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The American Association for the Advancement of Science
The Regulation of Physical Instruction in Schools and Colleges from the Standpoint of Hygiene 1

The researches of modern physiologists on the growth of the brain and nervous system have done more to place the physical instruction of the young on a sound and logical basis than any other influence that can be named, for the specialization of the child’s muscular system progresses with the increasing complexity of the brain, and the evolution of his physical nature is but an epitome of the evolution of the whole race.

The infant is born with but two definite voluntary movements, sucking and grasping, necessary for self preservation; all others consist of aimless waving and kicking of the arms and legs and it is not until the assumption of the upright position that the specialization begins that advances him above his four-footed fellows.

Relieved of their function of support, the arms rapidly learn movements of throwing and striking, grasping and pulling, and he familiarizes himself quickly with his surroundings and soon begins the imitation of the movements in animals and people and machines that are within his range of observation.

1 An address delivered in a symposium on “The Regulation of Physical Instruction in Schools and Colleges, from the Standpoint of Hygiene” before Section K (Physiology and Experimental Medicine) of the American Association for the Advancement of Science, Baltimore, December 20, 1908.