluntary efforts — actions, were suppressed as well.

It appears that ADHD is a consequence of non formation of body-coordinated, including visual-manual ergonomic capabilities upon which the school falls at once the loads comparable with the adults employed at sectors of extremely strained visual specialization. As far back as 1970<sup>th</sup> Krauze-Libsher from Germany revealed that these loads caused “faints” and “collapses” between the adults, as we stated above. Eventually, it turned out that ADHD is a logical consequence of non-formation at the childhood stage of the newest “manual” cerebral cortex and its newest functions — voluntary artistic actions.

It was also discovered that not only ADHD but a variety of other tragic syndromes, also for the first time described by foreign researches, arise from the depths of non forming voluntary psychomotor capabilities of children and, as a consequence, from enrooted at school convulsive-strained educational-ergonomic stereotype. The question is about the syndrome of a physical and psycho emotional “burning out”; the syndrome of dying away creative capabilities of children and teenagers supported on creative imagination and rated as a manifestation of “dehumanization” at the stage of childhood.

Thirdly, it was found that ADHD is a reflection of dying away and breakup of that which people have been accumulating in their spiritual development (humanization) for many tens of years. This

is a withdrawal of life from main “gatherer” and “bandmaster” of energetic-informative processes of a corporal and spiritual life of people — from gravitational photon rhythm of earth and sky, from corporal-axial gravitational-torsion rhythm of life (CAGRL — see above).

ADHD — is a disorganization of those mechanisms that ensure human adaptation as a cosmic (heavenly — in spiritual studies) essence to the gravitational rhythm of the earth. This is an evolutionary dying away of all specific human capabilities — voluntary power to control one’s lower impulsive feelings, one’s body and, what is the most important, one’s manual actions.

ADHD — is a reflection of man-made neglected specific tragedy due to ignoring reconstruction of the basic specific voluntary and corporal-coordinated human capabilities in the process of child’s development. The question is about ignoring by school a purposeful reconstruction of a stable perfect posture, creative abilities of a body, hands and tongue, named in the psychology by the functions of physical motor activity (training of steady dialog speech, intelligent reading, writing without convulsions and clamps, drawing adequate to classic realism, musical and vocal abilities and etc.) against school exorbitant educational-ergonomic requirements and stress-loads for the functions stated above.

ADHD is a consequence of alternating generations continuing line of man-captured-immobilized education of new generations in “leglessness” (on seats) and “armlessness” that is on the cornerstones on which a world, including Russian verbal system of the so-called education is based. And in the end ADHD is an evolutionary significant “dismantling” of evolutionary assembled (coordinated) voluntary, psychomotor body with its return to the most ancient convulsive-searching impulsive forms of movement construction. And this regress is logically accompanied by voluntary and psychomotor spheres and, as a consequence, higher cerebral cortex.

Consequently, the received data indicate that ADHD really reflects evolutionary significant “shears” in development of the

motor voluntary brain of children. From wide evolutionary significant levels we named this syndrome as a syndrome of infantile-degenerative involution (SIDI).

## *Chapter 6* **Stress and soul**

Since G. Selie (1936) it was known that people that were systematically subjected to stress could be deeply depressed and also acquired severe psychical and physical illnesses. Later, owing to researches of R.S. Lazarus, S. Folkman (1987) a consequence of a systematic influence of stresses — emotional feeling of being drained — was described. H.G. Freidenberg (1974) described similar states as “psychical burning out”. V.S. Pein (1982) showed that the syndrome of “psychical burning out” could lead to adhesion and disorganization of the psychical and emotional spheres.

Unfortunately, many Western specialists often studied this syndrome as a problem of interpersonal relations, mixed up a reason and a consequence. The fact of the matter is that the syndrome of psychical and emotional disintegration is determined by the exact diagnosis in psychiatry — schizophrenia. And who does not know which deep interpersonal problems in relations have those whose emotional sphere is “spit” from psychical?

K. Maslach (1982) singles out three main components of the burning out syndrome: physical and emotional depletion, reprobation of professional activity and depersonalization of interpersonal relations. In the international disease classification (IDC) the syndrome of emotional burning out (SEB) is rated to rubric Z73 — “Stress, connected with difficulties to maintain a normal way of life”. It looks like it is already some kind of stress to be a normal human being and lead a normal way of life? What then does it mean — to lead abnormal way of life? One should think that this statement of the question is psychiatry only.

It is known that SEB is accompanied by complaints on undue fatigability and impossibility to carry out usual professional duties. Let's name the known typical symptoms of SEB: progressing fatigability, degradation, low tolerance of earlier usual loads, muscle weakness and pain, somniphobia, headache, forgetfulness, irritability, reduction of mental activity and ability to concentrate one's attention. As a rule, sleep does not eliminate the majority of these symptoms. Consequently, the question is about a deep depletion of the nervous-psychical sphere.

I. Krauze-Libsher (1976) clearly showed that the syndrome of the emotional burning out was not connected with the psychology of interpersonal relations but with the psychoergonomics of static strains, visually-psychogenic first of all. We described above the way people, employed at sectors of extremely strained visual specialization, felt. Here we emphasize once again some psychoemotional and vegetative disorders between the people with a strained visual activity. They are "impossibility to concentrate", "insomnia", "fear", "timidity", "timorousness", and finally "faints" "with an inclination for collapse" and etc. Note that all these manifestations are typical to a large extent for schoolchildren as well with the attention deficit hyperactivity disorder (ADHD). And it is far from no coincidence.

As far back as 1970<sup>th</sup> a lot of statements appeared in the West that schoolchildren labor by its visual and nervous-psychical strain is comparable with the adult labor employed at the sector of extremely strained visual specialization. Later owing to the researches carried out under our control (V.D. Shtefanov, 1993) it was discovered that the schoolchildren labor is much longer and stressful. Analogous conclusions have already been published in press, including medical and pedagogical, under the following loud headlines:

*"42 hours per day are necessary for a child to learn a school program!"* ("Uchitelskaya gazeta" of the 20<sup>th</sup> of March, 2001);

*"Child chronic fatigue syndrome"* (Meditinskaya gazeta" of the 3d of April, 1998, of the 13<sup>th</sup> of April, 2001);

*"Tired to death"* ("Moskovskiy komsomolets" of the 10<sup>th</sup> of January, 2001).

As a result, according to the competent statement of directory of Research Institute of child and teenager hygiene and welfare of Scientific Center of child welfare of RAMS, Professor V.R. Kuchma "up to 80% of schoolchildren have a stress..." ("Meditinskaya gazeta" of the 20<sup>th</sup> of April, 2005). But if the adults with their physical, emotional and psychical maturity in systematic strained visual activity "go around the bend" and they fall into "faints and "collapses", then what can we say about children with their psychical, emotional and physical immaturity, on whom the world has shouldered even more visual and nervous-psychical loads?

This statement of the official person who knows the problems of schoolchildren should be a signal for an immediate stopping of the educational system until all stressful factors are not revealed and eliminated from the school life. And for the time being we read the following news in the press: "The third former died at the lesson" ("Shizn", № 200 of the 11<sup>th</sup> of September, 2003) and etc. *"Schoolgirl died just after the lesson. Died of the acute heart failure. She has never complained about her health and attended all physical training lessons.* ("MK" of the 22d of April, 2008). And the all-Russian newspaper "Moya Semiya" diagnoses directly: *"Sedentary job is dangerous for life"* (№16, 2008).

Specialist says that this data of the tragedy have already assumed a character of real epidemics: *"In classic neurology a conception is formed that a cerebral stroke — is an illness of the middle age people and children practically do not suffer from it. However, according to the epidemiological researches of the last years, strokes leading to heavy brain defeats and other forms of strokes are not a rarity between children and constitute 4—5% of neuropathy, lethality due to it — is 25%, about 50% of children become disabled"* ("Meditinskaya gazeta", N 18 of the 14<sup>th</sup> of March, 2001).

Are they heard this at the "General Staff" of the Russian system of education — at the Ministry? One should think, yes, as the former minister of education of the RF V. Philippov has declared: *"For the*

*last 30 years we have increased a load twice as much. Our schoolchild is moaning!”*

However, if they hear moaning of schoolchildren at the Ministry of education and science of the Russian Federation, they do nothing anyway. They do nothing because millions of parents and heads of educational institution keep silence. *“Mummy! I am not a fool! I can’t study!”* — shouted a child to his mother and made a step from the 13<sup>th</sup> floor to the eternity...

But this evident tragedy was not found to be enough for officials from the Ministry of Education and Science of the Russian Federation. These years the Ministry of Education of the RF laid all the burden of the psychoergonomics of the educational process alien to a child nature on the shoulders of little ones. Just on the quiet of the “democratic reforms”, kindergartens as fostering institutions were reorganized as educational institutions (pre-school educational institution) that are the same schools! But nobody can explain why they have done so. This reform (as well as many other reforms) seems to be explained only by wrecking but not by reasonability.

This can be proven by the consequences of such reorganization. From official reports: at present, 90—100% of children have their spine deformed and 20% of children have mental disorders. Many mothers, having known about the pathology of their children, are rushing in search of a healing center, but is it possible to cure a child? I often say to them: “a sprout has shot and one goes and breaks it! It is possible, but only by long and stubborn training of one’s body, and not with the help of treatment procedures. And not always”. It is miles easier to prevent the pathology of spine. And this is for what the ergonomic furniture was developed (a desk) where a child can work changing his poses “standing-sitting”.

However, with what obstinacy (madness, at bottom) chiefs and kindergarten teachers become to defend themselves. Here is their only argument: *“Children are not sitting all the time!”* This argument does not convince me, because if children have their breaths periodically blocked and one declares: “We allow them to breathe

in for while” — can we consider the problem to be settled? Movements for children mean the same as breathing. That’s why a child lives and develops while he is moving, while he is breathing.

What level catches the “fire” (the syndrome of “burning out”) at organization of the educational process in the immobilized mode and psychomotor stress-strains, which substrate is “burned out” under these conditions and what are its long-term effects will be revealed in details in the following chapter. Under the sedentary-immobilized mode of the educational process the tragedy of “burning out” is performed on a cellular-genetic level. The question is about the “burning out” of mitochondrial energetic potential, long-term cellular memory, immune reactivity of cells, specific cellular luminescence and etc.

These experimentally received data indicate that the prolonged static muscular strain — is a peculiar effect of “short circuit” extended in time in nervous energetic outline and, as a consequence, a discharge (“burning out”) of energy-informative potentials “to nowhere”. This is what is concealed under a child always sitting and bending over a copybook (a book) that is so convenient for us.

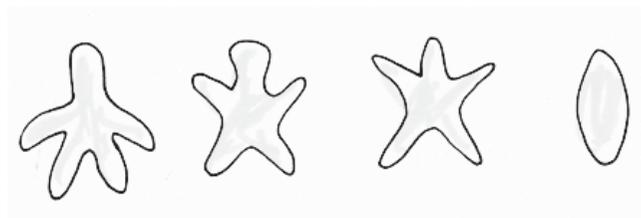
Moreover, it was established with the help of researches that only for the initial educational period of three years children creative capabilities are decreased 2-4-6 times (M.A. Nenasheva, 1998). So, the productivity of creative imagination (that is the productivity of one’s own thought creation — *V.B.*) has decreased half as great, originality of creativity — three times, entity of world notion — 4 times, station-temporal characteristics of creative imagination (including entry to the future on the “Creator’s wings”. — *V.B.*) — half as great. At the same time a schoolchildren programmed intellect based on mechanically studied information and externally given algorithms of thinking become apparent three times as much.

The received data allow to affirm that the “syndrome of emotional burning out” (SEB) on a cellular level is accompanied by burning out of that glowing substance which surrounds our cells and which pulled us out from situational perception of the world and world reflection, which endowed us with capability to

overcome space and time on the “wings” of the creative imagination. As it is known this function is not a function of the brain but a collector of the affect memory (soul — in the language of spiritual doctrine). Consequently, the SEB — is a syndrome of the burning out of what made us human beings — burning out of the collector of the affect memory (soul), burning out of the light of our mind.

Additionally, the following observations testify of this fact. As far back as 1980<sup>th</sup> due to the retained image method (RI) it was revealed that during the sedentary-stooping stress-strained education the images utilized in the affect memory can be not only misrepresented but also fall to pieces. If during the years stated above such phenomenon occurred on the 18<sup>th</sup> — 21<sup>st</sup> minute after strained writing, in the end of the 20<sup>th</sup> — beginning of the 21<sup>st</sup> centuries this effect takes place on the 2d—3d minutes (Fig. 48). Though, we could not get the effects of falling to pieces of consecutive images from the children who were educated in the mode of the body vertical or the body-motor activity.

Moreover, practical teachers noticed the effect of “dismemberment” of images at the sedentary-immobilized education and its disappearance when children were moved to the mode of dynamic poses. Let’s remember once again how “Megapolis-Express” wrote about this (№ 3 of the 21<sup>st</sup> of January 2002): *“If they drew dismembered bodies, teeth and claws of monsters formerly, — he says, — now they draw bright colorful pictures”*.



Gating at standing and looking into the distance



Gating at sitting and looking into the book

Fig. 48. Afterimage of a “little man”

These facts and also the phenomenon of connection of our corporal rhythms to the basic rhythm of a conductor — the rhythm of “bandmaster” — gravitational-torsion rhythm of the earth and sky, described above, indicate that aiming of the corporal vertical to the gravitational axis is a basis where the collector of the affect memory (soul) of every person is formed and operates. The question is about fixation according to the corporal-gravitational vector of the world images in the affect memory, representing the structured images from the wave energy of light (light phantoms — “casts” of images). The other question is that these structured and stabilized according to the gravitational vector images can clarify in the mind light only after their transformation in the hand creativity and their association with spiritual bearers of our feelings — words. But this is the subject of the other discussion.

*Chapter 7*  
**Community of some chronic  
non-epidemic child illnesses**

During the researches we paid our attention to the pattern similarity of brain electrical potentials of those children who systematically stayed in the immobilized stress-strained educational process and the children who suffer from the attention deficit hyperactivity disorder, cerebral spastic infantile paralysis and even from Parkinson's disease. Let's try to look into it.

It is known that as far back as 1817 John Parkinson marked out an involuntary tremor ("shaking palsy") as an independent disease. The main clinic manifestation of this syndrome is an involuntary high-frequency tremor of hands accompanied by static low-frequency stiffness. Already during those years specialists knew that this syndrome was caused by brain affection. Note that in the state of static muscular strain our children are staying in the educational process for 10—12 years (and even more).

It is naturally that a century and a half later an usual abnormal phenomenon between children — the syndrome of "brain dysfunction" — is described in the West. In 1987 this pathology was defined as "deficit attention hyperactivity disorder" (including "without hyperactivity" — ADHD). We emphasize that affection of the brain and motor chaos take place here also. As we stated above the main symptoms of the ADHD are the extinction of a child's capability to concentrate ("gather") his attention against impulsive-explosive chaotic movements (convulsiveness).

The existent researches including the received data convince that children with educational-didactic stress-syndrome ("EDSS") as well as with ADHD and CSIP have the following symptoms according to the electroencephalogram:

- developmental delay of vestibulo-cerebeller muscular-coordinated system;
- developmental delay of a basic sensory  $\alpha$ -rhythm of the brain;

- developmental delay of frontal lobes responsible for volitional control;
- disintegration ("disassemblence") in different brain structure operating;
- presence of sharp waves.

In this respect the researches of O.V. Bogdanov (1987), E.M. Bogomolov and Y.A. Kurichkin (1987), O.B. Zubova (1987) and others stated in the fundamental work "Role of sensory inflow in maturing of brain functions" (edited by E.V. Maksimov, K.V. Shumikin. — Moscow: "Nauka", 1987) are of the great interest. In particular, O.V. Bogdanov cited that an ascending afference is a basic mechanism of a brain development.

E.M. Bogomolova and Y.A. Kurochkin discovered that visual deprivation has a negative impact on formation of a vertical pose. O.B. Zubova also experimentally confirmed that the education in the sensory-depleted atmosphere (including motor mancipation) influences negatively development of the brain and its integrative functions.

But if the animals have brain underdevelopment due to suppression of the ascending energetic afference and other kinds of motor and sensory activity, then what we can say about the children if suppress an inflow of the sensory stimulation to sense organs during the whole period of maturing and development and "educate" children for 10—12 years beyond their own corporal-sensory experience. All these facts indicate on the main point: the suppression of the vertical orientation process, constraint of the sensory and motor activity of the children mean morphogenetic underdevelopment of brain and its functions. At the same time any morphogenetic underdevelopment of organs and tissues means their extreme vulnerability and liability to the quick involution (aging).

That's why between all the syndromes stated above non-motive disorders, revealed due to the stress-syndrome ("EDSS"), as well as due to the ADHD, CSIP and BP were found to be common. Here are the non-motive disorders between people with Parkinson's

disease which were described in detail by VM.R. Nodel and N.N. Yachno (2008):

- nervous-psychical disorders: emotional, cognitive, psychotic, behavioral;
- sleep and wakefulness disturbances;
- vegetative disorders;
- sensory disturbance and pain;
- fatigability.

We lay an emphasis on a community of those BP mitochondrial changes (dysfunctions) which were described in details by S.N. Illarionov (2008) and those changes that were described by us due to the educational-didactic stress-syndrome (see Section IV, 1).

Due to our researches it was established that spasmodic and hyperkinetic pattern in the syndromes stated above radically and practically in one direction changes when a body pose is changed, and especially when a body vertical changes relative to the earth gravitational axis. At the same time the least motor chaos is observed after a special activation of a vestibular apparatus (for example, after turning movements of the body, teetering and etc.).

The following factor of principle was also discovered. While the body is rooting itself in its specific vertical (posture), the spasmodic and hyperkinetic reactions (including shaking tremor) are dramatically decreasing. Little by little we came to the conclusion that the spasmodic states, including hyperkinetic reactions arise in the depths of that sedentary-stooping stress-strained immobilization on what the educational process is based which is more and more imposed on children.

This mode of child's development favors underdevelopment of the vestibule-cerebellar corporal-coordinated system, and its involution in the end. The hyperkinetic and spasmodic motor chaos is a manifestation of returning to the embryonic programs of movement structure. That's why as it was stated above the forced making of the educational "sitting" has not only a destructive effect on the state of the brain functions, but also a negative genotropic effect (Fig. 30).

After my lecture Ivan Dorofeevich Zuev from Neftekamsk, a teacher, described precisely in his letter the origin mechanism of involuntary muscular convulsiveness in the forced immobilization. With his permission I cite the text of his letter.

*"To Vladimir Philipovich.*

*After I thought over your report, I came to the conclusion that some people who are not competent in the medicine apply your theory sometimes instinctively (by intuition). I give my own example. I was registered at the therapist Gapeeva who asked me whether I had convulsions. I answered that I did not. It was found out that I did not allow convulsion to be developed. When at school I felt my fingers braced I hid my hands under the desk and moved my fingers more intensively and frequent than a pianist. When I felt my foot braced I put my foot on tiptoe and executed oscillatory movements by foot with more frequency. The duration in both cases amounted to 5—15 seconds. My desk neighbor and sometimes teachers took this as a prank. While sitting at the desk I changed my pose every 5—6 minutes and this, of course, annoyed my teacher. During my first year of teaching (I had to take a sabbatical leave after two years) I played football with my pupils in winter. Eight formers asked us (four teachers) to play with them because they were not enough for two teams. In such a way I stabilized heart disease. After that football year bleedings did not disturb me anymore and I returned to my study at the pedagogical institute.*

*Working as physicist, I was constantly moving during the lesson, but I did not understand what students needed also".*

As far back as 1980<sup>th</sup> we recommended children with motor disorders, including CSIP, rehabilitation measures based on increasing activity level, and as a result — based on emancipation of functional capabilities of the vestibule-cerebellar corporal-coordinated system. This happens due to minimization of the sedentary pose in life mode of children and also due to the specially developed visual-vestibular trainings carried out directly during the academic lesson.

The results were striking. For example, some children did not practically have a basic sensory rhythm of the brain. After 1—2 weeks

of the systematic trainings, this rhythm began to reveal clearly. We give an example of a child with CSIP below whose  $\alpha$ -rhythm of the brain became apparent after one session of the vestibule-cerebellar corporal-coordinated stimulation.

Paying homage to the colleagues-medics in their searches of pharmacological and genetic means of rehabilitation of children with ADHD, CSIP and BP, we emphasize that the results received by us reveal the prospect of such rehabilitation with the help of reactivation and launching of the functional activity of the sense organs system in the middle of which there is the vestibule-cerebellar system.

### *Chapter 8* **Stress and schoolchildren cardio-vascular diseases**

On the 2d of November 2008 one of the competent Russian cardiologist — professor F. Ageev — and anchorwoman of tele- and radio program “Health” — E. Malysheva — discussed by “Radio of Russia” the reason why men die of cardio-vascular diseases more often than women. Eventually they came to the following conclusion: the women die of cardio-vascular diseases more rarely because they pay more attention to themselves and more often visit doctors.

Such conclusion seems to have more Freud’s influence than the scientifically checked facts. Let’s think over what means to visit doctors more often in the epoch of outrageously expensive medicine and expensive drugs, in the epoch when a doctor’s prosperity depends directly on a patient’s wallet. At the same time I have never met with any serious work indicating the fact that one can increase people’s health level due to the increasing the visit frequency of our clinics and hospitals. On the contrary, World Health Organization warns frankly: “Beware of clinics!” (“Meditinskaya gazeta”, № 7 of the 1<sup>st</sup> of February 2008).

This newspaper always publishes the list of the most used and spread medicines which cause serious delayed in time complications. And quite often these medicines cause even more severe complications than the disease itself. According to the official date about 100 thousand people die annually of medical errors in the USA. Take into account the fact that in the USA in contrast to Russia doctors are allowed to practice privately only after many years of study and practice under the direction of highly experienced instructors. This fact shows how complicated is an organism and mechanisms of its self-regulation. And doctors frequently cultivate in people not will and strength of mind (as basic mechanisms of recovery) but psycho-dependence on doctors and medicines.

It is comforting that the healthiest people who ill with nothing — Khunzy — still live on this planet. They do not know at all what medicine and drugs are. It is known how much attention is paid to the nutrition problem in modern civilization. The Khunzy eat only not to die of starvation. Unlike us educated by the school of immobilization and stagnation of a body, they have especially movable, slender and lithe bodies. They are educated in constant moving from little up and they easily go to visit their neighbors at a distance of 100—200 km (in the mountains).

