03/23/2020
last update

**FIRST ANALYSIS INSTITUTE
OF INTEGRATIVE STUDIES**
www.integrativestudies.com

F. Oliver Nicklin

**Web Based
Exploratory
Course 101A**

THEORETICALLY DERIVING

THE MATHEMATICALLY DISRUPTIVE ENABLER

(i.e., Mathematically Deriving the Gurdjieff Enneagram)

WHICH EQUATES TO THE EMPIRICALLY DERIVED

DISRUPTIVE ENABLER OF MATTER/ENERGY

(i.e., Identifying the Gurdjieff Enneagram in Matter/Energy)

COURSE 101A's

TABLE OF CONTENTS

Page

Chapter:

I. **Establishing the mathematical framework for approaching the personality types associated with number** **25**

II. **Five's type:** **34**
Abstract mathematical conceiver vs. Self-focused mathematical observer

III. **One's type:** **46**
Applying the mathematical criteria of specificity

IV. **Two's type:** **55**
Relationships of sincere mathematical appreciation vs. Relationships of insincere mathematical flattery

V. **Four's type:** **68**
The art of collectively connecting mathematically vs. The melancholy of mathematical disconnectivity

VI. **Three's type:** **81**
Subtle mathematical enabler vs. Recognized mathematical achiever

VII. **Six's type:** **90**
Open-minded mathematical guidance vs. Closed minded restrictive mathematical guidance

VIII. **Eight's type:** **100**
The mathematical producer vs. The mathematical enforcer

IX. **Nine's type:** **109**
Independent mathematical unifier vs. Anonymous mathematical accommodator

X. **Seven's type:** **119**
The mathematically radiant, inspirational and disruptive planner vs. the mathematically dilettante planner

THE MATHEMATICAL PLAN FOR CONVERGING THE MATHEMATICALLY DISRUPTIVE ENABLER **123**

INCORPORATING THE MATHEMATICAL PLAN FOR ESTABLISHING THE MATHEMATICALLY DISRUPTIVE ENABLER **132**

CALIBRATING THE UNIFIED MATHEMATICAL PLAN **161**

XI. **Identifying the empirically derived disruptive enabler of matter/energy as the building blocks of matter/energy or Identifying the Gurdjieff Enneagram in matter/energy** **172**

A. Equating the labels defining the mathematical plan for the mathematically disruptive enabler driving towards symmetric order to the numerically defined roles of the elementary building blocks of matter/energy **172**

B. Qualitatively comparing the roles of the elementary building blocks of matter/energy with their corresponding numerical types **181**

C. Comparing the quantum physics' perspective to the Mathematical Plans for Establishing and Converging the Mathematically Disruptive Enabler **183**

D. To Summarize **189**

Chapter I

Establishing the mathematical framework for approaching the personality types associated with numbers

Arabic numerals are based on repeating increments of 10, as shown below.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	....							....	30
....									....
91									100

While other numbering systems also can be based on increments of 10, only in the Arabic numbering system can the digits in each multi-digit numeral be added and re-added to form one of nine single-digit numbers. For example, the multiple-digit numeral 10 can be summed to 1+0=1. Similarly, we can sum 11 to 1+1=2, 12 to 1+2=3, and so forth. Moreover, when Arabic numerals are arranged sequentially around a set of concentric circles, the single-digit equivalents of each numeral form a spoke-like pattern, as we see in Figure 1 below.

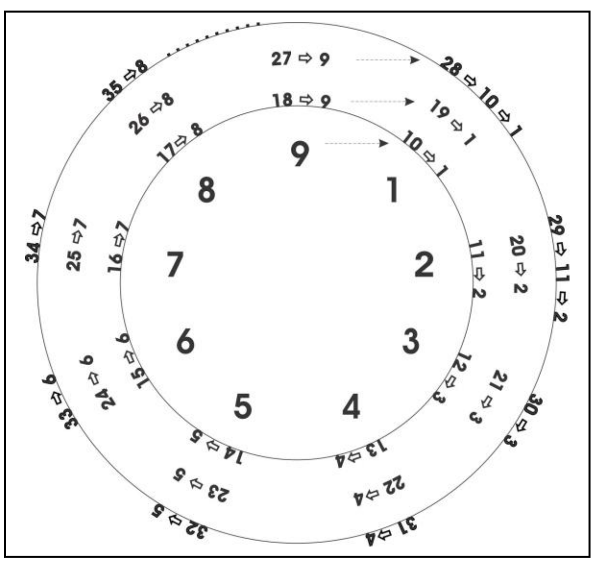


Figure 1. Consecutive Arabic numerals reduce to concentric circle of nine single-digit sums or single-digit equivalents

Any single- or multi-digit Arabic numeral that is based on increments of 10 can be expressed as one of the nine single-digit equivalents (i.e., 1-9) that form the innermost circle in Figure 1 and represented below in Figure 2.

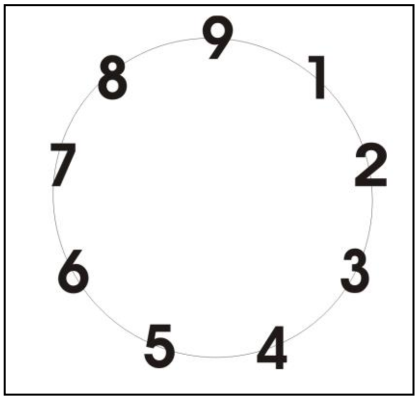


Figure 2. Circle of nine single-digit equivalents, 1-9

GURDJIEFF ALSO CITED THE SAME LOGIC IN JUSTIFYING THE USE OF SINGLE-DIGIT EQUIVALENTS TO REPRESENT ALL MULTI-DIGIT ARABIC NUMERALS IN HIS UNIVERSAL ENNEAGRAM. HE REFERRED TO IT AS THEOSOPHICAL ADDITION.

For consistency's sake, please note all the digits making up the above circular series must be evenly spaced geometrically, since they are evenly spaced numerically (i.e., in increments of 1). The reason for expressing all multi-digit numerals as single-digit equivalents is to take advantage of the casting out nines process, which we explain below.

– **Casting out nines**

We saw above how any Arabic numeral can be re-expressed as one of the single-digit equivalents 1 through 9. Now consider simple arithmetic relationships between two Arabic numerals.[1] It is also possible to re-express arithmetic relationships between any two Arabic numerals as an arithmetic relationship between their single-digit equivalents. Consider the numerals 11 and 34. The single-digit equivalents for these numbers are 2 and 7: 1+1=2 and 3+4=7. Note the arithmetic relationship of addition between our two numerals is 11+34=45. The single-digit equivalent of this sum is 4+5=9. This is exactly the answer from performing the same arithmetic operation – addition – on the single-digit equivalents of our original numbers: 2+7=9. The process of applying arithmetic relationship to the single-digit equivalents draws upon the casting-out nines process and is sometimes taught as a way of checking arithmetic in elementary math classes. Figure 3 provides several examples of the casting out nines process.

[1] We define arithmetic relationships as encompassing addition, subtraction, division, and multiplication.

Multi-digit Arithmetic Relationships	Are Equivalent to:	The Same Arithmetic Relationships Using Equivalent Single-Digit Sums
49 +11 60		4 + 9 = 13 -> 1 + 3 = 4 1 + 1 = +2 6 + 0 = 6
49 - 11 38		4 + 9 = 13 -> 1 + 3 =4 1 + 1 = -2 3 + 8 = 11 -> 1 + 1 = 2
49 11)539		4 + 9 = 13 -> 1 + 3 =4 1 + 1 = 2) 5 + 3 + 9 = 17 -> 1 + 7 = 8
49 x 11 539		4 + 9 = 13 -> 1 + 3 =4 1 + 1 = x2 5 + 3 + 9 = 17 -> 1 + 7 =8

Figure 3. Examples of the casting out nines process

While simple arithmetic relationship involving addition, subtraction and multiplication between multi-digit numerals can be expressed in terms of the same arithmetic relationships between their single-digit equivalents (1-9), only a limited portion of the arithmetic relationships involving division can be similarly expressed. Whenever the division process produces answers of non-terminating decimals which in turn can only be expressed as constantly changing (not an ultimate) single-digit equivalent(s), the casting out nines process does not work and will be addressed in depth in Chapter IV[2]. Notwithstanding these restrictions, all of the possible combinations of the nine single-digit equivalents can be represented by lines connecting any two of the nine digits of Figure 2, as shown in Figure 4(a-f) below.

[2] Also, there are limitations on using 3, 6 and 9 as single-digit equivalent divisors (see Section VI-C, VII-C and IX-D, as well as footnotes 7 and 17).

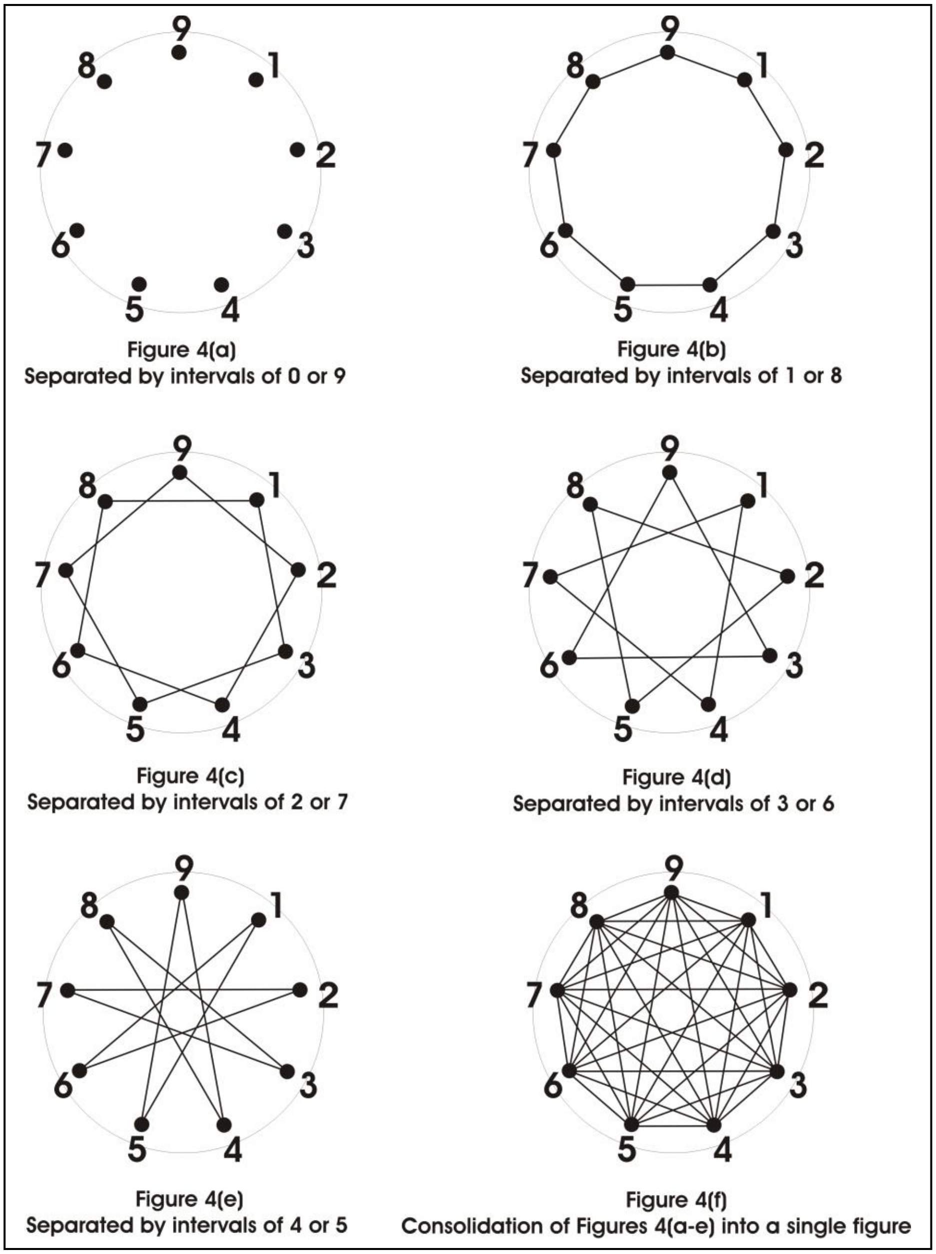


Figure 4(a)
Separated by intervals of 0 or 9

Figure 4(b)
Separated by intervals of 1 or 8

Figure 4(c)
Separated by intervals of 2 or 7

Figure 4(d)
Separated by intervals of 3 or 6

Figure 4(e)
Separated by intervals of 4 or 5

Figure 4(f)
Consolidation of Figures 4(a-e) into a single figure

Figure 4(a-f). All of the possible permutations for arithmetically relating the nine single-digit equivalents 1-9

The connecting lines of Figure 4(a-f) can represent the addition, subtraction, division and/or multiplication between any two of the single-digits making up Figure 2. In the case of subtraction or division -- where the answer depends on the direction of the arithmetic relationship -- the connecting lines should be viewed as directionally specific.

It is also important to note all of the possible permutations or combinations for adding, subtracting, dividing and multiplying any two of the nine single-digits in Figure 2 or 4 can be shown to produce an average sum of 1, average difference of 7, average quotient of 2 and average product of 4, as shown below in Figures 5, 6, 7 and 8, respectively.

