

Teaching directed toward the improvement of body alignment, and the solution of muscular problems of many kinds of activities and occupations; more recently applied to the dance. "I believe that many of the problems in the dance arise from poor skeletal alignment as it occurs in the standing position and the accompanying neuromuscular habits of coordination developed to maintain its equilibrium. Whatever the body alignment may be, and its neuromuscular habits, it is the mechanism upon which we build the many patterns of the dance. My background of formal education in field of Physical Education, where I was well indoctrinated with the idea that exercises for various parts of the body was the means of improving, correcting, in those days, body alignment. The supposition obviously being that poor posture is due to weakness of some of the muscles. I disagree with this point of view. My years of study and experience indicate that Body Alignment whatever it may be and however it may have been acquired is associated at any time mainly with the neuro-muscular coordination controlling equilibrium in the upright position, not with muscular weakness. I further believe that these neuro-muscular habits exert a strong influence on the manner and ease of performance of movement in any and all activities and in occupations also. The only way I've been able to change such muscle habits has been thru the use of imagined action.

In the early use of imagined action, when I first worked it through, there were many, many questions that I needed the answers for. I asked the medical profession so many questions that they couldn't answer for me. I didn't know the answer for instance: Why should imagined action produce better body alignment with greater ease than that produced by exercises? What imagined action should be employed and where in the body should it be located? relationship applied to the skeletal structure need to change to produce greater conformity of its alignment with principles of mechanical balance. Under what circumstances should imagined action be used? Would neurology and psychology support the use of imagined action and if so, why and how? What education about the mechanisms of movement should accompany the teaching of imagined action? Could imagined action be organized for location and direction of movement in the body to bring about to bring about changes which these exercises are supposed to bring about? And Lastly altho this is not all of them: Are there deviations from good alignment that are common to all so-called normal people? Now I had to have the answer to that question of I would not be able to teach by this method to a group. These are only a few of the many questions that I had to face and I had a lot more.

Now, first what is posture? It is the position of alignment of the body in the standing position in relation to a vertical line when the weight is equally divided on the feet according to such, arms hanging easily at the side and ankle joints in vertical alignment with the thigh joints. The feet can turn as they please but those ankle joints must be under the thigh joints. Now to improve posture, it is improved in proportion to the increased conformity of skeletal alignment with the principles of mechanical balance, that is weight close to the central line of the body, and weight close to the base.

Now let's consider some of the posture-falls that we usually see. Because, on these we have to base alot of our imagined action.

1. Lack of integration of the trunk - that is a trunk that holds together so well, that in a wide range of movement of the arms and legs you don't

see all kinds of distortion. In other words movement is contrilled from the center of the body and by the center of the body I mean the low spine, the pelvis and the upper thighs.

2. Closely related to that is a lack of efficient coordination of muscle action in the central area of the body with that of the upper and lower extremities. The practice of voluntary tightening of the abdominal muscles and the buttocks definately interfieres with this good coordination

3. Another fault, lack of freedom of movement in the shoulder girdle. due to tenseness and tightness in the muscles in that area. Now, the strains of daily living bring this about in part, but also false notions, and sometimes teaching procedures which lead the student to try to hold the shoulders in a supposedly good position.

4. Increased anterior-posterior tilt of the pelvis, that is too low in front, too high in back and with this a hollow back. To change this as you all know, they have advised tucking the pelvis under - a vicious practice to my way of thinking. The thing that this does is to interfere with the forward curve of the lumbar spine which is very important for balance. It extends the curve of the curve of the thoracic spine down into the lumbar area and this condition as far as I am concerned is far more difficult to change than the badly tilted pelvis with a hollow back-the old fashioned style.

5. I have watched movement so closely in people and closely on the dance floor. A lot of you may not realize this at all, but in assuming position for readiness for movement when the teacher calls them to attention they are all ready for movement: what do you see? They carry the weight to the balls of the feet, lift the chest, hollow the back, place the pelvis down in front and tense the shoulders. That's a typical picture. Now this is slight in some, in others it's very marked and very evident.

6. Another fault is forward head which is very difficult in the dance. This is due to poor alignment of the supporting struture which is the pelvis and the spinal column.

