

Nondual Science Heuristics

The basis for Traditional Sciences based on Nondual Science

Kent D. Palmer, Ph.D.

P.O. Box 1632
Orange CA 92856 USA
714-633-9508
kent@palmer.name

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Started 04.11.17; Version 0.2; 04.11.17; nds09a02.doc

Keywords: Nonduality, Science, Western Science, Special Systems, Systems, Meta-Systems, Autopoiesis, Reflexive Theory, Dissipative Structures, Holonomics, Hyper-complex Algebras, Emergent Meta-systems, Schematization

Traditional Science and Western Science

In Nondual Science we distinguish between Western Science and Technology and Traditional Sciences developed in non-Western Traditions based on Nondual Religions and Spiritual Traditions. We specifically want to search for such sciences that negate general assumptions held by Western Science but which are efficacious and question where the efficacious properties come from when the sciences should not work from the point of view of the Western Philosophical, Scientific and Technical worldview. Case in point Acupuncture, which is accepted with reservation by Western medical establishment as efficacious thorough numerous demonstrations but the theory and acting principle of which is not understood from the point of view of Western Medical Science.

Another example not so well accepted but of the same ilk is Homeopathy. These are two candidate theories and practices that contradict fundamental assumptions in Western Science but which seem to work to some extent regardless of the unknown nature of their causal efficacy. What we want to do is explore to what extent that these sciences might be based on nondual practices and religions or philosophical traditions and to what extent they might exemplify Special System Theory. I have written a study of the relation of Acupuncture to Homeopathy showing their duality and their relation to special systems theory. One way of testing the assumptions of Western Science is to find counter example sciences that are well defined with long histories and to compare those counter example traditional sciences to Western science in order to attempt to get a broader view of what science might be and what a nondual science might be like before the advent of Western science.

Part of this process is to attempt to understand the relation between extreme artificial dualities of nihilism to natural opposites which traditional sciences are usually built upon. A good treatment of this is the Stone Monkey¹ by Bruce Holbrook. He contrasts the natural opposites of Major and Minor Yin and Yang with the signs of imbalance called Yang Splendor and Closed Yin. Western Science as part of the Western Worldview deals mostly in nihilistic opposites like mind/body and other dualisms. If we back out of the chaos of Nihilism and attempt to return to the natural world as a basis for our Science then we focus in on natural opposites which the Chinese call Yin and Yang, as variables for seen effects and unseen causes. Because the Yang causes are unseen then they are based in the nondual but seen from a perspective of complementary opposites like heaven and earth. Acupuncture is an excellent example of a science built on the heuristics of the combinatorics of natural opposites which then interfaces with the unnatural nihilistic dualities as examples of

¹ ISBN 0688006655

imbalance which denotes a tendency to sickness as opposed to health. It is interesting that the nihilistic opposites of Yang Splendor and Closed Yin are seen as sickness in the Chinese medical model, since the Western worldview has as its primary telos the generation of nihilistic opposites which obscure natural opposites.

This brings up the whole question of the relation between schematic projection and the discrimination of natural opposites. Schematic projection is a function of Being while the natural opposites are what are found in existence when we stop obscuring nature by the projection of the schemas. But there is a part of the projection process which underlies the generation of nihilistic opposites which is merely the human process of orientation in the environment based on discrimination of natural opposites. In my genealogy of the term schema in the Western tradition I show that it enters the tradition with Protagoras and is developed by Plato in his works on Socrates. I have done a commentary on the Cratylus in which I show that Socrates is hinting at the fact that the genealogies of the gods is really a picture of the projection process of the schemas from the mythopoietic era of the tradition. But this genealogy of the gods and men which is produced as a mythology because it is a pure projection takes the form of an exploration of the projection process itself when read reflexively. This genealogy of the gods and men bring up interesting things about the schematization process itself that would be invisible if we just considered metaphysical images of the projection process. However, here we want to consider the underlying model called the heuristics which apply to the natural opposites themselves that exists within this sheath the generation of nihilistic artificial dualities. It is however the interaction between these two that Acupuncture studies as the relation between imbalance and balance. But for the moment we are just interested in the form that the heuristics take as a infrastructure to the projection process that appears when projection stops. What is interesting is that it is Pascal's triangle that is the source of both the

