

THE MAN MOVED

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The *infant* moved and experienced life. His cranium-dominated anatomy was helplessly outclassed by the invisible gravitational giant; yet, to lie inert was unnatural for he was genetically programmed for movement. He kicked and fussed, wriggled and touched, and out of the myriad of textures, shapes and sounds from without, and the rudimentary proprioception from within came pattern, awareness, discovery.

Seldom in history has more attention been given to the importance of motor experience in the total development of the young child. People from fields as diverse as politics and special education are agreeing on the basic importance of early motor activities in the life of a child. This is not surprising for movement means many things to a young child; in fact, movement means life. Not only do the proper frequencies, intensities, and modalities of physical activity promote the organic and neuromuscular changes one associates with growth, but in addition they are largely responsible for determining the type of adult the child becomes psychologically, sociologically, and intellectually.

Katurah Whitehurst, a noted child psychologist, cites several examples of the importance of movement in early childhood development: (1) Movement is an important factor in the process of self-discovery: discovering one's body, its abilities, and its limitations. The awareness of physical capability is ego-enhancing and therefore an important component of a healthy self-concept. As a child moves from place to place he handles different objects, feels different textures and shapes, and negotiates a variety of environmental hurdles. This movement assists the young child in achieving and maintaining his orientation in space. (2) Movement also means safety. Early in his development the child learns that a quick movement, timely and in the right direction, has important protective results. (3) As the child cries, laughs, claps, reaches, he begins to learn too that move-

ment is an effective tool in communication.

The young *child* moved and experienced life. He approached and withdrew, he smiled and frowned, he jumped for joy and threw himself down. Every action and gesture, the varying directions, speeds and accents, each in their turn provided a challenge for his balance, his timing, his image. Movement was contact, communication, expression; it was a relished delight.

Opportunity and approval should await the child's inherent urge to move and explore. Jerome Kagan, in a discussion of the "hidden curriculum" of middle class homes, notes that steps and cupboards are far superior to the playpen as objects of exploratory behavior. If early opportunities for movement are varied and frequent, then movement means coordination, rhythm, and success as opposed to failure, awkwardness, and disgrace. Imagine the contrasting possibilities for self-confidence, assurance, poise, and initiative developing in two children; one who is awkward, clumsy, and always chosen last, and the other who is sure-footed and selected first.

If movement means so much to the developing child, no further justification should be required for its inclusion among all levels of the child's formal and informal education. For some children, movement education may be one of many avenues to the goal of self-realization. For others it may be a pump primer to get the flow of interest and imagination flowing. And for still others, it may be the only way to a fulfilled life.

But, one may ask, what about the *natural athlete*? Will not a child, through mere participation, develop that level of proficiency in each movement pattern of which he is genetically capable? That a child's genetic inheritance dictates his development potential is still commonly accepted. However, the role of the environment in helping the child develop to his genetic capacity is now becoming increasingly clear. Movement is an extremely important environmental variable; devia-

tions from the ideal in movement education may inhibit the ultimate realization of an individual's potential.

Most children will develop some rudimentary form of the innate movement patterns, even if their opportunities for development are minimal. However, the attainment of more advanced forms may never occur in many children and, in fact, may not occur even by adulthood. (Halverson)

The *child* sat erect, and experienced what his society had designed as education. What had become of the gentle breeze which formerly caressed his face as he ran, of the sting when he fell, the exhilaration when he succeeded, the perseverance when he failed? Where was that boundless energy, the endless summer? Movement had been life and now he felt, if not inorganic, at least vegetative.

He could not have known, or even comprehended that the inactivity, necessitated by a need to become "educated," was already taking its toll on his strength, his health, his initiative. Fatty streaks, which years later would evolve into atherosclerotic complications, began to mark the unscarred hallways of his still developing mass. Opportunities to attempt and master new movements were rare, and without direction. Attitudes and habits only years before developed in accord with his natural craving for exertion and exploration, now seemed alien, unnatural. The child acted, perceived, reacted and became—a different person educated in the knowledge of man, educated to sedentation.

Wait, one might say, will not recess, athletics, and recreational play meet the child's physical education needs? Is not physical education composed of those elements?