7. Another problem - pronated feet. This is often fostered by exaggerated turn out especially when it is begun too early in life when the bones are still so tender. Then it's also caused by poor use of the feet in dancing, how many times I have seen it in our laboratory. The poor use of the feet and also the poor use of the feet in walking. I have seen dancersplain hideous. And I have worked with dancers, perfectly beautiful when they are on the stage, but watch them on the street. It's poor use of the foot in everyday movement. Now with pronated feet that means strain at the knees and strain at the ankles; strain on the ligaments in these areas. And you probably know, I'd rather have something happen any place in the body than in the knees, because it is extremely difficult.

8. Last of the faults - False notions and inadequate knowledge of the anatomical structure. These exert a strong influence on the body alignment and the movement of the person, and they are often the attainments of people who really could do wonderful work if they didn't have some of these false ideas and notions. We all accumulate them from childhood up; our parents thrust them upon us, then we get them from our aunts and uncles, schoolteachers and so on. But whatever they are we can correct them in our bodies. So often I see a person and can say 'oh yes, you belief this and so'; 'yeah, how did you know?' 'Your body expresses it.' We really need to be aware all of us that we are not free from these various false ideas and ideas that are not grounded in fact. The teacher really needs to discover the beliefs of his students and the student should be encouraged to tell his teacher the beliefs that he has that are conflicting with the teaching he is receiving in the dance.

How else will the student discard his false ideas. It seems to me the first 6 weeks at Julliard every fall, I spend trying to get rid of alot of these false ideas. And if I didn't have my skeleton in hand all the time and couldn't prove things, I couldn't change those beliefs. They really believe them, my goodness they live with them. Sometimes it is very difficult. But they are definately handicaps.

Now the method of teaching of teaching movement. You will no doubt agree with me that fundamental to the teaching of all movement patterns is an accurate and brief description of the movement you want performed plus a good demonstration. And all of this is with the purpose of giving the student a clear mental picture of the movement he is to perform. Now he won't have a complete mental picture. After studying the nervous system for so many years, I know that it is never complete, especially with the complicated patterns. Which means that you need to put your emphasis on the most important parts of the movement and especially the movement that is closer to the trunk. And then of course these distant places will generally flow with the movement and if they don't, then you can talk about it more with further demonstration; which is only a part of good teaching.

Now you may or may not agree with me that it is seldom if ever an advantage to refer to any muscles what so ever. And that it is definately a disadvantage to tell the student what muscles to use and when a muscle should be tightened. This clearly interferes with the function of the central nervous system in patterning the out-going motor messages in response to the mental picture of movement and the many sensory messages that are being constantly fed into the central nervous system.

Now the meaning of imagined movement. It really defines itself. It is the visualization of movement in the body in a specific location in a definite direction as if it is taking place. No voluntary effort is involved. Imagined action may be related to bones. You can actually watch your bones move, as if they are moving, or it may be related to some imagined structure as if it is a part of your body. For example, either the rib case or the pelvis can be an accordian. The results of imagined action will be felt more in the area where you are thinking but they are far reaching because the nervous system connects to all parts of the body; so you may be very surprised that way off some place else there has been a response what you didn't expect at all.

Now in the use of imagined action, first I think it is necessary for the person to have a clear concept of body alignment based upon mechanical principles applied to the skeletal structure. Second, knowledge of the most typical deviations from good alignment. Third, where and in what direction changes need to be made in order to put the structure into better alignment.

So I've set up a group of principles to guide in the use and also construction of imagined action:

1. All imagined action should be supported by facts, mechanical, structural and neurological, and the presentation of any imagined action should be supported briefly by factual information which gives reason for using that imagined action.
2. Imagined action (see I'm taking this particularly to the dance not as I use it in the laboratory when I'm teaching posture) should be associated with the performance of simple technical exercises in the

such as practice at the bar or various forms of exercises; in other words the slower kind of exercise.

3. Imagined Action requires a graphic and brief explanation with the expectation that you're going to have to repeat it and modify it over and over again; but always with the minimal use of time. One of the things I've learned about dancers since my association with them is that many dancers believe that dancing is not intellectual it's entirely physical. Their ideas of mental activity as associated with movement are usually extremely confused. Hence they tend to be impatient with any explanation that takes time away from their activity.