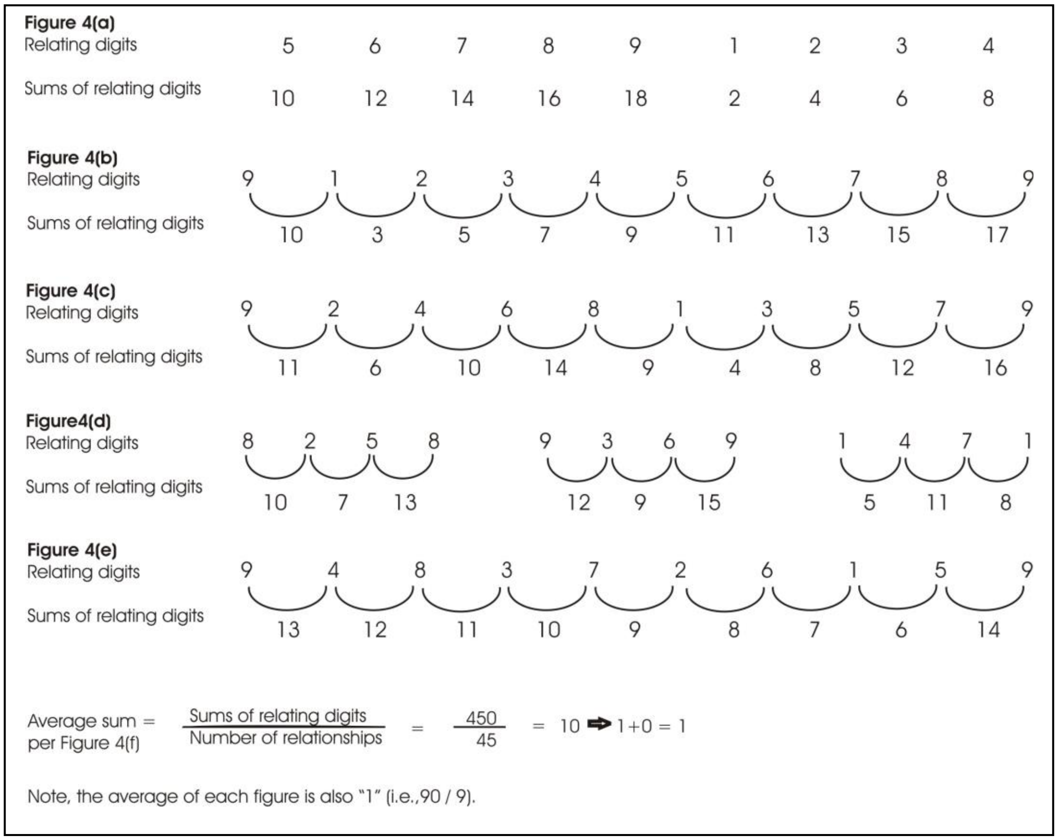


Figure 5. Average sum of 1 from adding the relating digits in Figure 4(a-f)

Figure 5 repeats Figure 14 from Chapter III which addresses the addition process and the derivation of the above figure.

Note, the first digits in the above five sequences did not have to be 5, 9, 9, 8 and 9, respectively; they could begin with any of the nine digits.

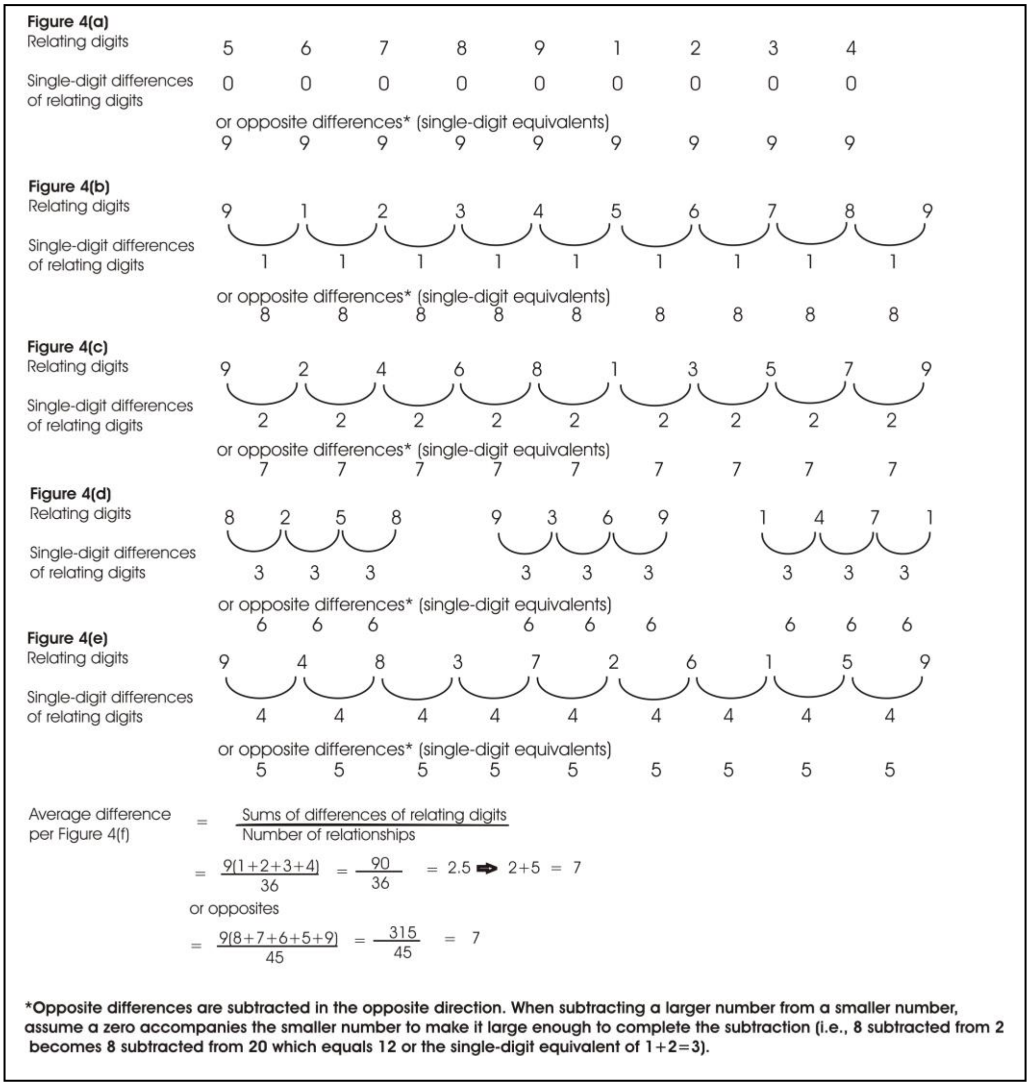


Figure 6. Average difference of 7 from subtracting the relating digits in Figure 4(a-f)

Figure 6 repeats Figure 52 from Chapter X which addresses the subtraction process and the derivation of the above figure.

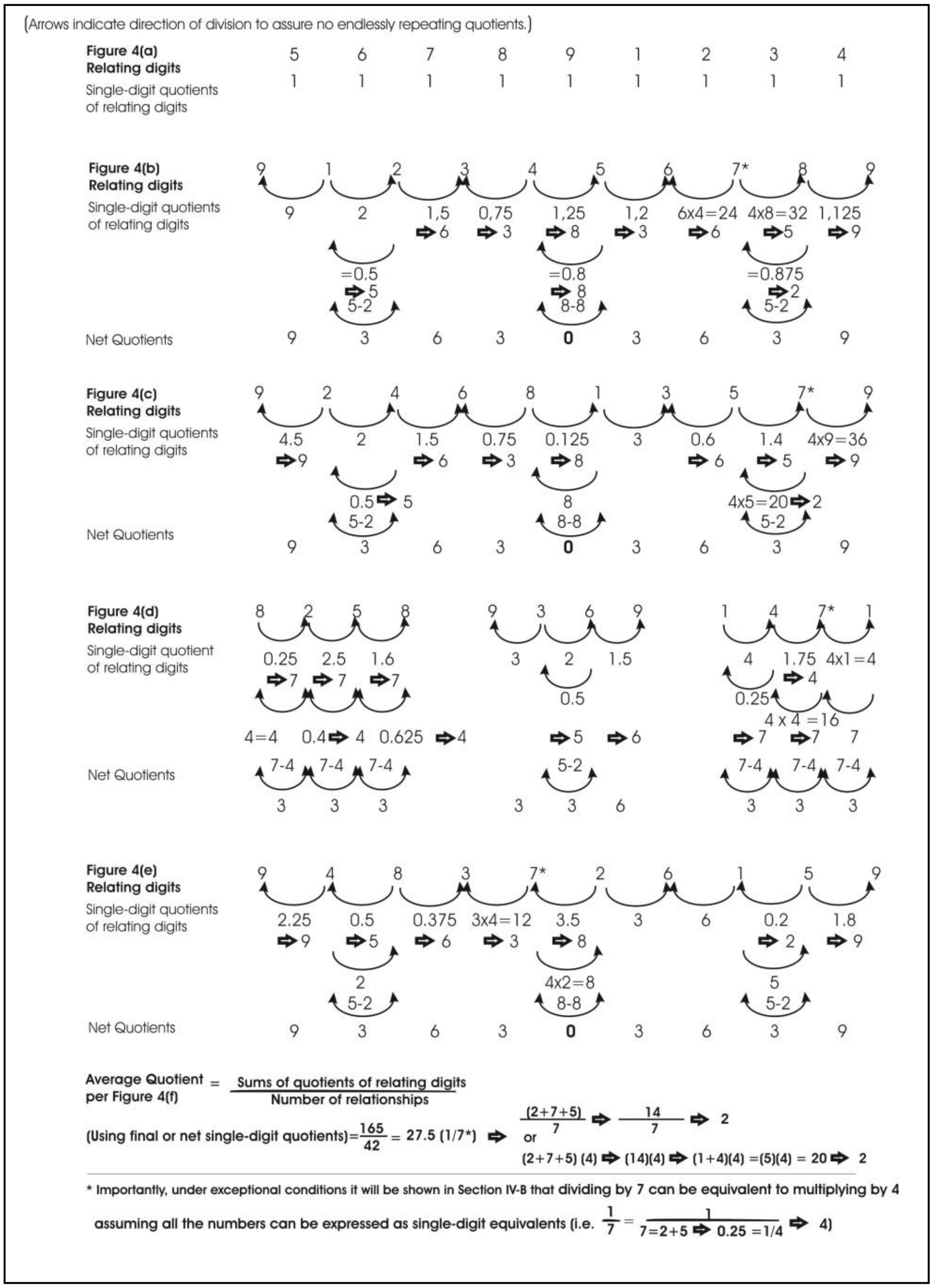


Figure 7. Average quotient of 2 from dividing the relating digits in Figure 4(a-f)

Figure 7 repeats Figure 17 from Chapter IV which addresses the division process and the derivation of the above figure.

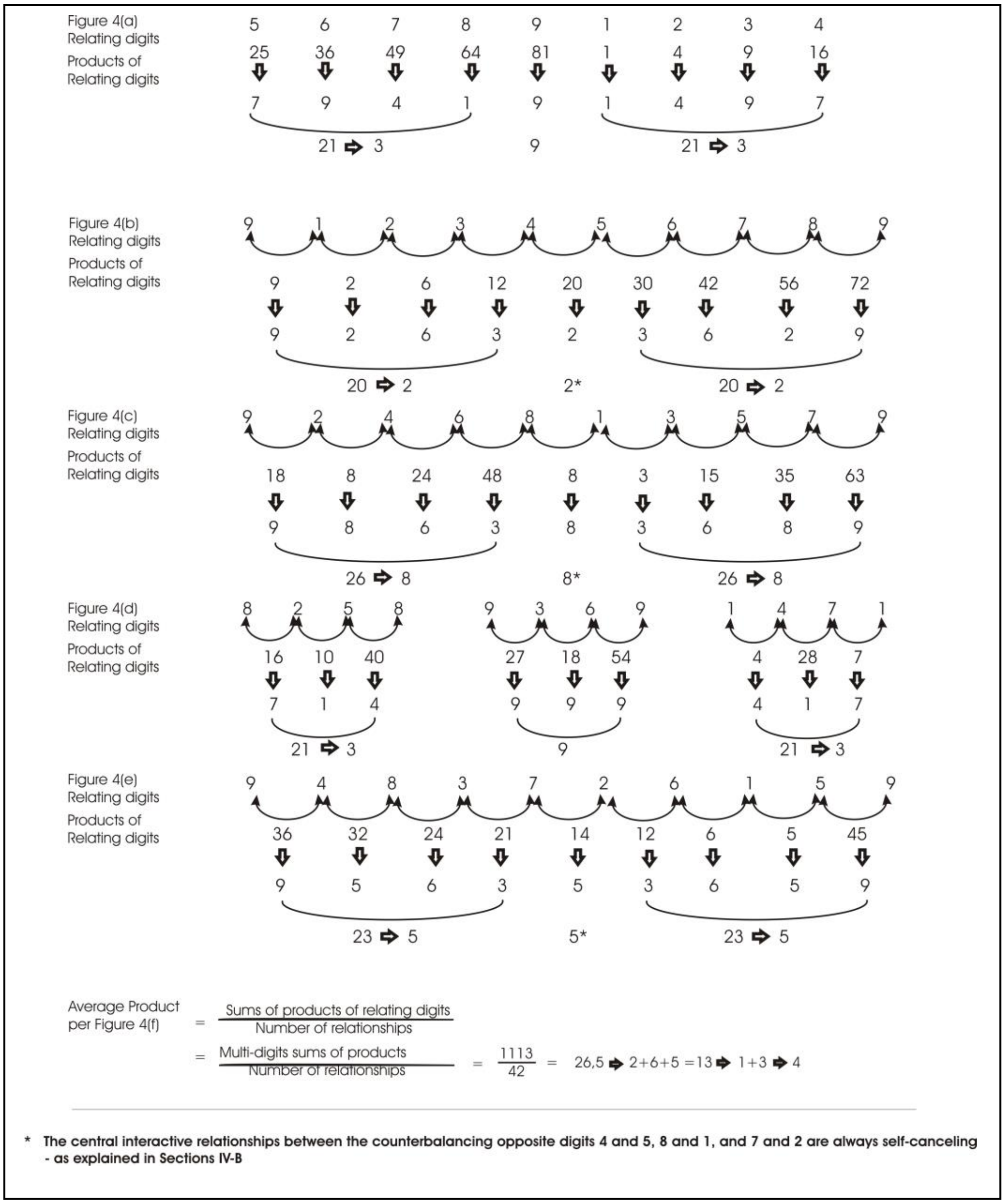


Figure 8. Average product of 4 from multiplying the relating digits in Figure 4(a-f)

Figure 8 repeats Figure 20 from Chapter V which addresses the multiplication process and the derivation of the above figure.