Another “paradoxical” for our awareness fact proves that training will and strength of mind and also hope of one’s powers can be much more effective than any medicine. According to special researches of competent demographers (I.A. Gundarov, 2001) during the Great Patriotic War that is during years of hardship, malnutrition, stresses, lack of doctors and medicines, our people became... healthier. As far back as 1980<sup>th</sup> one of the competent specialists, academician G.N. Seryukovskaya noted that it is the school that have a negative influence on the cardio-vascular system: “80% of sixth formers complained of tiredness... some of them had growth-retarding. This led to the following: doctors noted that every fourth children had changes in the cardio-vascular system”. Former minister of health care of the USSR, recognized authority in the sphere of cardio-vascular pathology, academician E.I. Chazov (1989) clear pointed to this connection.

The researches carried out under our direction showed: basic problems of corporal and spiritual life including the problems of cardio-vascular system start with derangement in development of specific corporal-axial position in the educational process. This is due to the fact that the quality of the posture formed and rooted in the childhood determines, on the one hand, vitality (energy) of the vegetative nervous system, on the other — balance of its sympathetic and parasympathetic sections, on the third — emancipation completeness (“windage”, plasticity, rhythmicity, phase balance) of the vital energy-informative wave (ascending energetic activation). Under the circumstances the corporal-axial position — is an enrooted corporal-perceptual position, biorhythm position, neuromuscular, energy-informational, and as a result — vegetative, vascular, neuro-psychic, emotional position. The position that puts together the trinity of coordinated, perceptual and mental bodies and forms integrity and steady organization of the body.

That’s why an optimal rhythmicity, plasticity and steadiness of the heart rate are possible only with the posture perfectly formed in the childhood. And vice versa, any derangements in development of the corporal-axial vertical orientation (posture) is accompanied more or less by derangements in plasticity and rhythmicity of the heartbeat — the syndrome of prolongation of the QT interval (the syndrome of the heart rate claudication) (Fig. 29).

Due to the study of involuntary eye micro movements it was established that an optimal level of the functional state of the vegetative kinesthetic rhythms (including cardiac ones) and, as a consequence, the level of blood pressure are maintained by the functional activity of smooth-muscle systems penetrating vessel walls, and in the first place, by the energy (power and rhythmicity) of their high frequent motor. The following fact of principle was also revealed: biorhythmic organized activity of the smooth-muscle systems is determined by the head position in the gravitational space, on the one hand, and stepping dynamic stereotype in child way of life enrooted in the childhood, on the other (Fig. 16).

It is also established that non-reconstruction and non-rooting of the corporal-axial vertical orientation of the body, including the stepping rhythm, in the childhood — is a fragmentation and disorganization (“disassembling”) of the biorhythmic vegetative corporal-functional life, disorganization and “disassembling” of hierarchy of our body energy-informational circuits (Fig. 21). Disorganization of voluntary coordinated capabilities of the body, including the capabilities to dose easily (weight) and rhythmically carry out the purposeful psycho-constructive efforts (writing, drawing, speech and etc.). Under such conditions children carry out these functions with extreme energy consumption due to the extreme static muscle strains and convulsive efforts blocking all the rhythms and functions of life support — from cell interchange and capillary circulation to the work of cardio-vascular, breathing systems, gastrointestinal tract and etc.

It is established that up to 90% of children during lessons, and especially at writing, are having these prolonged spasmotonic muscle strains (Fig. 34). External display of the stress-strain is a grip and inadmissibly low bending of children at writing.

Such static neuromuscular strains of cross-striped muscle systems can with the lapse of time reach smooth-muscle systems, including vessel walls. In particularly, the systematic spasmotonic muscle strains cause “jamming” of the smooth-muscle motor function, including vascular one that ensures blood advancement along the vessels. In this case the whole biomechanics of metabolism between capillaries and cellular systems is blocked. On the one hand, cells begin to be hungry of plastic and energetic substances, on the other — the mechanism of metabolic products and cellular debris is blocked. In whole, a chaos, jam and decay occur in histohematogenous barriers (ionic “exchanger”) what contributes to the quick calcification of calcium ions (carriers of electric charges that are ions only in rhythmical muscular contractions). Moreover, the organism is gradually filling with suboxidized metabolic products (free radicals, salts, toxins and etc.). All these favour to development of the old age atherosclerosis that is imposed on unfortunate children of adults will.

We named this syndrome as the body lifetime mummification syndrome — BLMS (syndrome of “corporal-muscular shell” — in the terminology of V. Reikh which he explained for some reason as “sexual energy control”).

In the end a vicious circle arises: on the one hand, permeability of blood-tissue (histohematogenous) barriers is decreasing, on the other hand — cells hunger in plastic and energetic substances. Due to the tissue hypoxia an organism is forced to increase compensatorily (by reflex) geodynamic pressure. That’s why the initial stages of blood pressure increase are symptomatic. The therapy shouldn’t deal with decrease of blood pressure, but it should be concentrated on “clearance” of the histohematogenous barriers, vessel motor function activation and activity of the whole cardio-vascular system due to radical increase of stepping and motor activity of the body including reconstruction of a perfect posture by long hard work. Under these conditions, it is much easier for people depending on doctors and lacking in their own will to swallow chemicals, and in case of failure — to blame the whole world for everything but not their weak will, stagnation and laziness.

Now we will pay attention to how our children pose at sitting and writing at school. They so bend over a copy book that they are literally pass their noses over a paper. And if you touch child’s arm, shoulder, neck or even stomach muscles at this moment, you will feel that they are literally “turning to stone” due to the strain.

As a result, if before entering school only 11% of children had a border-line arterial hypertension, by the end of the first year 26% of children had it, and 3 years later — 65%.

The data of the competent scientific center of children health of Russian Academy of Medical Science (1997) confirm that everything is connected with the educational process. In particular, the number of hypertonic reactions between the high school students in the elite school only for one school year has doubled. Eventually, 90% of children had abnormalities of blood pressure.

We want to emphasize that it is not a question of harmless (temporary) blood pressure decrease. The authorized specialists

form MONIKI in the name of Vladimirskiy studied brain blood circulation between the schoolchildren of Sergiev Posad. They have discovered an outrageous phenomenon: two thirds of schoolchildren lived and studied with a brain vegetative-vascular dystonia that is vascular-cerebral “tsunamis”. They note: *“In classic neurology a conception is formed that a cerebral stroke — is an illness of the middle age people and children practically do not suffer from it. However, according to the epidemiological researches of the last years, strokes leading to heavy brain defeats and other forms of strokes are not a rarity between children and constitute 4—5% of neuropathy, lethality due to it — is 25%, about 50% of children become disabled. The fact that even insignificant cerebral disorders in the childhood influence the origination of brain catastrophes in the mature age is proved. All these facts determine the importance of child angioneurology development, main actual tasks of which are an early detection and prevention of vascular disorders”*.

Thus, the complex of the carried out researches permits to expose the educational-didactic pose-static mechanism (EDPSM), and to form the appropriate theory in development of cardio-vascular diseases of people in modern educational system consisting of the following mechanism. Firstly, this is a mechanism of “disassembling” and fragmentation in the work of integral hemodynamic functional system providing blood delivery from the heart by the “gateway” system to the small capillaries and tissues. It includes:

- Mechanism of the systematic mechanical compression and block of chest activity in the stress-strained visual work, and as a consequence, straitened work of heart and lungs;
- Constraint and mancipation of the second basic part work contributing to the work of the cardio-vascular and respiratory systems, — diaphragm activity;
- The systematic turning off the third part in contribution of hemodynamic activity (especially, venous one) — rhythmic contractions of the body muscular systems and especially the body lower part;

- Compression of neck sympathetic tube and especially its nodes — conductors of high frequent vascular motor function — one of the most important parts in contribution to hemodynamics and its maintenance.

Secondly, this is a mechanism of counterinhibition of the neck embryonic spasmotonic reflexes depressing the sympathetic activity and blocking the rhythmic organization of all vegetative (including cardio-vascular) and psychomotor rhythms of life support. Thirdly, this is a systematic maintenance of oculocardiac reflex (Ashner). Fourthly, this is a syndrome of mechanical compression of neck vessels supplying a brain. To wide extent the question is about disconnection of the vegetative vital rhythms from the central rhythm of a “conductor”, the rhythm of a “bandmaster” — from the corporal-axial gravitational rhythm (CAGR — see section II, chapter 13).

Then, why men die of cardio-vascular diseases more often than women? It turned out that the educational spasmotonic syndrome of the stress-strain including the increased blood pressure were found 2,9 times closer between the boys of junior school than between the girls (L.A. Alifanova, 2001). The cause is well known: the genetic need (expression) of boys for movements is 4—6 times more than of the girls.

The described educational-didactic mechanism was found to be a basic mechanism of development in the childhood of cardio-vascular system diseases of the adults. The pattern had drastically changed when the educational process was organized in the mode of corporal vertical orientation, dynamic poses, and also light forms of motion activity. Under these conditions, the occurrence frequency of increased blood pressure between these schoolchildren had decreased 6—7 times in comparison with the children who were educated in the sedentary-immobilized static mode.

The received data give an impulse to development of the really effective state program of mass initial prevention of the cardio-vascular diseases.

## Chapter 9

### Negative consequences of unisex education

The crisis of masculinity and traits of a man’s personality are being much discussed in special scientific and popular literature these days. Most researches agree on that boys and girls are totally different sensory-emotional and biogenetic worlds. But do we educate boys and girls differentially, according to these different worlds?

As far back as at the beginning of the 1990s the analysis of 3 thousand children’s pictures led to the conclusion that primary spiritual entity nature of boys and girls is completely different. Particularly, boy’s dreams, fantasy, imagination are manifested in the form of strength, virtue, knighthood. Supreme symbols of boys with normal development are a shield and a sword. These are mythological symbols of an exploit feat, fortitude, genuine original male character. For girls supreme symbol of life is a baby in the image of a doll. These differences in symbols between boys and girls are predetermined by the difference in gene genofond.

Boys at the stage of growing up played with each other on the basis of their own symbols exclusively male games actualizing their own dreams, fantasy and emotional inclinations. It is an eternal fight for leadership, fight with evil, fight to maintain good and justice.

But boys leadership has always been displayed not in competition with girls. Firstly, it has been displayed only among boys, secondly, in the victory over their basic, primary fears, thirdly, with respect to external challenges and the circumstances, fourthly, to attract girls attention. Fight for leadership is the only way that always led boys to become masculine.

Therein under we offer emotionally significant images-symbols (archetypes) which are typical primarily of boys and primarily of girls.

The following symbols turned out to be emotionally significant for boys:

- Symbols of freedom and travelling in free space: sun, window, wind, moon, rainbow, mountains, bridges, horizon, system of deep-space connection, spacecraft. These are different paraphernalia of travelling: wheel, aircraft, bicycle, car, boat, ship, spacecraft and others.
- Symbols of strength, power and will; tractor, hoisting crane, bar, rocket, car, train, whale, bull, eagle.
- Symbols of an enemy: scary dragons, snakes, wolves, crocodiles, sharks, robots, artificial people.
- Symbols of endurance; triangle, square, high tree, stone, castle.
- Symbols of fight: sword, spear, bow, arrows, clava, helmet, shield, gun, tank, aircraft.
- Symbols of a hero and his victories: flag, horn, bell, cries “hurray”, salute, orders.

For girls other symbols are typical, both in their dreams and pictures:

- Symbols of wardens and resurrection of life: egg, poult, cradle.
- Symbols of spiritual maternity: dolls, cradles, bride, side-car.
- Symbols of femininity (tenderness, refinement, lightness): balloons, fluttering birds, chickens, fancy princesses-brides.
- Symbols of female beauty: flowers, hat, spectacles, brooches, bright lips, eyes, lipstick, hair, shoes, bright dress and others.
- Symbols of hearth, domestic comfort: house, table, dishware, curtains, dinner set, bed, furnace, bathroom.
- Symbols of welfare in a house: berries, fruits, vegetables, mushrooms, jewel case and others.

The conducted researches confirmed: psychological, physiological, as well as socio-role characteristics of boys and girls have qualitative differences performing different live functions in biogenetic, spiritual and social development. Taking into consideration qualitative differences in superior roles of boys and girls people always shaped sex-differentiated national teaching cultures

nurturing and establishing masculinity in boys and femininity in girls.

But at a definite historical stage boys were withdrawn from historically established sex-oriented patrimonial upbringing. They were withdrawn from established for all eternity methods of popular boys upbringing culture. They were set in general classes together with girls being in charge of women mainly.

It was an authoritative decision-making without basic scientific reasoning. Girls turned out to be more mature according to their genetic and spiritual age including school maturity. That gave girls an opportunity to occupy steadily the niche of leadership.

Why did boys turn out to be particularly vulnerable? It's due to the fact that at this age experimenting with roles they are actively looking for socially-approved models of behavior. And psychogenetic trap is awaiting them here. Teachers are basically women, girls are already mature. But neither of them carry male gender stereotypes of behavior. Therewith both of them occupy supreme position. To get approval for self-expression in school purely female environment boys have to brake male stereotypes and build female ones.

At all times people knew; sex formation including purely male character traits must be maintained by an authentic example of male education. But all it turned out to be neutralized by female psychology and pedagogy. Formation of boys psychological and emotional-willed sex took the way of adaptability alien to male nature, the way of person's androgyny formation (acquiring new, purely female traits against the background of remnant male ones).

As far as girls leadership is concerned it turned out to be by far not harmless for them. Such leadership means their development by male type, in the direction of androgyny formation. It is attended by a whole range of unexpected and strange endocrine changes against the background of information-genetic chaos, as well as uprise of new (formely purely male) diseases. It is attended by a quick growth of congenital development defects among babies.

So we put boys in a qualitatively different sensitive-emotional environment in which games, emotions, aspirations, values, super

tasks alien to their nature dominate. This is the environment of more mature by genetic and school age girls who are for that reason stronger and cleverer. Girls who are initially in want of not leadership, but standby, girls who since their childhood dream about a meeting with a knight, protector from environmental dangers of life. Girls who are hold up by teachers (women) as an example and image to imitate thereby suppressing and distorting the strategy of boys development by male type.

We studied how boys feel in these circumstances. Their imagination spirit is under a burden of overwhelming load alien to their sensual nature. At the subconscious level — it is life in constant feeling of one's own duality, lameness, inability, worthlessness and as consequence in mental disorganization and depression. Henceforth boys lose their way to become virile in spirit for ever. Their life is under pressure of undeserved losses, deep-seated rancours and suffering. This is a beginning of protest psycho-type and inhibitions development which are pointed against not only female sex, but the whole world. This is a withdrawal into bitterness of the revengeful subconsciousness. All following life is often a revenge to the whole world for dreams killed in childhood, humiliation and offence brought in connection with it.

Getting married such a grief-knight young women subconsciously feel lameness, worthlessness of male since childhood unfree from infantile inhibitions, fears, diffidence. And they reject such a pitiful support for their female spirit, such a pitiful defender for themselves and future children. Herefrom — the epidemy of the family decay, the growth of watchless children.

Increasingly the singular way out to manifest lame male Self is revenge and chase after those who are much weaker. After those against the background of whom muffled and therefore deep-seated dreams about might and courage come true. Thus begins the chase after children and defenceless single women.

A human being is different from animals by specific world perception brought up since early childhood, differentiation between moral and immoral, the good and the evil, the sublime and the low.

It is connected with two-faced human nature, on the one hand — instinctive, on the other — spiritual. A spiritually minded person subconsciously has some sense of shame at their animal nature, conscience. History proves: in the world where the instinct without high-minded experience overrules and runs the show all begins and ends with low nature.

That is why nurturing spiritually-elevated moral feelings since childhood has always been a controlling factor in relationships between sexes, especially when moral bases, will and fortitude, are immature and instincts are still strong. Having voluntary body volition and moral fortitude developed since childhood boys are able to cope easily with their instincts. For girls the strength of moral basis and a sense of shame are main constraining factors from going in all sins of paradisiac delight.

Combined unisex education (practically upbringing) is dissolving what makes people human beings: the feeling of sacredness and mystery of superinstinctive romantic feeling of love in relations between sexes. As the result — ease of fall of young people into satisfaction of instinctive passions. And we see how boys and girls smoke, drink together, start a joint gang and then voluntarily commit suicide.

It is established that a mixed model of education gives low effect in comparison with the a parallel-divided model offered by us in 1979. It is connected with the following circumstances. Firstly, parallel-divided education is the beginning to implement a base principle of national education system — learner-centered approach in education. Only within parallel-divided education a teacher can base on interests, emotions, dreams, fantasies typical of different sexes, boys and girls games. Secondly, in mixed classes there appear many secondary emotional stimuli distracting young people from academic activity.

Within mixed education the ideal, model, image, which boys and girls should follow and form a scale of sensuous dominants, supreme emotionally significant senses and moral values, turned out to be blurred. All turns out to be indistinct and neutral, actually

void of humanity in order of male and female personalities merits. Joint unisex education is an external challenge to inner nature of spirit of every sex. Simulated, unnatural putting sexual and personal spirit of boys and girls into contest and competition between each other must be prevented. The fact is that competition (including the one between sexes) on the subconscious level is always negation and rejection of those who confronts you.

It is established that unshaped integrity of gender personality is always a result of sensually subconscious chaos in self-sentiment and self-actualization. It is always emotional (mental) and as the result psychic disorder. For men who are womanish it is not only weak will, but also mental handicap in some degree. Masculine women always represent warp of psyche and spirit, slavish imitation of male leadership which is an unpleasant scene and psychopathology alien to gender nature. Bringing up boys and girls by a common template in mythological equality and putting them in equal competitive conditions eventually caused deep-rooted opposition between sexes. As the result male and female aggressiveness in modern unisex culture is implacably growing.

Sociological researches carried out abroad prove that both men and women negatively react to masculinization of women. American gender psychologists monitoring how implacably is growing the process of women's masculinization come to conclusion that an inverse turn to female strategies of behavior (femininity, diplomacy, wisdom) can cause such an inner conflict which can become a reason of not only depression but also suicidal behavior. Instead of solving the problem on the root level western psychologists went into strictly cosmetic practice. In particular in response to extremely difficult solution to the problem of women's masculinization modern western gender science began to develop a safe method for keeping an outward façade of femininity in a woman which is called ingratiating. The point of the method is how to hide accurately male traits in a woman, reset an external but actually artificial female image.

Nowadays on the level of western-oriented unisex culture including unisex education system there has appeared an acute social

problem, how to cure a man from a female and a woman from male stereotypes. It means how to cure new, created in childhood, distorted nature of men and women but actually how to cure a unisex in many respects civilization. It is the most topical problem of modern western gender science. But they always forget the most important — the ways which could prevent it.

The work in implementing parallel-divide education into schools of Stavropol Territory carried out under our scientific and organizational supervision established the following facts. Within parallel-divided education boys after elementary school turned out  $3,7 \pm 0,4$  cm higher than those who studied in mixed classes. An experiment in Moscow secondary school № 760 named after the Hero of the Soviet Union A.P. Meresjev (Principal — Y.V. Garmash, Candidate of Medical Science, Assistant Principal — Erofeeva T.I.) showed that by the 9<sup>th</sup> grade this difference reaches  $7,3 \pm 0,5$  cm. In mixed classes girls turned out to be  $1,3 \pm 0,2$  cm higher than boys. Herewith in all mixed classes boys suffered from different school pathologies 3—4 times more often. Similar surprising results are received in dozens of schools in Russia.

Special attention should be paid to the experience of the lyceum “Harmony” № 103 in the city of Zheleznogorsk (Krasnoyarsk Region), where children are educated in both divided and mixed classes, that lets permanently compare results. So in classes of mixed education there was one out of nine classes (2000—2008) graduated with the honours, 46—52% of young men were qualified to serve in the army. In classes of divided education — 25—35% graduated with the honours, 96—100% of young men were qualified to serve in the army. In accordance with the results of the competition held in 2008 by Ministry of Education and Science of the Russian Federation the lyceum is declared to be the best national school providing healthy development for school students. I consider that the model worked out by the community of teachers who are directed by E.N. Dubrovskaya, the honoured teacher of the Russian Federation, Candidate of Pedagogical Science, will become base in switching of national education system to gender-oriented

education. Interpreting boys drawings by special tests it is determined that their psychological world is full of anxiety, fear, depression, but also ... self-denial. As said above any emotion is accompanied by hormone-genetic effect. Consequently emotional depression of boys who turned out to be in an alien sensori-signal environment is genetic depression which gradually and inexorably transfers into genetic tragedy. It is suppression and enslavement of genetic reactivity for implementing species live support programmes, including gender-oriented. It is not only mental and social gender blurring accumulating in generations but a genetic one.

Thus, examining body tympanum by Dekur and Dumik procedure the member of our scientific laboratory (L.A. Alifanova, 2001) determined: 90–95% of young men — school graduates display signs of female body constitution. The most tragic fact is that the process of male gender degeneration has grown into a system degradation epidemic on the level of child — adolescent population. To be more particular, on the evidence of experts from Russian Academy of Natural Sciences over the last 5 years the quality, quantity, productivity of male genital seed among young men got three times worsened. And this is evolutionary significant degeneration, but actually degeneration of men. The suppression of genofond's work results in the entry of new nation's generations into the mode of oversensitivity to exogenous factors of physical and microbic-virus environment. This is the entry into the mode of excessive morbidity and death rate. That's what it means for boys to be found in an environment of emotions, fantasies, games, imagination, values and behavior alien to their nature. Mixed education didn't turn out to be harmless for girls either. To be more particular up to 2/3 of girls started to develop by male type against the background of endocrine and psychic pathology growth.

Under our supervision N.V. Binkovskaya performs regular researches in studying the quality of psychological and social gender development within mixed and parallel-divided modes of boys and girls education. Let's look briefly at one of our test analysis. According to the test children having listened to the beginning of

the story were asked to continue it. "The sun was going down over the hill, it was getting dark and damp in the forest. Under the bush there was lying a baby wrapped in an old blanket, it was crying."

It was assumed that a boy (girl) developing the plot can act in a habitual and familiar way. Thus they were offered an opportunity to record a wide range of behaviour strategies characterizing different levels of personality-gender maturity: from defenselessness, vulnerability, pococuranteism to initiative, confidence, psych for success, responsibility for the situation. Boys taking part in the experiment were of the appropriate age: 12–14 years old — the age of active identity construction and 15–16 years old — the age of identity completion.

Thus, the first group — boys of 12–16 years old — was being brought up within a traditional mixed model of education (school № 19, Sergiev Posad). The other group — boys of 12–16 years old — was being brought up under the conditions of parallel-divided education using personality-gender-oriented approach (school № 760, Moscow).

