The Alexander technique has been in existence for more than a hundred years and the name is well known among massage therapists and other bodywork therapists, however it is generally not well understood. In this article, David Moore, Director of the School for F M Alexander Studies, uses a case study of changes in an Alexander technique student over the course of ten lessons. He illustrates a number of important issues, principles and practices underlying the Alexander technique which will give readers a fuller understanding of this work.

The Alexander technique is primarily an educational rather than a treatment modality. It was developed in the late 19th and early 20th centuries by F M Alexander (1869 – 1955). He was an Australian actor who lost his voice, a condition which no treatment or exercise was able to improve. Suspecting that there was something faulty in the way he was projecting his voice, he undertook an extended period of self-study which resulted in him fully regaining the use of his voice. In 1904 he moved to London and in 1931 he started training teachers in his technique. There are now training schools in many countries throughout the world.

Case study introduction

(Note: this is an actual case study but alternate name and photographic model have been used.)

"H" came for Alexander lessons because of persistent pain and tightness in his lower back and sacro-iliac joints which he had suffered from for many years. He was unable to sit for more than half an hour at a time at his computer and work meetings were always an ordeal. He woke up in the mornings with a sore and stiff lower back, which improved with movement.

In photo 1 we can see that H is pulling his head and shoulders back, pushing the front of his rib-cage forwards, thrusting his pelvis forwards, locking his knees and creating an exaggerated lumbar lordosis which creates an overall shortening (backwards) of the spine.

In photo number 2 after gentle manual and verbal guidance we can see that his head, shoulders and upper back have moved forwards while his lumbar area and pelvis has moved back so that his spine has lengthened and the whole head and torso are balanced over his pelvis and legs. His legs are now unlocked and the weight distribution through his feet has also changed. What we can't notice so easily in the photo is that in adopting this pose he has been able to let go of some of the contraction not only in his legs but also his lower back, buttocks and pelvic floor.

In photo number 3 our model is now giving a physical demonstration of how the proprioceptive and kinesthetic information being received by the brain in this position is being sensed by H. Because he is no longer leaning back he now feels that he is leaning forward from vertical. He also feels that his buttocks are protruding backwards and that his shoulders are rounded.

Why is there such a mismatch between what he is sensing and what is actually happening? Because in posture number one he feels that he is upright. Indeed if I was to ask him to "stand up straight" he would pull his head and shoulders back further and hollow his back and stiffen his legs even more – in other words, in trying to achieve a "good posture" he would exaggerate the very things that are contributing to his existing problems. Alexander identified the reason for this behaviour, which is present in almost all cases of disco-ordination, that is, the *faulty sensory perception* of the student.

Faulty sensory perception

"The right thing to do would be the last thing we should do, left to ourselves, because it is the last thing we should think would be the right thing to do."[1]

We can see in this very typical example, that faulty sensory perception is the crux of the problem people have in altering their habitual posture and movement patterns. Even if they have a thorough intellectual understanding of what they need to do, which is very uncommon, they are let down by their "faulty sensory perception". That is, as long as they use their kinesthetic and proprioceptive senses to inform them how they are moving and positioned in space, what feels "right" will be wrong and the new way in which they have to move to be "right" will feel wrong.

In working with himself, F M Alexander, the founder of the technique, was helped in overcoming this problem of his own faulty sensory perception by using visual information from mirrors to check against his kinesthetic information. Indeed as his


Photo 1


Photo 2


Photo 3

investigation proceeded he found that in order to overcome his problem he needed to develop accurate sensory awareness. "'Surely,' I argued, 'if it is possible for feeling to become untrustworthy as a means of direction, it should also be possible to make it trustworthy again.'"[2]

In Alexander lessons the Alexander teacher acts as the mirror and with gentle manual and verbal guidance helps the student move out of the old pattern towards more balanced and effective posture and movement. Gradually new neural pathways are laid down which begin to feel natural and right.

Postural problems – neurological or structural?

So is H's problem with his posture a structural problem? Is he held there by the shape of his bones or a rigid fixing of the fascia? Some postural problems like scoliosis or Schueurmann's kyphosis have a clearly identifiable structural component. In H's case there is a degree of fascial holding but this contraction is controlled and maintained via the nervous system and can gradually be undone. Misuse of the "normal" body carried out over a sufficient amount of time may result in structural changes.