nihilistic projection of Being and the discrimination of the natural opposites of existence. This is because Pascal's triangle generates the minimal solids for each dimension and the schemas are the duals to the dimensions. But the Pascal Triangle also produces the minimal combinatory set of distinctions at each level of complexity 2^n . So the Pascal Triangle has a dual role that supports the nihilistic superstructure of projection of the schemas that overwrite the noumena of nature that give rise to anomalies of resistance, but also it supports the fundamental structure of coding that makes the basic discriminations from an information centric point of view. It is this set of emergence levels for information encoding which is the basis for the heuristics of Traditional Science based on nonduals. Discriminations arise as complementary opposites out of the nondual and the objects of experience arise as unified countable wholes to which these opposite properties apply. This occurs in Traditional Science through a series of emergent levels called heuristics that are defined by the 2^n systems that unfold as the Pascal Triangle. Recently I have understood much better this unfolding of Heuristics and in this chapter I would like to explain it. Understanding the heuristics as the ground of natural opposites of existence around which the projection of nihilistic duals appears is a fundamental step in understanding nondual science and its relation to the Western dualistic science based on the metaphysics of the excluded middle. The key point to start with is that the difference between Yin and Yang means the difference between unseen cause and seen effects, i.e. the invisible sources and the visible unfoldings from those sources. Strictly there are no Yang seen things. All things that can be seen, heard, etc are Yin. What are called Yang things are analogies only. So Male and Female are by analogy Yang and Yin, but in reality they are both Yin and the Nondual manifestation of the sources are Yang. Once we understand that then the next point is that Yin and Yang are variables into which you should insert the significant or relevant opposites such as Inward/Outward,

Sensory/Meaning, or Celestial/Terrestrial. Creation is composed of myriad complementary natural opposites and any of these can be taken as significant and identified with the variables Yin or Yang either by analogy or directly when we are talking about unseen causation. What we find is that there is first what in Taoism is called the Great Ultimate which is the unity of Yin and Yang. Prior to that is the Void. When the Great Ultimate splits into Yang and Yin then we have the gateway of the mysterious female from which all things arise as their origin. This is the Taoist way of looking at things. The point is that each combination of Yin and Yang elements is significant as a system of diacritical elements that genetically unfold from the natural opposites.

The first unfolding is the pattern of Major and Minor Yin and Yang. These four correspond to the celestial lights of Sun, Moon, Stars and Planets. Sun and Stars are Yang, while Moon and Planets are Yin. When we try to prevent the natural rolling over of opposites then we are thrown into the Nihilistic duals of yang splendor and closed yin. But it is interesting that this heuristic system of 2^2 distinctions is related to the celestial lights of the heavens. This means that the Major and Minor Yin and Yang are descriptions of the articulation of the heavens, i.e. formlessness in its role as causal power, i.e. celestial causes. The Sun is the Good in Plato. It is the source of light outwardly and inwardly as a form as the cornucopia of the production of variety. The Moon is the image of the intellect which reflects the light of the sun. The intellect can capture the non-representable non-computable intelligibles by this contemplation or reflection. The stars are the sources of things which appear from the hidden root of all things, i.e. the single source of all causation. The five visible Planets correspond to the five Hsing which is the differentiation of the celestial causes. The Hsing correspond to the basis of the virtual organs of Acupuncture. They are designated as either yin or yang and two strange organs are added to these to make twelve basic organs to correspond with the

twelve basic meridians.

The next stage is $2^3 = 8$ elements called the Trigrams which are the building blocks of the Hexagrams of the I Ching. These relate to heaven and earth. They are mentioned in the Quran as the seven heavens and seven earths. If you are looking from the point of view of heaven then there are seven earths. If you are looking from the point of view of the Earth then there are seven heavens. These are mixtures of Heavens which means nowhere notime elements and Earth which are somewhere sometime elements. The Heavens are the place of interpenetration. It is from the Heavens that the celestial causes appear and which encompass the differentiation of the celestial lights. On the other hand it is the Earth that is Yin and contains all the perceptible things that are moved by the celestial causes. So we move from the Celestial Lights to the mixture of Celestial and Terrestrial elements as the genetic steps unfold with the expansion of the Pascal triangle.

