

Changes in the Anthropometric Parameters of Right-Handers and Left-Handers in Children of the I-II Period of Childhood

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ABSTRACT

The problem of squirrels still remains a mystery. We know that most chaplains are great talents, but among them there are also those with low intellectual potential. Our views are reflected in the following sources.

KEYWORDS: *genetics, stratified approach, inter hemispheric asymmetry*

At all times of the development of mankind, left-handed people aroused special interest and some wary attitude of others, aroused surprise and curiosity. Genetically and historically, this determines the attitude towards left-handedness (and left-handedness is most often perceived as left-handedness) not as an individual variant of the norm, but as an anomaly, a developmental disorder [2].

Today, the problem in pedagogy and physical education that does not have an unambiguous approach is the left-handedness of children. Some researchers consider left-handedness as a deviation, considering that all left-handed people have impairments, thereby developing methods of retraining children from left hand to right, others, on the contrary, regard this phenomenon as a genius and see this as an advantage. An unambiguous approach has not been developed.

In our opinion, this problem requires an unambiguous solution, since various options for teaching and retraining left-handers can negatively affect both their physical and psychological development. The question of a differentiated approach to teaching (taking into account by the teacher the individual characteristics of a student or a group of students in the learning process) - the basis of modern pedagogy [1], arises sharply.

According to O.V. Andreeva (2006), a negative attitude towards left-handedness has a long and long history, and the events, actions and relationships associated with the right and the left in different cultures, separated by both space and time, are very similar. As a rule, in different cultures, positive qualities were correlated with the right, negative - with the left. Perhaps this is one of the manifestations of the attitude towards the right - the left as opposites in different cultures.

Many researchers emphasize that among left-handed children there are children with high rates of motor actions testing, but there are also very awkward and uncoordinated ones, with certain difficulties in motor actions fulfillment and the formation of abilities and skills [7, 10]. This, apparently, is associated with congenital left-handedness. Left-handedness is not only the predominant use of the left hand when performing motor actions, but also a certain reflection of interhemispheric asymmetry, as well as the distribution of various functions (motor, visual,

sensory, etc.) between the right and left hemispheres of the brain that differs from right-handed ones [1.9].

We come across such views on left-handedness and with such an attitude very often. Probably, the decisive factor is ignorance, misunderstanding of the biological mechanisms of left-handedness, and most importantly, rejection of the diversity of individual differences in children, the diversity of their abilities, inclinations, differences in reactions under the action of the same factors, the inability and unwillingness to accept these individual characteristics as a given, which is not needed and you cannot alter, change at will [2].

The number of left-handed people in the world has a positive trend: if in 1928 3.3% of left-handed women and 4.7% of left-handed men were identified, in 1973 - 8.8% of left-handed women and 10.4% of left-handed men, then in 1978 - 1988 the number of left-handed women reached 12.4%, and left-handed men 13.9%. An increase in the number of left-handed children is also observed in schools of the city of Ishim in 1998, 5.2% of left-handed children enrolled, in 1999 - 6.1%, in 2000 - 5.5%, in 2001 - 7.5% , in 2002 - 7.9%, in 2003 - 8.3%, in 2004 - 8.6% [12].

There is evidence of a large percentage of left-handed people among mentally retarded children, among children with learning difficulties in writing and reading, but in many cases left-handedness itself is a consequence of pathology in brain development, as well as mental retardation and learning difficulties, and not at all the cause of these disorders ...

Goodman, Joshua found that evidence that left-handers were overrepresented at the high end of the cognitive spectrum was weak due to methodological and sampling problems in the studies conducted. Goodman also found that left-handers were overrepresented at the lower end of the cognitive spectrum, with mentally retarded people being twice as likely to be left-handed as the general population, and generally lower cognitive and non-cognitive abilities among left-handers. Moreover, Ntolka and Papadatou-Pastou found in a systematic review and meta-analysis that right-handers have higher IQ scores, but this difference is not significant (about 1.5 points). [21]

According to O.V. Andreeva (2006), left-handedness and reduced intellectual abilities may have one reason - developmental pathology, and a healthy left-handed person may have brilliant abilities. And there is also a lot of such data.

The left hemisphere controls the movements of the right side of the body. Here are the most important centers for speech, language, mathematical ability and logical thinking. It is the left hemisphere that dominates in right-handers, giving the right hand more precision and

dexterity of movement. The right hemisphere is responsible for the left side and is the focus of visual perception, musical aptitude, and abstract thinking. So, with regard to the educational process, it is necessary to take into account that the right hemisphere is responsible for the sensory perception of the world and provides imaginative thinking, while the left hemisphere is responsible for logic, speech and abstract thinking [1,8].

