

An Anagogic Logic

COMPLEMENTING KUNZE

Understanding the response to Nihilism within the Western Worldview

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Started 08.08.27; Version 0.4; 08.08.27; knz02a04.doc
Unfinished; Edited 2014.02.18

Keywords: Anamorphic, Anagogic, Anasemic

Introduction

In this paper I will continue the exploration of the Anamorphic Object and the Anagogic Swerve begun in the earlier paper "The Anamorphic Cycle." Here the emphasis will be upon the Logic of the Anagogic. We will be contending that the Anagogic has its own special logic. And we will approach the understanding of that logic via the Greimas Square¹. The square of Greimas can be understood as a version of the Square² of contraries and contradiction in Logic, but where opposites are chosen rather than universal verses particular as the emphasis. My own way to get to this Square is somewhat different in as much as I think about it in terms of the Buddhist Tetralemma, which is yet another square. This square is composed of A,

¹ http://en.wikipedia.org/wiki/Semiotic_square

² <http://plato.stanford.edu/entries/square/>

~A, Both and Neither. These possibilities are implied in the Greimas Square, which in turn is a modification of the Logical Square when it is applied to opposites. But my take on the Square of the Tetralemma is slightly different in as much as I say that the key idea is the fact that NOT has two different meanings. One not is the complement, and the other is the excluded. Thus we have a difference between the anti-system and the non-system. But we can go further and use these to begin to approach nonduality by noting that there is a difference between anti-non-A and non-anti-A. That is to say we can approach a Chiasm between the two types of NOT. This difference can be encapsulated by distinguishing between odd and even zero, i.e. Void and Emptiness. Recently I realized that this formulation of the Greimas Square in terms of the Tetralemma implied in it can stand as an image of the relation of the System and the Meta-system. In other words there is a duality between the Dual System (System and Anti-System) and the Non-System on the one hand, and the System and Meta-system on the other. The Meta-system is what is other than the System, but not as Non-System, but rather an inverted dual of the System, which has an order of its own as a separate schema from the System Schema. What we notice about the Meta-system, is that its ordering is intrinsically complementary. And the difference between anti-non-A and non-anti-A can stand for that inherent complementarity of the Meta-system. An example of this is taken from Logic itself, where we note that there are two operators that are complements of each other, i.e. AND and OR. They are binary operators. Then there is a uniry operator NOT, which is like the Non-System in relation to the System/Anti-system difference between OR and AND. But interestingly NOT plus AND or OR, give NAND and NOR, the inverse complements. Logic says that they are not necessary because they can be derived from the first three. But their standing in relation to the first three is precisely that of the meta-system complementarities, to the Dual System and the Non-System. Thus logic has within it precisely the same structure that we have described often as our own version of the Greimas Square.

But we can go further if we realize that Operators and Operands form a diminishing sequence where the numbers of places for operators and operands get less and less

operator (Operand, Operand, Operand) – tertiary

Operand operator Operand – binary

Operand operator – unary

Operator alone – zeroth

Neganary – vanished operator and operand (negative one)

In other words when we move from the binary operators to the unary operator we are beginning a progression to the operator alone and then to the vanishing of both the operator and operand. The negenary is the equivalent to negative one which is the door way to the imaginary. But this negative one is in relation to the operators not the operands. The fact that it is related to the operators means that it is not a number but the trace of an operator, and the fact that it is related to negative one means that it can open up to the imaginary numbers and thus the fourth dimension. So the Neganary is a trace of the fourth dimension.

The System anti-System axis is one line in a tetrahedron, and the Non-system and zeroth operator is the other axis of a tetrahedron which is orthogonal to the first axis. The zeroth operator stands in for the Anamorphic object. It is the limit of Hellerstein's Delta Logic. When the anamorphic object splits the space into which it moves is the fourth dimension and that produces a track called the Anagagic Swerve from the zeroth operator to the negenary operator. This splits the NAND from the NOR. It also splits the Anti-non-System from the Non-anti-System. The production of this track in the fourth dimension creates a pentahedron from the tetrahedron which is its point of departure. It simultaneously creates the complementarities of the Meta-System in a divergence from the Dual System and the Non-System. An example of such a divergence is the production of Non-