The answer is *no!* Yet, nine out of ten adults would have responded with a resounding *yes*. The reason is clear: the vast majority of the adult public today equates physical education with athletic sports, calisthenics, and recess. The mistake is a natural one, for in many schools these activities pass for physical education. This is not to say that athletic sports, calisthenics, and recess are undesirable. Each has its merits. Yet the misunderstanding has hurt America's children, for most schools do *not* have adequate physical education.

A global examination of physical education will not be attempted here, but an effort will be made to identify some of the things physical education should include. Present day physical education might better be named for the two basic functions it serves in relation to the growing child. These

functions are learning to move, and moving to learn. On first inspection one might interpret this statement as a new paint job for an old vehicle. However, closer inspection will reveal a fundamental difference between the old and the new. In the past, most physical educators focused class attention on learning sports and recreational games. The current emphasis is more child-centered.

Given a properly trained teacher, a reasonable class size, and adequate equipment, today's physical education attempts to reveal the child's movement abilities and limitations. Activities are selected in accordance with the child's needs and interests. The child progresses at his own rate for, although children follow similar sequences of development, individual differences exist within wide normal ranges of development. Children universally compare abilities, but where the teacher is concerned the only valid benchmarks are the child's previous accomplishments. The program thus remains challenging rather than threatening; the activities are more likely to be enjoyable. In this respect present-day physical education, when it is properly taught, has changed from the past. If sports, games, fitness activities and recreational play are included they are included because at that certain time, for that certain child the activity helps meet some developmental end. Very probably each of these activities will be included in the physical education program, but not for tradition's sake.

If at this point you are one of the 90 percent plus of the population who had misconceptions regarding physical education, a short digression might aid in clarification.

First let us look at fitness and health. In *Future Shock*, Alvin Toffler made readers poignantly aware of how sedentary modern American society really is. The white collar majority suffers acutely from the diseases of civilization—diseases for which moderate physical activity is both prophylactic and therapeutic. Health and fitness have always been goals of physical education, yet they are not physical education's only goals.

The acute physiological adjustments which occur during physical activity result in chronic or long term changes. Under proper conditions of frequency, intensity, and duration of exercise, these changes lead to a heightened state of health. Unfortunately the changes are long term, not permanent. Today's healthy arteries, lungs, and

muscles begin to degenerate and atrophy tomorrow if they are not exercised. Although physical education can help an individual obtain a higher state of fitness and appreciate the benefits derived from physical activity, it cannot promise permanent health. Physical activity will yield dividends only if the individual continues to invest on a regular basis.

Attitudes toward movement are molded by experience at an early age. (Krahenbuhl) Rarely will a high school or college physical education class alter an individual's predisposition toward physical activity set by experiences years earlier. Julian Stein, a noted authority on child development, has stated, "...if a child learns to love activity by the time he is five, he will live an active life; if a child learns to love activity by the time he is ten, there is a 50/50 chance that he will remain active as the years pass; if a child fails to learn to love activity by the time he is fifteen, whether caused by omission or misdirection, there is little chance that he will ever be very active."

In the vast majority of today's schools, students are not introduced to a physical education program taught by a trained specialist until intermediate school. It is too little and too late. The important molding experience afforded by the formative years is left to chance. Clearly the desirable solution involves implementing programs at much lower levels and informing the public of the importance of physical activity for young children.

Why are physical education programs so scarce in elementary schools and not initiated, if initiated at all, until the intermediate or high school level? It is because of those two other time-honored institutions: athletics and recess. Public figures in a position to catalyze change remain unresponsive, not because of a lack of concern or commitment, but because they too are unsure of what physical education really is. Most assume that physical education is a time to recreate, a time to learn to play baseball and football. Young children are unable to perform successfully in the adult form of these sports—as anyone who ever watched a group of six-year-olds try to handle a regulation-sized basketball would heartily agree. Given the invalid assumption that physical education is learning sports and little else, the logic then becomes clear—the children are too young for sports so they are too young for physical education.