Next we have the $2^4 = 16$ elements heuristic which is related to Ilm al Raml, the science of the Sands developed as an oracle by the Arabs. Ilm al Raml is a model of the impact of the Celestial Cause on the Earth. The philosophy of this model appears in [The Meaning of Man](#) by Sidi Ali al-Jamal. Ilm al Raml is a complex system of assessing this impact which we will not explain here. The key point is that after the articulation of the difference between Heaven and Earth there is a differentiation of the earth into a model of impact of either the Celestial Cause or of Yang Splendor, which produces Trauma or Nihilism. This same model can be used to understand the channeling of causation into spreading waves of effects on the surface of the earth.

The next heuristic is $2^5 = 32$ elements. This heuristic is related to the 5 hsing which are seen as the hyper-cycle that controls the autopoietic system of the body in Acupuncture. But the elements are associated with the letters in languages with letters. Here we get the fundamental discrimination of the

letters as phonemes within the linguistic medium as such as fundamental differences. So here we are again discriminating further the celestial causes as a control superstructure for the autopoietic system.

The next heuristic is the $2^6 = 64$ elements which is related to the I Ching. The I Ching attempts to bring together the control structure of the autopoietic system and the impact distribution structure of the earth seen in Ilm al Raml into a single system of distributed effects. This level is very significant because it is both 2^6 and 4^3 . In other words, it can transform from 2 dimensional to 3 dimensional without losing any information. It is the first number of its kind to do this. DNA is posed at this level because of its ultra-efficacy of transformation which is made use of in the relation of RNA to DNA. There is a reason there are only 20 Amino acids which is that 20 is the nondual sources after you take out reversal and substitution. Thus there is an inherent efficiency of coding at this level that makes use of the nondual as its basis.

The final heuristic in this series is 2^7 which is 128. This is the level of the Quran which is made up of 114 suras (forms) and 14 al-Mukatat letters that head up the suras. This is the final stage of the series of heuristics because it is the last number which relates to a perfect or a super-perfect number. Quran is prophetic revelation. But the various heuristics are previous forms of prophetic establishment of traditional sciences of the opposites in creation.

These are the heuristics of Traditional Science, and their series of unfolding is very interesting because each level unveils a different aspect of schematization of natural opposites as a basis for making non-nihilistic distinctions. Without this system for coding non-nihilistic distinctions there would be no structure to our comprehension of the world. Yet this is not the organization of the schemas related to dimensionality, rather this is the unfolding of natural systems of diacritical distinctions which are the basis of coding of all types of

superstructures of significance and categorization. First there is the void and from that appears the great ultimate, the Pascal Point. That Point emanates two lines of Pascal points, whose interference with each other produces the Pascal Triangle. That triangle gives us the 2^n possible coding systems. Of these infinite possible coding systems the first seven are heuristics related to Traditional Science and its comprehension of the rolling over of the opposites in creation. Above that natural encoding base can be erected elaborate superstructures that are fabrications, i.e. projections of Being. But the encoding base of 2^n systems is a natural given in mathematics. But yet the Pascal Triangle supports both the natural base for encoded natural distinctions and the superstructure of schematization, which arises as the dual to dimensionality that is encoded in the Pascal Triangle as well. We might say that the encoding diacritical systems 2^n spontaneously appear while the dimensionality and schematization built on top of that coding system is the fabrication of Being built on top of the existential ground. Be that as it may, the natural encoding system itself unfolds genetically such that the Great Ultimate splits into Yin and Yang, i.e. visible and invisible elements. Then these permute to produce heuristic variables. The first system of variables is the celestial lights. Then we get the trigrams which discriminate between heaven and earth. Then we get the Ilm al-Raml structure that gives a detailed model of the impact of celestial causes on earth. Then we get a system that takes the five Hsing and expands that into letter forms thus differentiating the different control modes of the autopoietic system. After that we get the I Ching which is a combination of the Heavenly Picture and the Earthly impact picture into a single system that exhibits a specific kind of nonduality with regard to being the center of the process of life with the DNA-RNA-Amino Acid mapping. Recently it has been discovered that so called "Junk" DNA is really the template for RNA control structures within the cell. At the center of the Nondual I Ching where we take away substitution and inversion we get the twenty sources at the center of the I

