

HUMAN MOVEMENT

by Dilys Carrington

I would like to tell you how I explain the head-neck-relationship to pupils. I am not an anatomist and the people I am talking to usually know very little about how the body works, so I explain it in a very simple way.

Consider how a four-legged animal moves: the head is in front and the weight of the head is always being pulled downwards by the force of gravity - the head being held in the correct relationship for that animal by the necessary tone in the neck muscles. When the animal moves, its direction is usually forward, as the intention is to get the mouth or the nose or the eyes nearer something. The forward movement of the head exerts a slight forward pull on the spine. As the head moves forward leading the forward movement of the body the muscles controlling the back legs are activated and the hind legs step underneath the animal. (This is well understood by horsemen.) So, as the animal moves, the spine is constantly being stretched, or, as you might say, "lengthened." But the movement begins at the head with the neck being "freed" - i.e., as the neck muscles are released the head falls a fraction, pulled by gravity, and is then directed along the line of the spine.

The basic mechanisms are the same in Man. It is necessary for the centre of gravity of the head to be forward of the condyles of the skull - the joint between the head and neck - as that allows the head to fall slightly forward through the pull of the force of gravity when the neck muscles are released, thus overcoming inertia in beginning a movement. (This gives the "forward" part of the direction "forward and up".) At the same time the head has to be directed "upwards" to keep the stretch along the length of the spine that the animal gets easily by moving forward. The movement of the legs in walking, with the forward direction of the knees gives the two-way stretch on the spine in the same way as in the animal.

If you consider the growth of a child, the first months are largely concerned with overcoming the force of gravity and getting upright. At first, raising the head and turning over, then keeping his stomach off the ground so as to be able to crawl (four-legged motion) presents many difficulties. As the condyles are under the skull it is natural and right at this stage for the baby's head to be held vertical so that he can see ahead - this is not being "pulled back" as it is not fixed in that position as happens to older people in misuse. Then the baby is determined to stand upright and walk. The baby cannot walk

until it has solved the problem of the easy balance of the head. A baby's head is relatively even heavier than ours is (ours weigh ten to fourteen pounds), and if the head falls backward the baby sits down. When the baby solves the problem by maintaining the head in an unstable balance (which easily permits it to drop slightly forward but also to go away from the direction of gravity) there is no further trouble in walking. This can be seen very easily if you watch a baby learning to walk. A group of young children playing shows the beautiful easy balance of their heads and their light springy movements. But when the older child comes into contact with the stress and strain of life, maybe in school, several things can happen. He may become frightened, which always tightens the muscles of the solar-plexus which tends to pull the rib-cage down towards the pelvis. (See "The Startle Pattern" in Frank Pierce Jones's "Body Awareness In Action" Schocken Books, New York 1976) (U.K. Wildwood House). This tends to pull on the sternomastoid muscles which operate behind the point of balance of the head and pull it back and down. This is a natural reaction and should ideally be released by running (flight), but so often is retained as a state of anxiety in which the muscles get held in that position pulling the back of the head towards the shoulders and shortening the muscles of the neck.

The other great destroyer, I think, is boredom. This makes people give up the support of the body and everything is allowed to sag downwards. This puts up the pressure in the abdomen, making it difficult for the ribs and the diaphragm to move, and so making normal easy breathing impossible. It is difficult to feel anxiety and depression if the lower ribs are free to move and one can breathe easily.

Added to these is the fact of left or right handedness, certain muscles are used more than others and get stronger and encourage a twist in the body — you get this in horses too —. Also every accident one may have, has its effect. You hurt a leg, say, and use the other more strongly to avoid discomfort or pain. This tends to make one tighten downwards, and, as the muscles, in accordance with most else in nature, are arranged spirally, one tightens downwards in a preferred "twist."

Just as a well-balanced animal moves by using gravity (drop of head) to overcome inertia, and at the same time uses its muscles to overcome the pull of gravity, letting them retain the desired length, rather than tighten unnecessarily, so, in a well balanced man, the head (with the centre of gravity forward of the condyles) tends to fall forward, whilst the urge to be upright causes the head to be directed upward along the length of the spine. The F. M. Alexander Technique

is concerned with correcting balance and encouraging the anti-gravity mechanism of the body. As most children are born and begin their lives with the balance and movement mechanism working well, the brain knows the way the movement should take place. The Alexander teacher has primarily to help the pupil to stop (inhibit) his usual quick response to a stimulus, to take time to decide how he wants to react and then guide his movements keeping the balance and the anti-gravity mechanism of the body at its optimum for the condition of the pupil. In Alexander terms, the head must be going forward and up leading the body in any movement so that the body remains in balance using no more muscular tension than is necessary, like an animal.