A mature personality manifested themselves in initiative mediation into the fate of the baby by introducing a character who finds the baby and sets the task to find their parents and takes responsibility for their future. Example: "A hunter was passing by, he saw the child, that was a boy. The hunter took the child in his arms and hurried home. He decided for himself to leave by himself unless his parents are found. In the morning there appeared his mother. She was happy for her child coming back to the family. The hunter visited the boy, while the boy was growing the hunter gave him presents and they made friends. We see such plot evolvment reveals psych for success, initiative, responsibility for the child's fate even after his joining the family. There is no suspicion that the child could be abandoned. Masculine behavior can be demonstrated by the scene of fight, overcoming with unexpected obstacles: "A forester was passing by. He saw a wolf dragging a wrappage with someone weeping in it. The forester understood what was happening, he was a skillful shooter, pointing at the wolf he

killed it. Taking the baby into his arms he was happy to rescue such a charming creature.”

In the case of a negative personality-gender identity continuation of the story may come to a dramatic plot, and the final cut has “the worst ending”. There can be found the description of abusive actions in respect of the child: “He was abandoned for wolves to eat, his parents wanted to get rid of him”. All these facts are the result of poorly controllable aggression or noncompensated anxiety — bring forth negative content in imagination, something like pathological fate, tragic death and others.

Immature personality-gender identity reveals themselves with the lack of initiative including the lack of an idea to interfere in the situation. For example the author can identify themselves with the baby feeling their own helplessness but the main thing — pococuranteism of others: “...What bad luck to be abandoned by mother, he was getting weak every minute, he was doomed for loneliness in this primeval forest...”

The next example illustrates that there happened an identification with an inanimate object which is a forest: “Crying was heard in the forest. The forest thought who there was, what had happened.” The demonstration of noninterference can speak for both complete spirit infantilism and incomplete knowledge how to act in such a situation. Moreover it can speak for a significant gap between knowledge and will to make use of the knowledge in a required situation.

According to the results of the experiment boys educated under the conditions of parallel-divided model turned out to be advanced by personality-gender maturity characteristics. Such characteristics of psychological gender as identity crisis and negative identity are revealed mostly among boys in traditional schools within mixed by chronological age education. Overall experiments of experiments:

- Boys educated under conditions of a traditional mixed education in 30% of cases end the story with the death of the child where as the group educated within a parallel divide model it is 8%.

- In a group of boys educated within a parallel-divided model in 85% the plot develops in lasting time perspective. During this period the child manages to grow up. In a group with mixed education this figure is 23% only.
- A group of boys educated under the conditions of gender-oriented pedagogics in 23% of cases the boy’s family is found. Such result is more than two times higher than that of the other group. It indicates to the author’s credit of trust towards the parents of the found child, credit of trust towards people in general.

It is an interesting fact that the boy’s sex is specified by 53% of boys educated within a parallel-divided model and 12% only from a traditional school. It emphasizes once more different attitude of young men towards their own sex within different models of education.

In general the data show that parallel-divided education encourages more effective development of children’s creative imagination including its determination for the good and future. It increases the level of spiritual health and on the contrary decreases negative-depressive and as a consequence drug-addicted and suicidal behavior strategy of children.

The research gives evidence that boys educated in parallel-divided classes differ by mature identity of psychologic gender including such characteristics of behavior as psych for success, low index of suspicion, high indices of social initiative, courage, overmotivation to overcome difficulties, ability to take responsibility, willingness to defend oneself and others.

Boys educated in mixed classes suffer from gender self-identity disorder more often. They differ by such characteristics as a feeling of failure and lameness, high suspicion, low indices of social initiative, fearfulness, low motivation to overcome difficulties, need to shun the responsibility and place it on others, low willingness to defend oneself and others. Eventually boys displaying negative gender-personality identity demonstrate distorted comprehension of male traits — aggression instead of manliness, search for the guilty

instead of critical attitude to oneself, destruction instead of creation and others.

Generally data analysis of literature including our own research let draw the following conclusion. In modern unisex culture especially within mixed by calendar age education of boys and girls with domination of women in schools we deal with epigenomic gender shift, imbalance of the processes of biological and psychological gender development, disturbance in social gender-personality identification. Under these conditions correspondence of internal psychological gender to gender-personality stereotypes of the society will always not only demand significant strains and personal efforts but also be accompanied by real stresses. This fact of mutual diffusion will significantly increase variability of gender in adjustment to social conditions accompanied by gradual loss of integral personality and harmonic gender. The loss of a possibility to manifest further sexual identity in social, cultural, historical, family relations will be one more negative consequence for the civilization. Sooner or later such diffusion will turn into a family and social crisis. The question is not only about the loss of a scale of values, ideas, symbols, super-tasks, one's own supreme mission. The question is about degeneration of gender and the decline of the civilization.

The facts mentioned above call directly to reconsider unisex upbringing and education of boys and girls as well as domination of women in schools once implemented by an administrative decision without any scientific basis. It is required to reconsider it in order to embody the basic principle of national system of education — learner-centered approach. In such a case the first stage in school's orientation towards a personality is gender-personality approach in education. As our experience has shown the simplest approach to embody this directive is to organize parallel-divided education in schools.

Obviously, this approach is the first stage to embody gender-personality model of upbringing and education if boys and girls. Eventually there should be a strategy to attract young men who served in the army into pedagogical institutions of higher education.

It is necessary to attract men into schools keeping balance between men and women (approximately 50% of each) in educational centers.

The success of the work is guaranteed by a clear and precise demand in front of the whole system of education following for example Federal law “About principal guarantees of children's rights in RF” (Article 4). It clearly says that the task of all citizens including those working in educational institutions is “to contribute to physical, mental, psychological, spiritual and moral development of children”. By reference to this base law social procurement in front of the system of education must become a certificate for creative, moral, gender-personality, physical maturity instead of a certificate of secondary education (read as informatization). The matter depends upon the will of political parties, chief executives of the country, millions of common teachers and parents. Time changes us tragically. It already changes us irretrievably on the genetic level. It is not time of reasoning, but energetic saving actions.

## *Chapter 10* **Modern life, modern education of children and premature senility**

Technological direction of the progress of modern civilization against the background of culture exclusion to recreate and support progress of a human being themselves began to change radically people's nature. Instead of recreating and developing a vertical, coordination-motored, voluntary-willed, thought-creative and eventually free body, “clever arms” — as a basic mechanism of clever mind development we plunge them for the whole period of up-growing into wearying immobility, desk-bound slouch, “armlessness” and hence depression and pathopsychic development strategy. Instead of imprinting vivid, true polyphony of color, light, motions, forms,

images, scenes of real life children more and more imprint death letters, figures, schemes.

In the long run, instead of creating flexible, mobile exclusively congruous to the species nature poise letting through the energy of sky and earth we deal with a crooked, squeezed in a wad manling (formerly the Creator of spirit). Enslavement of space sense is actually enslavement of spiritual experiencing of place and time extension — basic characteristics of the world perception (consciousness) appropriate for childhood.

The Federal Target Programme “Children of Russia” for 2003—2006 and its subprogramme “Healthy child” (the Russian Federation Government decree of October, 30, 2002, № 732) didn’t approve children’s health. It was the decision arrived to by Accounts Chamber of the RF (Accounts Chamber of the RF. Bulletin № 2 (122): “Instead of annual cutting down the rate of growth of general morbidity among children there happened an increase in comparison with 2002 of common morbidity among children”.

Once there came a seeder to its own barn to see entirely blackened grains. Is it possible to sow them in the soil? Or is it better to choose the rest healthy seeds for sowing? The laws of biogenetics of vegetative life are common for all forms of life.

Let’s look from this angle at a historical role of computerization of life, studies, work of invariably ill children and young people. Naturally, with plentitude of emotional and physical activity dominating in children’s lifestyle provided among other things by structuring an academic lesson according to the principles of plentitude of emotional impressions and motions developed under our supervision 30 minutes per day spent in front of a computer can be imperceptible by their negative consequences. Against the background of total destroying of outdoors sport grounds, numerous creativity centers, aimed to engage children and young people, against the background of their immobility during lessons at school and home, against the background of the fact that working parents have nowhere to put their children, universal computerization may become the last tragic phenomenon in our life.

Not nowadays, away back in the 1970<sup>s</sup>—1980<sup>s</sup> at the initial stage of cybernation in schools we studied its influence on functional status of children. The results of the research were published in the monograph “Children’s sight: problems of the development” (V.F. Bazarny. Novosibirsk, 1991). There follows the summary of that research.

As early as those years members of physiological-clinical peculiarities of sensory system development department in the Institute of medical problems of the North SD RAMS studied the influence of computer classes on functional state of the central and vegetative nervous systems including the visual analyzer. There have been studied 54 school students from 9—10 grades working with computers at computer classes (the first group consisted of 27 students) and under the scheme of a work training center (the second group consisted of 27 students). The central and vegetative nervous systems state, that of cerebral blood supply and the functional state of the visual analyzer have been measured before and after classes.

The following indices have been measured in the work: critical frequency of light flickers fusion, dynamic mobility of retina, residual stress of accommodation, the index of visual-manual accommodation. The central and vegetative nervous systems state has been estimated by latent time of visual motorial reaction, the indices of eye-cordial test, electroskin resistance, rheoencephalo- and rheovasography.

Taking into consideration that students worked during one hour at computer classes, and three hours by WTC these groups were analysed separately. Herewith time length of the work varied: one group studied without brakes, the other — in a dynamic mode (with three-five brakes by ten-fifteen minutes and switch to vertical position). The functional state of these children was analysed separately. The data received are of the utmost interest to solve the problem of children’s and young people’s fatigability during their work with computers.

On the whole studies with computers had a negative influence on the functional state of both — the visual system and the body in general. Notably, the degree of functional defections turned out to

be directly proportional to class period with a computer. So, if within one hour work 10% of students were registered to have residual stress of accommodation, within three hours — 61,5%.

Herewith residual stress accommodation is a focus of inveterate vegetative stress-tension irradiating along unstriated muscle vegetative system. Under such conditions (by analogy with Aschner reflex) there appear optic-cardial, optic-cerebral, optic-gastral, spasmotonic reflexes. They are joined by embryonic cervico-tonic reflexes gripping corporo-functional body. It leads to diffused convulsive motorial spastic reactions. The index of visio-manual coordination decreased in the first case among 25% of students, in the second — among 30,9%. During the studies the majority of students showed significant intensification of parasympathetic vegetative tonus against the background of the decline of the sympathetic one.

It should be particularly pointed out that both groups showed gradual impairment of brain blood supply. Herewith there has been revealed one fact of high importance: it is not so much the screen of a computer that had an aggravative influence on hemodynamic parameters as an immobile sitting pose. For example the indices of rheovasography among children studied within WTC without brakes decreased for 49,2%, whereas among those who worked in a dynamic mode — for 20% only. The indices of REV among the former decreased for 14,6% and the latter — for 4,2%.

Similar dynamics was revealed by other indices. In particular, visual-manual coordination index decreased among the first group of students for 40%, and among the second one — for 20%. Electrodermal conductivity lessened among the former for 16%, among the latter — for 3,2%.

It is established that studies with computers led to aggravation of visual-manual indices and reduction of visual working distance. Notably, its reduction was directly proportional to classes period. Consequently, bonded immobile position and flickering light of the screen through a visual analyzer and brain have a negative influence on corporal-coordinatory functions.

The data received show that lasting classes with computers have a negative influence on the functional state of visual system, brain, and body in general. Taking into consideration the fact that it is children of junior school and preschool children who increasingly start working with computers, their work with computers should be strictly regulated and optimized.

Moreover, under our supervision there was carried out a thesis research by the Candidate of Medical Science V.D. Shtefanova (1993), aimed to study the dynamics of people's health occupied in motionless visually-stressed work. The research established the main thing: motionless visually-stressed work is a situation of chronic stress-tension and as a situation of exhaustion and premature aging of live supporting functional systems. It is a situation when aging diseases appear in young age. That's why modern offices require careful attention of specialists in ergonomics in visually-stressed work.

For offices and establishments with motionless visually-stressed work away back in Soviet period under our supervision there has been developed and implemented on the basis of "Sibtsvet-metalaftomatic" (Krasnoyarsk, CEO M.E. Tsaregorodtsev) the room of health protection and optimization of visual stressed work. The room's activity and principals of its work were demonstrated in VDNKh SU and were highly honored. Unfortunately, this work in the 1990s of social chaos was left non-demanded.

And what do we have eventually? We read terrible headlines in central press:

*"Office employee syndrome: osteochondrosis, depression, prostatitis"* (Komsomolskaya Pravda, 17.09.2008).

*"People are killed by social stress"* (Meditsinskaya gazeta, 02.04.2008)

*"At the end of the working day they turn into swines"* (Moya semya, 2008, № 20).

Against the back ground of universal feeble-mindedness and inactivity — it is only a beginning...

*Chapter 11*  
**Teaching on the living and the dead soul**

One of the founders of the west-european psychology was Wilhelm Wundt (1832—1920), who created the first laboratory of experimental and structural psychology. Among the basic investigation directions of the group headed by him was the search of the perception “element”. We remembered him up, because he said ones: the man is an especial variety of the animal and does not have any spirit. As for reflections, they appear in the brain as a result of chemical and physical processes.

A soulless verbal educational system based on the Wundt’s ideas spread all over the world. It was sensually detached informational rational system of abstract life perception (“good and evil perception” in the language of moral teachings). It was perception, which was short of the own physical and moral (internal) experience.

It is known, that the main psychologists realizing Wundt’s ideas in the sphere of education were Edward Lee Thorndike, John Dewey, James Earl Russell, James McKeen Cattell, William James and others. The detailed analysis of their works is not our task. The purpose of the present chapter is an attempt to define the idea of spirit in the academic language and demonstrate catastrophic consequences of new generation’s education and upbringing in verbal and information (insensible, unemotional, that is soulless) frame.

The question of principle appears here: how do the peaks of human creations giving the value of the spiritual development level for each nation manifest? In verbal and informational “repeating over and over again” or intellectual “clever-cleverness” around not created by them cultures, or in real achievements in music, literature, art, sculpture, painting, poetry, etc.? The answer is clear. Each kind of art and culture is the derivate of feeling’s transformation indeed, bun not of verbal judgment about the art.

And now let’s try to list the signs elevating the man over subordinate life. They are sense of beauty, conscience, love, mercy,

responsibility, honor, dignity: for boys — courage, will, paternity; for girls — tenderness, mother-hood, etc. The combination of these features is just what we name spirit. All these features are not given at once; they do not appear from different information content put into the children’s heads. The highest features, which make people real people, “are constructed” by means of inborn feelings of reflex and instinct development. This can be attained by means of long-term labor of the family and the school, the whole society and the government.

But how does a school work today within so called verbal frame? Instead of painstaking upbringing in children courage, love and mercy a teacher puts into children’s heads abstract courage, abstract love, abstract beauty and so on. But already millions of parents and teachers don’t think about the fact, that there is a distance between the given information about courage and real courage, like a distance between the Earth and the nearest star. The president of Tatarstan Mintimer Shaimiev told ones the following event: when he had come to a school during a physical training lesson, everybody was sitting and watching a film about physical culture instead of real training.

What do we have by such “perception”? The family, and especially the school “leaves alone” the inborn instinctive feelings and starts forming disordered and aloof from subordinate sense operational calculating and informational oriented intellect. Firstly, such disorder and shutdown of feelings from intellect is the start of so called dissociative identity disorder (schizophrenia — in the language of psychiatrists). Secondly, what are we going to have beside schizo-intellect? By such an approach to education we raise such “species” of people, whose intellect, devoid of will, serves for omnipotent instincts.

The number of sexual deviant, sadistic killer, those who can be called a man only according to their anatomic characteristics is constantly increasing. Herewith they performed well at school and had high intellectual ability. The more the army of such brutish “intellectual” people grows, the more the traditional medicine looks for the means of cure. The cure of evolutionary significant

degenerating processes? Meanwhile The International Human Rights Commission headed by Jane Isgate publishes serious works under the meaningful heading of “Drug hard-sell to children. Psychiatry destroys peoples lives”.

In 2002 in our country a great work concerning this burning problem “Psychiatry — is treason knowing no bounds” was published (B. Weissman, M. 2002). The author confirmed there, that the modern psychiatry made a massive impact on the psycotype of the modern American society formation. Moreover this impact is extremely destructive. The subject matter of the given fundamental work can be understood from its content:

1. What is happening to us?
2. The look through a shroud of a charmful mist: does Psychiatry work in fact?
3. From crazy houses to drawing rooms.
4. The net of impact.
5. Discharge through the brain.
6. Brain destruction for the sake of perception saving.
7. All-powerful panacea — drugs.
8. Psychiatry, justice and crime.
9. Ruin of educational frame.
10. Deprivation of human rights.
11. Financial consideration of deception: psychiatric fraud.
12. Madness invention.
13. The only more destructive power.

We are not going to get inside into the root question of “psychiatrical...mist” and “charmful ... fraud” technology, etc. But the following is clear: just verbal and informational approach to the children’s development (education and upbringing) is certainly leading to disvolution of what we call spirit, and finely, to people’s dehumanize. In particular, the authorities of the West have been started discussing the syndrome of children’s dehumanize as a result of extinction of spirit’s work basic function — imaginative mind — since the 50s of the XX century.

Particularly professor Itten (a well-known Swiss educator, the participant of in-ternational conferences in Luanda (1955) and the Haag (1957)) evaluating the complex of symptoms of the started imaginative facilities extinction process by children said: the humanity had come to a dead-lock in its development<sup>1</sup>. Madlen Velz Pagano (1955) went to even greater extremes, confirming that all these symptoms reflected the people dehumanize process never-before-seen in the human history. Evaluating the complex of symptoms of the imaginative mind extinction process by children Luis Mashar (1955) arrived at a decision, that we expected the tragedy of people’s spiritual mental essence distortion in the modern technical civilization<sup>2</sup>.

Herewith Experts in Psychology explain this phenomenon very simple. All these symptoms are “natural” due to the technical “progress” of the civilization. And as it is known there is no arguing with the progress. Our home-brewed psychologists decided, that this dehumanize reflects the crisis of bourgeois morals, and it has nothing to do with us.

The researchers conducted under our direction (M.A. Nenasheva, 1998) persuade of the main fact: the started process of new generation dehumanize is not the result of technological progress as it has been considered by the west specialists, but the consequences of informational oriented educational frame.

The verbal and information oriented approach to children’s education presupposes that they have informational (extrasensory) remembrance in the brain. As for this, let’s turn to such authorities in the sphere of brain study as I.M. Sechenov, I.P. Pavlov, Charls Sherrington, John Eccles, A. Luria, Wilder Penfield, Carl Pribram, N.P. Behtereva, and others. After many years of the brain study and the search of memory traces in the brain Sir Charls Sherrington (Nobel laureate) had to state: “*We are to consider the problem of*

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<sup>1</sup> Here and further the citation from: G.V. Lobunskaya (1995).

<sup>2</sup> Was it namely of what Ransomer had warned: “We shall not all sleep; but we shall all be changed in a moment” (1 Coran. 15, 51).

*sence and brains connection not only to be unsettled, but also wholly void of reason to its solution... I am sure that it will always be impossible to explain the sence on the basis of neuronal processes inside of the brain*<sup>1</sup>.

It is reasonable to mention here the works of outstanding I.M. Sechenov (1947). He demonstrated with arguments the key point : thoughts as a moral process originate only in the depth of a real physical effort. As for this, there are his basic theses : “*the whole boundless variety of external brain activity displays results finely in only one phenomenon — muscular action*”. And vice versa : “*...Muscular sensation is purely subjective — it reaches the mind only in the form of some kind of effort*”.

Already from this psychophysiological law follows such a conclusion: to make a child seat unmoved in learning activity means to kill the birth and development of his own thoughts. Under such conditions the natural question arises: properly speaking, in what “academic” pedagogical science did the modern educational training technologies appear? We mean the building of learning activity on the basis of total enslavement of the body that should be unmoved on a seat, on the basis of insensible, unemotional, involuntary muscular life perception (good and evil in the language of the Holy Writings). Millions of clever in their own eyes teachers, parents and bureaucrats are sure: our children are going to be people with imaginative mind, if their ears will be turned to the channels for 10—12 years “uploading”, aloof from the body’s efforts and feelings of abstract virtual information.

The list of the existing ideas of “spirit” would take not one book. We just mention for the readers such last works as “The origin of spirituality” (P.V. Simonov, P.M. Ershov, U.P. Vjasemski, M. “Nauka”, 1989) ; “The human spirit” (M. Bogoslovski, I.V. Knjaskin, M. : St. P., publishing house Sova, 2006) and others. Pouring in tributes those, who was upon the look in this direction

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<sup>1</sup> Citation from: *Wilder Penfield. «Brain and sense» // the book.: «Dialogues go on»*. — Moscow: the publishing house of political literature, 1989.

for a long time, we engage in an attempt to give an academic conception of spirit, which founds on the real data, including the described above experimental ones.

In general, spirit is that “collector” where an imprinted sensory imaginative memory is kept. This is that engraved substance, on the basis of which the basic moral essence — imaginative mind — originates. Imagination that once withdrew us from situational reflex and instinct world view and directed sensual forms of thoughts to the far, felt feature. In the allegorical and allusive language of symbols it is the wings of Creator in human appearance.

We have shown (part I, chapter 1) that the spiritual essence of people in childhood, our world view (including the own imaginative mind) is formed on the basis of emotional symbols and plots of outward things imprinting. That is why people in their cultures always preserved their children from perception of people’s unchangeable instinct and aggression display. As for neurophysiological mechanism of imprinting symbols and world’s plots stabilisation and keeping in feelings memory, it was prompted by the following facts.

It is turned out that curriculum planning by dominant sedentary pose sooner or later leads to disorganization and breaking of the world’s images received earlier. And vice versa, the curriculum planning on the basis of upright contributes to stabilization of images (Refer to fig. 15, 48). The real experimental data demonstrate that images stabilization and utilization (keeping) happens along the somatic gravitational and energetic axis, spreading along the spine. We have described this mechanism in details as somatic gravitational and torsional rhythm of life (refer to part II, ch.7).

As for received images stabilization along the somatic gravitational and energetic axis, it is just the first step to forming of what we call spirit. World view with the help of received images is namely what we call the recollection of former days. But such memory is incapable to get over “the wall”, separating the present and the past, to get over and take us to imaginative (expecting) future space and time. It is question of that spiritual imaginative space

and time that are the base characteristic in the perception (mind) forming and support.