Euclidian Geometries in relation to Euclidian Geometry in the variation of the Fifth Axiom. Thus we have logical and algebraic and geometrical models of what the logic of the Anagagic swerve might be. The logic entails the move into the nondual fourth dimension from the present third dimension. Remember that the fourth dimension is composed of four three dimensional spaces that are interpenetrated. The anagagic swerve basically takes you from the three dimensional space you are in to another one of those spaces, by tracing out a logical path that opens up from one to the other. That path must exhaust the resources of the current three dimensional space, and then go beyond it. This became a crucial component of the therapy of David Grove just before he died. In the last workshop he gave had the image of a magical theater like those described by Francis Yates and inscribed on the back wall of that theater was the Metaphoric and Metonymic Cross, and from the center of that cross he believed that the individual in therapy could depart into the fourth dimension, i.e. beyond the barriers and knots that they experienced in the third dimension. The Anagagic Logic specifies based on logic, algebra and geometry the nature of that transformation.

From Logic we take the fact that there is a Greima Square which considers the relation between anti-system and non-system. We cross the two to find the chiasmic relation between them in the anti-non-system and the non-anti-system. In one the non-system predominates and in the other the anti-system predominates.

An example is the attempt to sample a light source. The source is the anti-system, and the sampling device is the system. Interference and noise is the Non-system. The relation between the noise from the source and the components of the system can be analyzed by a Modular Transfer Function which in the frequency domain can be multiplied to identify their contribution.

From Logic we take the fact that the basic operators of Logic of AND, OR and NOT, together create the NAND and NOR. Thus this

structure of the Greimas Square appears at the heart of logic, as its basic differentiation of operators. Operators also appear in Algebra. If we consider algebraic operators we can infer that there is a progression from tertiary, to binary, to unary . . . operators. In this progression we can posit the zeroth operator as the place holder for the anamorphic object, and the neganary operator as the result of the split in the neganary operator. That split can be understood by using the two paradox logics of N. S. Hellerstein called DIAMOND and DELTA. The Delta logic contains one limit with dual modes, while the Diamond logic contains two limits. The Diamond Logic is an elaboration of that presented by G. Spencer Brown in Laws of Form. Once the zeroth operator is found, i.e. the difference between operators and operands, then we can posit the Neganary which is what goes beyond that difference by exploring the fourth dimension, a swerving path that cannot be taken in the third dimension, but only in another third dimension that is another part of the fourth dimension. In the last paper in this series I treated the tetrahedron as if it were a composite of Diamond Logic paired limits. But the Anagogic logic tells how you get to the point of having an unfolded Anamorphic Object that has split to have both limits. Anagogic Logic tells you where you have to go from the Logical Operators to get to that place where the limits split. And where you have to go is down from binary and unary operators to zeroth and neganary operators, something which is not now part of logic because they are both invisibles, but invisibles of different kinds. An anamorphic object is something that is in an anamorphic place with respect to the System, the Anti-system and the Non-system. We can triangulate it, because it is the fourth corner the Tetrahedron that is made up of those other three terms. But in order for the limit of the zeroth operator to split, i.e. for zero to be recognized as both odd (void) and even (emptiness) it is necessary to swerve out of the third dimension along a path produced by seeing the tetrahedron to be part of a pentahedron. The geometry of the relation of the tetrahedron and the pentahedron gives us a prescribed path into the fourth dimension, and

along which the anamorphic object can split into **i** and **j** limits (x yet y and y yet x). By setting up these limits, the limits themselves can be used to simplify some computations in logical circuits, as G. Spencer-Brown does. This is similar to the way that conventional non-intuitionistic logic simplifies things by assuming that argument to absurdity can be used in proof. What we see is that every step of the way that can be taken toward the nondual, i.e. fourth dimension is constrained by logic, algebra or geometry and working together they proscribe the whole path. Geometry continues by giving us the example of the complementarities between the non-anti-X and the anti-non-X in terms of the relation of the Non-Euclidian Geometries to each other. We use axioms to ground Geometry. The axioms of Geometry also form a square, made up of line segments or radii. That square can be seen as an axiomatic platform defined by the first four axioms of absolute geometry. The fifth axiom has a version which is just the fact that a square has four right angles. If the angles are not orthogonal then that generates either the Hyperbolic or Elliptical geometries. These geometries are examples of the type of complementarities that exist in the Meta-system which is disunited compared to the System.

