

# **A REVIEW OF SWEDISH GYMNASTICS**

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A Review of Swedish Gymnastics by Theodore Hough

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**THEODORE HOUGH**

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OF  
Swedish Gymnastics

BY  
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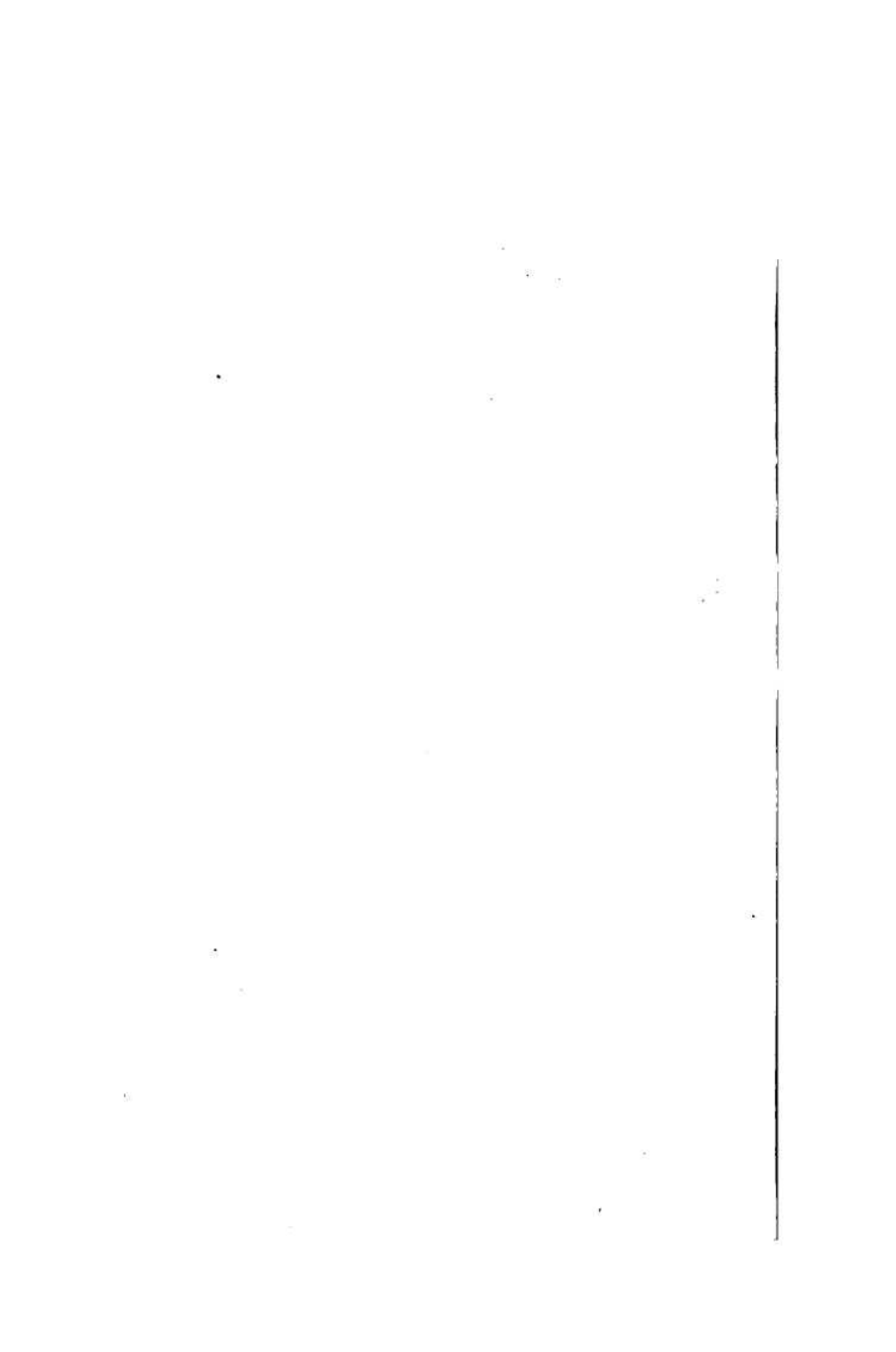
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## A REVIEW OF SWEDISH GYMNASTICS.