The wealth of imaginative mind and as a result imaginative potential of the man are defined with the wealth of the new (transformed) images created by the man himself. And as for distance of the flight to the future on the wings of imaginative mind, it is in direct ratio to that somatic muscular sense that was formed (developed) with the help of feet. And the received and transformed in handwork images should be revived in the feelings memory. This function is executed by those words that are deep associated with real world's images.

How should we explain the described above three basic stages of imprinting, transformation and reviviscence of world's images? We imprint into the feelings memory structured in the images wave light "models" from the world's images. This is the level of microwaves. These images are necessary to associate with the speech. And the speech is a low frequency. That is why that "transitional module" is necessary here; it would integrate microwaves and low frequencies. Such a single universal evolutionary important mechanism ("module") of microwaves integration, structured in the imprinted light images with low-frequency speech structure is the voluntary creative efforts of hands.

Troubles are on the watch for those people who disturb this sacred "Trinity" as the epicentrum of cognition and creativeness in the spirit formation. For instance, when people begin to educate new generations on the basis of the broken upright (fig. 36), imprint vivid light bringing world's images with the help of lifeless letters, figures and diagrams and educate with the help of words which can't give to the children the possibility to imagine and so on. But exactly on these psycho destructive principles the modern "sedentary", armless, ugly, information oriented school is built.

A qualified teacher and a university professor Viktor Pluhin has vividly described the psycotype of young people that are made and sent by the school to a social life ("Uchitelskaja gaseta", 15/11/1994):

*"I am teacher, professor of graphic arts by vocation: I have been working almost 30 years in the school with children and 16 years with students in the pedagogical institute. I work with pupils and students but prefer children. Why? Because intercourse with them is a great pleasure. The things are different in a student lecture hall: students half stand, half seat, somebody even almost lies with demonstrating look of being confined a hard labor. I have a strange feeling — as if I sink into a little world of exinanition and immorality. Are they future teachers?!"*

*My attempt to return them to life causes a heated reaction: "Your deal is to explain, our deal is to listen! You draw and we copy!" Poor children! Yes, poor, because all this is catastrophe. But it is very important to understand, who is to blame for the fact that future teachers turned out to be in such a situation? I think, of course, it is the professors fault.*

*The main orientation in the most professors actions is the following: "Do everything like me. From here to here". It will certainly have an impact on the students, on their position. Somebody in the very first session resigns himself having "fitted on himself" such education, he prepares to further tagging and giving, becomes a pliant, irresponsible student, who is simple to manipulate. The other hardens, meets everything at dagger point, never gets used and doesn't resigns himself to the fact that every day he meets the same situation — to seat during 6—8 hours and write down without basing upon his own experience. What can be more burdensome and more unbearable? What can this "writing" give to students? How can we name the process that takes place in a lecture hall?*

*Such actions of professors to my mind are called a trample on one and the same place, blank run of engine. They damage the idea of education, disable to take the initiative, adroitness, retard the personal wealth development. The students work without using their thoughts and as a result they turned out to be on the lowest of the 5 stages of knowledge familiar from the times of Plato — mechanical learning on account of pitch in memory. But there is also the second, the third, the forth and the fifth stages corresponding to brainwork, comprehended understanding, inner understanding and finely, full understanding.*

*Unfortunately we can only dream about it, because the overwhelming majority of professors prefer the work at no load, speaking in the sake of speaking. By the way many of them are satisfied with their work and are ready to prove sincerely that it gives results. But it is not the most terrible thing; the most terrible is the fact that such a phenomenon — “the speakers” — became social and widespread like an epidemic. We speak, teach everyday and every week, but educate illiterates. Why? Because “the knowledge not born by experience — as it was said by a wise man (and he was absolutely right) — is vain and full of mistakes”.*

We should speak briefly about our own investigation on that score. Firstly, switching of the sense organs and primarily of visual analyzer from the organ that must constantly scan the tridimensional images in free space into the blocked for freedom of movements organ of small ex-libris point fixation contributes to images disorganization and disintegration (Fig.15). What is it all about? The fact that the visual analyzer is the organ constantly scanning the tridimensional images with high frequency of micro motions is well-known. But we have stated for the first time that the process of vivification from the feelings memory earlier scanned and utilized in the memory images is carried out into practice on those microkinetic algorithms, on the basis of which their scanning and utilization have taken place. Under these conditions the systematic maintenance of sight in the regime of freedom of macro- and microkinetic activity blocking, maintenance in the regime of eyes movements enslavement is blocking of the visual analyzer not only as a scanner, but also as a basic psychogenetic mechanism that revives utilized images from the sensori-imaginative “collector”.

Secondly, booking methods of life “perception” dominating in the learning activity is constant scanning and utilization of the lifeless letters, figures, schemes grayness into the feelings memory (spirit). We have conducted an experiment concerning this fact. We showed two “similar” flowers to the children of different forms. The difference between the flowers was that one of them was artificial, the second — natural. The children were asked to say what flower

they had preferred. And if the first-form pupils preferred the natural flower in 2/3—4/5 cases, 2—3 years of education later they were about a half. By the period of school leaving the number of such children was nearly 1/3. The matter is that while prolongation of bookish education the life’s feeling — life-giving world perception — is dying out by children. Such young people are characterized with heartlessness to everything alive. Even other people are accepted by them as moving mannequins.

Thirdly, 10—12 years bookish perception of conventional signal abstract life is the formation and rooting of virtual world view. The start of the real life for such young people is always the fear and stress. They feel in the full fineness that in real life it is unbearably lonely, depressingly and cold. Irresistible fear before the real life, desire to go to the accustomed for them virtual life — that is what the school has been forming during 10—12 years of the bookish method of “good and evil perception” dominating.

And now let’s sum up all the noted above: it is disintegration of words and images, extinct body’s will and spirit stagnation (slavery and fear), deformed and falling to peaces imagination, extinguished life perception — life-giving world perception, the fear to face the real life on the background of desire to leave it for accustomed virtuality, etc. That is what we call desolation, alienation, dimming, disorganization and decay of spirit.

It should be noticed that the tragedy of children and young people’s “bookish” spirits was vividly and picturesque expressed by the cult-figure of the 1990s Viktor Tsoy. He sang about the spirits desolation and spiritual cold where for some reason children and teenagers turned out to be. He sang about the deep loneliness and moral freezing of children and teenagers, about vagrancy and life without meaning. He sang about dying flame in the spirits (“temples” in the language of symbols). And these words turned out to be conformable to the spirits strings of many children. Every teenager, listening to Viktor Tsoy’s songs, experienced his position, harmony of his spirit, and he felt “a little better with his loneliness”. We exemplify only a small part of Viktor Tsoy’s verse:

Мерзнут руки и ноги, и негде сесть,  
Это время похоже на сплошную ночь...

В толпе я как иголка в сене,  
Я снова человек без цели...

Ты видишь мою звезду,  
Ты веришь, что я найду,  
Я слеп, я не вижу свет...

Мы не видим солнца уже несколько дней,  
Наши ноги утратили крепость на этом пути...  
Я знал, что будет плохо,  
Но не знал, что так скоро...  
Пришел домой, и как всегда опять один,  
Мой дом пустой...

А мне приснилось — миром правит любовь,  
А мне приснилось — миром правит мечта,  
И над этим прекрасно горит звезда,  
Я проснулся и понял: беда...

Я знаю мое дерево не проживет и недели,  
Я знаю мое дерево в этом городе обречено..."

И прямо указывал юный пророк, откуда пришла беда:

Мой дом, я в нем  
Сижу, пень пнем...

Чтение книг — полезная вещь, но опасная, как динамит,  
Я не помню, сколько мне было лет,  
Когда я принял это на вид...

Conducted together with the scientists of the Russian Academy of Medical Sciences investigations (candidate of bioscience V.P. Novitskaja and candidate of medical science V.A. Gurov)

allowed to reveal the following extremely important fact. After two years of “bookish and sedentary learning” the fluorescence of blood cells (catecholamine in lymphocytes) dyes out 2.3 times as much. At the end we came to the conclusion that the feeling of a vivid and multicolored life extinction on the background of the blood cells fluorescence is the scientific revealing of the central idea of all the Holy Writings — “exilement from the paradise” and death in the result of “good and evil perception” (bookish perception of life — *V.B.*)

The received scientific data allow to realize why people in legends named those people who dictated the bookish methods of education just “practitioners of black magic”. Let’s remember up the verse of A.S. Pushkin:

“Дрожащий карлик за седлом  
Не смел дышать, не шевелился  
И чернокнижным языком  
Усердно демонам молился”.

Our investigations have shown: the upright rooting in childhood is the spirit development, the rooting of somatic, emotional (moral) and neuropsychic firmness. And vice versa: unrooting of upright in childhood is disorganization of the spirit and misbalance of somatic, emotional (moral) and neuropsychic firmness. In broad sense it means to take away the main point of support on the level of a nation and even the whole civilization.

The worked out under our command and patent open didactic courts for conducting lessons out of doors, methods of teaching in a common school in the upright regime and lesser forms of moving activity on the background of sense enrichment allow to prevent the “exilement from the paradise” syndrome, including the syndrome of acute spiritual hunger.

The matter depends on responsibility of the science for its “sanative means”. The matter depends on the need of not only treatment facilities, but means of primary prevention. But we are

not morally experienced enough for it. We appreciate only what we lose. What we lose forever and of what we perish become relic and culture for overall worship. It seems that only sufferings reveal frozen people's spirits.

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#### **Section IV. FROM EDUCATION IN SLAVERY OF "DECAY" TO EDUCATION IN THE FREEDOM OF SPIRIT**

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It is known that the basic principles of the modern educational pattern were suggested by Jan Amos Komensky, who called them "machinal didactics". Later due to tireless work of his "apostles" this educational pattern was dictated practically on the level of the whole modern civilization\*. There are the basic principles of "machinal didactics":

- learning activity submission to the hard, organized in days and hours base curriculum;
- learning activity organization on the basis of suppression and enslavement of body movements and a child's searching efforts;
- the cult of abstract information and virtual knowledge on the background of disregarding of the own somatic sensory child's experience;
- disregarding in the learning activity of motives, interests, peculiarities of a child's imagination;
- authoritarian instructive and programming character of information delivery;
- disregarding of gender and personality oriented peculiarities, interests, motives, fantasy, imagination, games of boys and girls;
- learning activity organization on the basis of discipline, obedience and punishment.

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\* Look the journal of the Russian Academy of Sciences Presidium «The science in Russia» (1999, № 1).

Specialists have been speaking already for a long time that such schooling model destroys somatic and mental health of each new generation. A lot of pedagogical innovations are suggested, but the base essence of learning activity organization and carrying out on the basis of total enslavement of motor, sensuous, emotional and voluntary child nature practically haven't been changed. From here we have the increasing in generations "sequestration" of somatic functional, moral and mental potential of specific life, including decline of mental and corporal health.

On the 4th of April 1979 "Medicinskaya gazeta" gave the information about the birth of a new health saving (more exactly health developing) educational pattern, worked out under our command (in that time I was the head of sensor systems department of the Research institute of Medicine in North Pole, Russian Academy of Medical Sciences). The point was that during the whole epoch of universal compulsory education for the first time children not only were saving their health but increasing it in the process of learning activity. They succeeded due to the fact that learning activity was based on the main laws corresponding to liberation of children's specie's potentials, and as a result recreation of people due to:

- orthograde posture;
- oriented searching efforts of children;
- emotional imprinting of real and simulated videorange;
- the following transformation of imprinted images in creation;
- gender and personality oriented peculiarities, interests, motives, imagination, games of boys and girls, etc. (shortened version of the program you can see in the appendix).

Later under the command of the Russian Ministry of Health during 1980s with the help of the Russian leading research institutes in the sphere of childhood (The Ivanovo Research institute of motherhood and childhood protection, The Gorki Research Institute of pediatrics) an elaborate expertise of developed health

saving approaches to organization of learning activity was carried out. After receiving of convincing positive data concerning saving and promotion of children's health in learning activity with the help of exceptionally pedagogical methods in 1989, the program was approved by the Ministry of Health and recommended for introduction to all the educational institution of the country under the following title: "The mass primary prevention of school forms pathology or health developing principles of cognitive activity designing in kinder gardens and schools" (V.F. Basarny, L.P. Ufimceva, V.A. Gurov, E. Olado).

But despite the fact that the Ministry of health recommendations for educational institutions in accordance with the law "On education" are compulsory to fulfill, in real life the things are different. The Department of Education and Science and the Russian Academy of Education, actively spreading during the second half of the XX century of what destroyed physical and mental health of pupils, couldn't change the strategic educational course strange to children's nature. Many of those academicians of the Russian Academy of Education who were developing and introducing wrecking for children school reforms during a half of the century couldn't change and accept the given program.

And still due to a principle position of the whole range of scientists, teachers and leaders of educational institutions the given program is spreading in Russia. There are more than a thousand of such educational institutions in our country. And everywhere teachers and doctors state only positive results. There are some facts from the fundamental investigations conducted under our command on the base of Research institute of Medicine in North Pole (director, corresponding member of the Russian Academy of science V.T. Manchuk), Siberian Department of the Russian Academy of science (the president, academician V.S. Trufakin), and also on the basis of the scientific complementary laboratory of physiological health saving problems of education in the Moscow region administration.

## Chapter 1

### Why does a cell fluoresce? <sup>1</sup>

On the level of cells metabolism and energetics of 2 pupils groups were studied. Teaching situation in these groups differed in sensori-motor regimes. The children of the 1<sup>st</sup> group learned in the regime of somatic motor activity, at special ergonomic furniture, in the regime of orthograde posture. Besides the lesson organization method presupposed active searching moving in a class. We have called this regime the dynamic regime.

The other group learned in generally accepted sedentary physically inactive regime. The density of somatic and muscle strain in the second control group was about 2, 5 times as high than in the experimental one.

For diagnostic of influence of the lessons, organized in different somatic and motor regimes, the pupils of the second form in two schools of Krasnoyarsk learning the second year in the regime of somatic motor activity and sedentary physically inactive regime (experimental and controlled classes) were investigated on metabolism of cells (using lymphocytes). For the investigation comparatively healthy children of 8—9 years had been selected (the 1<sup>st</sup> and the 2<sup>nd</sup> groups of health). Sex and age stuff in two groups was similar.

Blood for test was taken from a finger in the morning on an empty stomach. By all the children in lymphocytes of peripheral blood using the quantitative cytochemistry method the following activity was determined: succinate dehydrogenase (SDH),  $\alpha$ -glycero phosphate dehydrogenases ( $\alpha$ -GPDH), mitochondrial ( $\alpha$ -GPDH), lactate dehydrogenase (LDH), aerobian isoenzyme lactate dehydrogenase (ILDH), acid and alkaline phosphatase (Aph) of lymphocyte (l) and neutrophils (n), monoaminooxidase (MAO) and also content of catecholamine (CA) and serotonin (Ser. — in the modification of V.P. Novitskaya). For calculation of leukogram

<sup>1</sup> The authors of the given part V.P. Novitskaya, V.B.F. Basarny, V.A. Gurov.

blood films were colored according to the common method and indexes were calculated — leukocytic index of organism intoxication (LII), including index of blood leucocytes shifting (IBLS).

### *Investigations results and their consideration*

By the children of the control class, learning in the SPI regime (sedentary physical inactive regime), in the spring period metabolic processes in lymphocytes were passing into the regime of extremely minimal activity. However the balance of the basic (SDH) and reserve ( $\alpha$ -GPDH) ways of a cell power supply had been still reserved: ratio  $\alpha$ -GPDH/SDH — 0.54, that is it lied in the range of comparatively healthy children, living in the European part of Russia.

Education of children in the dynamic regime (SMA) caused a significant modulation of blood leucocytes ferments activity. These changes influenced the ferments, localized as in mitochondrion as in cytoplasm. The activity of SDH and  $\alpha$ -GPDH turned out to be accurate higher by 55.48% ( $p < 0,001$ ) and by 15.46 ( $p < 0,05$ ), than by children learning in traditional regime. Moreover the index MAO by children from the experimental class increased by 100% in reference to the leucocytes ferments level of children from the control class. It is necessary to emphasize that stimulation of mitochondrion reactions didn't lead to activation of the glycolysis reaction (LDH and ILDH).

The analysis of hydrolytic enzymatic activity had shown that by the children of the control class in lymphocytes and neutrophils prevailed catabolic trend of metabolism (high level of acid phosphatase). A teaching situation in the regime SMA stabilized the indexes reducing the catabolism level as in lymphocytes as in neutrophils correspondingly by 24.2% and 20.6% ( $p < 0,001$ ).

The analysis of lymphocytes of children learning in the regime SMA had revealed not only the enzymatic average activity increasing, but also the change of the structure of immunocompetent

cells population. In particular, lymphocytes dissimilarity reflected by a variety index was decreased from 81.11 to 69.19%. At that the lymphocytes with increased activity of the ferment prevailed (asymmetry and excess indexes were decreased). It points out the fact that their distorted distribution was normalized.

Mathematical division of circulative lymphocytes population in two subpopulations has shown that we can watch the increase of the volume of high-activity cells lesser population from 9.67% to 13.34% by children from the experimental class (SMA), but the number of lymphocytes in a large subpopulation decreases in comparison with the children from the control class. At the same time in a large subpopulation of low-activity cells the intensification of succinate acescence (the ferment level increased by 118.68%) takes place. In the lesser high-activity cells subpopulation the enzymatic activity increased by 57.96% in reference to the similar cells population of the children from the control class.

Thus, we can note the clearly expressed activation of lymphoid cells by children from the experimental class that manifests in increase of blood lymphocytes enzymatic activity in both subpopulation of cells, and also the number of high-activity lymphocytes increasing.

It is known that a long-lasting physical inactivity (hypodynamia) causes the changes of monoamines ergic systems and regulatory system functions of the organism. The content of physiologically active substance having modulating influence on immunocompetent cells is changed in blood. The deep analysis of monoamines fluorescence indexes has shown that the regime of education SMA leads to fluorescence CA increasing 2.3-fold ( $p < 0,001$ ). As for serotonin content in lymphocytes by these children it was changing in reverse manner — the statistically accurate decrease of monoamine level by 32.77% ( $p < 0,01$ ) occurred.

It is necessary to point out that the regular effects of catecholamine and serotonin in reference to metabolism and immunocompetent cells capacity have various character. By the children of the control and experimental classes the ability to collect

monoamines by lymphocytes and possibly to synthesize is different. The reason of such differences apparently is the peculiarities of membranes transistance and reactivity, and also the trend of metabolic processes in a cell.

Increase of somatic and muscular activity in the regime of orthograde posture and as a result decrease of hypodynamia and muscle static strain lead to the rise of central nervous system cerebral competence that becomes apparent in the index growth CA/Ser. 3.3-fold ( $p < 0,001$ ). Besides the index growth CA/Ser. reflects the increase of behavior reflex preservation degree, and also passes from a short-term memory to a long-term memory. These results point out the fact that lessons in the regime SMA reduce more exhausting for the given age group of children static stress strain in the learning activity. It, in its turn, leads to relative increase of the CNS cerebral competence. Moreover these facts reveal an extremely important thing: in the mechanisms of a long-term memory somatic and muscle activity plays the most important role.

The analysis of peripheral blood cellular structure (leukogram) has shown that by the children learning in the experimental class the basophil abundance (6.6 fold;  $p < 0,001$ ) and segmented neutrophils (by 33.87%;  $p < 0,001$ ) are accurate decreasing and besides, the shift to the left on the background of IBLS is decreasing (by 56,4%;  $p < 0,001$ ). Here should be noted that by the SMA regime leukocytic index of organism intoxication (LII) decreases 2.3 fold ( $p < 0,01$ ) in comparison with children learning in the sedentary physically inactive regime. The percentage of lymphocytes and the balance L/S in the experimental group has raised (correspondingly by 59,5% and 138,7%;  $p < 0,001$ ) in comparison with the children from the control class.

In the case of consideration of the revealed shifts as a reflection of the children's adaptation to different lesson regimes, the pupils of the control class were exposed to the chronic stress reaction. The children from the experimental class have the reaction of increased activation (as according to the level of L/S index as according to monoamines content). The trend of monoamines content change

in blood lymphocytes by the children from the experimental class reflects the balance of metabolic processes, which is conditioned by neurotransmitter redistribution by the reaction of the increased activation and damage of such balance by the children from the control class, experiencing the stress-strain reaction.

The investigation findings were studied with the help of correlation analysis. It is stated that by children, learning in the SMA regime, the common number of cellicolous and endogenous accurate correlations between lymphocytes ferments and the indexes of percentage of ferment blood elements content is reduced by 40%. Decrease of the correlation relationship number testifies the balance of immune system's work of the children in the experimental class and available free choice of necessary variants of immunocompetent cells reaction. If in the lymphocytes of the children in the control class there is a cellicolous excessive regimentation ferments of energy metabolism (SDH, LDH,  $\alpha$ -GPDH), by the children in the experimental class this relationship is lost and appear the new: APh-MAO ( $r = 0,51$ ;  $p < 0,05$ ) и CPh-N-LDH ( $r = 0,54$ ;  $p < 0,05$ ).

The existence of negative relationship by the children learning in the SMA regime proves once again the balance of the lymphocytes metabolic system. It is connected with the fact that, firstly, CA are activated by lysosomes, ferments of which lead to cellular construction decomposition and the high MAO level reduces this activity. Secondly, by CPh reduction aerobian isoenzyme LDH activates, as the role of lysosome's proteins in the regulation of oxidation-reduction enzymes in blood cells is well-known.

Correlation relationship between metabolic lymphocytes indexes and percentage of cellular elements differed not only quantitatively but also qualitatively. Appearance among them of the new and the lost of existing relationship testifies to the presence of higher levels and freedoms of immunocompetent cells functioning by children learning in the SMA regime. The presence of accurate correlations between SDH and percentage of basophils and APhn by the children in the control class on the background of connection SDH-APhh ( $r = 0,560$ ;  $p < 0,05$ ) testifies in the experimental class to

demonstration of the naturally determined regulation of the ferment level with biologically active substance of basophils, and points out the ferment's dependant on phagocytes capacity.

By the children in the experimental class correlation dependence between  $\alpha$ -GPDH, LDH and cellular blood structure was not revealed. At the same time in the control class the direct activity dependence of  $\alpha$ -GPDH, LDH lymphocytes with percentage of these cells and inverse relationship with IBLs were revealed. Besides the LDH activity is closely linked with the content C (%) that was reflected in relationship: LDH — C(%) ( $r = 0,65$ ;  $p < 0,05$ ) and LDH-L C ( $r = 0,77$ ;  $p < 0,01$ ).