Ching. These sources are related to the Mayan Day names. These are the possible interactions of the five celestial causes (Hsing) and the four elements. Beyond the I Ching we have the Quran as a fundamental source book of revelation which is preserved today which fits the form of the previous heuristics and thus establishes its credibility as a basis of the development of Nondual Sciences as were developed by the Muslims in Antiquity like Alchemy and Sufism. There are infinite encoding systems 2^n . But there are only seven heuristics because the heuristics are related to perfect or super perfect numbers. So here we return to the importance of perfect numbers as a means of indicating the presence of the special systems. Super-Perfect numbers are numbers that are perfect in two directions rather than merely one direction like normal perfect numbers. For instance the number of relations between 8 things is 28 which is a perfect number. Thus the heuristic of the trigrams is related to a perfect number. In the series up to seven each number is either perfect or superperfect or both. Super-perfect numbers add up the divisors and then the divisors of the number that is gotten when the divisors are added up so that the final result is perfect. By differentiating between heuristics related to perfect or superperfect numbers we have a finite number of heuristics rather than an infinite number which is possible. For instance we do not consider IFA an example of a heuristic because it is not related to a perfect or superperfect number.

Most of the heuristics are oracles mostly from China or Arabia. As oracles they were misused to tell the future. What they actually are are techniques for reading the current situation by the substitution of natural opposites of various levels of importance and significance for the Yin and Yang variables. This allows the system of combinatorial states to be generated which corresponds to a Venn diagram. These states are related to quality as a 2^n system rather than quantity as a N^2 system of elements and all their possible relations. This is the difference between the Ho River Map and the Lo River Map that are supposedly the roots of

the I Ching, as two orders of the trigrams, one heavenly and the other earthly.

Once we understand the heuristics and their genetic unfolding then we can go on to try to understand Acupuncture as an Autopoietic System description. Acupuncture is based on a series of cycles of energy (Chi) in the body. These cycles can be described by mathematical groups. And it turns out that these cycles are related to the Platonic solids of the third and fourth dimension considered as lattices. All these smaller cycles appear in a larger cosmic cycle related to J_2 which is a sporadic group which is equivalent to the number of seconds in a week. Understanding how the key cycles in Acupuncture theory fit into this greater picture derived from mathematics of three and four dimensional space is another whole subject to which we will not delve here, but which has been explored elsewhere in the author's writing. The key point is that Acupuncture is a very sophisticated theory of the living body as Autopoietic system which appears in China as a Medical Practice. The fact that it is such a precise model of the Autopoietic system and the fact that its theory is based in mathematics gives us an interesting example of a Traditional Science based on Nondual insights. And the fact that it has recognized efficacy shows that it is an anomaly with respect to the system of Western Scientific Medicine. So then the question becomes what can we learn from this Traditional Science about the assumptions of Western Science. It turns out that the Autopoietic Theory is very sophisticated, but it has fallen into disrepair and the scientists that have originally built the theory based on theory and observation are long gone. Acupuncturists today for the most part are technicians who do not understand the theory that they are applying. They cannot regenerate the discovery of the points for instance. They cannot show the efficacy of the theory by experimentation. Rather they are following the manuals of where to insert the needles and what herbs to prescribe. But now that we have Special Systems Theory with a complex and fundamental theory of autopoietic systems we

can use that to reground this ancient medical practice and bring its theory to life again. One thing we discovered is that Homeopathy is the dual of Acupuncture and that as the dual it is based on Dissipative Special Systems Theory. Homeopathy has the opposite problem as that of Acupuncture, it has no real theory, but lots of practice and empirical results that are difficult to explain. But the basic explanation can be seen to depend on a theory of Dissipative Structures like that of Prigogine. The fact that these two medical sciences we use as examples of anomalous traditional sciences based on nondual insights means that there must be a reflexive medical practice which is related to the Reflexive Special Systems Theory. One candidate for this is Shamanistic practices such as those described in the Mind in the Cave by David Lewis-Williams. Shamanism was the first world wide religion of the Hunter Gathering humans prior to Civilization. Through cave paintings we have glimpses into this culture from 30,000 BC. These paintings and other artifacts preserved in these caves give us our first view of human schematization of forms, patterns, systems, etc. Out of this shamanistic religion other religions of settled civilizations and nomadic peoples developed. And there are still shamanistic practices today in many so called primitive cultures. Unfortunately this lost legacy of humanity is being lost under modern projections which are suppose to be revivals of this ancient way of relating to the world. But we call this reflexive kind of medicine today faith healing, and placebos. The point is that placebos are extraordinarily effective. More effective than many drugs. And this efficacy comes from the reflexive system itself. The belief that the other person is a healer and can heal you makes it very likely that you will be healed by that person regardless of other causes. That is because, as Deleuze points out in The Logic of Sense that causes and effects are independent, and there are virtual surface effects without causes. It is in the mirrorhouse of the reflexive system that these virtual effects without causes appear. We call them miracles. They are matched by the black holes of Voodoo and other forms of black magic. If you

