Inhibition

Talk by Walter Carrington at Lansdowne Road to teachers' refresher, 6th August, 2001. The talk began with a practical demonstration: class standing, quiet, calm and attentive, but not giving directions.

. . . The whole sensory mechanism and motor mechanism (are) just being allowed to be without interference for a moment. Of course, habits being what they are, it doesn't mean that by just stopping you are going to completely transform your whole situation. If you are habitually liable to, what shall I say, hunch your shoulders, stiffen the neck, whatever, then of course as you stop, that stiffening - that tightness - is liable to go on. But, at any rate (by) stopping, you're not going to make it any worse, to increase (the tightness), to make it any worse. So stopping gives you the starting point. And that is the practical thing. We can't emphasise it too much (to pupils) because, of course, in connection with the Technique, they immediately get on to thinking of the freedom of the neck and the head going forward and up, primary control and all the rest of it. And, yes, of course, that is absolutely right, but it *has* to be on a basis of stopping.

So, I don't think I need to say any more about that. I'm sure it's all very familiar stuff for all of you, but just because it is so familiar it doesn't mean we will remember to put it into practice, in a busy life and so on. Just to stop, you know, periodically is really what is needed.

Now, I'd just like in the rest of the time to tell you something about the scientific basis of these things that you probably know about. I was reading in the last few days Jackie Evan's new book which is called, "Frederick Matthias Alexander: A Family History"[1] and it's really a brilliant book. You'll enjoy it very much indeed when you get around to reading it and everyone will find something in it which speaks to them and is of real value. There's no doubt about it in my mind.

What particularly appealed to me as I came to read it was, while I was still on the training course before I finished my training[2], the great buzz, the great excitement was that the American biologist, Coghill[3], had written to the effect that his research on what he called in the title of his book, "Anatomy and the Problem of Behaviour"[4], absolutely agreed and was confirmed by what Alexander had written and the practical work. So, to get a distinguished scientist saying that his work confirmed what Alexander had demonstrated was obviously very exciting. I set about doing my best to find out as much as I could about Coghill's work and then, of course, drawing a

[1] Phillimore 2001
[2] 1936-1939
[3] George Ellett Coghill. His work is now considered out of date (MW May 2023).
[4] Cambridge University Press 1929

comparison with Alexander's findings to show how the two things came together, you see.

Coghill called the book, published here in England, "Anatomy and the Problem of Behaviour". Now, what is the problem of behaviour? Well, obviously in Alexander's case, it was the things that he did with himself when he went to recite and so on. That was his big problem of behaviour. And, of course, we all have our problems of behaviour. We all behave in different ways under different circumstances less efficiently, less satisfactorily that we would wish.

Now, Coghill had started as an anatomist. He chose for his study something that he though was going to be fairly straight forward and simple; a small lizard called amblystoma. This lizard is an amphibian. It emerges from eggs. It's born in water. It gradually learns to swim and then, of course, it develops legs and so on and then it begins to walk and all the rest of it. So, I say begins to walk and swim and so on, that's all behaviour, of course. But what Coghill was studying was that here you have the beginning of the life form, the fertilised egg, and then it grew and developed. Then it grew into a certain shape and it had a head and it had a tail, and then gradually the head and tail grew larger. Limb buds developed then proper limbs and the whole of the foot, so to speak, developed. And, in other words, looking at the anatomy of it, muscles were formed, nerves were actually growing - could be seen to be growing. You could see the start of a nerve and then it grew rather like a worm. It wormed its way through to make certain connections, so that the anatomy - the *living* anatomy - was fascinating. And anatomists, of course, to this hour study the embryo. They study the growth and development in anatomical terms, but, of course, they don't relate it to behaviour.

Now, Coghill related this living anatomy to the actual observed behaviour so that it meant that in a practical way he was able to say, well look this creature at this stage hasn't developed to a point where it can actually swim. But when that nerve has grown that little extra bit, it will have made certain neural connections and as soon as they're in place then the creature will swim. There's behaviour, you see. Why it happens one doesn't know, but you can say quite definitely it is as a consequence of the growth of the anatomy that behaviour takes place. Or, behaviour can only take place when the anatomy grows correspondingly to make it possible. So, the title, "Anatomy and the Problem of Behaviour" really does sum it up.

What I wanted to tell you, though, is this. As he studied the growth and development in both anatomy and the behaviour, he realised that to start with you could say that what the nervous system does - what the whole mechanism does - is it makes a whole, it makes an individual of this living creature. The creature, as it develops has got different parts, but all the parts belong to the whole. They're actually integrated with the whole. Wholeness is something that is fundamental. You see that the creature is a

whole. And when you consider that it all developed and came about through lots of cells developing and dividing and dividing and more cells, and so on. So cells proliferated, but they proliferated in such a way that they were held together - they all formed a whole.