By the children in the experimental class the activity level of APhn that was connected only to SDH lymphocytes manifested more autonomous. In the control class the ferment activity in direct ratio depended on the C (%) content and in inverse ratio on the L (%) content, IBLs and L/C relationship.

Increase of MAO activity and the percentage of lymphocytes by the children in the experimental class harmonized with the direct dependence of the ferment of quantity MAO-L (%) ( $r = 0,55$ ;  $p < 0,05$ ). By the children of the control class this connection was negative. The presence of relationship MAO-L/C ( $r = 0,52$ ;  $p < 0,05$ ) by the children of the experimental class and the presence of relationship MAO-IBLS ( $r = 0,60$ ;  $p < 0,01$ ) by the children of the control class testifies to possibility of regular monoamines influence on relationship of cellular blood elements.

The lymphocytosis strength dependence of the relationship of other cellular elements by the children in the experimental class was revealed, that proved out by the presence of negative correlation relationship: L (%) - M (%); L (%) - C (%); L (%) - P (%). Closed connection of lymphocytes serotonin fluorescence and E (%) content in blood ( $r = 0,69$ ;  $p < 0,05$ ) thrusts itself forward. It reflects the possibility of the eosinocyte level regulation with serotonin of lymphocytes among the children learning in the SMA regime. It is necessary to note the cellular elements content change dependence of the organism intoxication level of these children that was proved

by the correlation relationship presence: C (%) -LII; P (%) -LII and L/C-LII. The children learning in the sedentary physically inactive regime had a high level of intoxication: E (%) -LII ( $r = 0,66$ ;  $P < 0,05$ ); P (%) -LII ( $r = 0,65$ ;  $p < 0,05$ ).

By the children in the experimental class the increased activation condition determined according to relationship L/S combined with significant reduce of index of blood leucocytes shifting — L/C-IBLS ( $r = -0,86$ ;  $p < 0,001$ ). The mentioned peculiarities of the correlation relationship structure reflect the higher activity level of immune system by children learning in the SMA regime. The interpretation of this relationship is possible also from that point of view that the high activity of ferments is appropriate of the “young” cellular elements, and the low activity — for the “old” ones. At the same time the change of lymphocytes metabolism and the balance shift between the processes of blood formation and blood destruction of cellular elements depends on neurohormonal regulation controlled by CNS.

### Conclusions

Lessons conduction according to the new schooling model (in the regime of orthograde posture and somatic and muscular activity) causes the energy and regulatory metabolism of immunocompetent cells modernization of children of younger school age. One of the significant results is the growth of the mitochondrion system capacity (activity increase of SDH,  $\alpha$ -GPDH, MAO) that provides the increase of organism's aerobic power and acceleration of pyruvate and fatty acids utilization. The analysis of the population structure according to SDH has shown the normalization of lymphoid cells population distribution and entering the midway of cells with the high activity of the ferment.

It is stated that by the children learning in sedentary physical inactive regime catabolic trend of metabolic processes dominates. At that, it is known that the most important component of all the

catabolic processes is the phenomenon of abnormal salts crystallizing in protein environment with the forming of abnormal organo-mineral appearance (S. Shatohina, 2008). It is question of a gradual metamorphosis of living substance into a stagnant one, of tissue cells and organism as a whole insensescence processes. It is stated that the protracted static muscle strain contributes to such metamorphosis of “living” substance into a “stagnant” one. The given phenomenon was called by us the syndrome of intravital body's mummification.

Reduce of metabolic processes catabolic trend in immunocompetent cells (the APh activity is reduced) by the children in the experimental class and as a result normalization of neuroendocrine regulation leads to lysosome membrane stabilization and to increased activity of immunogenesis. The mitochondrial  $\alpha$ -GPDH and SDH activity growth and decrease of serotonin fluorescence in the lymphocytes of children learning in the SMA regime increase the capacity of immunocompetent cells, contribute to the humoral antistances fusion growth.

The change of regulatory substances balance in immunocompetent cells can be in some degree connected with the increased activity of adrenergic and decrease of serotonergic parts of CNS. The increased CA level leads probably to intensive cell proliferation of the central immunity organs that can be the reason of relative lymphocytes content increase in peripheral blood.

By the children learning in the motor-active regime the changes of lymphocytes metabolism keep within limits of the common reactions of adaptation that reflects in the blood leukogram. The characteristics of the cellular blood structure from this class correspond to the increased activation reaction when the lymphocytes content is on the upper bound of the norm (52.73%) and the content of segmented neutrophils is below the line (36.46%). The content of the other cell elements has been within normal limits. It is shown that by the lesson in the regime of somatic muscular activity it is possible to normalize physiologic equilibration and to increase heterospecific resistibility of the organism.

The adaptation of the children's organism to education in the dominant regime of SMA leads also to the growth of the CNS cerebral competence that is proved by the increase of relationship CA/Ser. in 3.5 times and corresponds to the increase of behavior reflex saving degree and a short-term memory pass to a long-term memory.

By the correlation analysis we can watch the mathematical arguments of a deep and flexible interaction of the ferment lymphocyte systems and various blood systems by the children learning in the somatic motor activity regime (SMA). By the children from the control class a large number of rigid ("stagnant") relations are revealed. Such excessive rigidity can lead to disintegration of life control multilevel system. By the children from the experimental class the number of such rigid relations is decreased that creates a relative free choice of alternative ways of various subsystems, belonging to more complicated life control systems.

The analysis of immune system's different characteristics allowed to reveal a positive impact of the lessons organized in the regime of orthograde posture and somatic muscular activity on metabolism of immunocompetent cells. The given variant of education turned out to be the more natural for a child regime in comparison with the traditional one — static strained and sedentary physical inactive.

Generally, conducting the lessons in the somatic motor activity regime (motor freedom) contributes to the increase of genetic activity, free realization of species programs, the organism's resistance to stress and as a result to the increase of the immune and other important systems functionality level, and finely, of the viability level, development quality and children's health. The received data allow lastly to refuse an entrenched look of "classic genetics" declaring genetical substance's fabulous autonomy from the body, as well as independence of the work and genetic material activity of the body's activity.

## Chapter 2

### **The remote development effect of the children learning in the regime of activity and orthograde posture<sup>1</sup>**

The remote development effect by the children learning in the regime of orthograde posture and somatic motor activity (SMA, group I), in comparison with traditional sedentary physically inactive regime (SUR, group II) turned out to be in some degree unexpected even for us. The children learned in the SMA regime only in primary school. In connection with the begin of the cabinet educational frame and the lack of necessary finances to exchange furniture in the whole school they had to learn in the sedentary physically inactive regime SPI. We are going to demonstrate the obtained results on example of pupils of the 9<sup>th</sup> form.

The analysis of the upright (posture) has shown that in the group of children learning in the SPI regime the different deviation signs in the spine development occur 1.5 times as often in comparison with the children learning in the SMA regime. Even platypodia occurred more often by the pupils from the SPI group that testifies to deformation of the whole musculoskeletal system's development. And it is in order. Due to accomplished work it is stated: the more the children seat, in the greater degree the ligamentous apparatus, including feet, weakens. And vice versa: the more children are in orthograde posture, in the greater degree the ligamentous apparatus develops and strengthens.

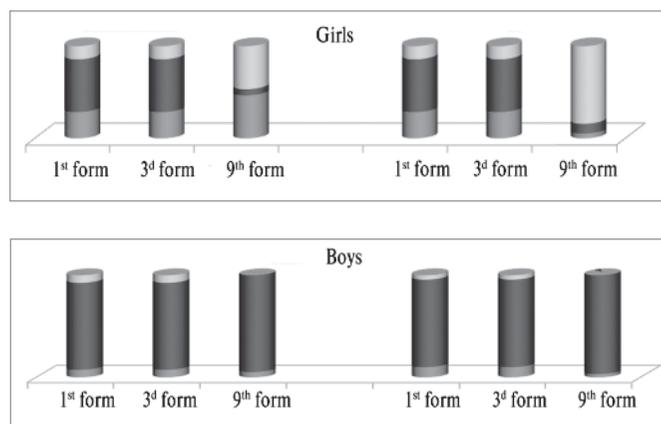
It is known that sex differences in the pelvis constitutions start appearing at the age of 8—10 years. Female pelvis in comparison with the male one has larger sizes. According to results of the analysis of the 9-year pupils it is stated that as by girls as by boys abnormally broad pelvis predominated. At this, adequate physiological pelvis formation was marked by the pupils learning in the SMA regime

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<sup>1</sup> The data have been received by the candidate of medical science L.A. Alifanova. The number of children and their age and gender stuff. (look in part III, ch. 4).

what is extremely important for girls — bearers of reproductive performance (Fig. 49). The abnormal mesatipellic pelvis occurred here much rarer than by the children in the SPI group: broad — 1.7-fold (50—85%), narrow — 3-fold (3—9%), loxotic — 1.8-fold (30—55%). The number of girls with normally developed pelvis was 47%, meanwhile in the SPI group — only 6% ( $p < 0,05$ ). The revealed facts have a strong correlation relationship ( $R = 0,75$ ) with educational dynamic stereotype of children (motor physically inactive and motor active educational regimes).

The analysis of Decor-Dumik index (quotient of shoulders breadth to pelvis breadth) testifies to the fact that the problem indexes (girls  $> 5\text{cm}$   $>$  boys) occurred more often in the SPI group in comparison with the SMA group. These shifts in body constitution were observed on the background of generalized hormonal shifts (eunuchoid boys, masculinity of girls).



— normally developed pelvis  
 — narrow;  
 — broad  
 (percentage of the cases from the common number of examined children%).

Fig. 49. The pelvis development of the children by different regimes of motor activity during a lesson

It is known that the tempo of the morphologic ageing is timed to the determined passport age and proceeds in a strict order the damage of which testifies to the normal development deviations. The sexual maturation degree was valued according to the character of secondary sexual characters development depending on the age criteria. Among the girls in the SMA group there was not any misbalance of sexual maturation. At the same time in the SPI group 17% of girls stood behind ( $Ma_0, P_0, Me_0$ ), 8% went before ( $Ma_1, P_1$ ) the passport age (Fig. 50).

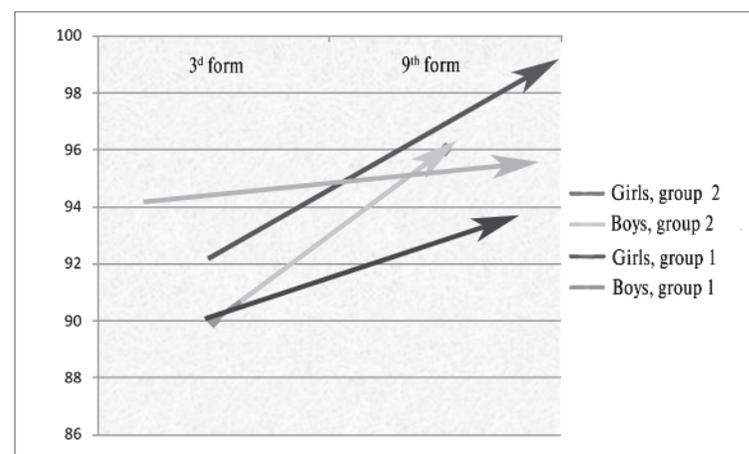


Fig. 50. The dynamics of sexual maturation degree by pupils by different regimes of motor activity during a lesson

Among the boys going before the passport age challenge was marked in the SMA group by 3% ( $L_0$ ) against 14% ( $P_1, L_0, F_0$ ) in the SPI regime group. The retardation signs occurred correspondingly by 6% ( $L_0, F_0$ ) against 15% ( $P_0, L_0$ ),  $p < 0,05$ . The revealed differences emphasize the higher level of biological (genetical) ripeness of the children learning in the regime of somatic motor activity (SMA).

One of the everlasting and actual problems of school period is progressing sight decline while increasing of learning period. By the

end of the 9<sup>th</sup> form in the SMA group the frequency of deviation of the sight development occurred essentially rarer in comparison with the SPI group: among the girls — 4-fold (9% against 36%), among boys — 1.3-fold (33% against 44%,  $p < 0,05$ ).

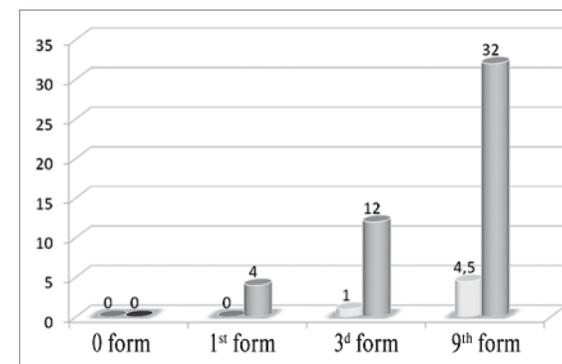
By the study of haemodynamic factors it has been stated that the border-line arterial hypertension (BAH) occurred almost two times as often in the SPI group as by girls as by boys. The dynamics of reaction value (RV) of haemodynamic supply testifies also to more negative trends in pupils functional development whose education at an early stage was organized in the sedentary inactive regime (SPI). The type of indexes growth corresponding to the age norm has had a decreasing character while in the SMA group — increasing one. This everything points out a significant somatic functional resistance of pupils in the SMA group to educational strain. As the proof of these facts serve the characteristics of neurovegetative providing of the life supporting base systems. In particular, it is revealed that normotonics occurred to be oftener in the SMA group and especially among the boys — 2.5-fold (21% against 8%,  $p < 0,05$ ).

The conducted investigations allowed us to make sure in the following. The teaching situation organization at the initial stage in the regime of orthograde posture and somatic muscle activity (SMA) allows to rise at all the following educational stages capacity and the development quality of the organism and on account of this to reduce the number of stress stimulants in the learning activity. This is proved not only by the revealed differences of somatic functional characteristics but also the complaints analysis which are connected to misbalance in various structural and functional organism links (Fig. 51). Thus, by the end of the 9<sup>th</sup> form in the SPI group 10 times as often in comparison with the SMA group occurred headache complaints, 20 times as often — muscular pain of various location, almost 14 times as often — crepitation in knee joints, 3 times as often- hepatolienal, hepatic and nephritic pains by physical activity. The teaching situation organization in the SMA regime contributed to the more effective formation of somatic coordinative and motor

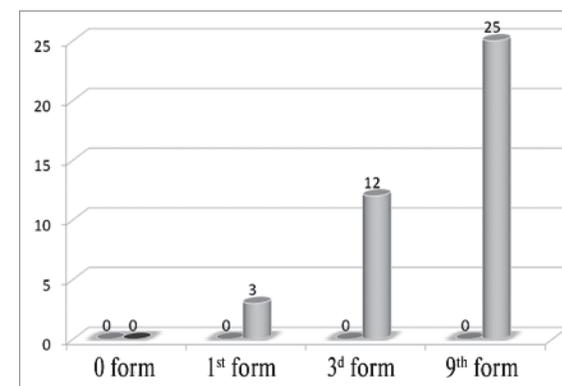
response of children that allowed them in its turn to become firmer, more flexible, more skilful, quicker and stronger.

The analogous situation was observed also according to the spectrum of appeared in the process of education pathobiology. Thus, by the end of the 9<sup>th</sup> form 2.7 as rare in the SMA group occurred fault in posture, 4 times as often — lateral curvature, 2 times as often — platypodia, 5 times as often — functional changes of cardiovascular system, 3 times as often — pathobiology of alimentary canal. A typical for the school age pathobiology of the breathing system and EENT-organs occurred almost 7 times as rare. Moreover there were 3 times less children who were sick for a long time and often.

headache

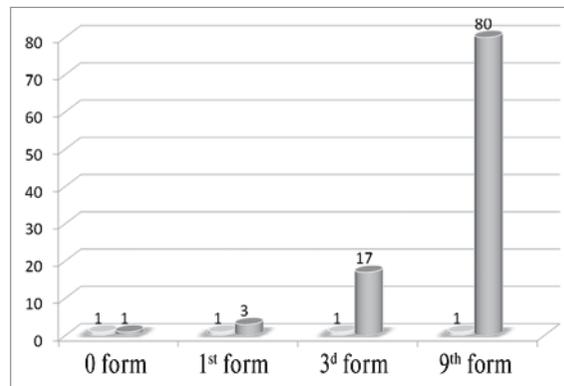


muscle pain

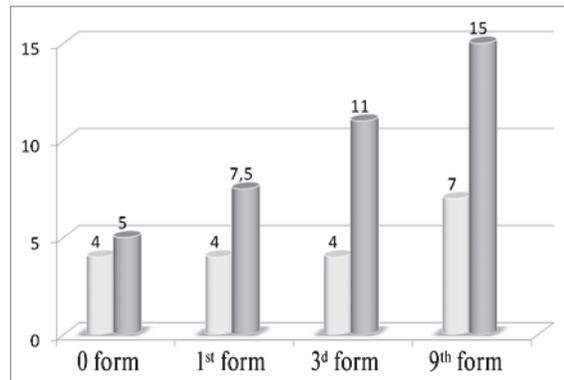


— group I,  
— group II

crepitation  
in knee joints



hepatolienal pains



■ — group I,  
■ — group II

Fig. 51. The progressing of pupils complaints while school period increasing (%).

The revealed growing disharmony of somatic functional development of the pupils learning in the sedentary physically inactive regime (SPI) corresponds to various investigations stressing the misbalance of neurohumoral, biochemical and neurovegetative processes connected with the SPI regime. The marked differences of pupils development learning in different kinetic regimes stress foundational influence of the body activity in the regime of orthograde posture on henogenesis balance. Under this position

organization of a teaching situation on the basis of upright and lesser forms of moving activity not only prevents the formation of faulty dynamic stereotypes, but also is the means of harmonious development and improving of their somatic functional potential in the school period.

In general the obtained data point out the following facts. Firstly, the kinetic regime characteristics on the basis of which learning activity in a primary school is organized have a great impact on the quality of development and health of children at all the following stages of life and education. Secondly, the whole period of henogenesis of the children learning in the SMA regime in a primary school has revealed more qualitative and effective indexes of development and health.

It is necessary to emphasize once again that energoinformational “building” of the body and its rootedness in the upright regime (conciliating) — posture- hosanna — is rootedness of emotional and neuropsychic resistance, including finding of resistance to various adverse factors of environment and stresses. V.A. Gurov (1995) has stated that among the children and teenagers learning in the upright regime (learning activity organization in motion and at special furniture — writing desks) there are 5—6 times less demonstration of neuropsychic prostration, aggression and even “internecine wars” (scuffles) in comparison with neighboring classes with a traditional regime of education.

The natural question to doctor-colleagues, teachers, parents and writers of national projects arises: what would our school-leavers be like, if they were learning in the SMA regime not only during 3—4 years (as it is described in the present investigation), but during 10—12 years? And what if we would add to the regime of somatic motor activity methods of boys developing according to the male type? Moreover we could add physical training lessons every day, remembering that any physical culture is really useful only when children train out of doors. So, how many generations should we ruin in order to make our government realize such a naked truth?

### Chapter 3

#### The laws of liberation and healthy development

It is known that primarily all the species potentials (genetic programs) are linked into the duplex of desoxyribonucleic acid. Genetic material inside itself doesn't have energy for these potentials self-liberation. Due to the complex of the conducted by us investigations it is stated: the single universal power reactivating and starting the work of genetic life "bioreactor" and maintaining its energoinformational "pressure" is that sensory energy that is constantly coming to the sense organs. It is namely that case that illustrates the well-known fact: by interdiction of sensory stimuli affluxion to the sense organs (or by the sense organs shutdown) genetic time course intermits ("is being frozen") so that the organism falls into a kind of sleep — anabiosis.

Reactivated genetic programs placing on the level of somatic vegetal and functional life is realized due to motor activity and the body's efforts and, first of all, step activity within free space (Fig. 30). "The building" of moral and mental peoples essence is realized by means of transformation (vivification) of primary reflex instinctive sense energy. Transformation with the help of "mind constructing" voluntary creative efforts where the basic role belongs to the handwork and speechwork. In fact, the point is about switching over of somatic motor life control circuit: from the "wound-up" by evolution genetic (reflex and instinct) "grounded" watchwork to nonearthly algorithms. And as it has been shown in part II, ch.13 such switching over is realized with the help of somatic gravitational and torsional rhythm of life (SGTR). Our hosanna has become the basic channel of switching over. The basic mechanism of switching over is controlled by voluntary will creative muscle efforts.

The quality and duration of people's lives from the point of view given above are determined not by "pharmacological" medicine but first of all by liberation degree and by a "clew" of genetic

programs revelation and also by maintaining of the evolved energoinformational matrixes activity level. In a universal language of symbols this process can be presented as completeness of a flower's opening.

Under such conditions reproduction of people by means of learning activity organization on the basis of systematic physical inactivity, manual antidexterity and interdiction of natural sensory stimuli affluxion to the sense organs is an increased in generations enslavement and damping "freezing" of people lives bioreactor. It's an intravital "sequestration" of life species potentials. Finally, it is a biogenetic regress and gradual extinction of the given life type.

External signs of such a process by people are growing infantilism, degradation of gender and personality oriented differentiation, the healthy life period reduction, young people and children's sinking into the process of real insenescence on the background of the functional failure of life support systems growth, their defection by chronic non-epidemical abnormality, growing of mental deviation, etc. It is so called apoptosis (programmed death hanged on the shoulders of adults and young people). Namely this fact explains growing death rate of Russian people that is beyond control of doctors and government.

The fact described above has allowed us in 80s of the XX century to formulate biogenetic theory of the sensor and mental motor freedom in liberation and realization of species potentials of viable somatic and mental healthy male and female lives. It runs: realization (development) of creative, mental, moral and somatic functional (physical — common sophisticated term) potentials of specie's lives comes to life only in childhood. The completeness of such realization is determined by:

- constancy and freedom of sensory stimuli affluxion to the sense organs which support the constant activity of the sense organs and as a result genetical responsiveness;
- the depth of images imprinting and the real life situations organized on the basis of moral laws of good, love and justice;

- rootedness of an ideal posture (upright) in early childhood;
- an early development of the body's voluntary will and strength of mind allowing to possess and manage the lower reflex and instinct demands and needs (passions);
- the degree of handwork freedom possession responding to the laws of integrity and imaginative realism adequacy, the laws of rhythm, plastique and harmony;
- the fullness of words associations with real images and world's situations;
- the freedom of the own thoughts imaginative expression with the help of words;
- the completeness of boys masculinization in the "man imagination", in voluntary will of the body, strength of mind;
- the completeness of girls feminization in the "woman imagination", in love and tenderness to a future child.

