From Bones and Sutures to Liquid Light

An Overview of the Development of the Cranial Concept

The Bare Bones of the Cranial Concept

All the various modern approaches to Craniosacral Therapy have their roots in the work of Dr. William Garner Sutherland (1873-1954). Sutherland was an American osteopath and a student of Andrew Taylor Still, the founder of Osteopathy. It was whilst training with Still in Kirksville, Missouri, that Sutherland had the flash of inspiration that was to give birth to the discipline we today call Craniosacral Therapy.

“Have you ever had a thought strike you? I have told many times of the thought that struck me before I graduated from the American School of Osteopathy with the class of 1900. As I looked at a disarticulated mounted skull that belonged to Dr. Still, the detail in the articular surfaces of the sphenosquamous sutures caught my attention. I became impressed with the idea that this suture was a display of a design for motion.”[1]

At this time, as now, the conventional wisdom was that the sutures of the cranium are fused and do not express mobility. This view developed from the work of British anatomists, whose work was to then influence the study of anatomy in America. John Upledger (who in the 1970’s coined the term ‘Craniosacral Therapy’ and to whom we shall return later) discovered whilst lecturing in Israel, that this viewpoint is not universal. Expecting a wave of dissent when he began lecturing about the mobility of the cranial bones, he was surprised not to get any reaction. The facilitator for Upledger’s presentation explained that unlike the Americans the Israelis drew heavily from the Italian anatomists, who had come to a very different conclusion than the British.

“He asked me if I could read Italian. I could not. He then translated from this old anatomy book words that told me that in 1920 Professor Sperino stated that skull bones continue to move one in relationship to the other throughout life except under abnormal and/or pathological conditions…. Further investigations showed that the Italian anatomists had decided many years ago that cranial sutures (joints) allow motion between skull bones throughout life.”[2]

But for Sutherland, as it would be today for most health professionals, trained in the classic anatomy of the British school or its American protégé, the idea that the cranial bones moved, was a wild, crazy notion. Yet as he passed the mounted disarticulated skull on his way to and from lectures, Sutherland could not shake off this idea that the design of the cranial sutures seemed to indicate the capacity for some sort of motion.

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[1] Sutherland, William Garner. Teachings in the Science of Osteopathy. (p,3) Rudra. Press. 1990

[2] Upledger, John. Your Inner Physician and You. (p.141) North Atlantic Books. 1991.

“The thought came to me “bevelled like the gills of a fish and indicating a *primary respiratory mechanism*,” not only struck me, it stayed with me. That was how I came to undertake a study intending to prove to myself that mobility between the cranial bones in the adult is impossible.”[3]

At this stage Sutherland did not really have a concept of what primary respiration might be. It was a spontaneous thought that welled up from somewhere inside him. Such intuitions are not unknown in scientific and medical circles. Rene Descartes had a dream in which an angel delivered the basic principles of materialist rationalism to him. The idea of relativity came to Albert Einstein whilst daydreaming in a tram, as another tram approached. The thought that DNA was formed as a double helix came to James Crick as a moment of inspiration. In each case the various pieces of the jigsaw were scattered in the recesses of the cognitive mind, but the insight that threw them into a coherent whole, came from some deep indwelling inspiration that lay beyond the well-trodden paths of rational deduction.[4] This theme of connecting with a source of wisdom that transcends the usual synaptic routes of rational deduction, is one that will be visited later in the development of the Cranial Concept.

At first Sutherland tried to dismiss his insight as mere fancy. It is indicative of his initial response to this disturbing thought that he set out not to prove that cranial mobility was possible, but sought to silence his nagging intuitive insight by trying to prove to himself that it was incorrect. Over the next few years Sutherland dedicated himself to studying the intricate architecture of the cranium, meticulously studying the minute details of the articular surfaces of the sutures.

Sutherland’s wife Adah Strand Sutherland describes this as ‘The Bone Period’;

‘Although it was present, my reference to the early years of our marriage as The Bone Period, will not convey the element of romance. Almost every unplanned moment found Will occupied with cranial and facial bones, disarticulating, assembling, studying them. The sphenoid bone became a household pet. Or was it the temporal? Perhaps they all did. Bones gradually overflowed from the office and into our home.”[5]

The ‘Bone Period’ saw Sutherland not only studying disarticulated skulls, but also the effects of pressures and restrictions to the living skull, in particular his own;

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[3] Sutherland, William Garner. Ibid. (p.4).
[4] Narby, James. The Cosmic Serpent. DNA and the Origins of Knowledge. (p.158) Jeremy Narby. Phoenix.1998.
[5] Sutherland, Adah Strand. With Thinking Fingers. The Story of William Garner Sutherland. (p.32). The
Cranial Academy.