believe that if you are cursed you will die then there is a good chance you will die from that belief alone regardless of any real cause connecting the magical talisman to ward off the curse and the efficacy of the curse itself. Merely thinking it so makes it so within the reflexive world in many cases. A good modern example of this sort of medicine is the work of Peter Levine called Somatic Experiencing. And this is so effective because the reflexive world produces mind reading so that we think we know what the other person is thinking when they speak, or when we watch their behavior, we have a folk theory of mind that we put into practice every day and which works for us within the social group to which we belong. So reflexive healing, starting with shamanism and ending up with present day Physicians giving sugar pills instead of antibiotics for viruses, for which antibiotics do not work and actually cause immunity to appear in strains of bacteria. From the dawn of human time there has always been a reflexive practice of healing that had its own efficacy recognized as faith healing. When we take these three medical practices together we have a full set that complement each other by embodying the three special systems. Western Medicine is a restricted economy, and all possible medical practices are a general economy. But these three medical practices can be seen as one example of a partially restricted and partially general economies that are images of the Special Systems. So we could mount research projects to see how well these different forms of medicine work, whether they have any efficacy. Some studies of this sort have already been undertaken with respect to each of these possible special medical practices. But we can also explore the relations between the theories and practices of these special medical sciences and the Special Systems Theory which can be seen to underwrite them and ground them, and perhaps give us a new perspective on them. Thus it might be possible to produce a new more sophisticated versions of these three forms of natural healing, or alternative medicines, which is more scientific because it is grounded in Special Systems Theory which is a theory of

anomalous science, and that perhaps will lead us to understand anomalous medical practices that are efficacious. But specialists in these various medical disciplines would have to learn the Special Systems Theory and then try to apply it to their special medical fields in order to see whether this is a real possibility for improving these medical treatment approaches. Here is another research horizon for Special Systems Theory with respect to alternative medicine.

We would now like to mention three new psychotherapeutic Techniques that are of interest that can shed light on the Special Systems Theory and Emergent Meta-systems Theory. The first is the work of David Grove called Metaphor work. This is a form of guided imagery therapy. But recently David expanded his model and made it relate to space as well as time. I wrote a review of a workshop I attended called "Orienting in a Clean Meta-system" that shows that the new technique of David Grove is an example of a view of the meta-system. This is a fascinating therapy method from which I learned a lot when I experienced it personally in a public demonstration session with David Grove. His new method which is based on space and boundaries in imaginary spaces is an excellent example of creating meta-systems around the system of the individual and then using them for personal healing and growth.

Another interesting therapy method is that of Robert Bosnak and his work on dreams. In this work he applies Alchemy to dreamwork, and by using dreams gets major results through the reliving of dreams in trance and the exploration of those dreams in group sessions. One part of the technique which is very interesting is the moving into the perspective of the other in the dream as a way of experiencing bottled up or hidden aspects of oneself. This method is the only one I know where one can practice and see alchemical principles at work in an everyday phenomena of dreaming. In the work of Bosnak Alchemy

is still alive. Also the work of D. W. Hauck² is recommended as an introduction to alchemy that goes beyond the introduction one gets in the work of Jung, and by reading the original Alchemical texts. Alchemy is the Western Science of Special Systems. But it has been obscured by the multiple uses to which it has been put over the centuries. However, in the work of Bolos we can see the original intent of Alchemy, and in the works of Ridley we can see a later version of a pure alchemy. Jung somehow had a genuine insight into the nature of alchemy because his quadrature of squares that is presented in Aion can be found in the Epic of Gilgamesh. The realization that alchemy was an original Psychology by Jung is one of the greatest insights in modern times leading to depth Psychology and the deconstructionism of Hillman. But Bosnak has discovered a positive method for seeing alchemical principles at work as they upwell from the collective unconscious in his dream groupwork. As an embodiment of Alchemical Science we can begin to look for the operation of the special systems within the dreamwork as an empirical lab. They are clearly there structuring the collective unconscious in the theory of Jung. For instance the ego is the system, then the shadow is dissipative, and the animus/anima is autopoietic, while the wise old man and chthonic female is reflexive, and the Self is the meta-system. This is a clear differentiation of the collective unconscious in a model that agrees with special systems theory. But what we really want is an empirical science of Alchemy and Bosnak gives us that in his dreamwork in ways that cannot be seen in any other field, although we must continue to look for fields in which we can practice Holonomic Alchemy and learn from that practice more about the phenomena that is described by special systems theory.