Consequently, instead of physical education at

the elementary level, we have recess, which is inaccurately presumed to be the same thing. No criticism of recess is intended. Recess affords a valuable opportunity for movement; yet the child's specific movement needs and interests receive little attention, and their fulfillment is left to chance. Once again, as in the case of legislators and administrators, classroom teachers are well intentioned and they do the best they can. The fact remains, however, that they often are untrained and feel woefully inadequate when it comes to the physical branch of education. The child's organic and motor development is left unattended.

What is happening to the youth of America as a result of this neglect? Is the omission of play with purpose really that important? This time the answer is yes.

When a child's motor development is left to chance, chance dictates which few among the masses will benefit. An elementary physical education program should focus on a child's movement needs and interests. Planned physical activity helps to prepare the child for his or her future in our affluent, sedentary society in two ways. First, vigorous physical activity helps children develop healthy bodies and minds, which only mature properly with use. Second, positive attitudes toward movement developed at an early age can lead to a life style of continued interest in physical activity and can therefore protect and promote health in later years. This is what an elementary physical education can provide. Regrettably there are very few such programs in existence.

And when at age forty-five, that tightening in his chest signaled a premature end to life's journey, who was to blame? Where had his education failed? What could man, genetically engineered for physical exertion, do to prepare for his kind of affluence and idleness? Something was wrong when his dulled awareness was satiated only with the loud, gross mechanical pleasures which permeated his plastic society. Is the future filled with only gadgets and gimmicks, pills and mechanical thrills?

Why not educate sensitivity to small pleasures, pleasures which need not be lost, can be much more frequent, and infinitely lasting, satisfying? What ever became of those inherent activities of childhood: running, playing, discovering, performing? There must be a happier ending.

Are things really this bleak?

Atherosclerosis, which is principally a disease

of the large arteries, is the major cause of death in the United States. (Guyton) Controlling for heredity, it appears to be a process of biochemical origin, which initiates at an early age causing arterial damage long before the first overt symptoms appear. (Boyer, Guyton) Fatty streaks, which are believed to be a signal of the onset of the atherosclerosis process, begin to line the arterial intima of children as young as six years of age. (Boyer, Glass)

A number of high risk factors have been identified as associated with atherosclerosis and the accompanying complications. The prime candidate for early problems would probably have: (1) a sedentary job, (2) a life style with little or no planned exercise, (3) too little time to get everything important finished, (4) problems which are frustrating and tension-producing, (5) a blood serum cholesterol level above 175 milligrams percent, (6) a triglyceride level above 50 mg/%, (7) a habit of cigarette smoking, (8) a problem of obesity. (Glass)

Dr. John Boyer, cardiologist from San Diego, thinks that problems resulting from hypokinetics (inactivity) are reaching critical proportions among school children. In a study conducted at public schools in Iowa where 5,000 children ages 6-18 were examined over a two year period, seventy percent exhibited preliminary signs of coronary heart disease; seven percent had abnormally high serum cholesterol levels; a large percent suffered from high blood pressure; and many of the students were overweight.

Planned and directed physical activity can help combat at least four of the high risk factors cited above. Changing one's life style to include physical activity will reverse high risk factor number 2. Hormonal changes which accompany chronic physical activity will help offset high risk factors 6 and 7. Physical exertion increases the production of thyroxin, somatotopin, and hydrocortisone by the endocrine system. These hormones alter an individual's metabolism in such a way that more cholesterol is either metabolised or excreted and more triglycerides are utilized for energy. (Guyton) The increased thyroxin production also may help an obese individual lose weight, thus combating high risk factor number 9.

Our objective is clear. Educate our children to discover their own physical resources and to integrate them with all other personal experiences. Make the physical aspects of education a signifi-

cant, meaningful experience so each individual can become more keenly aware of, and intelligently plan for, his or her biological need for vigorous physical activity.

The child experienced education, not only for his mind but for all his matter. The formative years would not be left to chance. Movement education had become an added avenue to self-actualization. No, not recess, not competitive sports or highly organized recreational games. No, this new education was movement: learning, capturing and remembering that which is natural; perfecting and enjoying it; making it one of life's habits. This was assurance, poise, initiative, skill and health; this was movement, and life.

And the young man moved and experienced life.

And the old man moved and experienced life.

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