"For quite some time during this period a puzzling circumstance occurred quite frequently at the office. Often when I arrived there, if Dr. Sutherland was not occupied with a patient, there would be a subdued commotion in the treatment room and he would appear, his unconcern too studied to be convincing. His hair would have the look of slapdash grooming… Then, one day, under the same conditions, Will appeared but this time not quite as usual. His head was lavishly swathed in a weird combination of heavy terry towels and clumsy leather straps. He resembled a foreign potentate and the effect was terribly funny. Realising that his turban had not been removed he confided, 'I've started some experiments that I hope will verify some of my cranial theories…'"[6]

By now Sutherland was talking about verifying his 'cranial theories', rather than dismissing his original intuition. Using various combinations of bandages, leather straps, football mitts, kitchen bowls, rubber bands and other household items Sutherland constructed a series of these 'turbans' to see what effect specific compressive patterns would have on him. This research yielded far reaching results "that eventually acquired alarming, dangerous and threatening proportions."[7] Sutherland discovered not only that certain compressive patterns would result in specific symptomatic responses, but also that extreme mood changes and behaviours could be stimulated. At times Adah became very concerned about the results of her husbands use of himself as a living laboratory, fearing for his physical and mental health. But Sutherland was determined to use empirical research as the basis of his experimentation, so that he could know for himself the sensations of and responses to pressures exerted onto the cranium.

Beyond Bones

As well as learning about the reactions to abnormal cranial patterns, Sutherland also discovered more about the natural physiology of the body. These discoveries led him to delineate five physiological functions, which together made up what he called the Primary Respiratory Mechanism. These five functions were:

1. The articular mobility of the cranial bones.
2. The fluctuation of the cerebrospinal fluid.
3. The mobility of the meningeal membranes.
4. The involuntary mobility of the sacrum between the ilea.
5. The inherent motility of the brain and spinal cord.[8]

[6] Sutherland, Adah Strand. Ibid (p.33)
[7] Sutherland, Adah Strand. Ibid. (p.34)
[8] For a detailed description of the anatomy and physiology of the primary respiratory mechanism see Sills (2001)

The anatomical structures that contribute towards the Primary Respiratory Mechanism are well known to conventional anatomy and physiology. But that they work together to produce a unified rhythmic pulsation, which is taken up by the fluids and tissues of the body as a whole, is not known. The understanding that disturbances in this pulsation have powerful effects on our health and well-being is not accepted wisdom in conventional medicine.

Once he was satisfied with the research that he conducted on himself, Sutherland began to integrate his findings into his work with patients. The results were often startling and profound. For Sutherland this work was suffused with a strong sense of the sacred. He talked of the "Master Mechanic [who] designed the bones of the cranium for articular mobility."[9] He also talked of the 'Breath of Life', which he differentiated from the breath of air;

"According to biblical history: A breath of LIFE was breathed into the nasals, and man became a *living soul*. Note that it was a breath of LIFE, not the breath of *air*; the breath of *air* being one of the material elements that the breath of LIFE utilizes in a mechanism to walk about upon earth."[10]

Such references to the Breath of Life and the Master Mechanic were not always well received by his osteopathic colleagues and were dismissed as 'mystical' and 'esoteric'. Sutherland was quick to remind his detractors that Andrew Taylor Still had regarded the body as a creation of God and that osteopathy itself had strong spiritual roots in it's founder's eyes.[11] However by this time osteopathy had begun to distance itself from its spiritual roots and many found this aspect of Sutherlands teachings embarrassing. Indeed all references to the Breath of Life, which appeared in the first edition of the textbook 'Osteopathy in the Cranial Field' by Harold Ives Magoun, were edited out of the subsequent editions.