But in H's case, initially with the aid of a teacher, he is able to immediately reverse a good deal of the collapse and contraction he is bringing into the act of standing (or walking). This would not be possible if the problem was predominately structural. So why does he find that he constantly reverts to the old way of holding himself? Because he sends the messages via his nervous system to his muscles and fascia to contract in that particular way. In other words, it is primarily a problem of the nervous system rather than the bones, joints, muscles or connective tissue. In fact, scans and X-rays of H's back and pelvis do not indicate any problems - according to these he should have no pain at all! The problem is in what he is doing with himself and as I work with him I can feel through my hands his strong impulse to pull himself back, and need to verbally remind him ***not to do*** this, to ***inhibit*** his habitual response.

Inhibition as a good word

"Prevent the things you have been doing and you are half way home."[3]

How might we address this impulse to return to this habitual contraction? In Alexander work we are using inhibition in the neurological not psychological sense of the word. Alexander students are asked firstly to inhibit their old instinctive reaction to movement and instead allow the teacher to guide them, and then over the course of several lessons to give themselves a set of simple instructions (directions) for a new and improved use of the self.

In the initial Alexander lessons, immediately I bring up my hands to guide H into a more balanced posture he responds by putting into gear all the muscles which pull him into his old posture. As long as H is trying to do the new thing by doing the old thing, the old thing is going to happen. It would seem easy enough for anyone to be able to follow the teacher's manual and verbal guidance, but in practice we frequently find that the old pattern is so entrenched that it is activated despite the best intentions of the student.

Movement

Up to now we have been discussing H from a rather static "postural" point of view but in fact in the Alexander lessons we are interested in how he moves. In activities such as walking, moving into sitting or standing, working at a computer and any other activities he may commonly do we will see the basic postural "set" will underlie the movement pattern. For example, in moving into sitting or standing:

- he accentuates the holding through the shoulders, the pulling back of the neck and exaggerates further the lumbar curve
- in walking, he continues to lean back, fails to completely free his knees and his heels strike the floor with a heavy gait

- when sitting in a chair he pulls his pelvis forward, so he is moving off his ischael turerosities (sitting bones) and towards his coccyx.

In looking at all these activities we have to ask him to inhibit (prevent) his immediate reaction to the idea of moving which will activate his habit. As Alexander said *"You can't do something you don't know if you keep on doing what you do know."*[4]

The use of the self

Alexander teachers prefer to describe themselves as working with people's use of themselves rather than using the term "posture". Indeed the Alexander technique is based on the indivisible unity of mind and body.

Posture and movement are affected by structural, emotional, neurological and learned factors. Indeed Alexander regarded "unduly excited reflexes" as one of the major factors underlying misuse. Unduly excited fear reflexes mean that the whole organism is primed into an attitude of extra tension and compression.

In H's case, this tension which was particularly noticeable in his legs, pelvic floor and buttocks was not totally undone by that initial overall change of posture. Part of Alexander lessons consist of the student lying on the table in the "semi-supine position" while the teacher works with him or her. Gradually the student becomes more aware of more levels of holding and tension, which were often completely out of awareness, and the teacher with his hands helps him to gradually let go of it. Students are then encouraged to continue this undoing by working daily by themselves.

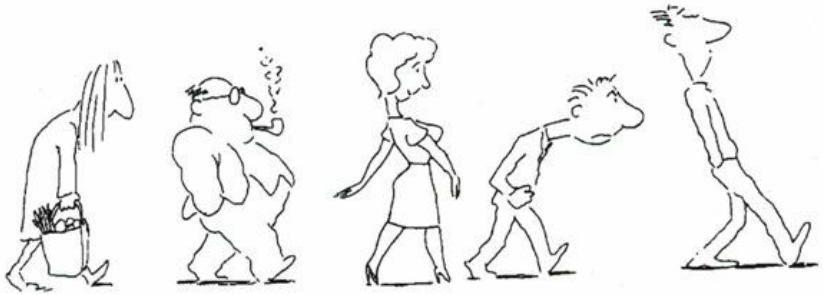
In the second lesson with H, particularly with the table work, he experienced a significant reduction of holding in his pelvic area and experienced his first night of pain-free sleep for a very long time. He also reported that at work at the computer he was starting to notice how he was constantly tensing his shoulders and that he was able, when he noticed that, to let them go. I pointed out to him that this tightening was part of a whole body pattern and to see if he could become aware of the whole pattern - including the extra tightening in his neck, buttocks and legs and use this awareness to let go of even more.

Now, at the end of a course of ten lessons (two lessons a week) H experiences less discomfort on waking up most mornings. He is now able to sit comfortably at work and has noticed a significant overall lessening of what he describes as a band of tightness around his pelvis, which often disappears completely during lessons. He is much more aware of what he is doing with himself and often able to catch himself and undo tightening which he has initiated.