Only from the point of view "freedom — non-freedom" liberation and realization of the somatic and moral-mental life species potentials it's possible to realize more adequately that we have a lot of ailments. Sickness is an attack of deleterious microbial viral "aggressors" on the man, supposed archiaters of VIII century who were founders of the native medicine logic.

In the big medicine encyclopedia health is determined as *"the state of the organism when the functions of all its organs and systems are balanced with ambient environment and there are not any ailing changes"*. The WHO code determines the health as *"the state of full physical, moral and social well-being, but not only the absence of sickness and ailment"*.

As we can see all the given above definitions do not contain the main idea: the health as freedom and the means of liberation of somatic functional, mental and motor, moral and creative potentials of people in childhood. It is necessary to note that from the point of view "freedom — non-freedom" the most complete and correct definition of health was given not by the professional doctors but outstanding nationalists — the world's reformers K. Marx and F. Engels: *"What is sickness if not constricted in freedom life?"*

From the point of view of sensor and mental motor theory we state: health is the final characteristics of gender and personality oriented degree and people's transformation in childhood in strength of mind, love and good, and also in voluntary creative efforts realized on the basis of the upright (hosanna) and body's activity. And vice versa: sickness is a suppressed in childhood potential of gender and personality oriented development and people's transformation in the upright, senses activity, motion, creativeness, the body's voluntary will and strength of mind.

The inner content of voluntary body's will and strength of mind formation is the fight of a forming body's will and strength of mind with a primary instinct nature force. And as the life convinces we cannot fight the mightiness of a lower nature half-steam. By a "sluggish" half-steam fight instinct usually wins. Eventually the result of this fight depends on:

- brought up and entrenched in childhood voluntary will and strength of mind easily defeating the instinct's force;
- the means of instinct sense transformation into higher moral emotional experience;
- the means of egocentric instinct nature denial for the sake of moral ideas and community living purposes.

*Overcoming and gaining a victory over the law nature inside is namely the release from enslavement and rise of freedom of mind.* Consequently only the winner of his lower nature can enter the space of a higher real human essence.

The obtained by practical consideration facts allow to formulate the objective laws of "agriculture" of the human life tree. There are:

1. Primacy effect law of images imprinting and life models in the inner people's essence model (spirit — in the language of moral teachings). The absolute priority of imprinting and emotional experience over the knowledge (information) in children's humanizing, including long-term comprehended behavior strategy and people's lives.

2. The absolute priority of breast-feeding (over the other types of a baby's feeding) in transformation of inborn fear and aggression

into love and reconciliation, and also in the development and enslavement of the life supporting specie's programs, including the proportional body's forming and its functions.

3. The law of adaptation of an arrived from the imponderability human baby to gravitational rhythm of the Earth. The universal role in such adaptation is played by a handing cradle and Russian folk swing.

4. The law of infantile egocentric sensibility transformation into the collective integrated individual sensibility (collective spirit — in the language of moral teachings) in children's humanizing. The absolute priority of a mother's systematic singing of emotional loveful lullabies, early collective family singing, including child choral singing in the forming of individual collective (humanized) sensibility.

5. The law of orthograde posture, motor and creative voluntary child's activity in the liberation and start of the genetic material activity as a result of life supporting species programs full realization, including people's survival under constantly changing conditions of microbial and viral and social environment.

6. The law of a child's orthograde posture and world's creative according to the beauty laws transformation in integration ("building") of the basic world perception feeling and also in the formation of qualitatively new moral and mental "modular" mechanism of world reflection based on a free play of creative imagination.

7. The law of a child's orthograde posture in formation of optimal three-dimensional metric proportions of a body's constitution including the fertile one.

8. The law of a child's moral and mental essence formation due to differentiation in sense emotions (on a subconscious level) of good and evil and steady emotional predominant differentiation in the good. Legends (fairytales, myths, Russian epics) play here a universal role.

9. The law of a fantasy spirit materialization by boys in plays and in learning activity — in the frame of their adequate development and masculinization. The law of a fantasy spirit

materialization by girls in plays and in learning activity — in the frame of their adequate development.

10. The law of the emotional developing in time and space image's transforming processes in the formation of a child's long-term semantic memory. The absolute priority of emotional meaning over unemotional knowledge (information) belongs to formation of a child's perception.

11. The law of cogitative and creative faculties freedom formation that is possible only on the basis of a developed in childhood creative imagination. A free creative imagination in its turn can be developed only on the basis of scanned in a free three dimensional space by visual analyzer real world's images balanced according to somatic gravitational axis and deep transformed in handwork and, finely, associated with words. At this the basis of adequate moral and mental world's reflection is the depth and completeness of words associations with phenomena and images of the real world.

It is question of the laws ignoring of which makes nations to sink more and more into their primary beastly instinct essence from generation to generation when egocentric instincts will prevail, including EGO rights priority over rights of the others. The described above investigations have revealed that the most destructive moment in the human baby's ontogenetic development is:

- unrootedness of a child in his upright (posture — hosanna);
- uninculcate of the handwork and speechwork fullness;
- formation of a steady sedentary physically inactive dynamic stereotype in childhood.

The complex of regressive processes conditioned by new generations upbringing in manual involution and stagnant inactivity is determined by us as a syndrom of infantile and degenerating involution (SIDI), as a syndrome of people's metamorphosis<sup>1</sup>. There

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<sup>1</sup> The given theses, including the approaches to primary prevention of physical inactivity, stress-strain and low inclination of children in learning activity were accepted as epochmaking discovery by the 37<sup>th</sup> Research council of the Soviet Academy of Medical science (decree № 2 of April, 17, 1986.).

are some basic mechanisms of origin and rootedness of such a regressive metamorphosis of children.

1. The learning activity organization in the regime of systematic “sedentary” inactivity is the loss of sensor gravitational body’s support (ground under feet) and as a result somatic gravitational balance. Only on the basis of such a balance by children the process of developing of peculiar exceptionally to people higher ability — to measure and coordinate in time and space purposeful (realized) efforts on the basis of which tree-dimension sensor motor (holographic) world reflection and world view are formed.

2. Increasing in generations syndrome of system myoneural strain and mental motor convulsiveness (inadequate efforts) the external characteristics of which are either hyperresponsiveness or somatic muscle woodiness and stoop in the process of writing, painting, etc. (fine coordinated processes). It reflects:

- disintegration of the evolutionary significant, sensor motor, visually manual synthetic “link” (“module”), on the basis of which a qualitatively new, peculiar only to creative people phenomenon is formed — turned to the future creative imagination;
- increasing return to embryo chaotic, convulsive motor programs of voluntary actions organization;
- increasing in generations inconvertible disorganization and regress of hands purposeful actions;
- inconvertible regress of the frontal parts of the brain newest functions, responsible for voluntary actions;

3. Systematic somatic muscle stress-strain of children is the situation of “burning-out” of genetic substance increasing accompanied by extinction of species reactive functions of life support and children’s (people’s) survival under constantly changing conditions of external microbial, physical and social environment. It means:

- increase of secondary aphylaxis;
- increase of psychomotor disorder (speech, graphic, artistic, musical, semantic, etc.);

- growth of mental and moral deviations;
- systematic extinction of vegetative and somatic functional life’s potentials.

4. Systematic physical inactivity of children during a lesson on the background of formed in a school inclined dynamic stereotype provoked the situation of a chronic damping of life creation functions of sympathetic responsiveness and as a result disorganization of the rhythms in the cardiovascular and respiratory systems activity. It is conditioned by:

- constrained work of the heart and lungs;
- chronic block of the 2<sup>nd</sup> basic mechanism in the cardiovascular and breathing activity — diaphragm;
- systematic block of the 3<sup>d</sup> mechanism in the cardiovascular system’s work supporting — muscular system’s beating;
- chronic disorganization of the 4<sup>th</sup> basic mechanism in the cardiovascular system’s work — vegetative vascular movements (kinetics).

Under these conditions the chronic cell respiration deficit, enrichment of suboxidated free radicals (shuff, toxicant), calcium ions sinking into calcium salts and finally, transformation of living substance into a sluggish one occur. All these processes reflect nothing else but the process of the children’s insenscence, including senile diseases development (general atherosclerosis, osteochondrosis, disorder of cardiovascular mental, endocrine systems, etc.). The given syndrome we defined as the syndrome of intravital mummification of the body— somatic muscle shell — in definition of V. Raih.

5. A body’s unrootedness in an ideal posture on the background of extinction of the voluntary mind-constructing (psicomotor) abilities of a body, hands, a tongue under conditions of systematic physical inactivity and life perception in manual involution is accompanied by the increase of disorganization and convulsiveness (break down) in construction of realized actions (“hyperresponsiveness” — in the west terminology) on the background of the syndrome of awkwardly floppy hands (the syndrome of “orangutan’s hands”) and awkwardly moving legs (the syndrome of “seal-fin deformity”).

6. Education in the regime of physical inactivity and destruction of the upright on seats on the background of manual involution — it is not complete development of the higher voluntary (mind-constructing) zones of the cerebral cortex accompanied by extinction of a basic mechanism of people’s creative abilities that is directed to the future productive imagination on the background of disorganization and extinction of sensible vision (attention deficit — in the west terminology). Besides it’s accompanied by the pass to an impulsive and intuitive type of world perception and world reflection that is characteristic to lower reflex and instinct life’s forms.

7. Education in the regime of systematic physical inactivity and manual involution is gradually growing extinction of a body’s will (relaxation) and strength of mind. It is counterinhibition of the lower reflex and instinct programs and as a result disorganization of moral and mental strategy in the organization of a collective life. It means:

- growth of egoism and parasitic strategy of life;
- growth of impulsive and aggressive behavior types;
- the basic parameters disappearance that define the human essence: the sense of beauty (harmony, plastics, melody, rhythm, etc.); the sense of love (to others); sympathy, kindness, courage and strength of mind; honor and dignity and so on;
- transformation of a moral fertile life’s strategy into sexual entertaining.

## “TO SAVE CHILDREN IS TO SAVE RUSSIA” (instead of the conclusion)

Why is a unique experience of such outstanding Russian educators as A.S. Makarenko, V.A. Suhomlinsky, the Nikitins B.P. and L.A., I.P. Volkov, V.F. Shatalov, S.N. Lisenkova, E.N. Iljin and many others still the destiny of enthusiasts-individualists? There were a lot of discussions around these names, but their experience introduction as a public phenomenon in schools didn’t take place.

A similar situation is observed with a fashionable trend in innovative pedagogics — “schools of health”, including health saving technologies of education. There are a lot of discussions around these ideas again, but eventually the pupils health worseness in the process of education.

The objective reasons are hidden in the system of administration. The politicians declare: we build a community correlating the economic foundation to the labor quality payment. It is known that in the educational system an employer is the government as a rule. Any person who tries to analyze on the one hand professional criteria of a teacher’s competence for the work with children, and on the other hand — economic criteria of the quality rating and effectiveness of a teacher’s work, will arrive at a decision: by the modern form of administration in the educational system every teacher knows that no matter how he works his labor and the quality of relations with pupils don’t have any efficiency estimation. Under these conditions the salary for qualitatively different labor is equal (more often crummy). Consequently every teacher is sure: no matter how he works, it doesn’t have any influence on the quality of his life.

Today the clue system forming a mechanism of the educational system administration should be a clear and exact understanding of the purposes and objects of the educational process. Such understanding is given to us by the Federal law “On education”: “In the present law education is understood as the educational frame on behalf of a person, a society, the government...”

The final labor result of every teacher, every leader of an educational institution, department of education including the Russian Department of Education and Science is also defined in the federal law “On education” demanding from the school collective to provide “personality enhancement of a child”, “the priority of health” in the process of education. Namely for the sake of these purposes “an educational institution creates conditions guaranteeing health protection and promotion of pupils” (article 51).

The law “On Child’s Main Guarantees of Rights in Russian Federation” is devoted to the same purpose. It explains to everybody, including educational institutions, that it’s necessary to “contribute to physical, intellectual, mental, spiritual and moral development of children...”

Thus, the legislative requirement to a school is the guarantee of all-round “physical, intellectual, mental, spiritual and moral development of children...”, that is of a complete harmonious development of an individuality. V.V. Putin expressed himself clearly on that score: “The standard of education is the standard of individuality’s development”. It’s cannot be said more exactly. The president D.A. Medvedev is sure: if the principle of a pupil’s healthy development “will be fully implemented in a school it will be easier to form the modern health system in whole”. Consequently, proceeding from legislative foundation, from understanding of the purposes and objects of educational institutions by the leaders of the government, in a school leaver’s certificate as the school collective’s activity results for 10—12 years period it should be reflected how an educational institution “managed to create conditions guaranteeing health protection and promotion of pupils” (article 51 of the law “On education”).

But a Russian school attests a school leaver according to absolutely another scale of values — according to the amount of mechanically committed to memory information. All this points out that the primary educating and developing objects of educational institutions collectives gradually mutated into forcible technical informatization of children. The reason of this transformation consists namely in the fact that the Russian Department of Education and Science in the main educational certificate “Certificate of Education” has just ignored the requirements of the law “On education” and “On Child’s Main Guarantees of Rights in Russian Federation”. It is only one example of lawlessness in the educational system.

There is one more example. For risk avoidance of introduction in educational sphere of methods having negative impact on a child’s psychoemotional health and as a result on his development and health quality, the FL “On sanitary epidemiologic well-being of people” (accepted in March, 1999) prohibits the use of not approved by Rospotrebnadzor (Russian Federal Consumer Rights Protection and Human Health Control Service) various programs, textbooks, methods, regimes, facilities and techniques of education, etc. It is clearly stated in article 28 of the given law:

1. In preschool and other educational institutions independent of organizational legal forms the preventive, saving and promotion of measures for pupils health, including the measures concerning nutrition organization and also the requirements of health legislation are to be fulfilled.

2. The programs, methods and regimes of education, technical and audiovisual educational means, school furniture and textbooks and other publishing production are admitted to usage in the presence of sanitary Protocol of sanitary and healthcare inspection about their correspondence to sanitary regulation.

But there is not any Protocol of sanitary and healthcare inspection (certificates) for everything that is used in school. In other words, Russian Federal Consumer Rights Protection and Human Health Control Service should have locked up all the Russian

educational institutions 10 years ago. It is one more example that the Russian educational system has always been closed from the society and social control, and as a result it works out of law.

Is it worth of wondering that in our educational institutions is often used everything that is strange to a motor, sensible, emotional and creative nature of a child and therefore harmful for his development and health? It is equally-sized desks for the children of different heights. It is a horizontal misrepresenting the perspective of desks working surface instead of an optimal for vision inclined desks. It is a luminescent, extremely fatigue for neurepithelium of cerebral cortex twinkling lighting. It is an unbearable for children's development and health sedentary physical inactive educational regime. It is a ball-point pen making a child always experience the stress-strain. It is reading speed with a stop watch what separates pronounced words from their imaginative and sensible "filling".

It is known that creative and moral and mental sphere of children is formed on the basis of improving of comprehend reading, steady dialogue speech, handwriting, pictures, etc. Our investigations have shown: if a teacher encourages and helps to form a steady and plastic handwriting of a child, speech is one level of his emotional, creative, mental development, including health. But if a teacher just points with a finger and demands, it is another, lower level of his emotional, creative, mental development and health.

With the help of the specially worked out test (look below) we have revealed that "the syndrome of a wicked stepmother" ("ZIMA"/ "WINTER") is being revealed already by 67—78% of teachers. I state as a doctor: in the normal humanistic "socially oriented" government there shouldn't be no one casual teacher, no one casual doctor near the children. Under these conditions the first social problem of students selection and preparation of teachers quality in pedagogical universities, including the problem of a public teacher's competency (tutor for the work with children) has come out on top. And not a theoretical literacy of a teacher of physics, chemistry, mathematics and other disciplines, not the fact how good he acts in the competition "A teacher of the year", but pure art and

skills to organize and fasten a children's collective, to create a favourable emotional environment in a class, unobtrusively to wake in them interest, motives and love for his subject; and the most important is mothering and love to the children — it is the elementary factor of competence for the work with children.

We can speak about the quality of a teacher's collective work in a school directed to "priority of a child's health", including their orientation to "creation of conditions guaranteeing health protection and promotion of pupils" in the educational process, only under an absolute condition: by a systematic estimation of children's psychoemotional health under the influence of pedagogic actions, by systematic measurement and quantitative expression of the dynamics of creative, emotionally voluntary, mental, somatic functional and gender and personality oriented children's development in learning activity. It is question of an absolute necessity of hygienic, medical psychological and physiological ergonomic learning activity's accompaniment. But nobody in a school does this. There is a vivid example of this fact: equally-sized desks for the children of different height.

It should be noted particularly: in correspondence with the laws the legal responsibility for damnification of children's health in learning activity is born by the director of preschool institutions and schools. Such a responsibility can and should be implemented in connection with:

- Nonfeasance of educational institutions leaders due to realization of article 51 of the law "About education", demanding "to create conditions guaranteeing health protection and promotion of pupils";
- The lack of parents awareness about the fact that by the present situation educational institutions will certainly break physical and mental health of their children.

The facts mentioned above show how the governmental authorities and bureaucrats blame the leaders of educational institutions. So, in order not to be under criminal prosecution they should wake up and start taking drastic measures.

As our experience of many years has shown there are the following concrete actions of an educational institution's leader. Firstly, the absolute requirement to the collective establishment in the school: not "to do harm" to the state and health of a child by pedagogical actions. Secondly, organization of monitoring over the children's psychoemotional health quality and as a result, over the quality of children's development and health by every tutor, every teacher (in a primary school), by a teachers collective (in a secondary school).

The practice has proved out that the start of the work in teachers collective reorientation to this elementary ethic and legal rights demand realization — "not to do harm" to a child — is the publishing of a decree by a director of educational institution. It is namely the start of the basic theses of the Russian FL realization, protecting the main right of a child — the right to free, healthy and harmonious development under the influence of pedagogical actions.

There is a project of such a decree.

#### *PROJECT*

### **Order**

On goals and aims of an educational institution for realization of the basic regulations of the Federal laws "On Child's Main Guarantees of Rights in Russian Federation", demanding "...the contribution to physical, intellectual, psychological, spiritual and moral development of children, originating and sustaining the senses of partiality and civicism...", as well as point 51 of the law "On Education" demanding: "An educational institution assure the conditions guaranteeing the security and promotion of health of students, children".

For the purpose of pursuance of the regulations stated in the Federal Laws on the performance of an educational institution,

Order:

1. The professional criteria of quality and efficiency of teacher's work with children consider the ability for:

- mental-emotional interaction with children rather than an authoritarian style in the teaching process;
- managing the group, stimulation children's cognitive activity, evoking students interest for an object of study, as well as their creative activity;
- bring out love and interest for an object of study.

2. The main indicator for teacher's successful work (for primary school), for group of teachers (for secondary school) consider:

- the dynamics in students imaginative mind, creativity, as well as abilities of students to use imagination in real life;
- the quality of students mental development including the development of imaginative logic (i.e. the logic operating on the pure functioning of the imaginative mind);
- the dynamics in children's emotional-volitional sphere during their learning activity;
- corporal-functional development;
- moral education of students;
- students civic identification and growing sense of patriotism.

3. To ensure intraorganizational monitoring of the emotional wellbeing, as well as the supervision of the quality of children's mental and corporal-functional development, it is essential:

For a **psychologist** — to develop a scheme for express-evaluation of the dynamics of children's emotional-volitional, creative and mental status in their learning activity (to perform this evaluation at the beginning, during an academic year and at the end of one);

For the **medical staff**, taking into consideration that the child's emotional wellbeing assures not only the functioning and the development of his spiritual sphere, it also does provide the body's immunoprotection system functioning, as well as the primary preventive maintenance of the psychosomatic pathology; to realize to the full the dictations of the order of the Ministry of Health of the Russian Federation № 60 (14/03/1995), requesting the full and profound children's examination with the help of express methods

testing their functional and corporal state and development. To analyze and to compare the results of the dynamics quantification of students body posture, sight, of the functional state of the basic systems of life-support; sickness (the quantification of days during an academic year missed on a sick-leave) among the groups of students for every academic year.

For a **PT teacher** it is necessary to organize the activities showing students corporal flexibility; exercise tolerance (track racing at a stadium at an individual for every student pace, as well as pull-ups — this last criteria is for boys only). It is also advisable to make and renovate once in a term a poster “The strongest, the healthiest and the most durable class of the school”.

4. By the end of an academic year the school pedagogical staff should analyze and discuss the results and the productivity of the year at a pedagogical committee and parental meetings.

Those teachers whose groups showed the best results in dynamics of students overall development should be morally and materially encouraged. The activities contributing to children’s moral, creative, mental and physical development should be held every year.

The deputy director of an academic and educational process of an educational institution is held responsible for the order of the Ministry of Health execution.

***The realization of the basic concept of the nation’s system of education — of a personality-oriented teaching process — by the head of an educational institution.***

It is high time for parents and for teachers to realize that there’s no possibility to model a developing personality without a strict gender orientation. An important role in gender and personality developing belongs to a spoken word. A word that is oriented at a differential imagination of boys and girls. That is the reason why even the fairy tales have always been different for both of the genders in their psychoemotional essence (but the science pays almost no

attention to this fact). Well, how can we explain that? The thing is that a word is aimed at the reawakening of an already imprinted and associated image of the world connected to this word. That exactly is the mystery of a spiritual creation of an image (imagination). More over, a reawakened construction of already imprinted images calls up a specific spectrum of emotional experiences. Such emotional experiences at their turn process along with an activation of certain hormones — the substances of a direct genetic impact. That is why an emotional word is always a word of a hormone-genetic effect.

So, we can state that a no-gender word deprived of any emotional gender implications is really destructive and harmful especially at the early stages of a child’s life. It leads to a gradual extinction of an emotional-hormone response, extinction of the activity of the gender-oriented genetic resources, and as a result to the blurring of a concrete gender distinction. Then a word ceases functioning as a “flesh”. Since the majority of teachers are women who tend to use female-oriented emotional words, one have to admit that the boys are emotionally and generically suppressed nowadays.

Corporate education of boys and girls of the same age (taking into account that the girls are usually 1,5—2 years ahead of boys in their genetic and spiritual development; which is also shown in the results of the tests of school readiness) in one and the same group with a woman-supervisor was a tragic mistake. Thus, as opposed to a “segregation”-differential system of education (when boys and girls study at different schools) a model of parallel education (when boys and girls study in parallel groups of the same school) was put forward by us in 70s of the XXth century. The results of work of hundreds of such schools in Russia demonstrate that children have not only shown better results at their learning process, but they have also progressed in their general development; as well as a lower level of sickness was registered. These results can be found in the records of All-Russian forum with international participation “Education and healthy development of students”. (Moscow, 2005, Ch. Z.).