Although at this stage Sutherland was talking about the 'Breath of Life' and 'Primary Respiration' as opposed to the secondary respiration of the lungs, what these terms actually referred to was still evolving. Sutherland believed that rhythmic pulsation he was detecting was driven by the inherent motility of the brain. This in turn created the fluctuation of the cerebrospinal fluid, which surrounded the brain and spinal cord and flows within the dural or meningeal membranes. Sutherland saw that these membranes existed in a state of 'reciprocal tension' that was constantly adjusting to changes in fluid pressure. For this reason he described them as 'the reciprocal tension membrane system'. If all was well then this reciprocal tension existed as a healthy, tonus that was able to adjust to fluid pressures, but twists and adhesions within the membranes, or compressive forces acting upon them from restricted bones, could have wide-ranging affects on central nervous system, the peripheral

[9] Sutherland, William Garner. The Cranial Bowl. (p.8) (pamphlet) 1978.
[10] Sutherland, William Garner. Ibid. (p.3)
[11] Sutherland, Adah Strand. Ibid. (p.36)

nerves that passed through the membranes and the fluid pressure within them. The membranes attached to the bones of the cranium and the sacrum at the base of the spine. They formed a 'core-link' between the cranial bones and sacrum, which moved in response to the motion of the membranes.

His task, as he saw it, was to help restore the five physiological functions of the Primary Respiratory Mechanism, insofar as they were inhibited, to normal functioning. To this end he developed an approach that included testing for abnormal motion and the correction of any lesions that were discovered by the use of specific techniques, such as sutural disengagement, traction of the membranes and enhancing the fluctuation of the cerebrospinal fluid. Although the pressures brought to bear in these techniques were very gentle compared with most osteopathic manipulations, they still utilised external forces and regarded the Primary Respiratory Mechanism (as the term 'mechanism' implies) in a rather mechanical way. The practitioner's task was to apply the appropriate techniques to particular lesion patterns that needed correcting. As such the practitioner had a specific agenda that was applied from the outside-in. Later practitioners have described this particular phase of Sutherlands work as a 'biomechanical' approach.[12]

Fluids, Tissues and Potency

However, Sutherland's development of the cranial concept did not stop here. As, 'with thinking fingers', he developed his sensitivity when palpating, he detected something else, which he described as a 'fluid within the fluid'.

"Within that cerebrospinal fluid there is an invisible element that I refer to as the 'Breath of Life.' I want you to visualise this Breath of Life as a fluid *within* this fluid, something that does not mix, something that has potency as the thing that makes it move. Is it really necessary to know what makes the fluid move? Visualise a potency, an intelligent potency, that is more intelligent than your own human mentality."[13]

What Sutherland is describing here is something other than the rhythmic movement of tissues and fluids. It is "something that does not mix, something that has potency…." This something has its own rhythmic motion, different from that of the tissues and fluids.

The 'intelligent potency' that Sutherland began to ask his students to visualise, was no longer a metaphor, as in his earlier intuitive descriptions of the 'breath of life' and 'primary respiration'. This was something that was palpable: a direct experience of the breath of life as potency within the fluids, yet not mixing with it. Before this Sutherland was working with the

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[12] Jealous, James. The Biodynamics of Osteopathy. An Introductory Overview. (Tape) 2000.
[13] Sutherland, William Garner. Teachings in the Science of Osteopathy. (p.14)

tissues and fluids to help facilitate primary respiration. Now he was beginning to work directly with primary respiration itself.

The later work of ***Rollin Becker,*** an osteopathic student of Sutherland, does much to clarify the nature of potency and its relationship to disease processes. One of the important shifts that occurs in Sutherlands work as he begins to work directly with the inherent life-force of the body, rather than its *effects*, is that there is a shift in focus from working with disease to working with Health. Becker elaborates on this shift;

"We have heard for years that the body has within itself all the factors with which to maintain health and to heal itself in case of disease or trauma. This statement is basically true. The body has the capacity to express health through this inherent potency, and it has the capacity to maintain compensatory mechanisms in response to trauma or disease through variant potencies. At the very core of total health, there is a potency within the human body manifesting its interrelationship with the body in trauma or disease."[14]

The process that Becker describes is one in which the potency acts in an 'intelligent' way so as to contain a disturbance. The Intelligence of the potency allows the organism to function as best it can around a trauma or disease process, that it is not able to fully process and resolve at the time it occurs. Sutherland emphasises again and again that the potency represents an intelligent force at work in the body.

"Keep in mind the Tide with its Intelligent potency, spelled with a capital *I.* It is something you can depend upon. Something that knows how."[15]

Becker uses the term *'biodynamic intrinsic forces'* [16]to describe the action of potency in the body. He differentiates these from *biokinetic forces*:

- Biodynamic intrinsic forces are living forces, which are an inherent expression of life.
- Biokinetic forces are not an expression of life, but are the products or results of other forces.

