**Corrective exercises for children** , with autism spectrum disorders, **on the basis of the movement’s construction theory of N.A. Bernstein**

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Proceedings of the all-Russian scientific and Research Conference anniversary conference "theoretical and applied problems of medical (clinical) psychology (to 85letiû Yu.f. Polyakova)", held from 14-15 February 2013 in SEI HPE «the Moscow City University of psihologopedagogičeskij "and" NMHC "RAMS RAMS under General Ed. N. Zvereva, I.f. Roŝinoj. Moscow, 2013-197 p. (pp. 83-84)

Bernstein, N.A. «The co-ordination and regulation of movements» was released in 1947, and has been translated into all basic languages of the world. Every level of construction of ***movements*** corresponds (contains) the certain stage of phylogenesis development of animal kingdom on earth. As motion is the basis of our behavior, Bernstein’s levels of the construction of movement could be considered as the levels of the construction of human psyche and mentality.

Theory of «The co-ordination and regulation of movements» Bernstein, N.A. became for us basic support in correction work with the special children, children with autism spectrum disorders.

Such work includes, not only the elaboration of afferent and efferent synthesis, but also the elaboration of communication, behavior, games, speech – the basis of construction of child mentality.

**Level A-** corresponds to development of coelenterates (jelly-fishes and hydras) with their, practically, not differentiated perception, reticulated nervous system and integral answer of total-body.

Years of the practical training of the "special children", as also the review of literature let us conclude, that the motor control level, named by N.A. Bernstein, as a rubrospinal level of paleokinethikal regulation, could be considered not only as the basis of movement construction, but also as the basis of the entire psychological development of the child. This assumption based on the functional futures of this level: the integrity and the stability are the necessary conditions of the mental and motion functioning; the constant afferent income is the basis of self-consciousness, "awareness of myself".

With an unfinished level A - the child "does not find" themselves in the space, there are fears, tone and activity does not ensure the functioning of the higher levels of construction, especially suffers virtually no construction, the level of C.

In our experience, the 80-85% of children with a diagnosis of early infantile autism, there is a Imperceptions of deep sensitiveness. Most of them are observed violations of the tonic regulation-hypotension, more commonly, or dystonia.

**Level B** - corresponds to development of fishes and amphibious. B-Level, the level of synergy (according to Bernstein’s theory of movement), controls the inborn and acquired automatic motor patterns of our body. Level B is basis of unconscious incorporation into the external

According to the theory of Nikolai Bernstein, the levels of movement construction can be considered as stages of human psychological development. Level B is the basis of human physical, motor and psychological automatisms. Disinhibition of level B leads not only to improvement of movement coordination, but also facilitates such mental processes as cognition and speech.

At the level of the unfinished B - suffers the formation of higher automatism of movement, behavior, thinking - level D.

In our experience, for children, having a diagnosis early child's autism, such violations meet rarely enough - usually for those children that to birth were yet physiologically not mature, for example, for strongly prematurely born children.

**Level C** are birds and more subzero mammals - good central sight and rumor help an orientation the real goals and their achievement are Here meaningful in space.

 Level С is basis of integral consciousness of man. At this level an imitation and imprinting, boast, are built on obstacles and curiosity.
With an unfinished Level C - there are fears associated with misrecognitionobjects in space (similar to fears in the dark room). Child "closes", "leaves in itself."

The Level of Space: Level C. The level C is the basis of integral conscious. Correction: the integral sensation of the external world; the target achievement in space; the motif in communication; mimic and voce intone in process of communication; the imitative game.

In our experience, children who have been diagnosed with early infantile autism, we often observe violations of spatial perception, problems with target movements, fears associated with neopoznannostyu objects in space. This usually occurs due to disturbances at the level of A. When a child does not feel his body, he can not use it. When a child does not feel his body, he "finds" himself in space, all the forces of the child to go out to find myself, "space is minimized." When there is no presetting tonic muscles of the eye - the eye, "do not listen" - is not possible convergence of the eyes on an object, a scrutiny of the object tracking. The same hearing.

Rarer autists have only violations only of level of the spatial field are violations of the fields of visuognosis, violations of motions on an aim, flights or falling short.

**The Level of Actions: Level D.** A level of D is higher mammals, primacies - perception and motion go to the presented world, achievement of the presented aims.

 the higher mammals, primates - the perception and movement are in the represented world, the achievement of the objectives presented.A level of D is basis of mythical consciousness of man, roles and behavior that is specific to the accepted role, human culture and behavior "as necessary". A lie is possible. Shame and sense of guilt (if misconduct was noticed; but here “not caught is a not thief").

At unripe level of D - there are the fears related to unidentified of situations and roles (for example, a child is frightened, when a mother from the role of Workwoman passes to the role of charming Princess).

In our experience, children who have been diagnosed with early infantile autism disorders at the level D, tend to be secondary and connected a) violations at A level - the body simply do not have the activation of the cerebral cortex, and b) violations at B - are not formed or formed with great difficulty, automatism consumer behavior, thought and speech. Aprakcii, without disturbances in the lower levels of building movements are extremely rare.

**Group E levels** - individual, speech and abstract thinking.
In our experience, children who have been diagnosed with early infantile autism, primary disorders at E are extremely rare. But the manifestation of the features of this level is masked by the overlying level violations.

A group of levels of Е is a man, speech and abstract thought.

In our experience, for children, having a diagnosis early child's autism, primary violations at the level of Е meet extremely rarely. But the display of possibilities of this level masks violations on levels вышележащих.

In our experience, for children, having a diagnosis early child's autism, primary violations at the level of Е meet extremely rarely. But the manifestation of the features of this level is masked violations at levels upwards.

**Level V** - In addition to the above we are in the process, found yet another level of regulation of our body - it corresponds to the, in phylogenesis, worms - is the level of autonomous (vegetative) nervous system (abdomen, Belly). Work at this level not only activates the vegetative nervous system (breathing becomes level and deepens, functioning of bowels and digestion gets better, etc.). At the same time we see appearance of empathy in our children - children begin to notice the emotions of other people, feel the emotions of other people, interested in the emotions of other people.

In our experience, for children, having a diagnosis early child's autism, violations at the level of V meet also often, as violations at the level of А. It talks that these violations, probably, are secondary.

In addition, we observed violations at level V of the child, in cases where this level is partially or completely blocked the mother of the child (anxiety, stress, fear).

**Remedial work is carried out from the lowest to the highest levels, from building afferent synthesis (perception) to the construction of efferent synthesis (movement, behavior) of each level.**