The final example that I want to give is the work of Peter Levine called Somatic Experiencing. This work is directed at relieving stress and curing trauma using a mechanism inbuilt at the reptilian level of the

² <http://alchemylab.com>

brain in all animals. In the therapy there is a process producing a release in the reptilian brain that erases the traumatic trace. We can use the theory of Porges to understand how this works. According to Porges there are three levels of trauma reaction in the body. The first is social orientation and negotiation associated with the higher brain, when that breaks down under threat then there is fight flight associated with the mammalian brain, and finally there is freeze response associated with the reptilian brain. After that there is another level that Raja Selvam talks about which has to do with constriction and expansion of the viscera, which even cells do when poked and prodded. These are the basic levels of traumatic reaction that get encoded by traumatic events into the body and stay there manifesting as different sorts of symptoms unless they are erased from the body by the basic release mechanisms built into the body. Unfortunately our culture fights against the manifestation of these basic release mechanisms and so we tend to hold trauma and stress rather than releasing it.

Now I will expand on this basic theory of Porges that has been used to legitimize the Somatic Experiencing practices. The first point is that we can readily recognize that what we have here is a bifurcating series where we have one freeze response in Porges, then two fight/flight responses. But what he does not talk about and what we should recognize is that there are four basic responses at the social engagement level related to the vagus nerves. I think it was Blake that saw these four responses clearest and called them the four Zoas, Zoas are ways of life and these included Urizen, Tharmas, Luvah and Urthona. We already mentioned that they each have emanations which are their feminine side and each of the sides each split again to give us the spectre and the shadow. Thus each Zoa devolves into four, and all four are manifestations of sleeping Albion/ Vishnu/ Huntun. The Zoas are avatars of Albion. But that means that there are four divided lines not just the one of Urizen that Plato shows us in his descent into Hell in the Republic, which is about a hell where mind is split from the body.

So I believe that at the social engagement level there are four fundamental reactions to trauma or ways of negotiation. You can reason your way out of the situation. You can profess love. You can resort to passions. You can attempt to be part of the earth and use your imagination. These four negotiating responses elaborate and complete the Porges model and it shows us that what we have here is a progressive bisection that moves from the basis of viability to freezing to fight/flight/ to the four Zoas and out into differentiation in the meta-system. Each of these levels is related to one of the special systems. So the viability level where there is just constriction and expansion there is the real system established as the living system. Then at the level of freeze we have the inverse of the dissipative system. In freeze the ordering of the environment stops dead. Then at the next level we have the antithesis of symbiosis, either fight or flight breaks symbiosis when what you are symbiotic to becomes a threat or when something else becomes a threat then there is a split between the two states. This symbiosis of autopoiesis is the opposite of fight/flight state splits. Next we have the reflexive level where the four Zoas are articulated as negotiating stances of social orientation within the meta-system. At the level of the meta-system we have eight which is expressed as the trigrams. But what is interesting is that this model is isomorphic to the structure of Ilm al-Raml which models the impact of Yang Splendor or Celestial Causes on the Earth. So the eight are the four mothers and four daughters of the tableau of Ilm al Raml, then we get the four cousins (=Zoas), and then the two judges (=fight/flight), and then the root (=freeze). But there is one beyond the root and that is the real system as viable which constricts and expands. So here we have an example of a modern technique for activating the release of trauma and its scientific theory based on the physiology of the brain fitting into the form of the Special Systems and a Traditional Science Heuristic. The trauma is a Yang Splendor impact which is then processed by the series of special systems / Ilm al-Raml layers. Just as the stick is used to produce the pattern on the sand that

is interpreted by the oracle, so the outward cause produces an impact on the neurological systems that are partitioned in a similar way as the Traditional Science Heuristic for the impact of Celestial Causes on the Earth. Thus by recognizing the confluence of the special systems view and the Ilm al-Raml view we can bring to bear the entire unfolding of the Heuristics of Traditional Nondual Sciences to bear in understanding Trauma. And we have the example already of how the natural opposites are covered over by the imbalanced nihilistic opposites of yang splendor and closed yin which produces the trauma of the projection process which we see collapsing in Greek mythological genealogies. Thus suddenly the theoretical background becomes very deep for the development of a theory of trauma based on traditional nondual sciences.