A concrete algorithm for the solution to a gender and personality oriented system of education was suggested by us. Firstly, the director of such educational institution can (and should) enquire from the upper body of authority the tests and methodic showing that that is possible to mix boys and girls according to their chronological age, respectfully to their psychological compatibility and the difference in their height. It is also necessary to check whether the height is of the desks is good for the height of students. More over, to check that the criteria of personality orientation and school readiness are carried out. We should pay your attention at this point, that none such methodic or a test has ever existed or is ever going to appear.

Secondly, the director is to put into action the following special — commission recorded formal note, casting light on this problem.

#### TEST

##### *On psychological compatibility of boys and girls in mixed education*

To get the evidence of the scientific and rational approach of the well-established practice of mixing randomly boys and girls in groups according to their chronological age (yet knowing that girls are 1,5—2 years ahead of boys in their genetic and spiritual development) the head of school files an order on forming a commission consisting of a psychologist, a representative of an administration, representatives from parents and medical staff. Such commission visits every class demanding, firstly, all the boys to leave the room, asking the girls such a question:

“When is it more comfortable for you in class: with the boys, or now, when the boys are out?”. The same procedure is repeated with the girls out.

It is rather easy to predict students answers.

The second step could be a questionnaire about the compatibility between the neighbors at the same desk. Take a look at the most “soft” wording of the six year students.

*“It’s not comfy to be around him...and even unpleasant...  
(P.L.)*

*I don’t want to sit at the same desk next him cause he’s always pushing me, cursing and fighting... (S.V.)*

*I don’t like it when a girl sits next to a boy. And what about Popov, I don’t want to sit next to him, cause he smokes and he smells disgusting.  
(S.O.)*

*She’s hysterical! She’s always shouting like crazy and she’s chatting all the lessons long! (R.K.)*

*Well, we don’t get along well with him, so we just don’t communicate. (M.L.)”*

These are good illustrations of the actions of over-confident adults when children are put together to share a desk during their studies randomly. This also shows what it means to always compete with more mature girls. And after that we expect the boys to respect the spiritual world of women, and visa versa.

All the results of such a pole should be recorded. They serve to prove and are used to fulfill the main demand of the law “On Education” about the personality-oriented approach in education and free development of a personality. Personality-oriented approach starts first of all from the gender and personality approach in structuring and conducting of a lesson.

If any of the parents would strongly mind such a new type of grouping, the head master has to address the superior body to enquire for the test on psychological compatibility of boys and girls in a group. Remember, that we have drawn your attention earlier that there’re no such tests. More over, neither the head master, no the Minister of Education, no the leaders of the system of education management process hold no legal liability for half a century lasting reforms in the educational system actually being nothing but pure experiments on children. The results of these experiments are legally of head master’s responsibility.

Thirdly, the director should get the film “Save the children — save Russia” (recommended by the Ministry of Education of the

Russian Federation for educational institutions as a teaching and methodics aids) and should organise its demonstration to teachers, parents and children.

The head master should also look through the information at such sites as [www.obzdrav.ru](http://www.obzdrav.ru) (an abbreviation for “education-health”), [www.hrono.ru/proekty/bazarny/](http://www.hrono.ru/proekty/bazarny/); [www.bazarnyj.narod.ru](http://www.bazarnyj.narod.ru).

The head master should ask a psychologist to study the emotional-volitional sphere of children of the primary school, paying special attention to their fears, worries, depressions, anxiety. This test is held in mixed classes. After the test form some groups from boys only and after several months check the atmosphere in the class again. It is only after the factual results that the decision about a parallel model of education can be made.

I would point it out here that after such experimental parallel-groups education the psychologists have recorded high levels of anxiety among boys. Further research have shown that after the change in learning atmosphere the boys experience the lack of their comfortable educational back-up provided by the girls they share a desk with. We mean the girls who back them up when they cheat, and the opinions of whom are being listened to as more wise.

Many years of practice of such parallel-differentiated educational process proved that the conditions for personalized orientation are carried out in such environment, and, more over, that such environment becomes healthy and health saving.

***The head master's directives on reforming teachers work and transforming it from illegal and health destructive into legal — health developing***

As our previous experience have shown there are several reasons which impede the shift from health affecting principles of the organisation of the educational process to health saving principles.

They are:

- a rusty habit of such an approach to students;
- the lack of skills in personalised orientation in teaching. So, instead of being authoritarian to students it is more efficient to inspire them by motivating them, by arousing their interest, by giving them emotional back up. The lack of such abilities on teacher's part literally makes him unfit for any work with children;
- the absence of believe in efficiency of such approach.

It seems that teachers have forgotten by now why it is so vital to teach a child neat copy-book handwriting, meaning-bearing reading, and metaphoric speech. They don't seem to realize that the cult of stuffing students with information has almost replaced everything the very process of education was aimed at — at developing the creative, mental, spiritual and physical spheres of a personality.

To test the situation we can recommend a simple procedure. A psychologist is asked to check some spheres in children's general development, such as mental-emotional sphere, volitional, and creative (the performance of the imaginative mind) in the following groups of beginner-students:

- Those students whose handwriting has already shaped in comparison with those whose haven't yet;
- those whose dialogue speech is free in comparison with those who have problems in expressing themselves;
- those whose meaning-bearing reading is formed and those who read mostly by cramming the words, i.e. mechanical reading.
- those whose upright bearing have been affected during the learning process and those whose health haven't been affected.

These results should be discussed at a pedagogical meeting of teachers, parents and the medical staff. These results can show that those kids who haven't learnt to express themselves, who haven't learnt neat copy-book writing (their handwriting is usually cramped and clutched), and who read by cramming the words without

realizing their meaning, are neglected by pedagogical staff and suffer all sorts of mental deviations and complexes, including ADHD. When everybody realizes it, only then it will be possible to proclaim and demand the personality orientated approach in teaching without forming equal patterns out of students, but instead, being attentive to every and each student individually.

And yet such concerns as curriculum and deviation from it will remain. That is the vital straw of overconfident but apparently unprofessional teachers. Firstly, the existing curriculum is not “complete” as it doesn’t have the State sanitary-epidemiological confirmation. Secondly, every teacher should have and has his own plan. This plan according to the Russian Federation law “On Education” is oriented to personalized approach in teaching process.

There’s an important fact everyone should realize at last — good quality, efficient and professional work of a teacher is not his personal responsibility or decision. That is a law-based, controlled by the school administration, by parents and even by the State, professional obligation of every teacher. That is the social order of the society and the State.

After the level of the emotional well-being at the lesson have been checked; after the hand-writing, speech, creative thinking have formed (as a sign of teacher’s efficiency), only then it is possible to start the realization of the approved by the Ministry of Health and National Sanitary and Epidemiological Service of the Russian Federation health developing program on perfecting the educational process: “The mass primary preventive health care of the at-school-acquired forms of pathologies; or health developing principles of managing educational-cognitive process at secondary and nursery schools”.

Learning process and what is more serious, the analysis of well-being and general development of a child lack elementary medicogenetic, mental and physiological and ergonomical background (monitoring). Official documents on children’s well-being monitoring, as well as the estimation of the results of

constant pedagogical experiments and innovations on children’s health and the quality of education are the joint order of the Ministry of Health and social development of the Russian Federation and the Ministry of Education and Science 186/272-4305 on 30.06.1992, №60 on 14.03.1995, as well as the resolution of the Government of the Russian Federation № 916 on 29.12.2001 “On All-Russian system of monitoring of nation’s health, physical health of children, teenagers and young people”. The goals of the monitoring are clearly stated in the resolution of the Government:

- singling out the facts that cause detrimental effects on health;
- highlighting the cause-effect relations between the health and the general development of children, teenagers and young people and the effects of the factors of the environment (including the school environment — *V.B.*);
- stating the urgent and long-term activities on preventing and removing the negative effects affecting nation’s health.

For the children these are:

- singling out factors in school environment affecting children’s health;
- singling out cause-effect relations between the forms of school-caused pathologies of health and the quality of organisation and conducting the process of education;
- work out urgent and long-term activities on preventing and removing the negative effects of educational process affecting children’s health.

After these procedures have been carried out it’s advisable to address any committee on education and health to ask the authorities the following questions: Which cause-effect relations after the mass children’s examinations conducted on the basis of the above mentioned laws have been identified, linked to the quality of education?; Which facts of forms of pathologies acquired at school linked to the quality of organization, as well as the methods of teaching have been recorded?; According to the identified cause-effect relations, which “urgent and long-term activities on

preventing and removing the negative effects” of the school environment and the methods of didactics on students health have been taken?

As a result we can see, that nothing has changed, even after the official demands on the quality of the educational process stated in the joint order №186/ 272-4305:

*“The analysis of the results of the daily examinations of children shows the low efficiency of the examinations. Although of examinations have the mass character(96—98%), according to the directives, pathological states and some illnesses are 9—6 times more unlikely to be found during such examinations compared to purposeful, elective and more profound surveys. The existing system of examinations is unfortunately unable to identify the beginning stages of chronic pathologies”.*

As is seen from this official source, at such a state of the preventive examination one can't go on discussing the factors affecting student's health, the cause-effect relations between the educational process and the children's health. Besides, it looks like, those 30% of relatively “healthy” students (this number was cited by the Ministry of Health and social development of RF) should be 6—9 times cut down. We shall get the exact situation as proved by the Science center of children's health RAMS (Russian Academy of Medical Science) — approximately 2—3%. More over, according to the president of the RAMS M.M.Davydov, absolutely healthy graduate students are not registered during the last 3 years, as he has stated during the united session of the six academies (October, 2006).

The representatives of the General Office of Public Prosecutor of the Russian Federation point out the existence of such practices when *“Educational institutions haven't assured to the full extend the environment, saving and ensuring students health. In infringement of the article № 51 of the Law, the load of assignments and the regime are not approved by the health authorities”*. (N.V. Stepanova, the public prosecutor of department on affairs of minors and young people of the General Office, the “Professional” magazine, 2006,

№ 5.). These issues should become the objective for analysis not only for the committee of Parliament and the Public chamber, but it is also the Security Council of the Russian Federation that should take notice of them.

Our long-term experience in dealing with the monitoring of the quality of the education, as well as the dynamics of children's health under the pedagogic influence, proves the fact that the joint orders of the Ministry of Health, the Ministry of Education and the Government of RF are actually not put into action. There are several reasons. The weakest point is the low level of qualification of the heads of educational institutions and medical staff in managing the final results of their work — the quality of education of children and teenagers.

Another important fact is that the representative officials don't set any concrete goals or tasks and thus the heads of the medical and educational institutions give no account for them. None of the authorities integrate narrow tactic departmental goals into strategies of preventing diseases, and first of all it happens at an expense of healthy education and upbringing of children.

The brightest example of the incapacity of controlling the monitoring process lies in the very mechanism of its functioning. Judging from the experience, it is literally physically impossible for general practitioners to conduct regular therapeutic services, being members of the draftes medical committees and yet performing profound clinical examination twice a year. In such working conditions, it seems only natural for a physician to conduct such clinical examinations formally.

But the results of such monitoring in the Republic of Comi show that this problem can be handled with the help of professional managing. Firstly, main procedures of such clinical examination should be before-doctor. Besides as it has been pointed out in the jointed order of the Russian Federation (№ 186.272-4305), it is possible and advisable to get medium level doctors into the monitoring of children.

The main objective is to identify and to record the quantitative changes in the bodily and functional development of the children. It is enough to give to a nurse quantitative express tests for getting the results of the functional state and development of a body. Besides, a therapist has already performed the check up of every child and recorded the weak points of his health in his card. But, if we speak of a medium level physician, it is necessary to control their work, to organize courses for them. Their task is to identify the quantitative characteristics of the functional state of different bodily systems in an interval of time according to the 3 criteria: better; remained; worse.

The nurse prepares those children whose results have indicated “worse” for the general practitioner check-up. One of the special features of the pre-doctor survey is the fact that psychologies, PT teachers and specialists in music take part in it<sup>1</sup>.

The next step in monitoring is the survey the groups of children formed by the medium-level doctor by the general practitioner (by a therapist or family doctor). It is very important to have a feed-back between the two specialists. After every examination a general practitioner fills out a medical certificate and writes some recommendations to: a medium doctor; the authorities of the school; parents. The medium doctor sees that these recommendations were heard by the addressees.

Then the children get a check-up of special doctors, to whom they are referred by the general practitioner.

It should be specially noted here that the advised and approved system of monitoring is not just a single occasion (doesn't have general and formal character), but it should become a systematic and routine procedure. Another special feature of this monitoring is that the pre-doctor survey is conducted twice a year: at the beginning of every academic year and at the end of it.

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<sup>1</sup> For more information see: Bazarnyj V.F. “Child's health and development: express methods of control at home and at school”, — Moscow: “Arkti”, 2005.

***The directives for parents to protect the main right of their children — the right for free and healthy development in learning process***

Starting this chapter I feel like my stomach tightens with anger and disappointment for us — parents, grandmothers, and grandfathers — for our criminal negligence to protection of our children. I don't mean meetings and demonstrations; though it does have a certain effect. What I'm trying to convey to readers is so simple and elementary — common ethics, common legal steps and actions to protect our own children. I'm going to illustrate it with a simple example.

Vaccination. It is general knowledge that the discussions about this or that medication have become very popular. So, if we take a look at a parent, what are his reasons? Usually, a portion of advertising is enough for him. It gives him a good impulse to look for a miracle. So, he gets it, uses it... and... well, we get the zero results (luckily), or an apparent worsening of a child's health.

So, after the media talking about the birds flue, everybody is expected to approve of the mass vaccination against the virus. But where is our common logic? Is it so hard to demand from a doctor doing the injection a simple receipt telling that if this injection causes serious consequences all the responsibilities are on the person doing it and on a person who has advised it.

Such is common logic. But usually people lack it when it is needed most. But the one who will make at least an attempt to make it will see that all the professional loftiness of a medical staff disappears in the air. No one can guarantee you that another injection lives your child healthy. If some serious consequences appear.

No one is here to answer for it. Here's the precious moment of truth, the realization of the initial basis of bureaucracy — it is either the slavery of some or the greatness and put on intelligence of others emphasized by the negligence of the rest.

The same situation is at school. It is because of the general negligence that we live during the era, when out of 1 mln small kids entering primary school this institution only during the first year of studies makes 600—700 thousand of them sick.

I often speak at parents meetings and ask them to raise a hand if they haven't heard before that the school makes their children feel ill. I can't see a single hand! All mothers know about this fact. Then I suggest clear directions for united actions to protect the kids. I see distress and disorientation in their eyes. Let's cite a historic fact here: Hippocrates pointed out in his works the sign of the mass mental disorder. It is such a state when neither the obviousness nor pure logic has any effect on a person's decision. So I would say it once again here that we enjoy the results of the lack of gender oriented education, the lack of the examples of strong man's will, character, spirit, shortly — a real man character.

I suggest a legal program of action and directives for those who haven't totally given themselves to a weak will and aberration. Firstly, I suggest to turn out the TV and free your child from its effect for 2—3 weeks. You take him to the psychoneurologist after this break. Try to deny your child watching the TV for some weeks. If it was an "impossible" task to do, show him to the psychoneurologist after another horror film (usually with blood and sex scenes). Having two these certificates from the psychoneurologist, and following the directives of the Law "About the basic guarantees of the child's rights in the Russian Federation", being more precise, it is the article №4 demanding from everybody, including the mass media "... Assistance to physical, intellectual, mental, spiritual and moral development of children ...", you can easily bring an action against the given television channel for damage caused to moral and mental health of your child. But usually we don't have time for this. We can often find something more important than the health of our own child.

Any argument such as "don't turn on the TV if you don't want to watch it" is pure slyness. We live in the environment free for children and they are everywhere around us. This is so natural!

Everyone knows that they are very curious and susceptible. But where should we hide our "normal" kids if the streets have become the place for the "blue" and the "lesbians" meetings. As the experts say: no schizophrenic will calm down, until he tweaks the environment to his crazy self. Here it is the relentless law of creation of children "just like" own degradation.

And now imagine: the television channels corrupting children, will submit claims of hundred, thousand, of millions people. First, it will mean the end of a "slavish" civilization, secondly — the rescue of souls of millions of our children. But for the overwhelming majority living in slavery and lack of will is much more comfortable.

For those single souls who will try to approach seriously the problem of protection of their children from "reason eclipsing" school, I wish to advise the following.

Firstly, at the developed civil lawlessness it will never be possible to protect the children one by one. Only having united, parents can start to change the situation about the quality of development and health of children at schools. Secondly, as practice confirms, a part of problems can be solved with the director of an educational institution if discussed in a quiet tone, politely, but showing firm will. Thirdly, a problem of psychoemotional well-being and healthy development of the child at school is possible and necessary to solve only on a legal basis, i.e. proceeding from already available laws which protect the rights of children.

So, before giving the child to an educational institution, it is necessary that the experts perform a check-up about the definition of those systems which "fail" under the influence of modern educational process more often. They are: the condition of sight, the backbone (bearing), psychological sphere, cardiovascular system, the psychoemotional status. The level of development of creative abilities (creative imagination) should also be tested. Keep the certificates close at hand.

Having united with the most active parents, it is necessary to meet the head of educational institution and enquire him whether he knows it that there is the unique in the country, confirmed by

the Ministry of Health (1989) and by the Russian Committee of quality supervision (2001) public health program of the organization of the education process “Mass primary prevention of school forms of a pathology, or health saving principles of designing of educational-informative process at kindergartens and schools” (authors: V.F. Bazarnyj, L.P. Ufimtseva, E.J. Olado, V.A. Gurov) which in 2001 has repeatedly received the sanitary-and-epidemiologic certificate (№ 77.99.95.3. T.000674.07.01).

I will underline once again the fact that it is necessary to meet the head of the educational institution in a group. You find out during this conversation, how the educational institution management understands the problem of children’s health in the educational process and what are the solutions that it can offer. Enquire how the control over the state of health and development (health) of children in the educational process is organized at school.

Enquire if the school has replaced the furniture making children stiff and hunched, preventing the backbone normal, including all internal organs; the regime of classes which have no sanitary-and-epidemiologic certificate or the certificate of Russian Committee of quality supervision (and consequently it is used illegally). Ask for the furniture assuring child’s work at his personal rate, at his dynamic mode (standing or sitting), approved by the Russian Committee of quality supervision.

Further, it is necessary to find out, how the school teaches a child the intelligent reading, confident dialogue speech, the plastic handwriting deprived of spasms-clips. Take an interest, how it presents the education of courage to boys, will, strength of mind; and femininity to girls.

Parents should understand very well that everything at school referring to children (textbooks, furniture, technologies of training, the base curriculum), should have the state sanitary-and-epidemiologic conclusion. They should know: if the head master fails to replace the methods of the organization and carrying out of the educational process not confirmed by the Russian Committee

of quality supervision into approved ones, including concealment of the important information from parents (why is it that only after one academic year 60–70% of kids have boundary mental deviations, bearing deviations etc.); his actions or the absence of any actions is considered illegal and is pursued by the legislation of the Russian Federation.

If the director is a wise man and is ready to realize together with the parents the law article № 51 “On Education”, demanding “preservations and health strengthening” in the educational process, this problem is discussed then at the general parental-pedagogical meeting. The main objective of this meeting is to formulate the social order on behalf of parents and teachers following already existing federal laws of the Russian Federation — about the “preservation and strengthening of children’s health” in the educational process. The decision of the meeting is mailed to local authorities in a registered letter (and not only local).

We will point it out here, that an initiative group of parents is formed, responsible for the realization of conceptual ideas of the federal law of the Russian Federation “On Education”, speaking about the “state-public” character of management of the educational process. This group can become the initiator of establishment of the Operating council of educational institution (do not mix it with a parental committee of each class which is engaged basically in money collecting, as well as the Board of guardians).

Senior students, parents and teachers should be represented an the Control council of the educational institution (CCEI). It is important to realize, that CCEI is and supervising body, not just an executing instrument of the director’s will. Under the law and at favorable circumstances financing for the organization of health developing training modes should be carried out by the city administration. As practice shows, parents can take part in financing and do their individual share in financing of public health material resources (but it is optional). The law “On

Education” directly specifies: the state in the name of school “assures the conditions protecting and strengthening the health of pupils”.

One of the important initiatives of the CCEI is the creation in educational institution of an effective system of medical and psychological support of educational process, including the control over state of health and quality of development of each child (monitoring). As we have already said above, it is a question of realization of a number of orders on health № 186/272-4305 on 30.06.1992, and also № 60 on 14.03.1995. These orders specify the following schedule for profound surveys of children:

- On the eve of entering a preschool educational institution;
- One year prior to the termination of children’s preschool educational institution;
- before the first year;
- After the termination of the first year;
- After the termination of the third year;
- at 14—15 years;
- at 16—17 years.

The governmental order of the Russian Federation № 916 (29.12.2001) clearly defines the monitoring purposes. They are:

- singling out the factors having negative influence on health;
- revealing of cause and effect relations between healthy development of children and ... environmental factors (school factors);
- definition of urgent and long-term actions for elimination of negative influences on healthy children.

That is why the data of every is necessarily compared and analyzed with the previous surveys data, estimating the dynamics of development and health of every pupil.

The results of children’s survey after the termination of the third year characterize the efficiency of work of a school on “to protection and strengthening of students health” for the initial stage of the educational process; the results of the pupils of 9—10 classes survey show the results on “protection and strengthening of students

health” for the whole period of learning. Some headmasters really it is possible to solve the problem of healthy school environment simply by opening a polyclinic office at school, employing doctors and referring to such a school “health school”. They think these actions will be enough and children’s health will suddenly improve. This miracle is supposed to happen without radical changes in the organization of an educational-informative process. A naïf mistake.

It is useless to open polyclinic offices at schools — neither teachers, nor parents should deal with medical problems of children’s health. But every teacher should work with children, keeping to the absolute requirement of pedagogic work: the pedagogical intervention should not cause damage to emotional, spiritual and corporal life of the child during the process of learning. In other words, “do no harm” should finally become the basis for professional work of every teacher. It is natural to the psychophysiology of development of a child which teachers should study in high schools and colleges of a pedagogical profile.

The Control council of educational institution is organized exactly for the supervision over the organisation of medico-hygienic, psychological and physiology-ergonomic support of educational process, including control over the state of health and development of children under the influence of various pedagogical reforms and “innovations”, over the quality and an overall performance of a teacher.

Besides all noted above, parents can and should keep a diary on the state of health and development of the child. More detailed information is given in the book: “Health and education of children. Methods of express control at school and at home” (Moscow: Arctic, 2005). We will draw your attention to the most important thing, all parents should be aware of.