Due to the specifics of the functions performed by the leading left-handed children by the right hemisphere of the brain, scientists note that they often have disorders or deficiencies in the development of visual-spatial perception, visual memory and visual-motor coordination, which results in difficulties in distinguishing, memorizing and writing complex configurations of letters of numbers, drawing of geometric figures, as well as mirror writing, pronounced handwriting disorders, tremors, etc. [16].

The level of development of fine motor skills in left-handed children with developmental pathology and in left-handed children with forced left-handedness turns out to be insufficient for mastering writing [3,12].

Left-handedness is a reflection of the hereditary and mature system of brain functioning. That is why retraining a left-handed person means seriously changing his biology, which means risking his physical and psycho-emotional health.

Left-handedness has generally been associated with an increase in the incidence of various serious terminal and mental illness, as well as earlier death.

Weight loss at birth and complications at birth are positively correlated with left-sidedness. [19]

The special organization of the nervous system, the distribution of labor between the cerebral hemispheres constitute a whole complex of human psychological qualities. It is he who distinguishes left-handers from right-handers. The difference is not only in what hands these children write, eat, work with, but also in the peculiarities of visual perception of information. It has been established that the visual system of perception is especially characteristic of left-handed children [10, 20].

In younger schoolchildren, the most common manifestation of such a deviation in health is asthenic neurosis. It is accompanied by decreased performance and activity, increased fatigue, rapid exhaustion. The peak of activity is observed only in the first two lessons, then in children there is a decrease in perseverance and motor disinhibition. After classes, children feel tired, lethargic, lose interest in receiving new information [1,5].

Due to the contradictory nature of left-handed people in their psycho-emotional sphere (the need for communication - shyness, the desire for leadership - comfort, the need for high appreciation, praise - low self-regulation of behavior, etc.), many of them experience difficulties in communication and mutual relations. with classmates [12].

Homework for left-handed junior schoolchildren is most often delayed, accompanied by repeated unsuccessful actions, shouting, crying, distraction, outbursts of discontent, hysteria, refusal to work, which ultimately lead to an unsatisfactory result [9,10].

All this creates the basis for the development of fears of failure, censure of adults and teachers. Moreover, the desire to overcome these fears of left-handers does not develop in themselves, regarding this as the norm. It is believed that this condition is short-lived and should pass by itself by the end of the first year of schooling, and here it is important, first of all, for parents and the teacher to control so that the child does not undergo new emotional stress. In the opposite development of events, "new" fears appear: fear of the dark, fear of being alone in a room, and even fear of death [1,20].

Yet concern for the health and development of left-handed children is not without foundation. Among left-handed people, there is a significant proportion of children born as a result of pregnancy and childbirth, proceeding with various complications, a high proportion of children with disorders in the development of the central nervous system, with a predisposition to neuroses, and decreased body resistance. Some researchers believe that a left-handed child may be characterized by asynchronous development of some mental functions, high emotionality, some lag in the development of psychomotor functions and spatial perception [2].

Refusal of retraining, true attention and respect for left-handed children will reduce the negative impact of dextrastress on health and personality formation, and reduce the risk of physical and mental health disorders. The fact that left-handers are more susceptible to certain diseases is true. But the propensity to get sick and the disease are different things, and therefore it is often possible to prevent illness, knowing the peculiarities of the mental makeup of left-handers [3].

The idea that in the process of physical education and sports training it is unacceptable to retrain children with congenital left-handedness to the right side is more and more weighty. By forcing a left-hander to work in a lesson or training with his right hand, we are trying to change not only the nature of the preference for the working side of the body and the leading hand, but also at the same time alter his innate preferences, his biological nature. Along with this, a negative influence is also reflected in the retraining of "left-footed" children, which leads to impaired motor functions, to a change in the process of physical growth and development. This leads to the conclusion that imposed uncharacteristic (forced or retrained) motor asymmetry, regardless of the part of the human body, has a negative effect [1].

Although physiologists have explained the phenomenon of left-handedness, there is still no sufficiently fully developed methodology for teaching left-handed first-graders to write skills, the methodology for the formation of general working skills and communication skills has not been sufficiently developed. The lack of targeted pedagogical assistance in overcoming the difficulties that arise when left-handed people enter a new collective against the background of their conflicting emotional and psychological characteristics provokes outsiderism in them [12].

Lefties are united by increased irritability, fatigue, and emotional vulnerability. Of course, a vulnerable person is more sensitive to any offense, and sometimes something that would leave another completely indifferent can offend him for a long time, and the offense, in turn, provokes a

stressful situation. But this is redeemed by a more subtle perception of the world, the ability to see in it that which is inaccessible to others [2].

The analysis of the available literature showed that the anthropometric parameters of this or that area of the body parts were not studied before the end, separately and in the complex of children - "left-handed". There is also no data on the morphometric parameters of the body parts of left-handed children in terms of age and taking into account sexual demorphism. All this requires a deep study of this problem and analysis of the data obtained in the future.

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