Because of the above average sum, difference, quotient and product, we say that the addition process is characterized by 1, the subtraction process by 7, the division process[3] by 2, and the multiplication process by 4. Since 1, 7, 2 and 4 characterize the addition, subtraction, division and multiplication processes for arithmetically relating the nine single-digits 1-9, these single-digit equivalents can be viewed as characterizing these processes.

Because these single-digit equivalents characterize the most basic ways in which numbers relate, or don't relate, to one another, they can be viewed as numerical personality types similar to human personality types characterizing the way people relate. Accordingly, the derivations of these numerical personality types in the following chapters incorporate human psychological terminology.

While 1, 7, 4 and 2 are shown above to represent the average of the simple arithmetic relationships between all possible pairs of the nine digits, the number 5 represents the average of the individual, stand-alone digits shown in Figure 4 (i.e. 1+2+3+4+5+6+7+8+9 = 45/9=5). Just as 1,7,4 and 2 became associated with the types characterizing addition, subtraction, multiplication and division, so too does 5 become associated with the type characterizing the stand-alone digits.

Each of the following nine chapters addresses one of the nine numerical personality types 1-9. However, these nine types are not addressed in the consecutive sequence of 1 through 9; but are instead sequenced to facilitate explaining the associated type of each individual number.

Importantly, each chapter addresses its respective numerical type in two contexts. In the first context, each of the nine numerals is seen as having a very specific identity as determined by its place in the order of the consecutively sequenced Arabic numerals 1-9. In the second context, all of the nine numerals are seen as randomly interchangeable without any regard for their specific identity. In other words, each numeral is seen as nothing more than a non-specific proxy for all the other numerals. The first context reflects the basic or natural order of the Arabic numbering system, while the second context reflects the basic randomness of the Arabic numbering system.

In contrasting these two contexts, we assume that entropy rules as indicated by the universal Second Law of Thermodynamics. As a result, an endless struggle will characterize any effort associated with the context of order in overcoming a natural tendency towards the context of randomness which is a key unifying premise of this entire Trilogy of Courses.

[3] Importantly, in the case of subtraction and division, as shown in Figure 6 and 7, the averages include all the directionally specific permutations referred to above.

Chapter II

Five's type:

Abstract mathematical conceiver vs. Self-focused mathematical observer

A. Background

As discussed above, the numeral 5 represents the average of the individual, stand-alone digits in Figure 4(a-f) (i.e., 1 + 2 + 3 +4 + 5 + 6 + 7 + 8 + 9 = 45/9 = 5). Because this fact is independent of the averages of the arithmetic relationships between these individual digits, the role of 5 can be portrayed without illustrating the connecting lines that represent the arithmetic relationships, as shown below in Figure 9. **Noteworthy, of the nine digits 1-9, 5 is the only one that can be represented in the detached or stand-alone role. All the others must be presented in relationship roles with the other digits, as described in the next eight chapters.**

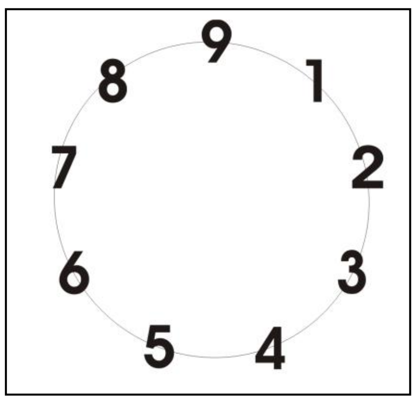


Figure 9. Circle of the nine individual, non-relating digits 1-9

B. 5's type in the context of symmetric order

While 5 is the average value of all the individual digits in the above Figure 9, it is also important to note the average value of all the individual digits in Figure 9 can be represented in another way. That is to say, the average value (expressed as a single-digit equivalent) of the digits making up any single pair of digits in Figure 9 is equal to the central digit spatially between or bisecting those two respective digits. This is even true for any two adjacent digits in that the central digit spatially between or bisecting the adjacent pair is directly across on the opposite side of the circle's circumference. For example, in Figure 9 the digit 4 is spatially between or bisecting the 3 and 5 digits, the 2 and 6 digits, the 1 and 7 digits, and the 8 and 9 digits. Each of these pairs sums to a single-digit equivalent of 8.[4] Also, if the same-digit 4 is viewed as a pair of the 4 and 4 digits, the digit 4 is again the spatial bisector. Accordingly, 4 represents the average value (i.e. 8/2=4) of the digits making up all these pairs which are spatially bisected by 4.

As another example from Figure 9, let's consider the 7 digit, which is spatially between or bisecting 6 and 8, 5 and 9, 4 and 1, and 3 and 2. The 7 digit can also be viewed as spatially bisecting itself (i.e., 7 and 7). Each pair sums to a single-digit equivalent of 5 in that 6+8=14 => 1+4=5, 5+9=14 => 1+4=5, 3+2=5, and 7+7=14 => 1+4=5.

Thus, every individual digit in Figure 9 can represent the average value of all the digits in Figure 9 if all the digits are viewed as pairs bisected by the digit representing the average value. Said another way, every digit in Figure 9 can be viewed as a "spatial or symmetric bisector" of all the digits in Figure 9. Moreover, since 5 or 5's type ultimately characterizes the average of all the individual digits in Figure 9 regardless of how they are spatially arranged, 5's type would also incorporate characterizing the above abstract concept that every digit in Figure 9 can represent the average value of all the digits if all the digits are spatially arranged as symmetrically bisectable pairs.

Further, because of the symmetrical way in which each digit can be seen as spatially bisecting the five pairs of digits making up Figure 9, the abstract concept of spatial symmetry or symmetric order has been introduced. Since, as we saw above, 5's type characterizes the concept that each digit can be viewed as spatially bisecting the five pairs of digits making up Figure 9, 5's type must also incorporate characterizing the abstract mathematical concept of spatial symmetry or symmetric order embodied in Figure 9.

Expressed in more general terms, this abstract mathematical concept of spatial symmetry or symmetric order exists in a configuration of the nine digits 1-9 if the average value (expressed as a single-digit equivalent) of the digits making up every possible pair of digits is equal to the central digit spatially bisecting them. Further, the conditions allowing spatial symmetric order to exist, require that the nine digits 1-9 must be consecutively sequenced, as shown on the circle in Figure 9. It is comforting to note that these requirements for symmetry are independently re-enforced by the first theorem of the influential mathematian Emmy Noether (1882-1935) which states that every type of differentiated physical (e.g., graphical in this case) symmetry has a corresponding conservation law. In sum, the circular presentation of Figure 9 can be referred to as the circle of symmetric order where the abstract mathematical concept underlying the spatial symmetric order is characterized by 5's type.

Important for future discussion, if the average value (expressed as a single-digit equivalent) of the digits making up a pair of digits is equal to 9 (i.e., bisected by 9), the pair of digits is referred to as counterbalancing, because 9's type characterizes the mathematically unifying totality encompassing all the types as will be discussed in Chapter IX. **THE GURDJIEFF ENNEAGRAM ALSO EMBRACED THIS CONCEPT OF COUNTERBALANCING OPPOSITES.**

[4] In the case of 8 and 9, 8+9=17 --> 1+7=8.

When contrasting the abstract mathematical concept of symmetric order described above with conventional perceptions of perfect symmetry, the latter would involve the pairing of identical digits (i.e., the same digit), while the former involves the pairing of digits on the consecutively sequential circle in Figure 9 or the circle of symmetric order. However, as discussed above, a subset of the circle of symmetric order includes same-digit symmetry which occurs when any digit on the symmetric circle is viewed as being paired only with itself, as depicted in Figure 4(a). In this case the bisecting digit is also the digit being paired with itself. Since Figure 4(a) is effectively the circle of symmetric order shown in Figure 9, same-digit symmetry can be viewed as the most elementary or simplest conceptual expression of the digital specificity that makes up the circle of symmetric order. Thus, another way to convey this abstract mathematical concept of same-digit symmetry is to simply repeat the circle of symmetric order.

SINCE, SAME-DIGIT SYMMETRY CAN BE VIEWED AS THE MOST ELEMENTARY OR SIMPLEST EXPRESSION OF THE ABSTRACT MATHEMATICAL CONCEPT OF SYMMETRIC ORDER, AS CHARACTERIZED BY 5'S TYPE, SAME-DIGIT SYMMETRY CAN SERVE AS THE CONCEPTUAL BASIS FOR INTRODUCING SYMMETRIC ORDER. BECAUSE OF THIS FOUNDATIONAL ROLE, DISCUSSIONS ON SAME-DIGIT SYMMETRY ARE PRESENTED IN GREEN PRINT THROUGHOUT THIS TRILOGY OF COURSES.

However, keep in mind that type 5's characterization of the abstract mathematical conceptualization of symmetric order is not limited to same-digit symmetry, but also includes all the possible permutations for symmetric order represented by the circle of symmetric order in Figure 9.

C. Allegorical reflections of 5's type in the context of symmetric order

This Trilogy's allegorical reflections of the personality types have generally been drawn from The Book of Revelation where they are used to convey and preserve the Book's very complicated message, as interpreted in Course 101C.

– **Maternal metaphors**

Since 5's type characterizes the mathematical conceptualization or the beginning of consciousness for symmetric order, a group of useful metaphors reflecting it are the mythological mother symbols because of the mother's role in conceiving and nurturing new life. Also, since 5's type characterizes the conceptualization process from which all other types will be shown to arise or originate, a diversity of maternal metaphors is required. This diversity of maternal metaphors, as outlined below, provides for a sufficient range of child metaphors so that all of the other types will be represented by at least one of these child metaphors.

Some of the classic maternal symbols that provide for the required range of child metaphors include:

- Nature as the ultimate mother of all that comes from the natural world.
- The earth as the ultimate mother of all that comes from the earth. Heaven as the mother of all that can come from heaven.
- Trees as the mother of fruit and leaves, where the ultimate tree metaphor is the

Biblical tree of life.

- Candlesticks or lampstands as the mother of light.

- Vials, vessels, bowls or cups as the mother serving up their symbolic contents, such as wrath or praise.

- Mouth/tongue of a prophet or witness as the conceiving source of knowledge that will significantly impact society. (i.e., analogize to a mouth that roars like a lion or a tongue like a sword).

- Creation metaphors symbolizing the mother of creation.

- Cities as having a feminine gender – for example, cities with a formal civic and cultural connections are referred to as "sister cities". The city as a mother metaphor is particularly appropriate when conveying the idea of children of many backgrounds, which would be represented by the population of a city with racial, ethnic, social, and lifestyle diversity.

Child metaphors will be developed in the subsequent discussions of each type. Also, the mother metaphor can possibly capitalize on the general perception that women are more intuitive, given that the non-redundant emphasis of 5's type intuitively supports the high side of symmetric order as described in the previous two sections (II-C and D).

ADDITIONALLY, THESE MATERNAL METAPHORS CAN REPRESENT THE BASIC SAME-DIGIT SYMMETRY, DISCUSSED AT THE END OF SECTION II-B, BY SIMPLY BEING REPEATED OR DOUBLED (I.E., TWO TREES, TWO CANDLESTICKS, AND TWO EDGES OF THE SWORD / TONGUE) IF THE METAPHORS ARE REVERSIBLE. FOR EXAMPLE, THE DOUBLE-EDGED SWORD MUST APPEAR THE SAME FROM EITHER SIDE. ALSO, REPRESENTATIONS OF SAME-DIGIT SYMMETRY ARE NOT LIMITED TO REPEATING THE METAPHORS FOR 5'S TYPE, BUT CAN INVOLVE THE REPETITION OF METAPHORS FOR EACH OF THE NINE TYPES, AS WILL BE SHOWN THROUGHOUT THIS TRILOGY OF COURSES.

– **Head metaphors**

Since conceptualizing is a brain / head function, as opposed to a heart / feeling function or a physical / body function, head metaphors can represent 5's type.

D. 5's type in the context of randomness

When symmetric order does not exist, each of the nine-digit positions shown in Figure 9 does not have to represent the identity of the one specific digit that fits consecutively into the 1-9 sequence as the "spatial or symmetric bisector". Instead, it is free to represent any of the nine digits 1-9. In other words, when symmetric order does not exist, each of the nine-digit positions shown in Figure 9 serves as a proxy for all nine digits 1-9. This means that any of the nine digits 1-9 can be randomly interchangeable at each of the nine-digit positions shown in Figure 9. When symmetric order does not exist, we refer to the situation or context as randomness because each digit position becomes a random proxy for all nine digits 1-9.