Nagarjuna made the Tetralemma the central element of his Buddhist Philosophy. He showed that in the midst of logic was emptiness. It is as if the tetrahedron of the AND, OR, NAND, and NOR had in the middle of it emptiness. Once you realize that logic has at its core emptiness then that has to be taken seriously, and it was at that moment that Buddhism was re-absorbed into Hinduism because it was shown to be essential, and Shankara reinterpreted Hinduism as always already based on emptiness. When you think about it the tetralemma is basically the same as the tetrahedron of logical operators, that is because it contains not-A, and the BOTH and NEITHER are basically the same as AND and OR. The difference is that the Tetralemma expresses all the structural possibilities of logic, while the operators themselves are the workhorses of logic's operation. Nagarjuna

basically says that whatever the combinatoric possibilities emptiness is something else. Emptiness goes beyond the bounds of all the concrete possibilities and their permutations. Anagogic Logic takes the basic premise of Nagarjuna and extends it by a combination of logic, algebra and geometry. From logic we take the basic structure of the tetrahedron of logical operators but realize that it has an asymmetry built into it, which is described by the Greimas Square. Anti-System and Non-System are orthogonal to each other from the System. But we can consider that they interfere and interact with each other producing the complementarities of the Meta-system. Thus we get complementarities in the Greimas Square between the Dual System and Non System on the one hand, and the System and Meta-System on the other hand. These complementarities within the Meta-system are the NAND and NOR, which come out of the combination of the AND and OR with the NEGATION. A three way fundamental set of entities give rise to a four way set, and that reduces to five basic elements within the Greimas Square. Those five elements form a pentahedron out of the tetrahedron that comes out of the triangle. Nonduality is pointed at via the chiasm between the meta-system complementarities. Thus we get the difference between emptiness and void, i.e. odd and even zero as a chiasm that points toward the nonduality of emptiness though a duality. But from Algebra we get a progression of operators and operands. The operators we have are two binary (AND/OR) and one unary (NEGATION). This progression suggests that there could be more operators and operands, but there could also be less. So if we follow that progression downward, we realize the possibility of a zeroth operator that has not operand, and beyond that the negenary which can be thought as the trace of the discontinuity between operator and operand when both have vanished. The negenary is at negative one in the chain of operators. And as a difference between the operator and operand without any substantial examples of either, we see that this can lead to imaginary operators if we get the square root of this difference. That square root of a negative operator gives us the difference

between real and imaginary as the symmetry breaks, and that gives us the series of hypercomplex algebras as the model of the nondual as interpenetration. When we follow this series down we realize that the zeroth and the negenary operators forms a different tetrahedron than that of the AND/OR//NAND/NOR. The negation is not through a mark, but though the trace of the vanishing operator as we get closer to the emptiness. In point of fact, the zeroth operator place which has no operand, is the place of the Anamorphic object. It is the single limit of the Delta Logic of Hellerstein. At that point the emptiness and void are the same. But strangely that sameness appears as a difference, i.e. the difference of Ultra Being, which is the difference between the two nonduals. Thus the zeroth operator is a singularity with the nature of the externality of Being as an existant. The anamorphic object is always a singularity. This places within the heart of logic a singularity. And it sets the stage for the kinds of Being to unfold from there. Thus the difference between the zeroth and the unary operator is Wild Being. The difference between the unary negation and the binary operator is Hyper Being. Hyper Being is what produces the asymmetry between the NOT and the AND/OR that produces the Meta-systemic complementarities NAND/NOR. Hyper Being is the interface between the System and the Meta-system. Hyper Being opens out Possibility within Being. The meta-system is the landscape of the possibilities out of which the actualized Beings emerge. The relation between AND/OR/NOT gives rise to Process Being. Hegel defines being and nothing as the same. Interestingly he understands nothing as Buddhist Emptiness, and he understands the conjunction between being and nothing to be Heraclitian flux or becoming. For Hegel Being and Non-Being are the Same and the interplay between them is what creates the world of motion, and transformation. Where ever there is motion there is since Zeno a contradiction discovered to be lurking. Parmenidian Static Being that denies both Non-Being and Appearance is the extreme of Pure Being. It is the proof proven. But the process of proving, explaining, describing, indicating the proof is a