Now, that wholeness, you see, is the essence of life. Because, obviously if the thing doesn't hang together, if that wholeness isn't there (it isn't a viable organism). And, of course, the wholeness ceases with death, you see. As soon as the creature dies everything, so to speak, begins to fall apart because there's nothing holding it together.

Now, he found that in the early stages of growth and development, when the creature responded to any stimulus from within or without . . . if you were in the laboratory and you were carrying out a little delicate experiment, if you just touched the tail of this little creature with something as fine as a small hair, the tail would move away from the stimulus. You know, if you just tickled it, the tail moved away.

Now, when he looked into the anatomy of it, he saw that that was the result of a response that involved absolutely all the muscles and all the nerves of the system, the whole thing was all involved in that tiny movement of the tail to begin with.

And then, of course, as growth and development took place, for instance, as the limbs grew from the little buds - as proper limbs grew so that the creature could actually walk and so on - as they grew, then something else happened in the nervous system because now you had nerve connections to the muscles of the limb that could work the limb so that it could move to walk or to stand to do what was required. But that arrangement of nerve and muscle that brought that about, Coghill found was still subordinate to the pattern he had seen before of the whole.

Now, what was happening was that that system, or pattern, of the wholeness that 'total pattern' that evidently worked as a whole to begin with when the creature was very small, it was less in evidence. What appeared to be happening was that we've got a limb - or something - more or less responding by itself. That was the appearance of it, you see. But he realised, in fact, that total pattern was still there and it was performing an extremely vital function because it was controlling all these partial patterns so that when the creature wanted to move this limb here, that limb there didn't get in the way. The nervous system didn't do something else that was going to interfere with this working. So that this or that could happen, this or that could take place without interference.

Now, of course, that's the obvious necessary way, the common sense way. You'd say, if the creature is going to work as a whole then when it does something with one limb, then everything else has got to keep out of the way and not interfere. So, he said that what was happening was that (with) the nerve impulse - when the creature decided, as it were, to move a limb - there was a positive message for the movement

of the limb, but there was also the inhibition to everything else. And the inhibition was, of course, extremely important because otherwise it would fall over its feet. Do you see what I mean? So, the *essential* thing was that inhibition, that mechanism of control, the mechanism that allowed everything to be held in check, so that it didn't interfere with what was require.[5]

Now, when you were all standing up just now at the beginning, you were all just leaving yourselves alone, you were giving that inhibitory mechanism a chance to work. Of course, there was a lot going on. You were breathing, your heart was beating, innumerable things were happening and weren't getting in each other's way. They weren't hindering or interfering with each other. They were all able to work freely because you weren't doing anything.

But, of course, as soon as you started to move, as soon as you came to sit down or whatever, then, of course, you do it in accordance with your habit and you probably do it less than perfectly, you know. There probably would be a little bit of stiffening of the neck, a little bit of holding of the breath, a little bit of this and that. Because, unfortunately in the real problem of behaviour, the real problem is that - as all these separate mechanisms, separate circuits, develop, as it became possible to do so many different things, to use muscles, use parts, in so many different ways - we didn't manage to keep the overall inhibition intact, the overall, the total pattern. The total pattern was interfered with. And, of course, as soon as the total pattern got interfered with then the partial patterns could get in each other's way and you could get interference and trouble because it was so.

And so, that's the end of the story really. Because you can see at once what Alexander identified was that, here we are stiffening our necks, pulling our head back and, of course, in doing so we are using a partial pattern, if you like, that disrupts the total pattern.

And so, what one has got to do for heaven's sake is stop a bit, wait a moment, give it a chance, let it calm down, as (Margaret) Goldie said to Fiona Robb, "Don't barge about!"[6] But take it quietly. Then the total pattern will begin to re-establish itself and then you can begin to do what you want to do with more precision and more accuracy and less trouble. So that's the story, and I'll stop there. MW 21/10/01 [May 2023]

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[5] Synaptic inhibition was described by Bruton in 1883. ". . . an event which begins with the release by an activated neurone of an inhibitory transmitter substance, the effect of which is to prevent, or tend to prevent, the discharge of another neurone (or contraction of a muscle fibre, or secretion by a gland) under conditions which would otherwise lead to such discharge (or contraction or secretion)." By the late 19th century inhibition was understood as "regulation that made ordered action possible". (Smith, R. *Inhibition: History and Meaning in Sciences of Mind and Brain*. Free Association Books, London 1992: pp.7-10)

[6] "Not To 'Do'", Camon Press 1999