Since we earlier saw that 5 is the average value of the digits 1-9, the nine digits on the circle of Figure 9 represent a single average of 5 when viewed in the context of symmetric order, where each digit represents a single sequential identity. On the other hand, when viewed in the context of randomness, each of the nine-digit positions on the circle of Figure 9 serve as a random proxy for all nine digits 1-9. This means there is an equal probability that any one of the nine digits 1-9 is represented by each of the nine-digit positions of Figure 9. As a result, each of the nine-digit positions of Figure 9 must represent a single average of 5 or, all together, nine **redundant** averages of 5 in context of randomness. Again, in the context of symmetric order, where each digit represents a specific number, and is not a proxy for all nine digits, the nine digits on the circle of Figure 9 can be represented only by the single or **non-redundant** average of 5.

While symmetric order was presented as a purely abstract mathematical concept, randomness is simply the mathematically observable universe of randomly interchangeable digits. Therefore, the non-redundant emphasis of 5's type can be viewed as characterizing the mathematical concept or conceptualization of symmetric order; whereas, the redundant emphasis of 5's type can be viewed as characterizing simply the mathematical observation of randomness. However, since both characterize the initiation of their respective contexts, 5's type is the first type discussed in this course. Also, both "conceptualizing" and "observing" represent detached perspectives consisted the general characterization of 5's type presented in Section A above.

While the circular presentation of Figure 9 is the only way the sequential aspect or specificity of spatial symmetric order can be graphically represented, Figure 9 is not appropriate - and can even be misleading - to graphically present the non-specificity of randomness, where all the digits are randomly interchangeable. In other words, Figure 9 represents the best way of graphically presenting the non-redundant averaging of the nine digits 1-9 characterized by the non-redundant emphasis of 5's type. However, Figure 9 needs to be modified (as outlined in detail below) before it can best graphically represent the redundant averaging of the nine digits 1-9 characterized by the redundantly emphasized version of 5's type.

We can modify Figure 9's perspective to only represent the redundant emphasis of 5's type by presenting only the five symmetrical pairs from Figure 9 that are bisected by the digit 5. Each of these five pairs can be viewed as a three-digit sequence when incorporating 5 as the central bisecting digit, as shown below in Figure 10. Each of these three-digit sequences sums to 15 in order to assure that only 5 is emphasized as the average same-digit value.

5	5	5	=	15	➡	15 / 3 = 5
4	5	6	=	15	➡	15 / 3 = 5
3	5	7	=	15	➡	15 / 3 = 5
2	5	8	=	15	➡	15 / 3 = 5
1	5	9	=	15	➡	15 / 3 = 5

Figure 10. The five symmetrical pairs that are bisected by the number 5 from Figure 9

Because all five of the above three-digit sequences (or bisected pairs) share 5 as the digit in the bisecting central position, they can be most efficiently presented by the three-digit-by-three-digit square matrix shown in Figure 11, which is built around 5 as the bisecting central digit. Importantly, in forming this square matrix, the 8 and 2 positions must be reversed to maintain the average digit value of 5 when calculated in every possible vertical, horizontal and diagonal direction, as illustrated below. Given that each position represents a random proxy for all nine digits, the reversal of positions does not have to change the designated role of these respective positions. **Further background on the selection of the 2 and 8 positions for the reversal is presented in Sections IV-C and VIII-A and D which discuss mathematically identifying and producing disruptive change as characterized by 2's and 8's types, respectively.**

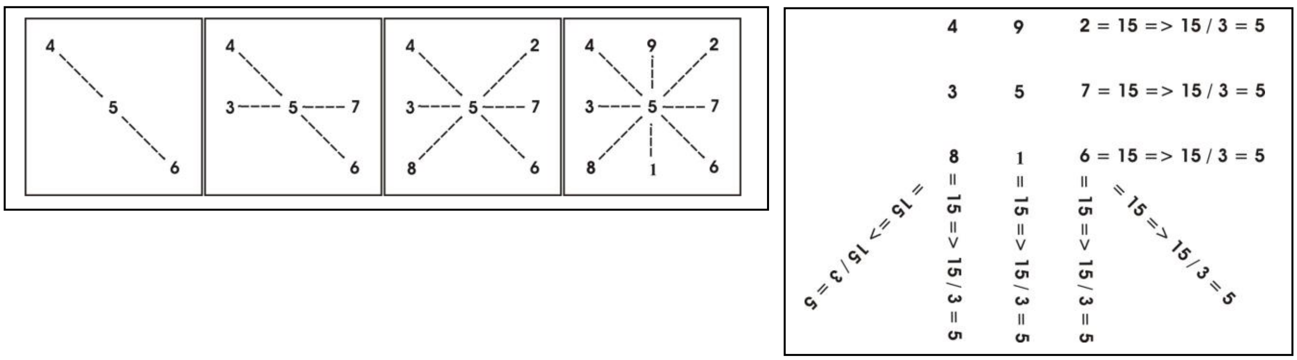


Figure 11. Three digit-by-three-digit square matrix spatially built around 5 as the bisecting central digit

The average value of 5 carried by each of the nine digital positions in Figure 11 is redundantly generated in three different ways that incorporate horizontal averages, vertical averages, and diagonal averages. This contrasts with the average value of 5 carried by each of the nine digits in Figure 9, which are generated in only one way - i.e. non-redundantly – by a circular average. Appropriately then, Figure 11 represents the redundant emphasis of 5's type and Figure 9 represents the non-redundant emphasis of 5's type. Since Figure 11 represents the redundant emphasis of 5's type, 5's central position in the square matrix is appropriate. Also, since, as we saw above, the redundant emphasis of 5's type characterizes randomness, Figure 11 can serve as a model for (or represent) randomness.

Figure 11's only actual deviation from the spatial symmetry laid out in Figure 9 is the reversal of the 8 and 2 positions. When this 8 and 2 reversal is translated back to the context of Figure 9, the spatial symmetry of bisected pairs involving 8 and 2 (but not involving 5 as the bisecting digit) is destroyed. To illustrate this point, take the earlier example of the digit 4 which was spatially between or bisecting the 4 and 4 digit, the 3 and 5 digits, the 2 and 6 digits, the 1 and 7 digits, and the 8 and 9 digits of Figure 9. Each of these pairs summed to a single-digit equivalent of 8. However, after the 8 and 2 reversal of Figure 11, the 2 and 6 or the 8 and 9 pairs of digits become the 8 and 6 or 2 and 9 pairs of digits, respectively, which do not sum to a single-digit equivalent of 8, and thus 4 cannot any longer serve as a spatial or symmetric bisector. As a result of this reversal, Figure 11, unlike Figure 9, cannot serve as a model of spatial symmetry.

In other words, in Figure 9's circle of symmetric order each digital position must maintain the specificity of serving as a spatial or symmetric bisector for all nine digits. On the other hand, in Figure 11's square of randomness each digital position must maintain the complete flexibility of serving as a random proxy for all nine digits.

Since Figure 9 and 11 represent symmetric order and randomness, respectively, we will henceforth refer to, the circular configuration of Figure 9 as the circle of symmetric order and the square configuration of Figure 11 as the square of randomness. Both are presented as such in Figure 12(a) and 12(b) below.

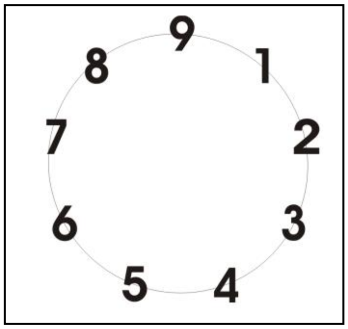


Figure 12(a). Circle of symmetric order

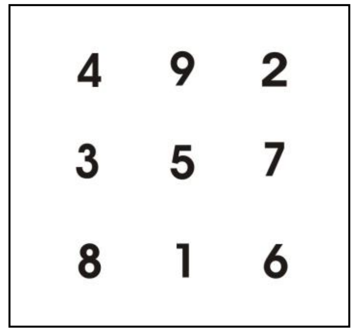


Figure 12(b). Square of randomness[5]

Below, we further explore the differences between the circle of symmetric order and the square of randomness by contrasting Figure 12(a) and 12(b).

- Since each of the nine digital positions in the square of randomness in Figure 12(b) represent an average of 5, each of the nine digital positions serves as a random proxy for all nine digits 1-9. This means there is an equal probability that any one of the nine digits 1-9 can be represented by each of the nine digital positions making up the square of randomness. On the other hand, since each of the nine digital positions in the circle of symmetric order in Figure 12(a) represents the specific sequential identity of each of the nine digits 1-9, the circle of symmetric order can serve as the basis for modeling the complete specificity of symmetric order.

- Since each of the nine digital positions in the square of randomness in Figure 12(b) represents the multiple averaging of all nine digits 1-9, the square of randomness can be said to be characterized by the redundant averaging of all nine digits 1-9. On the other hand, since the nine digital positions in the circle of symmetric order in Figure 12(a) collectively represent only a single circular averaging of all nine digits 1-9, the circle of symmetric order can be said to be characterized by the non-redundant averaging of all nine digits 1-9.

- Since the average of all nine digits 1-9 is 5, the square of randomness can be said to characterize the redundant emphasis of 5's type and the circle of symmetric order can be said to characterize the non-redundant emphasis of 5's type. As mentioned earlier, the redundant emphasis of 5’s type characterizes mathematically observing randomness, while the non-redundant emphasis of 5’s type characterizes the abstract mathematical conceptualization of symmetric order or spatial symmetry.

- Because of the sequential specificity associated with the circle of symmetric order, each digit position serves as a spatial symmetric bisector for all nine digits. Because of the complete flexibility associated with the square of randomness, each digit position serves

[5] This square of randomness is referred to as the magical square in ancient Chinese literature and the mystical square in Islamic literature.

as a random proxy for all nine digits.

- **Because 5 represents the central focus of the square of randomness from both the numerical and graphical viewpoints (see Figure 11), 5's type focuses on itself. Moreover, this self-focus on 5 is further intensified since 5's type characterizes every position in the square of randomness (again see Figure 11). On the other hand, in the circle of symmetric order (see Figure 12a) 5's type represents another one of the nine types with no special self-focus.**

- Symmetric order is indeed unforgiving in that it only took the reversal of the 8 and 2 positions in Figure 9 to degenerate into the randomness of Figure 11 or 12(b). On the other hand, the square of randomness is uniquely well suited to graphically represent the minimum disorder required to establish randomness. That is to say, the square of randomness in Figure 11 or 12(b) is the only arrangement where, after making the minimal disorder reversal, all the digital positions can completely represent averages of 5 regardless of how the averages are calculated.

- **IMPORTANTLY, the circle of symmetric order provides for only one permutation to represent symmetric order and thus would allow for no change after being attained. The square of randomness provides for unlimited permutations to represent randomness and thus allows for unlimited change.**

- **According to the universal Second Law of Thermodynamics there is the natural propensity over time towards randomness (i.e., that entropy rules). The application of this law to the numerical universe implies that the attainment of symmetric order requires overcoming the natural propensity over time toward randomness. In this context, symmetric order and randomness could be viewed as opposing mathematical camps in a battle where the high side of symmetric order must struggle to overcome the natural propensity over time toward the low side of randomness. Thus, any moment back towards symmetry is highly disruptive and requires extraordinary efforts. Similarly, Guedjieff saw two major forces underlying the universe, namely, the movement from the higher state of complexity to the lower state of complexity; and, then a disruptive movement back towards less complexity or more simplicity.**

- Reaching the purely abstract generalized conclusion that in the context of symmetric order, every possible pair of digits must be symmetrically bisectable (as discussed at the beginning of this section), draws more on intuitive reasoning. On the other hand, reaching the observable specialized conclusion that in the context of randomness, all digit positions represent randomly interchangeable digits, draws more on non-intuitive empirical reasoning.

- **Since the non-redundantly and redundantly emphasized versions of 5's type characterize mathematically conceptualizing and observing, respectively; and, since conceptualizing and observing represent less active involvement or even detachment, both versions of 5’s type can be viewed as characterizing non-involvement or detachment. This characterization is further re-enforced by 5 being the only digit of the nine digits (1-9) that is represented in a detached or stand-alone role (as explained in Section II-A above). All the others must be represented in relationship roles with the other digits, as discussed in the next eight chapters.**

E. Allegorical reflections of 5’s type in the context of randomness

- **Maternal reflections**

Since 5's type in the context of randomness characterizes corrupting the mathematical conceptualization of symmetric order into becoming the mathematical observation of randomness, the earlier metaphors for 5’s type in the context of symmetric order must be correspondingly corrupted in the context of randomness. Thus, the specificity underlying the metaphorical maternal relationships presented in Section C above become corrupted to the point of representing the non-specificity underlying abusive sexual relationships. Likewise, the supportive and nurturing maternal role becomes inwardly self-focused or exploitive.

- **Head metaphors**

The single conceptualizing head metaphor from Section C becomes multiple observing heads to convey the redundant aspect of 5’s type in the context of randomness.

F. Summarizing 5's type:

- **Both the non-redundantly and redundantly emphasized versions of 5's type characterize a non-involvement or detachment not found in the characterizations of the other types.**

- **When not redundantly emphasized, 5's type characterizes the intuitive abstract mathematical conceptualization of symmetric order. In the context of symmetric order, 5’s type is not focused inwardly on itself.**

- **When redundantly emphasized, 5's type characterizes the non-intuitive mathematical observation of randomness. In the context of randomness, 5’s type focuses inwardly on itself.**

- **The high side of symmetric order and the low side of randomness are sufficiently different to represent mutually exclusive or opposing contexts. We assume entropy rules, meaning it is easier to be random than it is to be symmetrically ordered. Thus, establishing the high side of symmetric order requires struggling to overcome the low side of randomness.**

- **In comparing this numerically derived type 5 with the Personality Enneagram’s type 5 presented in Course 101C, the Enneagram’s type 5 is summarized as a detached, non-involved, withdrawn or isolated observer or investigator. This retentive tendency towards self-withdrawal extends to the type 5 withholding or hoarding his material possessions, knowledge, energy and even his emotions. Accordingly, the Personality Enneagram's type 5 is very similar to the numerical type 5 in the context of randomness.**

- **A group of metaphors that work well for 5’s type incorporates the universal maternal theme. The mother’s role in conceiving new life is analogized to mathematically conceptualizing symmetric order. Likewise, corrupting the maternal role is analogized to corrupting the conceptualization of symmetric order into only observing randomness.**

– **Since the following unique technical terms have been thus far introduced and will reappear frequently, they are defined below.**

- **Spatial symmetry or symmetrical order** exists in a system of the nine digits 1-9 if they are viewed as having specific identities that are determined by their consecutive sequential order. Because of this consecutive sequential order, the average value (expressed as a single-digit equivalent) of the digits making up every possible pair is equal to the central digit spatially bisecting them. Said another way, symmetric order exists when every digit can be viewed as a "spatial symmetric bisector" of all the digits.