process which is build up step by step and understood in increments. To have logical proof we need more than just the three fundamental operators, we need logical operands, existential operator, All, and variables. We need the Logical Square with universal and particular. Between them we need the attributes that allow us to have a syllogism. There is quite a bit of logical mechanics needed to extend the logical language to the point where it can do a logical proof. Pure Being is in the proof. And when the proof is applied to geometrical elements (point, line, surface) or numbers then we have Algebra or Axiomatic Geometry which forms a Model with our Logic. Everything up to the proof and its QED is part of the process of the unfolding of Pure Being from Hyper Being which is Becoming. Many different elements come into existence between the three operators and the QED of proof. The discontinuities between all of these has its being in Hyper Being. But the interaction of these differences and their instatiations have their being in Process Being. It is proof where the Parmenidian Static Being has its fulfillment. It is proof that does not change. The elements of the logic, and the way that they are put together to make a logic can vary, but the result as proof once performed can always be performed again and thus achieves an illusory continuity that appears eternal. It is no accident that the first axiomatic system, Euclid's geometry is a text full of proofs. It is though proofs that you taste Being and begin to get some inkling of the timeless forms beyond the flux of experience. If we go the other way we realize that the difference between the zeroth operator that manifests from a singularity of Ultra Being and appears as embodies in the anamorphic object is separated from the Negenary by Emptiness and Void. These are the complementarities into which the zeroth operator breaks up, and the negenary is the difference between them on the other side, on the Existence side rather than on the side of Being. Existence is represented as the fourth dimension. It is the fourth dimension that the Anagogic Swerve takes us into. It does that by splitting the Anamorphic object, i.e. the zeroth operator. The Zeroth operator is the

difference between operator and operand, but it also has an internal difference between emptiness and void, i.e. between even and odd zero. Operators in general can handle either even or odd numbers of operands. Thus when we think of the difference between operator and operad it must also have this multifaced quality which then breaks up into the meta-systemic complementarities. This break up is signified by the difference in the square root of negative one that produces a symmetry breaking and by that differentiates a pair of real numbers from an imaginary and a real complex number. The square root of negative one is an operator that is unary that produces something binary, but symmetry broken. It takes us into the orthogonal dimension of the complex numbers. This is just like traveling from the three dimensional tetrahedron into the fourth dimension to create the pentahedron. In face we can think of the AND, OR, NOT, NAND and NOR as the moments of a pentahedron that unfolds out of the tetrahedron of logical operators where negation is subsumed. It is the difference between NAND and NOR that are the breakup of the Anamorphic Object that takes us into the fourth dimension from their fusion within the tetrahedron AND/OR// NOT/ANAMORPH. This positions the departure point and the trajectory of the Anagogic Swerve very precisely as a move from the third dimension into the fourth dimension creating a pentahedron out of a tetrahedron. ANAMORPH splits into NAND/NOR, or EMPTINESS/VOID, or Hellerstein/Spencer-Brown's **i** and **j**. This **i** and **j** stands for $x \text{ yet } \sim x$ or $\sim x \text{ yet } x$ which are the limits of the binary distinction in which both are true at once, but differentially and chiasmically.

Once we understand that we are being taken into the higher world of the pentahedron from the tetrahedron then all of what we know about geometry comes into play, like for instance the fact that the pentahedron shares the same symmetry group with the icosahedron/dodecahedron, i.e. A5. This plays a role in our understanding of the relation between quadralectics and pentalectics. Quadralectics is an extension of the series monolectics,

dialectics, trialectics . . . When we read Hegel carefully we see that he deals with all three and even mentions the possibility of quadrality and pentality at one point but associates it with evil. For the most part complementarities are binary. But Plotnitsky in Complementarity posits that there can be multi-way complementarities. But in personal correspondence he could not give any examples of a multi-way complementarity. However, we find in the Octonion triality, which shows that it exists. Also quadrality seems to exist in the Emergent Meta-system cycle. Thus we use quadrality to posit the possibility of multi way X-lectics such as the quadralectic and pentalect. Hegel himself defines the trialectic when he defines Work as the precursor to the advent of the Spirit in the Phenomenology of the Spirit. What is interesting is that there is a tremendous leverage moving from the quadralectic to the pentalectic because of the collapse of the octahedron/dodecahedron into the pentahedron. And so it is very interesting that when we go the other way, down toward the negenary we also run into the transition by symmetry breaking into an image of the pentahedron. And just because the elements of that pentahedron are somewhat evanescent does not mean we lose the leverage that this move implies. In fact we can posit that the logical ground of the move from the quadralectic to the pentalectic, is the move from the four logical elements to the five based on the splitting of the anamorphic object, i.e. the zeroth operator. The zeroth operator is a difference in place, i.e. the place of the operator and the place of the operand. This difference in place allows a foci for the transformation of perspectives. Sometime that place is filled with an actual object, but other times it is either empty or void. But just like in Geometry where we must distinguish between a marked point (1), an empty point (0), and a superimposed point (-1), so to here the object can be either a positive existence, a place that is empty, or an absence that is made present by its continual and poignant absence like the absence of the grieved for dead.