Biokinetic forces are forces that are introduced into the body from outside. These may be in the form of a physical impact, an overwhelming emotional or psychological experience, a pathogen, toxins etc. Even genetics act as biokinetic forces, which impact on the biodynamic

[14] Becker, Rollin. Life in Motion. (p.157). Rudra Press. 1997.
[15] Sutherland, William Garner. Ibid. (p.37)
[16] Becker. Ibid. (p. 157)

intrinsic forces[17]. The biodynamic intrinsic forces work intelligently to centre and contain the biokinetic forces that impact us. This enables us to continue functioning, but at a cost, the cost being that our biodynamic intrinsic forces become bound up in the containment of that which has impacted us and are therefore less available for us to use in our daily lives.

Just as the biodynamic intrinsic forces become bound up in containing biokinetic disturbances, so they can be liberated and made available to us again as a free flowing vital force at work within the tissues and fluids of the body. Another shift that occurred as Sutherland began to work directly with these forces is that techniques which are applied from the outside-in become replaced by skills that enable the practitioner to facilitate healing from the inside-out. The biodynamic intrinsic forces can be engaged with and brought back into relationship with the cells and tissues of the body. In this model Health[18] is never lost, but our relationship with it can be obscured. For example; if the tissues are held and contracted they are not able to take up the potency as freely as if they were relaxed and motile. The deeper truth of this is that it is the potency that holds the contraction in place. By becoming bound up in the disturbance that it is containing the potency has become inertial. These centres of inertial potency are described as *inertial fulcrums*. It is only when the inertial potency becomes free-flowing again that the tissues can express the natural pulsation of primary respiration once more. The emphasis for the practitioner in this model of working is one of settling into stillness, listening in through the palpatory senses and creating a tactile dialogue with the intrinsic forces at work. This form of working is very subtle, but extremely powerful. Becker writes:

"The bioenergy[19] of wellness is the most powerful force in the world. It is dynamic. It is rhythmic. It is a force field that begins with the moment of conception and continues to the last moment of death."[20]

Sutherland stresses that external forces do not need to be used when working at this level. The power of the potency of the Tide, this 'most powerful force in the world', can be harnessed and utilised. Working with the intrinsic forces in this way, it is no longer the practitioner who sets the agenda, but the Intelligence at work in the body through the potency.

"You know from your experience as the patient that the Tide fluctuates; it ebbs and flows, comes in and goes out, like the tide of the ocean. You will have observed its Potency and also its Intelligence, spelled with a capital *I*. It is something that you can depend upon to do the

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[17] The biodynamic intrinsic forces are considered to be epigenetic, that is they are at work in the developing foetus before genetic forces kick in. (Reference: Bleschmidt, E. & Gasser, R.F. Biokinetics and Biodynamics of Human Differentiation. Charles C. Tart. 1978).
[18] The term Health with a capital H is used by some practitioners to denote Health as an active, palpable force, rather than an abstract idea.
[19] The terms bioenergy and biodynamic are synonymous.
[20] Becker, Rollin. Ibid. (p.203)

work for you. In other words, don't try to drive the mechanism through any external force. Rely upon the Tide."[21]

Towards the end of his life Sutherland was talking about 'liquid light'. Again this is not merely a metaphor, but describes a sensory experience. The practitioner may perceive the potency as a 'liquid light' that passes through the fluids of the body, igniting all the cells with vibrant life.

"It is like the beam that goes out from the Lighthouse: It lights up the ocean, but does not touch it. Sometimes I call it a 'fluid within a fluid', or the 'liquid light'; something that you can turn on in this dark room and the darkness disappears. Where does it go? It is something that is invisible; the 'Potency', the 'Breath of Life' or Dr. Still's 'highest known element'[22]. We can utilise it when we get in trouble, not knowing what to do."[23]

An Ocean of Cerebrospinal Fluid

One of Sutherland's favourite quotes to his students was 'Be Still and Know', a Biblical quotation from Psalm 46, verse 10. The full line reads 'Be still and know that I am God.' This emphasis on stillness enabled Sutherland to palpate even more subtle levels of Primary Respiration and to come into deeper contact with the spiritual essence that he had long felt to be at work in the human body. Sutherland was quick to point out that what he meant by the spiritual was not some other-worldly dimension in his work, but a creative force at work in nature.

"I don't mean the spirit world, no! I mean the SPIRITUAL…"[24]

What Sutherland began to become aware of, as his work developed, was a wider field of forces at work. Couched in the language of conventional anatomy, Sutherland describes a level of primary respiration that goes far beyond the usual meaning of such terminology.