- **The circle of symmetric order**, as presented below in Figure 13(a), is the most efficient way that the above described consecutive sequential specificity of symmetric order can be graphically represented.

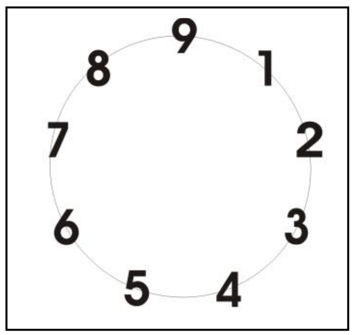


Figure 13(a). Circle of symmetric order

- **Numerical types** characterize the most basic ways in which numbers relate, or don't relate, to one another.

- **Same-digit symmetry occurs when any digit on the symmetric circle is viewed as being paired only with itself which also means that the bisecting digit is also the digit being paired with itself. Accordingly, it is the most elementary expression of the abstract concept of symmetric order, as characterized by 5's type. Also, same-digit symmetry can be viewed as the most fundamental expression of the digital specificity that makes up the circle of symmetric order.**

- **Randomness** exists in a system of the nine digits 1-9 if each digital position serves as a random proxy for all nine digits. This means that there is an equal probability that any one of the nine digits 1-9 is represented by each of the nine digital positions.

- **The square of randomness**, as presented below in Figure 13(b), is the most efficient way that the above described randomness can be graphically represented so that each digit's position can represent a random proxy for all nine digits.

4	9	2
3	5	7
8	1	6

Figure 13(b). Square of randomness

- **Symmetric order vs. Randomness –** the high side of symmetric order and the low side of randomness are sufficiently different to represent mutually exclusive or opposing mathematical frameworks. We assume that entropy rules, meaning it is easier to be random than it is to be symmetrically ordered. Thus, to establish the high side of symmetric order requires a struggle to overcome the low side of asymmetric randomness.

- **Redundant vs. non-redundant emphases of the types** means that the features characterizing the types either are redundantly or repetitively emphasized, or they are not.

> **IMPORTANTLY, as we will demonstrate, the four types that are redundantly emphasized in the context of randomness (i.e., 5, 6, 2 and 8) are not redundantly emphasized in the context of symmetric order. Likewise, the four types that are redundantly emphasized in the context of symmetric order (i.e., 1, 4, 3 and 7) are not redundantly emphasized in the context of randomness, as shown in Figure 13(c) below.**

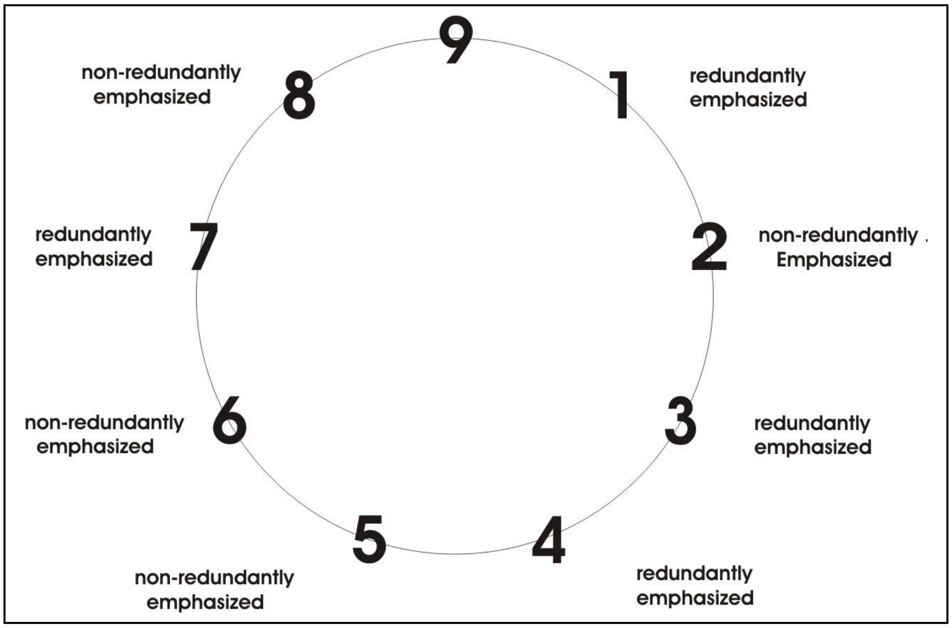


Figure 13(c). Presenting the redundant and non-redundant types on the circle of symmetric order as counterbalancing opposites

Chapter III

One's type:

Applying the mathematical criteria of specificity

A. Background

In exploring 5's type, the addition process was utilized to derive the isolated same-digit average for 5's type. Likewise, to derive the type that characterizes the actual addition process itself, we relate all possible combinations of two Arabic digits using addition, the average of which we see to be 1 in Figure 14 below. In other words, 1's type characterizes the actual addition process for relating all the possible pairs of Arabic digits, which are also the endpoints of every connecting line within the circle of symmetric order portrayed in Figure 4(a-f). Each connecting line can be viewed as representing an arithmetic relationship between a pair of digits.

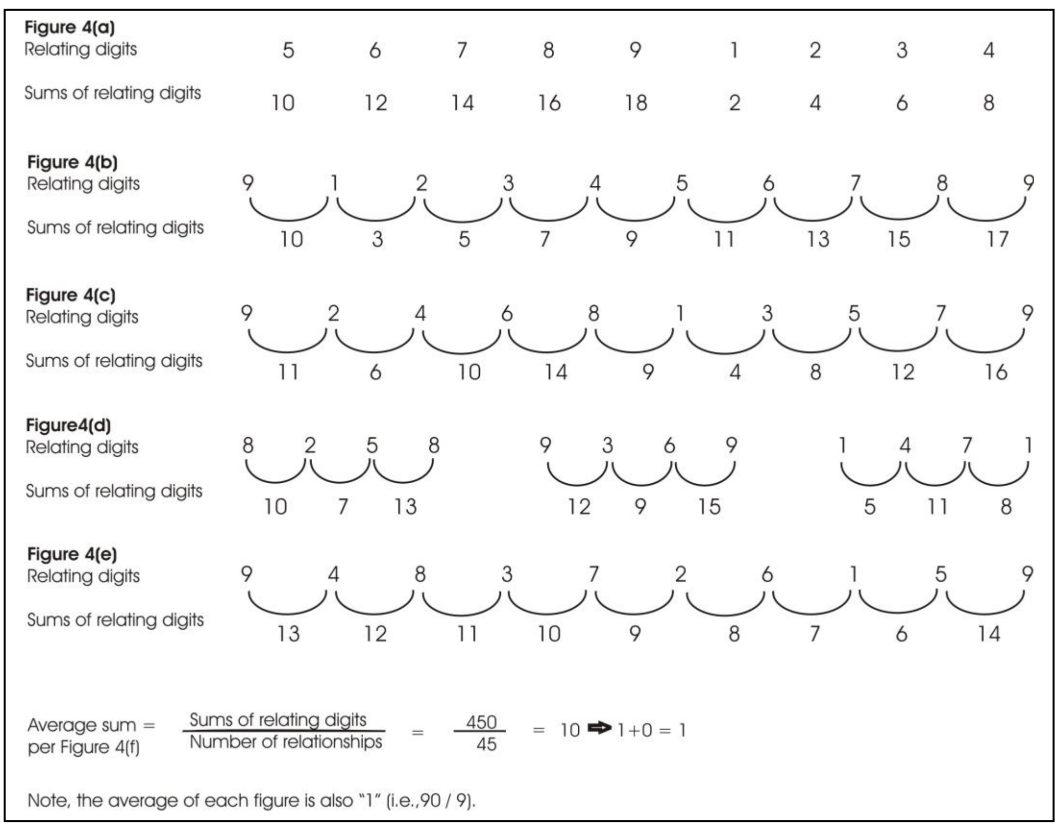


Figure 14. Average sum of 1 from adding the relating digits in Figure 4(a-f)

Also, the above outlined role for 1's type can be further confirmed as follows. Given that 5 represents the single-digit equivalent average of all the individual, standalone digits 1-9 [i.e., (1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9) ÷ 9 = 45 ÷ 9 = 5], then the single-digit equivalent average of all the possible two-digit sequences involving the digits 1-9 must be 1 because 2 (for the two-digit sequences) x 5 (for the single-digit equivalent average) = 10 => 1 + 0 = 1. This exercise essentially reverses the confirmation process we used to verify the derivation of 5's type toward the end of Chapter I. Because of limitations in using 9, as single-digit divisor (see Footnotes 2 and 7), the above 45 ÷ 9 could not be expressed as 4 + 5 = 9 ÷ 9.

Just as the addition process was used in both the context of the circle of symmetric order and the square of randomness to derive 5's type, so too can the addition process be used in both contexts to derive 1's type. Of the four arithmetic processes for relating Arabic digits (i.e. addition, subtraction, division, and multiplication), only the addition process will be shown in subsequent chapters to have the universal flexibility to be equally applicable in both the high side of symmetric order as well as the low side of randomness. This is because:

- the entities being added can do so in either direction without changing the answer (unlike subtraction and division); and

- the entities being added are simply rearranged or regrouped so the answer is nothing more than gathering them together without any change in their identity (unlike division and multiplication, where the relating entities interact and thus change their identities to produce the answer, as discussed in Section IV-A for division and Section V-A for multiplication).

As a result, the addition process, as characterized by 1's type, has the universal flexibility to be equally applicable in the high side of symmetric order as well as the low side of randomness. Thus, the average sum of all the possible pairs of digits making up the square of randomness, as shown below in Figure 15, must equate to a singe-digit value of 1 in the same way that the average sum of all the possible pairs of digits making up the circle of symmetric order equate to a same-digit value of 1 as shown above in Figure 15.

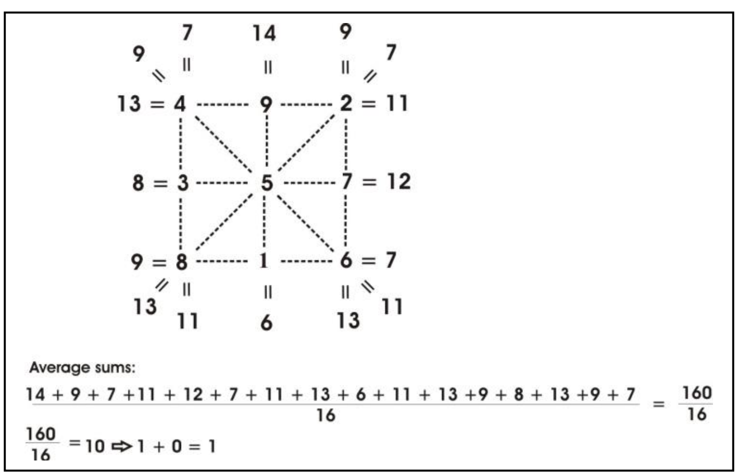


Figure 15. Average sums of 1 from adding the digits in the square of randomness from Figure 11

Because 1’s type characterizes the addition process or relationship in both the contexts of symmetric order and randomness, 1's type provides or characterizes a common ground for addressing the conflict between the mutually exclusive or opposing mathematical camps of symmetric order and randomness. Noteworthy, the other mathematical processes (i.e., division, multiplication and subtraction) are not universally applicable in both the contexts of symmetric order and randomness, as explained in Chapters IV, V and X, respectively.

B. 1's type in the context of randomness

Having characterized the addition process for relating the nine Arabic digits with 1's type, the question is, "What does being characterized with 1's type mean or signify?”.

One is the only number that when multiplied by or divided into another number, the other number is always produced. As such, the original identity of the “other number” is affirmed or accepted as a member of the Arabic numbering system. Said another way, 1 can be viewed as the mathematical criterion for affirming or accepting the “other number”, without any modifications, as a member of the Arabic numbering system. Since this mathematical criterion for affirmation or acceptance is equally available or applicable to all numbers, it can be viewed as symbolizing a form of mathematical "civil rights” or “justice", where each number without modification is guaranteed equal status as a member of the nation of numbers or the Arabic numbering system. Note that this equality of status should not be confused with quantitative equality. Importantly, this characterization of the addition process by 1’s type is allowed to draw upon the multiplication or division process only when involving 1 because the outcome always maintains no change in the original identity of the numbers involved which is the basic characterization of the addition process (see previous section).

To recap, being characterized by 1’s type means that all nine of the single-digit numerical equivalents or their associated types can be viewed as having a mathematically equal status when relating to one another, regardless of whether they are viewed within the mutually exclusive contexts of symmetric order or randomness. Because this criterion of equal status (i.e., mathematical justice) applies to the opposing camps of symmetric order and randomness, this mathematical criterion represents the most basic principle (i.e., first principle) governing the relationships between the nine single-digit equivalents (and thus all Arabic numerals through the process of casting out nines).