While your child studies at school it is necessary to note regularly the state of health and his mood as he goes to school (with reluctance, with fear) and when he comes from school (tired, weak, apathetic or as they say, “squeezed out like a lemon”). Each parent should know: if the child does not wish to go to school, if he is afraid of it, and

comes back tired; it is an obvious symptom of the school destructive affect on his mood, and consequently on his health. Watch how other children in his class feel after and before school, ask their parents about it. If they also feel bad it is a sign to worry.

We recommend to parents the following test to find-out what emotional basis the teacher has towards the children. Ask your child to draw that what he sees in the eyes of a certain teacher. As our experiment has shown: children draw the ice, the snow, an arrow, a lightning, the wolf teeth, a mouth of a crocodile etc drawing the eyes of their authoritarian, demanding, malicious teacher. And only some of them draw the sun, a heart, a flower etc for their teachers (about 10% of teachers). Try to show these pictures to the head master. The following situation takes place: either the teacher changes her relation to children, or she or he should leave for other work.

It is necessary to pay special attention to how the child bends over the letter. If he tightens in a clot, if he bends into a arc over his copy-book — it means, the school neglects his upright bearing, doesn't use special desks, helping him to write; it means, the school does not form his free copy-book handwriting; it means, that children are simply are simply taught on a single pattern demanding certain results (for example, impose fast reading under a stop watch). We wrote above that low bending of a child over his copy-book is not “a bad” habit, but the result of overestimated requirements to not totally formed system of the brain which is responsible for management of the efforts; over the top demands to not properly formed sensory control over any actions of hands. A certain role in bending of children belongs to the fact that all of them sit at one-dimensional tables today.

It is estimated that such methods of teaching cause not simply general exhaustion after some years (even months) of studies, but an exhaustion of all life-sustaining systems. One of the bright evidence of such exhaustion — chronic headaches (school migraine), depression, a school strum, attention deficit hyperactivity disorder (ADHD), border-line arterial hypertension (BAH), a boundary

arterial hypertension and even a psychogenic-convulsive syndrome. Every parent can and should go to school and photograph the working pose of his child. The picture will serve as a proof at court that the school destroys the backbone and sight of children.

The lawyer from the Center of social protection of the population of Moscow Denis Lashkov states in his interview for “AiF” (№ 18, 2006): when a child enters an educational institution, parents (as customers) and the establishment (as the executor) “should sign the contract on performing the educational services”. Considering the basic importance of such contract, we will include his project below.

*PROJECT*

### **The contract on joint activity of parents and pedagogical collective of school**

On realization of basic principles of the law “On Education”, aiming every educational institution at “creating the conditions guaranteeing protection and strengthening of students and pupils health”; the law “About the basic guarantees of the rights of a child in the Russian Federation”, demanding “... assistance to physical, intellectual, spiritual and moral development of children ...”.

Following the general objectives of the teachers committee of school, including parents, to provide healthy corporal, mental and moral development of children in the educational process, including the prevention of an “educational” pathology in the course of study (short-sightedness, a deviation in backbone development, infringement in psychological and emotional spheres, etc.) the head master of school № \_\_\_\_\_ and the parent

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\_\_\_\_\_ have concluded the present contract on the following.

The head master on behalf of teachers committee.

Incurs the following duties:

1. To build relations of every teacher and a child on the basis of respect of a child's personality, goodwill and a cautious approach to his spiritually-mental and emotional spheres. Therefore, any authoritative-compulsory approach in training is excluded. The educational process is performed on the basis of sincere relations, interest, emotional motivation of the child, his gender and personality experiences and aspirations, based on the professional inspiration of love to the studied subject.

2. A quiet and kind but strict atmosphere is established at school between teachers and children, and also between children.

3. To maintain the discipline and order, the system of children's self-management and public organization is established at school.

4. It is necessary to realize to the full extent within an academic year the program "On mass primary preventive maintenance of school forms of a pathology, or principles of designing of educational-informative process developing health at kindergartens and schools" (authors: V.F. Bazarnyj, L.P. Ufimtseva, Candidate of medical sciences E.J. Olado, V.A. Gurov) at the elementary school confirmed by Ministry of Health of the Russian Federation and having the sanitary-and-epidemiologic certificate of the Russian Committee of quality supervision. (№ 77.99.95.3. T.000674.07.01).

5. To consider as a primary problem of teachers committee careful teaching of the child: intelligent reading; dialogue creative speech; the plastic handwriting deprived of spasms-clips.

Any "high-speed" approach to the teaching process is excluded.

6. The school committee (a psychologist, a PT teacher, a physician, etc.) is to organize the control (monitoring) within the school the child in the course of learning: over the quality of the development of the sense organs; the bearing and the functional potentials of the body; creative abilities and creative imagination; intelligent reading; free dialogue speech; the plastic handwriting deprived of spasms-clips.

7. To inform parents about the progress or any changes in the functional condition and the development of the body, creative potential (creative imagination), emotional sphere, psychomotor functions (dialogue speech, intelligent reading, handwriting, etc.) at the end of every academic year and also about any changes in children's state of health.

The parent \_\_\_\_\_

Incurs the following obligations:

1. To take an active part in school life.

2. To assure positive psycho-emotional environment at home favorable for the child's peace of mind and positive emotions.

3. To learn the arising problems in the educational process by attending school meetings and discussions with the psychologist and teachers.

4. To demand the authorities of the centralized financing on the legal basis, together with other parents, the introduction of the program of health saving education "Mass primary preventive maintenance of school forms of pathology, or principles of designing of educational-informative process developing health at kindergartens and schools", confirmed by the Ministry of Health and the Russian Committee of quality supervision.

5. To accept the voluntary participation in financing necessary to introduction of the health-developing technologies in the educational process.

6. See to it that the child was engaged in physical activities, creative occupations, playing musical instruments, singing, drawing during out-of-school time etc.

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Appendix  
**GENERAL METHODS  
OF RESEARCH**

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**1. The functionality of the central nervous system** was estimated on the — latency period of visual motor reaction (LPVMR) by means of an electronic stop watch (frequency estimator) and additional attachments. The time was measured from the moment of a signal (light flash) till the response signal (pressing the button). The duration of research was approximately 3 minutes, the quantity of irritations was approximately 50. To prevent a development of a response reflex to the flash, the light was given at casual moments of time.

The average duration of a latent period of the visual motor reaction (VMR) was calculated; the variation curve reflecting distribution of time periods was also shown. The latency period of visual motor reaction (LPVMR) was shown on the curve round the modal characteristics of the time of a reaction, as well as the indicator of its shifts. The level of functionality of the central nervous system was calculated:

$$LF = In \frac{P_{max}}{\Delta T_{0,5} \times T_{0,5}}, \text{ where}$$

LF — the level of functionality of the CNS;

$P_{max}$  — the maximum probability corresponding to the limits of the modal class;

$\Delta T_{0,5}$  — is the figure, showing the time limit of the reactions, corresponding to the middle of the band  $T_{0,5}$

**2. The functionality of the vegetative nervous system**

Electronic skin conductivity (ESC) is one of the components of vegetative reaction, depending on the speed of the blood circulation and the sudoriferous glands functions. The rising level of ESC means the rising level of the sympathetic tone, and visa versa.

The ESC level was measured by looping by the child the electrical chain, consisting of electrodes, a microampere and a battery (4,5 W). His hands were sponged with spirit before the experiment. The ESC level was shown on the microampere screen.

*Rheoencephalography* (REG). In 70—80s XX of the century we used 4-channeled rheographic attachments to measure the rheograms: 4RG, time-independent; electroencephalograph EEG4-02 (as a register), a portable variant 4RG-01 or 4RG—2M and a electrocardiograph (as a register). A modern variant is used now — a computerized electroencephalograph “Neuron-Spectr” by “Nerosoft”.

The circulatory dynamics in all the three vessel basins of the head were measured with the help of the following electrodes. To get the indicators from inner carotic artery, basically from the main artery of the head — an electrode was fixed on the bridge of the nose (approximately 1—1,5 sm outwardly from the middle level), another electrode was fixed in the area of the mastoid. This position is called “front-mastoid” (F-M).

Hemodynamics in the vertebrobasilar basin was checked by placing one of the electrodes at the area of mastoid, another one was put at the edge of the great occipital foramen — the occipito-mastoid position. (O-M).

To record the hemodynamics in the inner carotic artery basin, the electrodes were placed down the temporal artery (one — at the edge of the inner auditory passage, another — by the outward edge of the superciliary arch).

The following indexes were calculated during the REG analysis. Rheographic index (RI) shows a relative figure of the pulse volume:

$$RI = \frac{A_{cp} \times K}{K_1}, \text{ where}$$

$A_{cp}$  — A av (an average amplitude) of 3—5 waves, mm;

$K$  — calibration signal, Om (usually 0,1 Om);

$K_1$  — calibration signal, mm.

For healthy grown-ups RI at F-M position is approximately 0,15±0,1 Om, at O-M position — it is 0,1+0,01 Om.

The vascular tone (d) was estimated with the help of the following formula:

$$d = \frac{a}{T} \times 100\%, \text{ where}$$

a — the length of anacrotism, mm;

T — the wave period, mm.

Young people have approximately 16,2—17,6% vascular tone. The time of rheowave propagation (or its leg) (QA) characterize the sum state of the vessels, their tonus (modulus of elasticity) from the heart to the part under the examination. At F-M position QA is 0,183 seconds (on the right) and 0,192 seconds (on the left). If the time of wave propagation is longer, the tonus is lower, and visa versa.

The coefficient of skewness (CS):

$$CS = \frac{A_{\sigma} - A_M}{A_M} \times 100\%, \text{ where}$$

$A_{\sigma}$  — the amplitude on the side with the larger index of RI;

$A_M$  — the amplitude on the side with the lower index of RI;

The normal state of a person is shown by CS no higher than 10%.

### *Methods of estimation of development of creative thinking abilities of children*

Our almost 30-year-old experience of researches in the field of the age-specific psychophysiology of a child gives us reasons to state that the development of mental abilities of a child can occur according to two absolutely different schemes. The first one includes a simple cramming of submitted concrete information, including instructions and rules (algorithms) of work with it. We deal with the formation of an instructively-programmed computer intelligence here. The second represents the development of unique thinking abilities, i.e. the development of a personalized and unique mind. Unfortunately, we have not come across any criteria of diagnostics of the formation of children's thinking processes according to these two schemes in "the classical" psychological and pedagogical literature. That is why we have decided to offer the following approaches of estimation of the quality of the development of thinking abilities of a child (pupil).

#### RETELLING THE FOLK TALES WITH THE HELP OF DRAWING

As our research shows it, children really like listening to such tales by A.S.Pushkin as "A fairy tale about the dead princess...", "A Fairy tale about a fisherman and a small fish", "A Fairy tale about the king Saltan...". The teacher or a psychologist reads one them and then the kids are asked to picture the events in their chronological order.

It is important to say that this approach proves that the kids memorize only emotionally important scenes and, besides, girls and boys, single out absolutely different episodes.

Let's show the procedure for example by "A fairy tale about the dead princess...". There are several emotionally important points in the fairy tale which can be chosen:

- Departure of the king. A birth the daughter (princess) and the death of the queen while giving birth to a child;
- The king chooses another wife — a proud, haughty, capricious beauty who spends all her before a mirror;
- The princess has grown up and is ready marry price Elisey; the mirror tell the step-mother that she isn't the most beautiful woman of the kingdom any more;
- The step mother orders a maid to take the young princess to the woods and leave her there;
- The princess finds the house of seven athletes;
- The returning of the athletes, their meeting with the princess. Athletes propose marriage to the princess and ask her to become the bride of one of them. The princess says that she is a bride of the king's son Elisey;
- The athletes hunt;
- The queen orders to find the princess again, and the maid gives her a poisoned apple. The dog tries to save her but all his attempts are in vein. She bites the apple and fall down dead;
- The athletes put the corpse into the crystal sarcophagus and leave it at a deserted cave;
- Elisey is searching for the princess asking the sun, the wind, the moon if they have seen her. The wind knows;
- He enters the cave, breaks the crystal sarcophagus and the princess awakens to live. They return home;
- The wedding procedure; the death of the evil step-mother.

So, children can choose among 10—12 emotionally meaningful scenes. If they picture 2/3 of the scenes, it proves their excellent imagination work. If they scored between 2/3 and 1/2 — they have good imagination. 1/2—1/3 shows poor imagination. Finally, 1/3 of the scenes says that they have poor work of imagination; mechanical cramming of information prevails over their creative independent thinking.

### ***Techniques on estimation of qualities of development of characteristics of creative thinking and mental motility of a child***

#### *Imaginative capacity*

The measure (completeness) of the chosen emotionally meaningful scenes is estimated according to the relative density:

$$IC = \frac{X}{Y} \times 100\%, \text{ where}$$

IC — Imaginative capacity, %;

Y — the number of such scenes in a fairy tale;

X — the number of chosen scenes;

Qualitatively imaginative capacity is estimated on the following scale:

Below 33% — low imaginative capacity;

33—66% — middle level of imaginative capacity;

66% and higher — high level of imaginative capacity.

Gender and personality identification of a child (see article 3, chapter 9):

The ability to make a personalized summary of the fairy tale (a story) and retelling the events drawing them (the ability to imagine the events in their chronological order as a sole piece of literature):

1 — absent;

2 — poor;

3 — middle;

4 — can be considered mature;

5 — Fully formed.

*Creative thinking* (the ability to produce new original combinations of images in time and space dimantion):

1 — absent;

2 — poor;

3 — middle;

4 — can be considered mature;

5 — Fully formed.

*The fantasy sense* (depicting of the thought up images):

- 1 — absent;
- 2 — poor;
- 3 — middle;
- 4 — can be considered mature;
- 5 — Fully formed.

*The timing* (the indicator for chronological depicting of events in a fairy tale/story according to their cause-effect relations):

- 1 — absent;
- 2 — poor;
- 3 — moderately represented;
- 4 — can be considered mature;
- 5 — perfect.

*The sense for space dimension* (the depth and the width of representing the surroundings in a scene — “the circle of attention”):

1 — absent: the things are shown around the nearest surroundings (for example, around the sphere of physical “contact”);

2 — poor: the things are represented around the space of a room or a play ground;

3 — moderately represented: you can see the closest to the house surroundings;

4 — can be considered mature: the objects are shown in perspective (the mountains, the clouds, a forest in the distance etc.);

5 — perfect: the objects are beyond the seen horizon.

The sense for perspective:

- 1 — absent;
- 2 — backwards perspective;
- 3 — linear perspective is represented poorly;
- 4 — linear perspective is represented moderately;
- 5 — linear perspective is represented well.

The direction of psychoemotional expression:

— the sense of the outward motor movement:

- 1 — absent;
- 2 — poor;
- 3 — moderately represented;

4 — can be considered mature;

5 — perfect.

— the sense of the inward motor expression, examined by the visually-mimic and gestures expressiveness:

1 — absent;

2 — poor;

3 — middle;

4 — can be considered mature;

5 — Fully formed.

*Graphic plastic* — the representation and the density (or its absence) impulse-angular elements on the chosen piece of a letter (a word):

1 — extremely poor quality of a plasticity — “the convulsive” letter;

2 — the plasticity is poorly expressed: there are only separate plastic elements;

3 — a plasticity of moderate degree: approximately a fifty-fifty distribution of “angular” and plastic lines;

4 — it is possible to consider the graphic plasticity mature: plastic forms represent not less than 2/3;

5 — a perfect graphic plasticity.

*Colour plasticity* — the correspondence of a colour contiguity in children’s drawings to the law of a colour contiguity of a rainbow:

1 — the contiguity of natural distribution of colours is absent;

2 — there are only casual hints on a contiguity of natural distribution of colours;

3 — approximately equal distribution of the colours corresponding and not corresponding to the law of a natural contiguity;

4 — the overwhelming majority of colours (not less than 2/3) corresponds to a natural contiguity;

5 — a perfect colour plasticity.

*The domination of emotional characteristics in drawings:*

1 — emotional poverty of drawings;

2 — weak emotionality of drawings (both major, and minor);

3 — the moderate emotionality can be traced;

- 4 — the emotionality is present;
  - 5 — the brightly expressed emotionality of drawings.
- The domination of moral-ethical aspirations in drawings:
- 1 — the fear, escapist mood prevails;
  - 2 — aggression prevails;
  - 3 — the struggle of good against evil prevails;
  - 4 — moral-ethical decisions prevail;
  - 5 — perfection of the moral decision.

*Gender and personality identification in drawings:*

- 1 — absent;
- 2 — poor;
- 3 — middle;
- 4 — expressed very well;
- 5 — high.

*The symbolic images:*

- 1 — yes, there are;
- 2 — no, there is not.

A detailed training is conducted at a specially organized seminars.

#### COMPOSITION ON THE BASIS OF A SUBJECT PICTURE

A picture is shown to the kids, so that they can memorize its subject line. For example, such works of art can be singled out: “Native land-mother” from a monument-ensemble devoted to the heroes of Stalingrad fight; I.K. Ayvazovsky’s “Rainbow”; “On a raft” by I.E. Repin; “Morning in a pine forest”, “Wood perspective” by I.I. Shishkin; “Sacred family” by Rembrandt; “Laundress” by Chardin, Jean-Baptiste-Simeon; “Fight” Yan Minze Molenaar; “Battle” by Jacques Courtois; “Quickness and aspiration” by Francisco Goya; “Children running from a thunder-storm” K.E. Makovsky; “Pompeii. The Last Day” by K.P. Bryullov etc.

We do not recommend you to show children already familiar scenes, the scenes from fairy tales or stories, as they might simply retell the plot instead of describing the picture.

The children can examine a picture within 2—3 minutes. They record their impressions, if they can write, or tell them to a grown-up supervisor and he puts them down for a kid. The next step — you need to group the compositions. The following groups can be singled out: children with properly developed imagination and speech production; with moderate development of these qualities; with poorly developed imagination and speech production.

This information used for further estimation of dynamics of creative abilities in the educational process, as well as for the decision of the problem of the personality oriented approach to children in the course of their training, including the recommendations to parents.

#### THE CONTINUATION OF A STORY IN 2—3 SENTENCES

We really recommend you to start a story using emotionally strong sentences, motivating a child for the further creative search of an answer to the problem. For example, “It was sunset time. It was dark and cold in the forest. There was a little bundle under a tree — it was a baby, wrapped in a cover. It was crying...”.

Firstly this test helps to detect an emotionally-moral trait of a child. Secondly, composing sentences and sympathizing helps to actualize the moral inclinations. Thirdly, the problem is rather up-to-date in the modern world of “universal” values and instinctive freedom.

#### *Methods of estimation of the functions and functional state of the visual analyzer*

Visual acuity (VO) was investigated according to methodical instructions “About uniformity in visual acuity research”, composed at Scientific research institutes of eye illnesses after Gelmgolz. The necessity of estimation of its more thin fluctuations in time

demanded the perfection of these methods. Children with sight 1,0 were additionally tested with the help of O.M. Novikov's chart, allowing differential measurement of visual acuity in a zone above the standard general norm table (i.e. From 1,0 to 2,0).

*Depth perception* examination was conducted on the basis of establishing the minimal (threshold) characteristics of the binocular parallax. This minimal index shows the level at which the binocular vision functions or drops. This minimal index of the binocular parallax determines the depth of perception.

L.P. Ufimtseva has slightly modified the classic Gelmgolz's machine to perfection the accuracy of estimations. She used the rings of different diameters instead of stems. The first ring of the smaller diameter is fixed and the second one, of a larger diameter runs around the general axis.

A person experiencing the test was sitting 5 m off the machine. His head was fixed. The task while performing the test is to put the moving ring in one dimension with the fixed ring. The minimal length between the two rings at the moment of switching of the depth sight was recorded as the index of binocular parallax.

The test was performed three times. An arithmetic mean was calculated.

*Visual ergometry.* This method is based on creating for a person an intensive visual strain by approaching test-objects. The test was conducted with a portable ergometer. The optotype was represented by Landolt's ring, corresponding to sight 0,6 from the 30 meters distance. The brightness of all the screens was usual (300 lk). The accommodation amplitude (AA) was estimated by the following formula:

$AA = FPA - CPO$ , where

FPA — The furthest point of accommodation;

CPO — The closest point of accommodation.

The index of accommodation sustainability (IAS) was calculated by the procedure as follows: the closest point of accommodation of the right eye was measured at the mentioned ergometer. Then an ergographic test was performed, evaluating the dynamics of the closest

point of the clear vision in conditions of 3 minutes maximum load of accommodation (the difference in test-objects approaching an eye).

The mathematical treatment and the analysis of the data were performed with the help of a formula suggested by L.P. Ufimtseva.

$IAS = 1 - Y$ , where

IAS — The index of accommodation sustainability;

Y — the coefficient of different indexes of the closest point of accommodation in 3 minutes time.

The state of physiological "steadiness" of accommodation was performed according to the following scheme. A lens of +3,0 dptr was approached to an eye which caused an eye relaxation. A person under survey was asked to pronounce letters from a 33,3 sm distance (FNT 1 of Golovin — Sivtsev chart for close vision). If a person could name the letters only after they have been shown closer, it proved to the fact that there was no complete relaxation of the accommodation. A case of a residual strain of accommodation (RSA) was registered, arousing out of the dynamic stability of the antagonist muscles deviation.

*Critical flicker frequency (CFF)* — A person experiences several flashes from a light diode. The flicker frequency was estimated by the rectangular pulse generator (ESL — 2). The person was supposed to identify the frequency at which the signals were perceived as unceasing. Some calculations were made to find the simple average.

*The speed of visual information processing (SVIP).* Weston's tests were used to identify SVIP. The test includes 16 rings of Landolt united in 16 groups (256 rings total). The breakings of the rings face randomly one of 4 directions: up, down, to the right, to the left.

The person performing the test was asked to single out and cross out all the rings facing a certain direction. The number of mistakes, the time of reaction, visual productivity were calculated by the following formula (by Weston):

$$V = \frac{n}{N} \times \frac{n}{N}, \text{ where}$$

V — the indicator of the visual productivity;

n — the number of correct answers;  
N — the number of the rings with the chosen direction;  
T — the time spent by a person.

For more information see: [www.obrzdrav.ru](http://www.obrzdrav.ru)  
<http://www.hrono.ru/proekty/bazarny/>

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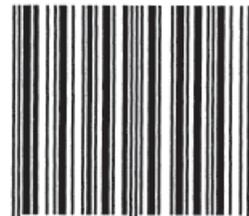
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