F.M. Alexander's written descriptions of the primary control include reference to other parts of the body beyond the neck, head and back. For example in his last book he wrote that primary control involves "a certain use of the head in relation to the neck, and of the head and neck in relation to the torso and the other parts of the organism." Professor George Coghill in his Appreciation of F.M.'s work published in the same book writes of F.M. re-educating the use of his (Coghill's) neck, back and limbs². In several of his books Alexander also indicated that stiffening of the neck could be caused by wrong the use of other parts of the body³⁴⁵.

This Continuous Learning class began by exploring the way key procedures of Alexander work illustrate this inseparable relationship between the neck, head, back and the limbs. Monkey and chair work, particularly rising from sitting to standing, illustrate the relationship of the legs to the neck, head and back, and 'hands on the back of the chair' illustrates how the use of hands and arms affects the neck, head and back.

We started with monkey to encourage elastic firmness in the neck and back - firmness for support and elasticity for breathing - and then we focused on coming up out of monkey. This simple but profound action involves unfolding into the fully human upright without any diminution or distortion of that firm elastic spread of the back and neck. In particular, it is necessary to fully unfold the front of the hips to allow the legs to extend vertically under the head, neck and back, without the pelvis and/or lumbar area being pulled forward and down into the legs. In this way the pelvis remains part of the back and is not taken over by the thighs, and the legs remain subordinate to the support of the back and neck, and are not allowed to dominate and therefore overwhelm the back, neck and head.

When this is understood, it makes sense of the way F. M. and many of the first generation teachers took students up out of the chair. When the student is being asked to come back to the teacher's hand or arm while aiming their head forward and up and not pushing with

the legs, the conditions are created for maximal unfolding of the front of the hip while neck and back muscles are supporting head and trunk. It is not simply an education in how to perform unaided the everyday movement of rising from a chair: the exact way you might do that in daily life will very according to many factors, e.g. height of chair, how far back you are sitting, your particular body proportions, etc. More importantly this way of rising with a teacher's help provides a neuromuscular education in the experience of optimal unfolding with neck, head, back and legs integrated.

This has interesting parallels with infant development and also the schooling of horses. The newborn infant cannot support its head or trunk at all. Soon it develops sufficient muscle tone and coordination in the neck to support its head and look around at the world. Then it develops sufficient tone and control of the back muscles to support the trunk and enable the infant to sit on the floor without the aid of its hands, thus freeing its hands to explore the world around it. Next crawling begins to organize the legs with the support musculature of the back and neck, and squatting appears, leading to the infant's first attempts to unfold from squatting to full human uprightness, usually accompanied with great delight in this new view of the world.

So there is a coordination sequence here: neck muscles to support the head, back muscles to support the trunk, and leg muscles to coordinate with the back, neck and head to achieve full uprightness and enable the infant to better view and explore the world. The legs are integrated with the neck, head, and back so the upward energy, generated by the contact with the ground and oriented by the intention expressed by the head and hands, flows unimpeded through the whole body.

Similarly in the schooling of a horse, in order to help it recover optimum balance and coordination after this has been disturbed by the process of learning to carry a rider: the horse's neck muscles must be coaxed into lengthened elastic tone so the neck lightens up out of the withers (the shoulder area in a horse), and the head must remain free to flex on the atlanto-occipital joint; the back has to spread long and wide under the saddle to support the rider while allowing free movement of ribs for breathing; and the limbs

should move as continuations of the back. In particular the hind quarters, that is the pelvis and back legs, must be integrated with the whole back so the energy for forward movement flows smoothly from the hind legs through the back, all along the spine and out through the poll (the junction of head and neck). Ideally there is a coherence of intention and energy flowing from the power of the hind quarters through the elastic support of the back and out through the neck and head, unhindered by any disharmony in the horse's musculature.

Clearly Alexander knew a lot about horses: we know he was brought up with horses and continued to be a passionate rider and racegoer throughout his life. In a private lesson, Margaret Goldie mentioned to me that F. M. told her he learned a lot from the observation of animals, and especially horses.