However, this criterion of maintaining the same or equal status for all the relating digits -- mathematical justice -- must be interpreted differently depending on whether the context is the low side of randomness or the high side of symmetric order. In the case of the square of randomness, where each digital position represents a random proxy for all Arabic digits, the same status criterion (i.e. mathematical justice) means all digits are treated the same without regard to the specificity of their identity since they are randomly interchangeable. In the case of the circle of symmetric order, where each digit represents a specific identity, the same status (i.e., mathematical justice) means all digits are treated the same, but after taking into account the specificity of their identity. In other words, there are two kinds of equal status or mathematical justice for relating digits one that affirms the specificity of the digits and one that does not.

Restated in legalistic terms, the mathematical justice that recognizes types of the same status without regard to their specificities is analogous to an eye for an eye or a tooth for a tooth type of justice. Likewise, the mathematical justice that recognizes types of the same or equal status after taking into account or affirming their specificities is analogous to the affirmative action of mathematical justice.

However, it is important to note the equal status (i.e., mathematical justice) criteria that affirm the specificity of each single-digit equivalent must be built upon the equal status (i.e., mathematical justice) criterion that treats all nine Arabic digits as the same regardless of each digit's specific identity. Indeed, the equal status (i.e., mathematical justice) that affirms numerical specificity, which characterizes the high side of symmetric order, must by definition be built upon the equal status (i.e., mathematical justice) that does not affirm numerical specificity. This means the first or basic battle in the war for symmetric order to overcome randomness is to establish the equal status (i.e., mathematical justice) without fully affirming numerical specificity, but with an orientation of moving towards the equal status (i.e., mathematical justice) that affirms numerical specificity. This would be in lieu of continuing an orientation of equal status (i.e., mathematical justice) that is indifferent to or does not affirm numerical specificity.

Since randomness is represented by unlimited permutations, it is easily maintained or achieved. However, since symmetric order is represented by only one permutation, it can be very difficult to achieve.

If the outcome of this battle is an orientation towards the equal status (i.e., mathematical justice) that affirms numerical specificity, then the first step in braking or killing the randomness orientation has been accomplished. However, if the outcome of the battle is a continuation of the equal status (i.e., mathematical justice) that does not affirm numerical specificity, then the first step in ending or killing the symmetric order orientation has been accomplished.

This basic battle is very important because it can represent the first step (the tipping or turning point) in the struggle for symmetric order to move towards overcoming randomness. Although this battle is the first step in implementing symmetric order, it is a never-ending war, in that the tendency to randomness never goes away (i.e., entropy rules).

C. 1's type in the context of symmetric order

As we move further towards the criterion for the equal status (i.e., mathematical justice) that affirms numerical specificity, we note 1's type characterizes the basis for each digit's specificity in the circle of symmetric order since the digits making up this circle are evenly spaced geometrically, as well as numerically, being separated by increments of 1 shown in Figure 16 below.

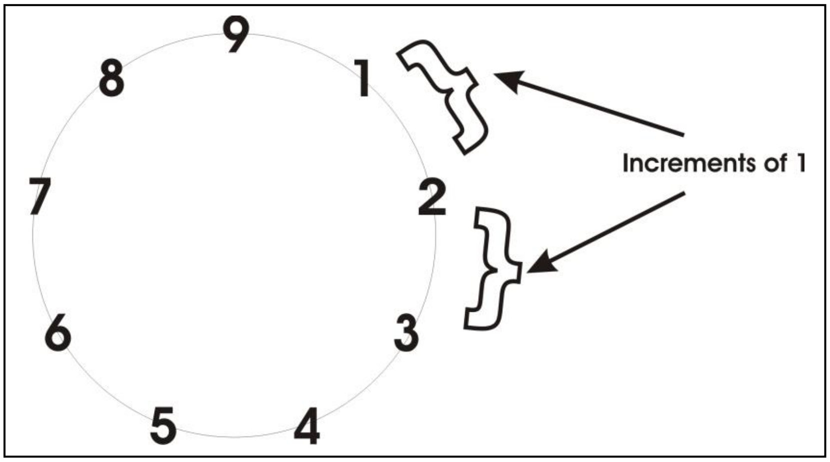


Figure 16. The digits or types in the circle of symmetric order as characterized by 1's type

The circular presentation enables each of the nine digits to maintain their specific sequential identity in the circle determined by the separating increments of 1, while also maintaining their equal spatial status within the circular format as determined by the equality of the separating increments (i.e., all equal to 1). In other words, 1's type plays a redundant role -- it provides the determinants of both specificity and equal status -- in the context of symmetric order.

In the square of randomness, where all the digits are interchangeable, we saw that 1's type played a less redundant role: it characterized or determined equal status as illustrated in Figure 15, but did not characterize or determine specificity as shown in Figure 16. On the other hand, as discussed above, the redundant emphasis of 1's type does characterize or represent the mathematical criteria for attaining the high side symmetric order, as represented by the circle of symmetric order. This contrasts with the redundant emphasis of 5's type, which characterizes aspects of the low side of randomness, as represented by the square of randomness. **As pointed out earlier (Section II-F), randomness and redundancy are not always paired.**

Since 1 is the smallest of the nine digits, the intervals of 1 separating the sequence of nine digits in the circle of symmetric order represent the finest or most perfecting details underlying symmetric order. Thus, when redundantly emphasized, 1's type can be viewed as characterizing the smallest or most perfecting details underlying the circle of symmetric order. On the other hand, the non-redundant emphasis of 1's type cannot focus on the perfecting details underlying randomness because, given the random interchangeability of the digits, the intervals of 1 between the digits is not maintained. Instead, the non-redundant emphasis of 1's type only highlights the imperfecting (or lack of perfecting) details underlying the square of randomness. In sum, the redundant emphasis of 1's type characterizes a perfecting process by serving as the mathematical criteria for numerical specificity or the mathematical criteria for attaining symmetric order.

As we saw above at the beginning of Section B, 1’s type affirms the identity of a number by being multiplied with or divided into that number and not changing its identity. Thus, the affirmation of identity characterized by 1’s type can be conveyed through multiplying (or dividing) the type in question with a single-digit equivalent of 1. Accordingly, to express the redundancy of 1's type the simplest and most direct approach incorporates multiples of 10 which can also be expressed as exponential powers of 10 (i.e., $10^1 = 10 \Rightarrow 1 + 0 = 1$,

$10^2 = 100 \Rightarrow 1 + 0 + 0 = 1$, $10^3 = 1000 \Rightarrow 1 + 0 + 0 + 0 = 1$ …). Regardless of the size of the exponent, the exponential power of 10 always equate to the single-digit equivalent of 1. However, a base of 1, instead of 10, cannot be used for this purpose since exponential powers of 1 never exceed 1 and thus would not convey the redundancy of 1's type.

D. Allegorical reflections involving 1's type (generally drawn from the Book of Revelation)

– **Battlefield metaphors**

In the ongoing metaphorical war in which symmetric order struggles to overcome randomness, the first battle, as we saw in Section B above, is fought in the context of randomness; thus, this setting of randomness can be analogized to a battlefield. However, this battlefield metaphor must be interpreted in conjunction with the following sacrificial death metaphor.

– **Sacrificial death metaphors**

While this first battle is fought in a setting of randomness, we saw above that the symmetric order orientation can still be established as the targeted direction. This means the type(s) (singular or plural) pursuing the symmetric order orientation must endure the harsh inconsistency or tribulation of existing in an environment of randomness. Viewed another way, the criteria (as characterized by 1's type) for the first metaphorical killing of the randomness orientation must involve a sacrificial killing or death for the type(s) that participate since the criteria (as characterized by 1's type) represent a rejection of the randomness orientation while the context of randomness continues to exist. In this situation, the type(s) pursuing the symmetric order orientation become the victim of the hostile environment of randomness. Furthermore, since the criteria for achieving symmetric order is characterized by 1's redundantly emphasized type, complying or passing this sacrificial criterion can metaphorically represent being characterized by 1's redundantly emphasized type.

– **Criteria for judging metaphors**

Since 1's type characterizes the mathematical criteria, it can be represented by metaphors that convey compliance or non-compliance with the criteria. These can include judging as symbolized by a scale or balance metaphor to convey the justice of an eye for an eye as characterized by 1's non-redundantly emphasized type. Likewise, plague metaphors could be used to convey the suffering incurred by those who sacrificially kill their randomness orientation while continuing to exist in the hostile randomness environment, as characterized by 1's redundantly emphasized type. Also, as explained at the end of the previous section, exponential powers of 10 can be used to express the redundancy of 1's type. Accordingly, to convey whether the criteria apply for the justice of equal status which does not take into account the specificity of symmetric order or the justice that affirms specificity can be done by incorporating low exponential powers of 10 (e.g., $10^0 = 1$ or $10^1 \Rightarrow 1 + 0 = 1$) or higher exponential powers (e.g., $10^5 \Rightarrow 1 + 0 + 0 + 0 + 0 + 0 = 1$), respectively.

– **Double-edged sword / tongue metaphor**

In addition to the double-edged sword serving as a tongue metaphor for 5's type in characterizing the conceptual specificity of symmetric order associated with same-digit symmetry (see Section II-C), it can also serve as the weapon metaphor for 1's type in the above first metaphorical killing of randomness to achieve or introduce an orientation towards the specificity of symmetric order. This is metaphorically accomplished by submitting to suffering the sacrificial decapitation of one's head

(which metaphorically represents type 5's characterization of conceptualizing, as presented in Section II-C) with an orientation towards randomness shifting to an orientation towards symmetric order, but while continuing to exist in the hostile environment of randomness.

When viewed as a sword metaphor for 1's type, the double-edged sword / tongue metaphor also represents the most fundamental expression, or criteria, for the digit specificity that makes up the circle of symmetric order and thus serves as a metaphor for same-digit symmetry (see Section II-B). FROM THIS PERSPECTIVE, SAME-DIGIT SYMMETRY REPRESENTS THE POINT WHERE THE RANDOMNESS ORIENTATION ENDS AND THE SYMMETRIC ORDER ORIENTATION BEGINS, SOMETIMES REFERRED TO AS THE POINT OF "SINGULARITY", WHICH IS CONSISTENT WITH BEING A METAPHOR FOR 1'S TYPE. Since the concept and criteria underlying same-digit symmetry are characterized by 5's and 1's types, respectively, it is helpful that the double-edged sword/tongue metaphor also can represent both 5's and 1's types.

– **Battle between maternal metaphors**

In this ongoing metaphorical war where symmetric order struggles to overcome randomness, the first or basic battle is fought over whether to conceptually initiate movement towards symmetric order. Since, as we saw in Section II-F, the conceptualization of symmetric order and observation of randomness can be characterized by the non-redundant and redundant emphases of 5's type, this basic battle could be viewed as being fought between the non-redundant and redundant emphases of 5's type. Since these emphases were represented by the supportive and corrupting maternal metaphors, respectively, this first basic battle can be presented as a conflict between these opposing metaphors, such as:

- the involved mother versus the non-involved mother,
- the prophet of truth versus the blasphemous prophet,
- the city of integrity versus the corrupt city,
- the tree that produces fully ripened fruit versus the tree that drops unripened fruit,
- the Biblical tree of life versus the tree of knowledge of good and evil,
- mother earth with a heavenly association versus mother earth with a hellish association,

– **Second or final death metaphor**

As explained above, the option to transition from randomness towards symmetric order (while continuing to exist in what would become the hostile environment of randomness) is represented by the sacrificial death metaphor. However, when this transitory option no longer exists for those oriented towards randomness, this loss or death of the option to transition towards symmetric order is referred to as the second or final death metaphor. From the perspective of those oriented towards randomness this second death can be analogized to the classic apocalyptic end of the opportunity to ever transition towards symmetric order. Also, the on-going randomness environment becomes much harsher since there is no longer the opportunity to exploit those factors which are oriented towards symmetric order. On the other hand, from the perspective of those already oriented towards symmetric order, they will no longer have to endure the harsh inconsistency of existing in a world or context of randomness. Unlike the above sacrificial death metaphor, in this second or final death metaphor the type (having approached symmetric order) becomes the victor over the hostile randomness environment. While the second or final death metaphor conveys a collective perspective involving all participants, from a purely individualistic perspective the loss of the option to choose between the symmetric order and randomness orientations effectively terminates with physical death.

- **Perfection metaphors**

The progression from the initial conceptualization of symmetric order on the battlefield of randomness to complete fulfillment of symmetric order represents a progression to perfect order or perfection. This progression toward perfection can be analogized to intensifying purification, clarification, or sterilization processes such as those involving purifying water, clarifying light, or sterilizing fire. Since we saw above that the redundant emphasis of 1’s type characterizes the criteria for the perfection of symmetric order, the purification with water, the clarification with light, or the sterilization with fire or heat can serve as metaphors for the redundant emphasis of 1’s type. Just as 1’s type is redundantly emphasized in moving towards symmetric order, so too are these purifying, clarifying, and sterilizing metaphors correspondingly intensified. Also, for consistency, the conceptualization of the water, light, and heat or fire metaphors should originate with the above maternal metaphors such as the water from the earth, the clarifying light from candle sticks or lamp stands, and the purifying words of fire from the prophet’s mouth.

- **Color metaphors**

Because the first death is sacrificial, the color of the sacrificial blood can be associated with it. On the other hand, the completion of the purification or perfection process associated with approaching symmetric order can be represented by the color white (i.e., without blemish) as found in garments, clouds, or hair associated with it. However, keep in mind that the blood associated with the sacrificial first death or tribulation can ultimately lead (if pursued long enough) to the whiteness or perfection of symmetric order. Looked at another way, the white garments of perfection or symmetric order ultimately become white through unrelenting washing in the blood of the sacrificial death or tribulation imposed by the environment of randomness. Also noteworthy, both of these color associations, like many metaphorical assumptions, are culturally dependent.