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THE term "Swedish Gymnastics" is usually understood to mean, in this country at least, a system of physical training designed to meet certain demands in the education of childhood and youth; and, since the question of its utility is at present largely or chiefly concerned with its use in schools, it will be well to begin our discussion with this phase of the matter.

If it is a function of education to train the growing individual for usefulness in life, physical education must demand attention in any proper scheme of educational work since the capacity for usefulness is so largely determined by the physical health of the individual. It is perfectly true that we find cases in which, owing to unusual mental power, success has been attained in spite of physical defects and even of moral defects. We see cases where success has similarly been attained because of moral qualities and in spite of very moderate mental power or of physical weakness. But such cases are the exception. If you study great masses of people, you will find that serious defects in physical power are almost certain to hamper life's work. That work may be done, but it involves a severe struggle. In a large percentage of cases it is not done, and life becomes a succession of failures. It is, after all, on the physical man that we build. The leaders in life's activities are almost without exception men of strong physical constitution; a large percentage of the failures are men of weak constitution; and any system of education which impairs physical vigor and leaves men physically unequal to the

work of life is unworthy of encouragement,— is, indeed, radically wrong.

The physical condition or health of a human being at any age until growth is completed is the result of a process of physical development. In actual life, Athene does not spring full-fledged from the brow of Jove, nor Venus from the foam of the sea. For one hundred and seventy-five thousand two hundred hours the most varied physiological activities have been at work to make the man or woman of twenty years; and, could we read but deep enough, we could see that the conditions which obtained during each of those hours have contributed their share to the final structure, the health, the possibilities of that living being.

Development, in short, is the result of three factors:—

1. *Heredity*.— It is not necessary to attempt a definition of this term. It is the expression of the structure and characters of the fertilized ovum from which all the cells of the body are derived. It gives us the living material upon which we must work in education, and at once determines the possibilities, the limitations, and, to a certain extent, the course of training.

2. *Environment*, both of the body as a whole and of each of its units, the living cells. This would include the external conditions of life and the chemical and physical characters of the blood. Under it we would include the food supply, the surrounding temperature, clothing, the care of the young by the parents, the hygienic conditions of the dwelling, bathing, and so on.

3. *Activity* of each cell and of the body as a whole. By activity I do not mean simply muscular activity; that is merely the activity of one kind of cell,— the muscle fibre. The discharge of a nervous impulse from a nerve-cell is a case of similar activity in another kind of cell; the process of secretion is similarly another case of activity in a gland-

cell; and so with each kind of cell in the body. Now we have satisfactory evidence in most cases that the growth of the cell is profoundly influenced by its functional activity, and cannot be complete without this activity. If a growing muscle fibre never contracts, it cannot develop into a healthy adult fibre. A growing nerve-cell which never sends an impulse over its axon cannot become an efficient nerve-cell. A growing pancreas which never secretes pancreatic juice cannot grow into a perfect gland. The classical example of this is the failure of the motor-cells of the cervical cord to develop when the arm has been amputated about the time of birth; under such circumstances the nerve-cells do not send impulses out over their axons, and accordingly take on characteristic degenerated forms. Moreover, within certain limits the efficiency of an adult cell is proportional to the amount of activity it has had during development; the muscle fibre which has been used is capable of doing work which one which has been used but slightly can never be trained to perform. "You cannot teach an old dog new tricks," is one way of saying that the greatest possibilities of training belong to the period of growth; and this is especially true of physical development. We can do for the physical man before the age of twenty-one what it is absolutely impossible to do between twenty and sixty.

The three factors, then, at work in development are heredity, environment, activity. Heredity should determine what education is to attempt and the general course which its operations should follow. Environment demands attention to the hygienic conditions of the home and the school, to clothing, feeding, bathing, etc. The greater part of the work of education, however, is directed toward giving such guidance to the activities of the body, and especially to the volitional activities, as shall produce the best physical, mental, and moral results. Now, if what