After monkey we moved on to seeing how hands on the back of the chair examines the use of hands and arms in relation to the support musculature of the neck and back. The straight-fingered hold on the back of the chair demands some active tone in the hands, while the direction to the arms - a releasing, lengthening 'pull' to the elbows, and the upper arms and shoulders releasing to widen away from each other - asks for undoing along all the lines of musculature we habitually over-activate when using our hands. That includes the forearm flexors, biceps, pectorals and latissimus dorsi, and not just the neck. From this we can learn how to use our hands without degrading our head-neck-back relationship. Just as we saw with the legs earlier, the arms are not allowed to dominate and overwhelm the back, neck and head. In the process also, as F. M. points out in CCCI⁶, the whole rib cage is flexibly available for breathing instead of being squeezed by the muscles connecting the upper arms and shoulders onto it.

We put all this together to illustrate why F. M. told the first generation teachers that the practice of monkey with hands on the back of the chair would give them all the experiences needed to use their hands as a teacher. We practised holding and moving objects such as a water bottle, a book, or a bag. Grasping 'gently and firmly' as F. M.

wrote of hands on the back of the chair in CCCI⁷, without shortening from wrist to elbow and without squeezing upper arms and shoulders into the rib cage and neck.

We observed how this application of the hands on the back of the chair directions enables the arms to be open channels from the hands to the back. If you are sitting while doing this, the support musculature of the back is stimulated as the weight (however small) of the object held in contact with the hand passes through the arms and shoulders to the trunk and on through to the sitting bones on the chair, which encourages a spread of the pelvic base onto the seat of the chair, which in turn stimulates all the support musculature of the back and neck. If you are standing, and can incorporate the understanding considered earlier of monkey or coming up out of the chair, the legs also become open channels between the back and the feet on the ground. Then the weight of the object in contact with the hands passes through the hips, legs and feet. The opening of the feet on to the ground, just like the spread of the pelvic base onto the seat of a chair, stimulates all the support musculature of the back and neck. Walter Carrington used to refer to this as "using the hands as feet." There is integration of the functions of support and movement, and, as with a well-balanced horse, there is a coherence of intention and energy. Finally we applied the same principle to lifting and moving a student's arm, and moving a student out of a chair.

The polarity of doing and non-doing in our work is often puzzling to private students and to trainee teachers. I think this kind of progression helps to clarify how we learn to inhibit habitual responses and redirect our neuromuscular energy to open ourselves to full, integrated expansion (non-doing). But this non-doing, integrated expansion must be brought into activity, using hands, arms, legs, voice etc. without compromising elastic support from neck and back and thoracic mobility for breathing. Goddard Binkley in his account of lessons and training with F. M. referred to this as "doing in accordance with the working integrity of the self," but a simpler description might be: doing on a non-doing foundation.

In this way, we as teachers are literally embodying conscious inhibition and direction; we are choosing to organize and channel our energy in ways that keep us open and expansive, maximizing the elastic antigravity springiness of the human structure, staying open to breathe freely and open to sensitively notice both what is happening in ourselves and in our students. When practising this in pairs it is obvious that being touched, supported and moved by someone who is employing this integrated expansion encourages this same integrated expansion in the recipient. For example, having your arm lifted by someone whose arms and legs are *not* open channels between hands, feet and back, has a purely local effect on your arm or shoulder. But having your arm lifted by someone whose limbs *are* open channels, i.e. limbs that integrate hands and feet with an expansive neck and back has much more of a global effect throughout your whole body. It is as if the teacher's whole 'coordinating system' is talking to your coordinating system, giving you sensory information about how to use your arm in the context of that relativity of head, neck, back and limbs F. M.called the primary control.

In the neuroscience panel at this Congress, Professor Lucy Brown referred to this as a kind of 'sensorimotor contagion', drawing an analogy with Dr. Tanya Singer's description of 'emotional contagion.' We know reliably how to produce this effect of integrated expansion in both teacher and student. Perhaps by the next Congress, someone will be able to show us some objective neuroscience data for this remarkable phenomenon. But to bring about the integrated expansion requires some understanding of it, which in turn usually requires some experience of it. Just inhibiting per se is unlikely to fully bring it about; nor is aiming up or moving up without some understanding of how the whole back, thorax, and limbs are involved. Alexander's simple procedures can bring about the year equired experience, and with that comes the understanding that makes the experience repeatable and accessible without the help of a teacher.

¹ Alexander 2000 [1941], p. 8.

² Alexander 2000 [1941], p. xxiii

³ Alexander 1996 [1910], p.59

⁴ Alexander 2004 [1923], p.189-190

⁵ Alexander 1946 [1932], p.11

⁶ Alexander 2004 [1923], p.120

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