- **Dark Side metaphors**

If light and whiteness are used as metaphors for moving towards symmetric order, darkness or dark side can serve as metaphors for moving towards randomness.

- **Harvest metaphors**

Maturation criteria can be represented as harvesting criteria.

- **Loud Thunder**

Can be viewed as the criteria for a powerful storm; thus, the loud thunder is viewed as a metaphor for 1's type and the powerful storm as a metaphor for 8's type discussed in Section VIII-D.

E. Summarizing 1's type:

- **When not redundantly emphasized, 1's type characterizes the criterion of equal status (i.e., mathematical justice) without regard for numerical specificity, which prevails in the low side of randomness.**

- **When redundantly emphasized, 1's type characterizes the criteria of equal status (i.e., mathematical justice) that affirms the perfecting details underlying numerical specificity, which in turn represents the basic mathematical criteria for establishing the high side of symmetric order.**

- **However, the criteria of equal status (i.e., mathematical justice) that affirms the perfecting details underlying numerical specificity by definition subsumes the criterion of equal status (i.e., mathematical justice), which does not affirm or is indifferent to numerical specificity (i.e., an eye for an eye or a tooth for a tooth justice).**

- **In comparing this numerically derived type 1 with the Personality Enneagram's type 1 presented in Course 101C, the Personality Enneagram's type 1 is summarized as intensely judgmental and critical of himself as well as everyone and everything around him as measured against an endless list of standards and criteria for approaching perfection. Accordingly, the Personality Enneagram's type 1 can encompass similarities of the numerical type 1 in both the context of randomness and symmetric order.**

- **Metaphors for 1's type address the criteria involved in the ongoing process for achieving the perfection or specificity of symmetric order. This process involves recurring cycles of battle, sacrifice, death, and rebirth, all of which facilitate moving beyond the criterion for the low side of randomness towards the criteria for the high side of symmetric order.**

As a reference, simplified versions of the types thus far discussed are outlined below.

	Context of Symmetric Order		**Context of Randomness**
Five's type: **(Chapter II)**	Abstract mathematical conceiver	vs.	Self-focused mathematical observer
One's type: **(Chapter III)**	Mathematical criteria for judging emphasizing specificity	vs.	Mathematical criteria for judging de-emphasizing specificity

Chapter IV

Two's type:

Relationships of sincere mathematical appreciation vs. Relationships of insincere mathematical flattery

A. Background

Of the four arithmetic processes for relating Arabic digits (i.e., addition, subtraction, division and multiplication), the division process is the most interactively connected or least insular for the following two reasons:

- First, the answer in the division process depends on the direction of the division relationship between the entities involved. In other words, which of the entities is the divisor and which is being divided. Addition and multiplication, on the other hand, can be performed in either direction without affecting the answer.

- Second, the entities involved in the division process become arithmetically involved with one another. They arithmetically interact, which means there must be a change in the mathematical identity of at least one of the relating entities in order to produce an answer.[6] In addition or subtraction, on the other hand, the relating entities are simply rearranged or regrouped so that the answer does not change their mathematical identities.

Because the relating entities in the division process are the most interactively connected of the four arithmetic processes, the division process places the greatest emphasis on the specificity of the entities involved for the following two reasons:

- First, because the division process depends on the direction of the division relationship between the entities involved, the mathematical identity of the relating entities must specify their relative positioning

- Second, because the division process involves a change in the mathematical identity of at least one of the relating entities in order to produce an answer, the specific mathematical identities of the relating entities are more strongly emphasized through the process of experiencing a change in identity.

---

[6] Except when 1 is the divisor (as described in Section III-B)

B. 2's type in the context of symmetric order

Because each digit making up the circle of symmetric order must have a specific identity (see the end of Section II-B) or same-digit symmetry and because the division process emphasizes the specificity of each relating digits, the specificity of all the relating digits based on the division process is maximized in the context of symmetric order. To illustrate this, all the possible division-based relationships between the pairs of digits at the endpoints of every connecting line from the circle of symmetric order of Figure 4(a-f) are shown below in Figure 17. **However, Figure 17 shows only those relationships where the division process produces final single-digit equivalent quotients or answers. In other words, no relationships are shown where the quotients would be non-terminating decimals. To do otherwise would violate the numerical specificity characterizing symmetric order, see Section III-C.**

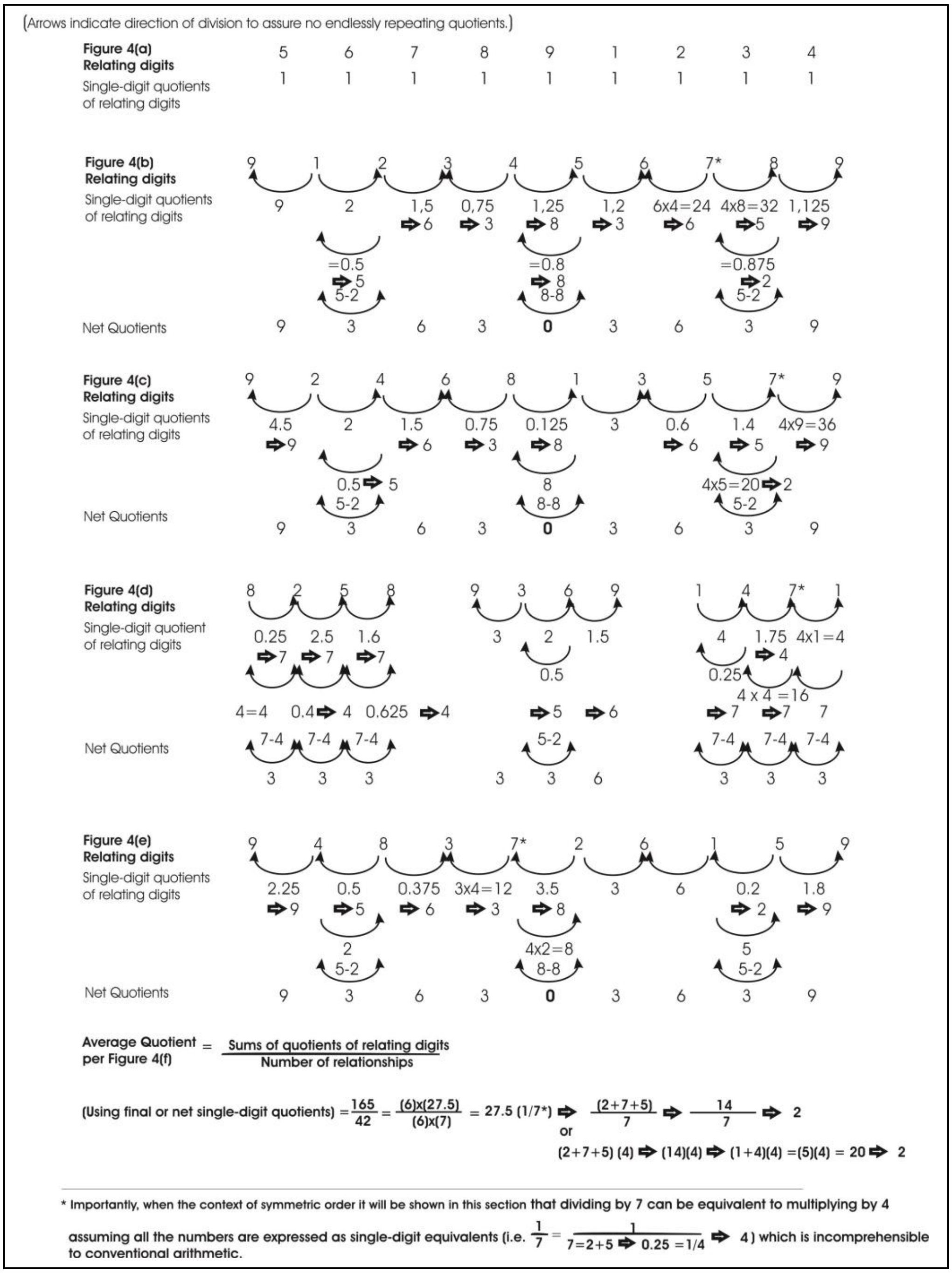
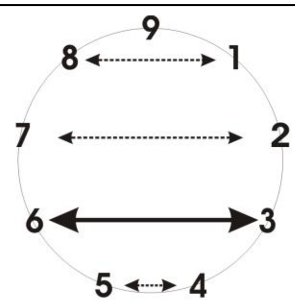


Figure 17. Average quotient of 2 from dividing the relating digits in Figure 4(a-f)

The average single-digit quotient from dividing all of the pairs of digits at the endpoints of every connecting line in Figure 4(a-f) is 2, as calculated in Figure 17 above. Thus, 2's type can be said to characterize the division process or relationships when it involves all of the nine Arabic digits of the circle of symmetric order. Because the answer in the division process depends on the direction of the division relationship between the entities involved, and, because the average quotient is calculated using addition, the opposite direction can only be conveyed through the opposite of the addition process, namely, the subtraction process.

Upon a closer review of Figure 17 notice that three pairs of digits (1 and 8, 2 and 7, and 4 and 5) produce net quotients of zero when interactively related through the division process. As shown below in Figure 18, these three pairs are spatially bisected by 9 when presented in the context of the circle of symmetric order and also can be referred to as counterbalancing opposites.



Circle of symmetric order expressed as pairs of opposite digits bisected by 9 or counterbalancing opposites

8/1 = 8 and 1/8 = 0.125 ➡ 1 + 2 +5 = 8 subtracting the two quotients nets to 8 - 8 = 0.

2/7 = 2 (1/7) ➡ 2 (4) = 8 and 7/2 = 3.5 ➡ 3 + 5 = 8, subtracting the two quotients nets to 8 - 8 = 0.

3/6 = 0.5 ➡ 5 and 6/3 = 2, subtracting the two quotients nets to 5 - 2 = 3.

4/5 = 0.8 ➡ 8 and 5/4 = 1.25 ➡ 1 + 2 + 5 = 8, subtracting the two quotients nets to 8 - 8 = 0.

Figure 18. Netting the quotients from dividing the pairs of counterbalancing opposite digits bisected by 9

A net quotient of zero effectively says there is no net interactive relationship between these three pairs of counterbalancing opposites. Importantly, the zero net quotient is not conveying an order of magnitude in these relationships, it is simply conveying no relationship. Therefore, to maintain the balance of symmetric order a compensatory mechanism must exist for mathematically bridging this interactive relationship gap between these three pairs of counterbalancing opposites.

Fortunately, this interactive relationship gap between the pairs of digits bisected by 9 (or counterbalancing opposites) in the circle of symmetric order can be mathematically bridged by the interactive relationships between 3 and 6 while still preserving the numerical specificity characterizing symmetric order. In other words, the 3 and 6 pair provides the only direct interactive relationship not netting to zero and thus capable of mathematically spanning the gap bisected by 9 between counterbalancing opposites, as shown in Figure 18 above. In addition to 3 and 6 dividing into each other, the only other digit into which they both divide and produce single-digit equivalent quotients is 9 (i.e., 9 / 3 = 3 and 9 / 6 = 1.5 => 1 + 5 = 6). Thus, the 3 and 6 pair provide for an additional indirect mathematical pathway through

9 for interactively spanning the gap bisected by 9. By combining the direct and indirect mathematical pathways the 3, 6 and 9 triangle of interactive relationships is formed. **Note this 3, 6 and 9 triangular mathematical bridge of interactive relationships is possible only in the circle of symmetric order because of the sequential circular positioning of the digits 1-9, as shown in Figure 19 below. Moreover, because the three types (i.e., 3, 6 and 9) exclusively interact as a unified triangle, the 3, 6 and 9 triangle is also referred to as the trinitarian triangle.** To emphasize the exclusive specificity of 3's, 6's and 9's types, they are enlarged in Figure 19.

GURDJIEFF SIMILARLY REFERRED TO THE 3, 6 AND 9 TRIANGLE IN TRINITARIAN TERMS CONSISTING OF 3 AND 6 AS COUNTERBALANCING OPPOSITES WITH 9 SERVING IN A NEUTRALIZING ROLE AS GOVERNED BY GURDJIEFF'S LAW OF THREE PRINCIPLES, FORCES OR WAYS. ALSO, IN REGARD TO THE TRINITARIAN TRIANGLE GURDJIEFF USED THE "THINKING", "EMOTIONAL" AND "PHYSICAL ACTION OR MOVING" FUNCTIONS TO CHARACTERIZE THE THREE THEMES UNDERLYING HIS ENNEAGRAM'S TRIADS.

