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Procedure in the Posture Laboratory

Two fundamental facts guide our method of work in the posture laboratory: (1) thinking influences muscle action; and (2) movement resides in the thinking-not muscle action. Therefore, mental activity centers on movement - imagined, but not performed. This, however, does not mean that actual movement is neglected, but when it is performed, quality is sought, not quantity. Unimpaired by poor movement habits, imagined movement permits the thinking center of the nervous system to evolve a more nearly ideal neuro-muscular coordination, that is, a more efficient body for the dance.

All movement of the body, of whatever nature or purpose, is conditioned to a marked degree by established neuro-muscular habits of balance and movement. These habits are intricate and complicated and have resisted thus far complete understanding and accurate analysis. It is truly difficult to change these habits, especially in the midst of movement. In fact, the only change that improves movement of the dance, or permits one to learn more promptly new patterns of movement (not new movement), comes through the influence of mental activity on trial and error efforts. Patterns of movement are built on established neuro-muscular habits, improving them slowly or not at all, and often adding greater strain and tension. To a large extent this account for injuries occurring in the dance.

Mental activity in the dance is encouraged by the teacher in a number of ways, as through demonstration, explanation, apt comparisons with familiar experiences, discussion, and clarification of the mental picture of the desired

pattern of movement, all of which produces the best results when based on facts of body structure, principles of muscle action, and principles of mechanics. At no time should a student be told what to do with his muscles for this is both futile and harmful. There is no direct control over muscle action. It is movement or the thought of movement that brings intricate patterns of muscle work into action.

In the posture laboratory a position of rest is used which requires a minimum of muscle work. Beyond the value of the rest position itself, constructive changes in muscle habits are made through the use of imagined movement. This procedure is followed until the student can, through thinking only, produce muscular changes for bodily comfort and more efficient movement which he cannot attain in any other way. Later, movement is added, but its performance must be dominated by concentrated thinking if its quality or efficiency is to be increased. The slightest movement, well done, can produce quite remarkable and comfortable changes in muscle action, giving the body a feeling of lightness and increasing its flexibility.

Good body alignment (its posture pattern) is essential to good movement. Hence the posture laboratory aims to improve the alignment of the bodily mechanism which is to perform the dance. The method of attaining better body alignment does not interfere with strength and endurance; it utilizes the strength of muscles to greater advantage and thereby increases endurance. The better the alignment of the human machine the less prone it is to injury; the more apt it is to produce beautiful movement. This is true of both man and machinery for both operate under the same physical laws and principles of mechanics.

Imagined movement is organized under nine lines-of-movement (lines-of-action) needed to bring the body balance into better conformity with principles of mechanical balance. In the standing position, with weight even on the feet, these principles prescribe that all parts of the body must be habitually as close to the central vertical line (the axis, or line of gravity) of the body as a whole (not of the spine), and as close to the base (the pelvis) as the design of the supporting skeletal framework will allow. A slenderized, flexible body is the result. To maintain the standing position always requires, however, some degree of muscle work. This is always increased when body alignment is distorted.

Lines-of-movement as used in the posture laboratory were determined through research. They aim to produce essential changes for a better postural pattern in all individuals.

In the statement of each line-of-movement, its location in the body, its direction of movement, and its desired result is usually given. All imagined movement promotes at least one, but often several, of these lines-of-movement. This is true because the thinking center is connected, directly or indirectly, by motor nerves to all muscles in the body. The body is integrated as a whole, an entity, by the nervous system and more often than not, change in one part means there must be change in many other parts simultaneously. This statement is supported by Newton's Third Law of Motion.

The nine lines-of-movement, with brief explanation, follow. As these are tried in laboratory work, many facts and principles are given to increase the dancer's knowledge of his body and how it performs in movement.

1. Line-of-movement down the center of the back to lengthen the back downward. This releases habit tightness of the long muscles of the back; it does not reduce their strength. It allows the pelvis to assume a better balance and increased flexibility of the spine and the ribs attached to it.

2. Line-of-movement to widen across the back of the pelvis between the great trochanters of the thighs. This releases habit tightness of the outward rotators of the thighs and starts changes needed to increase freedom and control of movement of the thigh close to the pelvis. It also contributes to a better position of the pelvis and a more pleasing contour of the pelvic area.

3. Line-of-movement inward from the sides of the rib-case, to promote more freedom in movement of the ribs, both in breathing and in movement of the trunk. This contributes also to ease and freedom of the shoulders where few, if any dancers, have not experienced distressing strain and tension.

4. Line-of-movement from the center of the knee joint to the center of the thigh joint, to promote (1) better balance of muscle action around the thigh; (2) more freedom of movement in the thigh joint; and (3) control of all movement of the lower limb close to the pelvis. Efficient control of movement of the leg, as well as of the arm, close to the trunk, can be likened to the control and application of power given the whip at its handle, the fish-pole at its handle, or the spoke of a wheel at its hub end.

5. Line-of-movement from the big toe to the inside of the heel, to promote better balance at the ankle joint and better integration of the foot for weight support and movement. Practically all foot trouble and poor use of the foot begin at the center of the body in the pelvic area. Therefore, whatever is done to improve the balance and use of the foot is secondary to improvement that is needed in the pelvic area.

6. Line-of-movement from the sides of the pelvis inward, to narrow across the front of the pelvis. This is directly opposite to widening across the back of the pelvis, and more difficult because it requires increased work in deep muscles of the low spine, pelvis and upper thighs, of which one has no awareness. Whereas widening across the back of the pelvis allows the pelvis to assume a better position, this line-of-movement, with numbers 4 and 7, require it.

7. Line-of-movement from the mid-front of the pelvis (pubic symphysis) to the 12th thoracic vertebra (the vertebra of the spine just above the five lowest ones of the lumbar region). If the lumbar spine were properly curved forward and if the front of the pelvis were in good relationship to this forward curve, all other parts of the body would tend to be in good alignment and good relationship to each other. The importance of a good position of the pelvis is recognized in practically all teaching of the dance, but the manner of working to get it is often highly questionable. For example, the practice of voluntarily "tucking the pelvis under" is perhaps the most damaging of all techniques of the dance -- and posture teaching -- to the general body alignment and flexibility.

8. Line -of-movement from the top of the breast bone to the top of the spine, to promote better balance of the upper spine and hence a better position of the head and rib-case. This line-of-movement and the preceding one are the most difficult of all to attain.

9. Line-of-movement of the central vertical axis of the trunk upward, to promote better balance and integration of the entire trunk. The effects of this imagined movement are far reaching, promoting changes in all parts of the body in relation to the line of gravity.

All imagined movements taught in the posture laboratory are classified under the 9 lines-of-action.

Imagined movement produces best results in the back-lying, knee-bent position (constructive rest position, or CRP). It can be done in any position however, lying, sitting, standing, or walking, or during the performance of simple dance patterns or work at the barre.

Ability to think can be improved in the laboratory; its importance to movement can be experienced there also. This experience should help the student to realize the great need of listening and concentrating carefully on explanations and demonstrations given by the dance teacher.

The student who has sufficient experience in the use of imagined action, other things being equal, should make faster progress with less muscular strain and injury than the one who has no opportunity for this type of work. Simultaneously, his years of dancing should be increased because there is less wear and tear on his bodily mechanisms for movement.