Once we know that there is an anagogic logic

then it is possible to be very precise about the mechanism that the anamorphic object plays a role in. It plays a role in a mechanism that transforms our viewpoint from the three dimensional space to a four dimensional space, and thus from the realm of duality to the nondual. But this is also an opening out into the higher dimensions of the world openness or clearing. We consider the openness of the world to be based on the hyperspheres that appear with the higher dimensions. That is how we can hold together very complex objects such as systems that we build, or theories, or other schematizations. We have the ability to comprehend multi-dimensional objects, in spite of our being trapped in the third dimension. Thus this very ability to go out into a fourth dimensional space from a three dimensional space is key to the exploration of our world itself, because it allows us to change radically from one givenness, facticity, theory, paradigm, episteme,ontos, existence, absolute to another. This realization when it occurs is an emergent event. As David Grove says it is an arising of Emergent Knowledge, a term I believe he got from one of my papers³. We see ourselves narrowly as men of earth, i.e. those that Plato says only believe in what we can hold in our hands, i.e. what can be presented visibly in the three dimensional world. But there is a view of the initiated that there is an invisible realm that we have access to which is beyond the third dimension. Those initiated into the lesser mysteries are those who believe in flux like Heraclitus. Those initiated into the greater mysteries believe in static Being like Parmenides. But the Sophist as Hierophant says that what we really want is Change and Changelessness at the same time like the World soul which Plato discusses in the Timaeus. The Hierophant, the initiator into the mysteries, has a nondual view of change, a view that is itself an anamorphic object which if we can grasp and embody can change our view of the world radically from a dualistic view to a nondual view. That nondual view is

³ Ontological and Knowledge Emergent Engineering of Systems and Meta-systems based on General Schemas Theory. See <http://holonomic.net>

the view from the nowhere of the fourth and higher dimensions tied to the schemas. But this view from nowhere is a view we actually take all the time, and that is why in our tradition we are predominately idealists. We regularly dally with invisibles. That is why the complexity of the world can make sense. Through our schematizations we are able to peer into the higher dimensions and use them to organize our experience. So if we see the Anagogic swerve as taking us into another space within the higher dimensions within which we can get a different viewpoint on the world, then it is the door way into the opening of Emergent Knowledge of the Emergent Event.

The transformation from the logical tetrahedron to the translogical pentahedron is the other side of the coin from the quadralectic and pentalectic. These X-lectics are operators of a complexity including either four or five moments. But at the root of logic, algebra and geometry is where the seeds of their possibility is sown. At that root the three disciplines together define the point of departure and the point of arrival when we leave a point of the tetrahedron and arrive at in a point of the pentahedron through the splitting of the Anamorphic object, i.e. the zeroth operator.

But this also opens up another possibility, which we will explore briefly which is that there is a combination of the quadralectic and the pentalectic here. A pentahedron is composed of five tetrahedrons within a lattice of five points, ten lines, ten surfaces. Thus we can think that there is a logical framework based on the pentahedron for each of the moments of the Quadralectic. This means that the moments of concept, essence, design and perspective each has its own Greimas Square. The tetrahedrons hold together the five points of the pentahedron in different ways that are all interpenetrated. Thus there is a sense in which the pentahedron and the tetrahedron are not different but the same interpenetrated or holoideal object. There is in fact such a tetrahedron for each of the three dimensional spaces and one more which connects them. And this is equivalent to the Quadrate of Quadrates explored by Jung in Aion as the

structure of the Archetypes.