'Where is that cerebrospinal fluid? Is it only in my body? No. It is each and every one of your bodies. There is an ocean of cerebrospinal fluid in this room."[25]

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[21] Sutherland, William Garner. Ibid. (p.14)

[22] This refers to a quote by Andrew Taylor Still; "….the cerebrospinal fluid is one of the highest known elements that are contained in the body, and unless the brain furnishes this fluid in abundance, a disabled condition of the body will remain. He who is able to reason will see that this great river of life must be tapped and the withering fields irrigated at once or the harvest of health will be lost forever." (Reference; Still' Andrew Taylor. The Philosophy and Mechanical Principles of Osteopathy. American Academy of Osteopathy. 1902.

[23] Sutherland, William Garner. Contributions of Thought. (p.243) Sutherland Cranial Teaching Foundation. 1967.

[24] Sutherland, William Garner. Ibid. (p.204)

[25] Sutherland, William Garner. Teachings in the Science of Osteopathy. (p. 169)

Clearly Sutherland is not talking literally about cerebrospinal fluid, but is referring to yet another level of expression of the Breath of Life. Again it was up to later practitioners to map out these levels more clearly. Rollin Becker describes this further tide in more detail.

“There is another tide which came from outer space, I think. I had a patient with a severe, generalised, complicated problem, and I was quietly trying to read this fluid drive, working within the content of the patient’s body physiology, and all of a sudden, I was aware of the fact that there was this larger tide superimposed on the one going 6 times a minute. Here was a large tide which felt as if it was coming in from somewhere, and it began to expand, stop, expand, stop, expand stop. It took a full minute and a half for this larger tide to come in and be part of the body physiology of the patient, and then it drained away just as slowly as it came in. Where it came from and where it went to, I don’t know, but its influence was certainly modifying the trophism of every cell of the body to do something. For that patient, that trophism was certainly a help because the clinical response was that of an improvement in the areas of dysfunction.”[26]

This larger, slower tide is a deep expression of Health. Our basic capacity for Health is never lost, though our relationship with it may be obscured, like dark clouds covering the sun. The sun is always there, but we do not experience it as clearly on a cloudy day as we do when the sky is clear. When we begin to reconnect with this level of our Health there is often a sense of deep peace, wonder and unity. A deep sense of reverence is often evoked in both practitioners and clients. It is a direct experience of the spiritual ground from which form arises from moment to moment. Later practitioners have identified a bioelectric blueprint or matrix that is generated by the this Tide. This matrix is a precursor to form. The cells and tissues of our body organise around this matrix. ***James Jealous***, an American osteopath and student of Rollin Becker has called this bioelectrical blueprint the *Original Matrix.* The Original Matrix is generated by ‘the Tide’ and mediated by the potency within the fluids of the body. It is the loss of relationship with this ‘Originality’ that is at the root of what we experience as disease.

“It is the permeation of the breath of life into disoriented tissue that re-establishes the Original Matrix. The Original Matrix is a form that is carried through the potency of the breath of life around which the molecular and cellular world will organise itself into the Original pattern set forth by the Master Mechanic. The perception of this ‘Original idea’ permeating the tissue should be a direct sensory experience.”[27]

To access these forces at work the practitioner allows a deep settling into stillness to occur. The emphasis is on deep listening rather than doing. As the Breath of Life begins to express

[26] Becker, Rollin. Ibid. (p. 112-113)
[27] Jealous, James. ‘Around the Edges’. The Tide. Spring 1996.

itself through the deeper tides, changes begin to occur spontaneously without a specific input by the practitioner.

Later practitioners have described this phase of Sutherland's work, which engages the deeper tides, as the **Biodynamic** approach.[28] This approach works directly with the biodynamic intrinsic forces within the human system, rather than their effects, as in the biomechanical model. Sutherland's work spanned over fifty years, spawning practitioners and teachers throughout. Different lineages of Craniosacral Therapy draw from different phases and although each of these may have developed their own particular innovations, they are all fundamentally rooted in Sutherland work, be it in the biomechanical model or the biodynamic model or a model that incorporates both these aspects.

Matthew Appleton

[28] Jealous, James. Biodynamic Osteopath. An Introductory Overview. (Tape). 2000. Sills, Franklyn. Craniosacral Biodynamics. Vol. 1. North Atlantic Books. 2001.