4. Another principle, voluntary aid must not be given to the imagined movement. In other words nonphysical effort is involved. And that is what seems to many people to be phenomenal, that these things can happen and they never do a thing about it. If they do give voluntary aid, what they do is to impose their own neuromuscular habits and they interfere with the changes that will be made in the muscular coordination just thru imagined action. The teacher needs to realizethat they have to be warned over and over again, "Don't help just imagine the movement!"

5. Imagined action must conform to the need for better use of some parts of the body in a movement pattern.

6. Imagined action should never, never be given in terms of muscle action. I really can not emphasize that too strongly.

7. Imagined action as a rule should be located in the trunk not in the moving extremities, and if it does have anything to do with them, it must be a different thing entirely.

8. Imagined action may be directly related to movement of bones or to an imaginary structure as if that structure were a part of the body.

9. It should never be given in terms of the anterior/posterior curves of the spinal column. That's entirely too complicated. It may be related to some part of the spine. The 12th thoracic vertebra, all of my children know about that vertebra more than any vertebra in the body but never of course to the spine as a whole.

10. The substance or material used in the construction of images must be within the students experience. Coming from Iowa, I found myself often using pictures related to machinery on the farm. These big city people didn't know what I was talking about. It must be within their experience or you can show pictures of course.

11. In the discription of imagined action it is better to use the present participle of the verb because action is going on, and you are watching action in progress.

12. In the explanation of imagined action use such terms as imagine, visualize, as if, in the mind's eye; but avoid such words as hold, do, move, or anything that would tend to make the person actually perform a voluntary movement, you don't want his help. Never tell a student to feel action taking place. This is like putting the cart before the horse. A change has to occur then the feeling comes afterwards. I may ask after we have done something do you feel a difference; but something has gone on before that time.

Now the various responses to imagined action. Often when a student is imagining some action he will loose his balance. Generally he will tend to sway backwards. If that's the case tell him to recover his balance and imagine the same thing again. We never reach perfection.

If the teacher is aware of how the student will tend to respond then he can look and watch for these responses and know when they are occurring. The responses of people to imagined action will differ very greatly, some grasp the idea very quickly, you can see the change in their bodies at once. Others, they don't grasp the picture, there's confusion in their minds, consequently you get no response whatever. So there's bound to be a great difference in your students.

Usually after I have wandered around in an explanation I will ask them do you understand and if they don't then I'll have to repeat again as briefly as possible. This reminds me of an adolescent I was working with, I was being so careful to explain everything and when asked her if she understood she said "If you'll hush, I'll think." This taught me a very good lesson, to shut up and give them time to think.

It was stated earlier that students believe that dancing is physical and not intellectual, and this belief serves as a barrier to imagined action. If they'll realize that what goes on in their minds influences their physical expression and that the understanding and visualization is mental not physical. It requires patience to deal with this. But as a student comprehends the fact that the central nervous system patterns the muscle action for movement, mental barriers to better movement will be removed. Some students believe that their bodies should be hard all over. As a physical educator I believed that at one time and that they must voluntarily tighten certain muscles to get results. Some believe that to dance they have to suffer. Therefore they often work when over fatigued and thus invite injury. Some believe that to relax a muscle is to weaken it. Oh the beliefs that we get sometimes. Such false notions and the dedication of the dancer often increase their problems. All this points to the fact that much education is needed in teaching the dance.

Before the demonstration and questions, May I say this, that any presentation of imagined action will never be the same at least it never is for me. But if you are going to try out any of these things, think thru what you are going to say ahead of time, so that you don't waste time and say it in as few words as possible.

Comments brought up in Demonstration

Defined basic neuromuscular habits as - The basic pattern of muscle work that goes on when in the standing position. Those work all the time in keeping the equilibrium in the standing position even in the dancing. One builds patterns of movement on those basic habits.

Explanation to audience as working on student - I read posture from that pattern - over development of muscles. I read a lot thru my fingers, thru my hands, let me know what is going on and that came after I had done x-ray studies of the 500 people, and studied the bilateral differences. Four hundred of them went thru my classes. I went back and forth, back and forth - It feels this way - what is on the bones. It helped a great deal in learning to interpret a lot thru my hands.

Transcription (Kathy
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