Working with the whole

Reflexes underlie our postural and movement patterns. And these reflex processes are integrated actions of the total organism, not isolated actions of individual muscles. In human beings a range of causes can be behind the interference with these reflexes. These can range from physical or emotional trauma, brain or spinal cord lesions, neurological diseases like Parkinson's disease and multiple sclerosis and learned habits of movement and posture where the higher brain centres have overridden the naive wisdom of these reflexes and the intelligence of the body design.

For example, walking the proper reflex movement of the legs, knees, ankles and feet are compromised by interfering with an effective relationship of the head, neck and torso as is amusingly illustrated below. Looking at these pictures it is pretty clear also what effect these different movement patterns would have on breathing and the overall health of the joints, muscles, connective tissue and organs of the body.
In the case of H we can hypothesise that we are looking at an interference with the reflexes due to a number of different causes. There is an underlying level of holding initiated by reactions to ongoing stress probably originating from childhood. There is an attempt to hold himself upright in response to this tension. This particular



(Used under permission from Direction Journal)

posture is also the way he faces and presents himself to the world and is underlaid by his idea of what feels appropriate to himself as a male in his particular society. In addition to this, a condition of faulty sensory perception has developed which means that he can no longer accurately sense what he is doing with himself and that in ordinary everyday movements he brings in much more effort and unnecessary muscular contraction than is required. Without intervention such patterns of tension and collapse become gradually more and more entrenched.

Regardless of the cause, the Alexander technique is aiming to remove the interferences. The actual historical causes are not so important, provided the student can begin to undo the holding in the present. Alexander described the process of the Alexander technique as an *"indirect procedure"*[7] which engenders overall co-ordination rather than trying to micromanage movement and posture in bits and pieces.

Alexander technique research

The first really large scale study on the Alexander technique was a trial published in the *British Medical Journal* in 2008 on patients with Chronic Back Pain in the UK. (8) It demonstrated that the technique delivered long term results for patients followed up a year after completing Alexander lessons.

Prior to this study there have been quite a number of other smaller studies completed over the years. And at present there are a number of studies in progress, including two large ones in the UK and two in Australia. A more detailed list of research papers on the Alexander technique can be found on www.alexandertechnique.com/research.htm. A systematic review of research that has been done appeared in The International Journal of Clinical Practice this year.[9]

References:

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3. Alexander, F.M. Articles and Lectures Mouritz 1995 P192
4. Ibid p196
5. Bobath, B. *Abnormal postural reflex activity caused by brain lesions* (3rd ed) – Heinemann Physiotherapy, London p2 1985)
6. Squishybots: Soft bendy and smarter than ever" by Justin Mullins New Scientist 2838, 16th November 2011 (quoting Rolf Pfeifer, a roboticist)
7. Alexander, F.M. *Universal Constant in Living* P.11 Chaterson Ltd, London (1942) 1947
8. Randomised controlled trial of Alexander technique lessons, exercise, and massage (ATEAM) for chronic and recurrent back pain BMJ 2008;337:a884 doi10.1136/bmj.a884
9. Evidence for the effectiveness of Alexander Technique lessons in medical and health related conditions: a systematic review *International Journal of Clinical Practice, Volume 66, Issue 1, pages 98–112, January 2012.*

A large part of our voluntary movements is automatic and outside consciousness, and this applies especially to the postural adjustment of the various parts of the body which accompany them. For the maintenance of posture and equilibrium, the nervous system utilises lower centres of integration with their phylogenetically and ontogenetically older patterns of coordination. These centres are in the brainstem, cerebellum, midbrain and basal ganglia. Bobath 1952 p2 Bobath, B. (1985) *Abnormal postural reflex activity caused by brain lesions* (3rd ed) – Heinemann Physiotherapy, London [5]

"During this process [walking], the brain doesn't monitor and control the trajectory of each ankle, knee and hip joint. Instead, it simply changes the stiffness of the leg muscles. The muscles have low stiffness when the leg swings forward and high stiffness on impact with the ground. Other than that, the brain lets the local dynamics take over. The knee joint simply swings passively, but the design of the knee, the materials from which it is made and the laws of physics all combine to do the rest. In a sense, the morphology of the body - its shape and substance - perform a kind of computation to control what is going on. The brain simply outsources control to this embodied intelligence. "This relieves our brains from having to deal with all this low-level stuff,' Squishybots: Soft bendy and smarter than ever" by Justin Mullins New Scientist 2838, 16th November 2011 (quoting Rolf Pfeifer, a roboticist) [6]