Once we understand that Somatic Experiencing based on Nondual Science Heuristics and Special Systems Theory might be understood in a deeper fashion then we turn to another point that has not been mentioned previously but which is a very important point. And this is that there is a complementary relation between the kinds of Being and the special systems:

- Pure Being = schema
- Meta-system
 - Wild Being = propensity
- Reflexive Special System
 - Hyper Being = trace
- Autopoietic Special System
 - Process Being = sign/value
- Dissipative Special System
 - Pure Being = schema
- System
 - Wild Being = propensity

In other words there is an inverse relation between the lines separating two terms and the spaces that are separated in these two models. From the point of view of one model we are looking at the Special System emergent hierarchy. From the point of view of the other model we are looking at the Kinds of Being hierarchy. They complement each other. They

are interleaved. Existence and Being are unexpectedly intertwined. But this has practical consequences for the modified Porges theory in relation to Somatic Experiencing Theory. We have established in a dissertation at the London School of Economics, 1982 called The Structure of Theoretical Systems in Relation to Emergence that a new thing that comes into the world must pass through the four kinds of Being to become a genuine Emergent Phenomena. We now know that this new thing has the nature of Ultra Being that allows it to pass through the other kinds of being to the heart of the worldview. Emergent Events are traumas. They are traumas to the worldview. Human beings on the other hand according to Heidegger are being-in-the-world, thus inseparable from their worlds. So this means that the trauma is like an emergent event which reorganizes the organism at a fundamental level depending on how deeply it travels, and at each layer there is a special system of defense, but if it bursts through all those levels then it will reorganize the whole organism perhaps causing it to lose its viability. So as the Yang Splendor trauma goes down through the layers of the defenses it is also penetrating the world of this particular being-in-the-world and perhaps causing an artificial or genuine emergence, i.e. a reorganization of some specific depth. Now instead of Yang Splendor or Closed Yin we may instead experience a Yang Celestial Cause to which we are receptive and which has a positive effect rather than a devastating effect. For instance one could experience Love or some other Good, or ones Fate or some other nondual instead. But here we are considering trauma. Now if our model of the world holds true then the Ultra Being Yang Splendor Poison would first pass through Wild Being, then Hyper Being, then Process Being, then Pure Being to enter the world of the viable system. Wild Being is related to propensity, Hyper Being is related to traces, Process Being is related to values and signs, and Pure Being is related to schemas or symbols. When the trauma comes in it passes each of those levels too quickly for a reaction from the organism. But what happens is that the organism processes

the incoming trauma and then reacts as an outward motion which goes in the reverse order through the kinds of Being. Thus at the deepest level are the propensities, then the traces, then the values and signs and then the symbols or images that are schematized. At the heart of the reaction is the kernel of Ultra Being that has passed the limits and caused the trauma. This reverse order of reaction of the Organism is the reason that we process the trauma the way we do, in other words we symbolize it in language and thoughts that capture the experience, but that does not help if it has gone deeper, so we enter the structural patterning level such as a Lacanian psychoanalysis and deal with signs and values if manipulating symbols does not work. But then if the structural level of analysis does not work then we must go to the trace level. Most deep trauma and stress is embedded on this level as traces. These traces are like the soil at the bottom of the North Sea. Because it was under glaciers frozen solid for a long time as long as it is in situ the soil will bear any weight, but if you move it then it loses that property and will not bear the same great pressure. The soil bears the trace of the glaciers but it cannot be detected in any way, it just holds the traces, until the soil is moved. Somatic Experiencing attempts to get the body to naturally dissipative these traces and reorganize itself with a new dissipative order once the lock of the traces has been broken. It is like moving the soil of the North Sea, the property of the trace of compression by the Trauma just vanishes without trace. A trace is like the mark of indention into the paper by a pencil on a pad of paper when you remove the top sheet and shade in the next page of the pad, you see the trace. Derrida talks about traces when he discusses Differance. Finally the deepest level is that of propensity. A propensity is seen in small tintured actions of the body. Sometimes these are drawn out in Somatic Experiencing therapy and enacted in slow motion. These releases of pent up actions in the body are the deepest level of impression left by the trauma, it is seen as the frozen motion locked in the body by the freeze response. Beyond that there is the Ultra Being

of the poison or the traumatic noumena itself which needs to be ejected from the body. David Grove's therapy is geared toward the bodies ejection of these foreign elements that poison it as long as they are left in the body either subtle or gross. So what we find which is of great interest is that the traumatic vector enters and is encountered by the special systems defenses at each level, but the reaction of the organism is in the reverse order of the kinds of Being. So with respect to the transition from the environment to Reflexive Social special systems there is wild being first, then after that hyper being guards the transition from the reflexive to the autopoietic, and then process being guards the transition from the autopoietic to the dissipative, and Pure Being guards the transition from the dissipative to the system itself. But in terms of reaction of the organism processing occurs in reverse. We try to react with symbols, and if that does not work we react with signs, then we bear the traces, and then we feel our own propensity to move as we experience the trauma as intensive singularities before we see the traumatic poison noumena itself that needs to be rejected. It is very interesting that reaction of the organism is reversed in relation to the processing of the trauma. Somatic Experiencing gets to the traces and propensity level that is encoded at the Reptilian level. What should be at the surface is driven deep into the organism by the traumatic emergent event. What is deep is brought to the surface in terms of Symbols and Signs. Thus normally we shade off into the Meta-system going up the meta-levels of Being to get there. But when the meta-system invades us it drives these outer layers that protect us from the meta-system deep within the system itself, and so we have to unwind them in the opposite way and when talking fails, when changes of signs and values fails then we are left trying to deal with the introjected meta-system within in terms of traces and propensities and ultimately the ultra being poison of the world that has been ingested or has been interjected as a wound that will not heal, such as the sort of wound that Depth psychologists like Hillman talk about.

This has been a case study in how we can use Traditional Heuristics and special systems to understand a modern trauma healing technique in search of a theory that explains its efficacy. We have elaborated the theory of Porges and introduced the concept of the how the layers of the world in terms of kinds of Being is interspersed with the layers of the Special Systems, and then used that to explain how it might be that Somatic Experiencing deals with propensities and traces, that should be on the outside of the world but end up deeply thrust into the center of the world of the traumatized patient. Somatic Experiencing unleashes the bodies natural healing capacity for trauma. It allows the structure of being-in-the-world to return to its natural organization where propensity and trace are on the outside toward the meta-system rather than on the inside near the viability of the system itself. On the other hand symbols and signs/values are on the outside where they are normally at the center of the conscious organism being processed by the mind. Trauma indeed turns us upside down. The body has the means to right itself if it is properly triggered. Somatic Experiencing is the mutual search for that trigger. Thus it is a reflexive social experience between therapist and patient. This is part of what brings the propensities and traces to the surface, our need as mammals for the safety of other bodies standing guard as we release the traumatic pressures from the predator/prey episodes. In the reflexive social environment of the Somatic Experiencing Therapy we regain our autopoietic wholeness as symbiotic between mind and body or between the other dissipative ordering relations within the bodymind whole. And when a release occurs it is a dissipative structure that reorganizes the whole body as an counter-emergence where the order of health reasserts its balance and the trace sensations just vanish and the propensities toward pent up action disappear. Somatic Experiencing activates the entire Special Systems hierarchy of consciousness, life and the social and brings it back to balance by following the sensations and letting them lead the way to unblocking the traces and propensities locked in the

bodymind. We live in a four dimensional reality. In four dimensions there are no knots. All knots just fall untied in that milieu. But we experience knots in ourselves all the time because we have the illusion that we are trapped in three dimensions. The reptilian brain operates in the four dimensional reality. It is the mammalian brain and higher brain that has constructed the illusion of three dimensionality of the world with the asymmetry of time. Equations in Quantum Mechanics can be run forward or backward, there is no direction of time in the Quantum World, and the Quantum world does not stop at the micro level but is Quantum all the way up. It is the projection of Being that prevents us from seeing the Quantum Mechanical and Relativistic reality existence at the meso level of our lifeworld. Tapping into the Reptilian brain allows all the knots to untie and fall apart within the four dimensional reality which is our real world of life seen by our reptilian brains. But in order to do that we have to get past symbols, and signs down to the level of traces and propensities. Then the natural ability of the body to erase trauma will be accessed and we will naturally heal ourselves and return to balance as closely as we can as animals in nature do after the predator/prey incident passes that they survive.