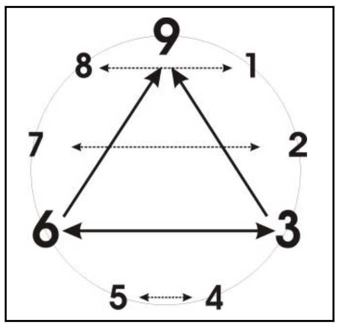


Figure 19. The 3, 6 and 9 trinitarian triangle's unique mathematical capability to interactively span the gap bisected by 9 between counterbalancing opposites

To bring focus or mathematical appreciation to the exclusive specificity of 3's, 6's and 9's types in triangularly bridging the gap between counterbalancing opposites, 3, 6 and 9 cannot divide into any other digit and produce a single-digit quotient. As shown in Figure 17, 9 is shown to be the only digit that cannot divide into any other digit and produce a single-digit quotient. Similarly, as shown in Figure 17, the 3, 6 and 9 triangular digits cannot divide into any of the non-triangular digits and produce a single-digit quotient.[7]

In sum, since the divisional relationships involving all nine digits (1-9), as laid out in Figure 17, had an average quotient of 2 (or, were characterized by 2's type), 2's type can be said to ultimately focus on mathematically identifying the exclusive specificity of the 3, 6 and 9 trinitarian triangle in bridging the gap bisected by 9 between

[7] The exclusivity of 3, 6 and 9 as divisors in the context of symmetric order is further reaffirmed because 3, 6 and 9 are the only digits that cannot, through the casting out nine process, always represent the single-digit equivalent divisors of multi-digit numerals in the division process which result in single-digit quotients. For example, 3, 6 and 9 cannot serve as single-digit equivalents of multi-digit numerals in interactively relating with one another through the division process except when the multi-digital counterparts of 3, 6 and 9 have the same ratio to one another as do the respective single-digit equivalents (i.e., 3, 6 and 9).

counterbalancing opposites which is necessary to maintain symmetric order. This is consistent with the division process placing the greatest emphasis on mathematically identifying the specificity of the entities involved in the division process, as explained in Section A at the beginning of this chapter.

Also, keep in mind that failure to fulfill the above bridging process results in randomness. Therefore, mathematically identifying the bridge spanning the gap between counterbalancing opposites to approach symmetric order can be considered equivalent to mathematically identifying the bridge from randomness to approaching symmetric order.

In addition to identifying the exclusive specificity of the trinitarian triangle, the exclusive specificity of the individual numerical personality types (i.e., 3, 6 and 9) are also mathematically identified through the divisional relationships of Figure 17, as outlined below.

- The subtle factor underlying the indivisibility of the trinitarian triangle is the indivisibility of 3 except as the common factor or divisor for all three triangular types (i.e., 3, 6 and 9). This exclusive specificity of 3 is characterized by the trinitarian type 3 and will be discussed in more detail in Chapter VI.

- The totality of 9, as the largest digit, underlies its indivisibility into all the other digits to yield single-digit equivalent quotients. This exclusive specificity of 9 is characterized by the trinitarian type 9 and will be discussed in more detail in Chapter IX.

- The presence of 6 as the common factor in both the numerator and denominator of the expression $\frac{(6)\,(27.5)}{(6)\,(7)}$ at the bottom of Figure 17 provides the **self-cancelling or withdrawing** pathway for mathematically guiding the ultimate production of the single-digit equivalent average quotient of 2. This exclusive specificity of 6 is characterized by the trinitarian type 6 and will be discussed in more detail in Chapter VII.

In sum, since the divisional relationship involving all nine digits (1-9), as laid out in Figure 17, had an average quotient of 2 (or, were characterized by 2's type), 2's type can be said to ultimately focus on mathematically identifying the exclusive specificity of 3's, 9's and 6's individual types, as well as the exclusive specificity of the 3, 6 and 9 trinitarian triangle. Again, this is consistent with the division process placing the greatest emphasis on mathematically identifying the ultimate specificity of the entities involved in the division process, as explained in Section A at the beginning of this chapter.

<u>If the exclusive specificity of the three trinitarian types (i.e., 3, 6 and 9) precludes them from dividing into any other non-trinitarian types (i.e., 1, 2, 4, 5, 7 or 8) to produce a single-digit quotient, then the non-exclusive specificity of the other six non-trinitarian types (i.e., 1, 2, 4, 5, 7 and 8) requires that they must be divisible into all of the nine types and always produce a single-digit quotient.</u> The latter is possible only if these six non-trinitarian types (i.e., 1, 2, 4, 5, 7 and 8) are divisible into the smallest of the nine digits or types (i.e., 1). This can be quickly established with 1, 2, 4, 5 and 8 (i.e., 1/1 = 1; 1/2 = .5 => 5; 1/4 = .25 => 2 + 5 = 7; 1/5 = .2 => 2; 1/8 = .125 => 1+2 +5 = 8).

Turning to type 7, using conventional mathematics in the context of randomness 1/7 always equates to the endless repeating series .142857142857… or the 1/7th series. That is to say, in conventional mathematics 7 cannot be divided into any of the other individual digits and still yield single-digit equivalent quotients. However, there are two multi-digit equivalents of 7, namely, 25 and 16 as shown below which can be forced to yield the single-digit equivalent quotient of 4.

$$\frac{1}{7} = \frac{1}{7=2+5 \Rightarrow 0.25 = 1/4} \Rightarrow 4$$

or

$$\frac{1}{7} = \frac{1}{7=1+6 \Rightarrow 0.16 = 1/6.25} \Rightarrow 6.25 \Rightarrow 6+2+5 \Rightarrow 13 \Rightarrow 1+3 \Rightarrow 4$$

Coincidently, 25 and 16 are very closely tied to 4 in that .25 represents a quarter (i.e., 1/4 or 4^{-1}) and 16 represents 4 squared (i.e., 4^2)[8]. No other multi-digit equivalent of 7 can divide into 1 and produce a single-digit equivalent quotient. Thus, 1/7 (or 1's type / 7's type) can be identified as equatable to 4 (or 4's type) in the context of symmetric order as represented by the circle of symmetric order shown in Figure 7. On the other hand, when, applying conventional arithmetic 1/7 equates to the endless repeating series .142857142857…. or the 1/7th series outside the context of symmetric order or effectively in the context of randomness.

Noteworthy, since mathematically identifying 1/7 (or 1's type / 7's type) to equate to 4 (or 4's type) is unacceptable outside of the context of symmetric order, the initiation of the derivation of this equation within the context of randomness will be shown to require the incorporation of dimensional units of measurement for space and time which will be presented in Section X-C, Incorporating the Mathematical Plan for Establishing the Mathematically Disruptive Enabler.

We now return to 8's type dividing into 1's type which resulted in a quotient of .125 => 1 + 2 + 5 = 8's type (as shown above). Of course, the inverse, where 1 divides into 8, also results in a quotient of 8. Thus, the fact that dividing by 8 yields the single-digit equivalent of 8 means that in the context of symmetric order 1's and 8's types can be viewed as interchangeable when initially identified mathematically as will be discussed in greater depth in Section VIII-B and the text associated with Figure 61b.

Likewise, since mathematically identifying 1 (or 1's type) as initially interchangeable with 8 (or 8's type) is unacceptable outside of the context of symmetric order, the initiation of the derivation of this interchangeability within the context of randomness requires incorporating dimensional units of measurement for mass as presented in Section X-C,

[8] In other words, the incorporation of 4^2 or 4^{-1} in equating 1/7 to 4 identifies the redundant use of 4 or 4's type in producing this unique equation in the context of symmetric order (as will be discussed in greater detail in the next chapter, see Section V-A).

<u>Incorporating the Mathematical Plan for Establishing the Mathematically Disruptive Enabler.</u>

In sum, since 1's type characterizes the criteria for symmetric order (see Section III-C), dividing the above six non-trinitarian types (i.e., 1, 2, 4, 5, 7 and 8) into 1's type to yield single-digit quotients identifies their respective specificities in the context of symmetric order, as characterized by 2's type. As we saw above, 7's type divided into 1's type yields 4's type and 4's type into 1's type yields 7's type. Likewise, when 2's type (which characterizes identifying the initial specificity of symmetric order) goes or divides into 1's type, the quotient is 5's type (which characterizes the other basic initiating role, namely, the mathematical conceptualization of symmetric order). Moreover, this relationship between 5's and 2's types is further confirmed because the reverse process of 5's type (or 5) going into (or dividing into) 1's type (or 1) of course yields a quotient of .2 or 2's type. We also saw above 8's type going into 1's type to yield 8's type and 1's type going into 8's type to also yield 8's type. However, we still haven't addressed identifying the specificity of 8's type after the initial interchangeability with 1's type. Accordingly, this will be addressed in the text between Figures 63 and 64.

Likewise, as we saw earlier, the inability to divide any of the three trinitarian types (i.e., 3, 6 and 9) into 1's type to yield a single-digit quotient identifies their exclusive specificity in the context of symmetric order, as characterized by 2's type.

In sum, since the divisional relationships involving all nine digits (1-9), as laid out in Figure 17, had an average quotient of 2 (or, were characterized by 2's type), 2's type can be said to ultimately focus on mathematically identifying the specificities of the non-trinitarian types 1, 2, 4, 5, 7 and 8 as well as the exclusive specificities of the trinitarian types 3, 6 and 9.

<u>Importantly, mathematically identifying the specificity of a numerical type is also equivalent to showing mathematical recognition or appreciation of the numerical type or the numerical type's specificity.</u>

Because 2's type characterizes the initial mathematical identification of the nine types' specificities in the context of symmetric order, **2's type must also characterize mathematically identifying the initial transition away from randomness towards symmetric order.**

C. 2's type in the context of randomness

As we saw in the previous section, in the context of symmetric order the division process is limited to only those relationships which ultimately result in single-digit equivalent answers to assure maintenance of numerical specificity. However, in the context of randomness where the numbers are randomly interchangeable, the division process is in no way limited to those relationships which ultimately result in single-digit equivalent answers. In other words, the division process can produce unlimited answers of non-terminating decimals which in turn can only be expressed as constantly changing (not an ultimate) single-digit equivalent(s). This means that the division-based relationships are unlimited or redundantly emphasized in the context of randomness; whereas, the division-based relationships are very limited or non-redundantly emphasized in the context of symmetric order. For example, the 1/7 divisional relationship yields only 4 in the context of symmetric order (see previous

section), but yields an unlimited non-terminating decimal (i.e., .14285714285714…..) in the context of randomness. Likewise, the previous section also indicated the initial interchangeability of 1's and 8's types in the division process which is unacceptable in the context of randomness.

Further, as we saw in the previous section, if 3, 6 and 9 divide into any other digits, the outcomes or quotients are unlimited non-terminating decimals in the context of randomness. However, 3, 6 and 9 dividing into themselves to produce single-digit quotients is also acceptable within the context of randomness which thus negates any exclusive specificity status for 3, 6 and 9 in the context of randomness.

In sum, the exclusive specificity of the 3, 6 and 9 types; the specificity of 1/7 equating to the single-digit equivalent of 4; as well as, the specificity associated with the initial interchangeability of 1's and 8's types are all not available in the context of randomness. Moreover, without the availability of these exclusive and non-exclusive specificities the summation of the division processes presented in Figure 17 yielding an average of 2 or 2's type is not available in the context of randomness. Thus, in the context of randomness 2's type can no longer characterize identifying the exclusive and non-exclusive specificities of the various numerical types. <u>As a result, 2's type cannot even mathematically identify its own specificity and thus paradoxically focuses on futilely trying to mathematically identify its own non-specificity in the context of randomness.</u>

<u>Since in the context of symmetric order 2's type characterizes the ability to mathematically identify specifically the other types' characterizations, this inability to mathematically identify such specificity in the context of randomness, particularly for itself, causes the equivalent of numerical frustration. As such, 2's type in the context of randomness can be analogized to seeking false images of numerical specificity leading ultimately to seeking a false sense of mathematical appreciation or the mathematical equivalent of flattery.</u>

<u>Because of this initiating role of 2's type in essentially identifying the non-specificity of the digital positions constituting the square of randomness, the actual derivation of the square of randomness by destroying symmetric order, as shown in Figures 10 and 11, begins by reversing the positions of the 2 and 8 types. The justification for 8 being the other type reversed in destroying symmetric order is addressed in Sections VIII-A and D. Appropriately, the representation of the redundantly emphasized type 2 in the square of randomness is this reversed position of 2's type in the upper right hand corner of the square of randomness, as shown in Figure 12(b) which is repeated below.</u>

4	9	2
3	5	7
8	1	6

Repeating Figure 12(b). Square of randomness

Similarly, the representation of the redundantly emphasized type 5 in characterizing its role in initiating the context of randomness is the central position of the square of randomness, as discussed in Section II-D.

D. Allegorical reflections of 2's type (generally drawn from the Book of Revelation)

– **Feelings metaphor**

More generally speaking, because the interactive relationships involve the relating digits (or their associated types) interacting or touching one another and then changing based on this interacting or touching process (see Section IV-A above), the interactive relationships can be seen as the mathematical analogues of "touching and feeling" relationships in the broadest sense of the words.

– **Reconciliation and love metaphors**

The focal role of the 3, 6 and 9 trinitarian triangle in bridging or spanning the interactive relationship gap between the pairs of counterbalancing opposites (or between randomness and symmetric order) can be analogized to numerical love on the part of the trinitarian triangle providing the interactive bridge and numerical reconciliation on the part of the counterbalancing opposites being interactively bridged. Noteworthy, these reconciliation and love metaphors pertain only to the context of symmetric order.

– **Two-edged sword / tongue metaphor**

- **When same-digit symmetry is viewed as the most elementary or simplest expression of the abstract mathematical concept of symmetric order, its metaphors (i.e., the symmetrical two-edged sword / tongue viewed as a tongue) can represent 5's type (see Section II-B and C).**

- **When same-digit symmetry is viewed as the mathematical criteria of specificity for symmetric order, its metaphors (i.e., the two-edged sword / tongue viewed as a sword) can represent 1's type (see Section III-D)**

- **When same-digit symmetry is viewed as mathematically identifying the specificity of symmetric order types, its metaphors (i.e., the two-edged sword / tongue viewed as both a sword and tongue metaphor) can represent 2's type. Thus when integrated through the division process, as characterized by 2's type, we get:**

1's type ÷ 5's type = 0.2 => 2's type

– **Crown and royal seal metaphors**

The "exclusive specificity" of the 3, 6 and 9 trinitarian triangle in bridging the gap between the counterbalancing opposites can be metaphorically conveyed by assigning royal crowns and sitting on a royal throne to the three triangular personalities. Since the other six types will be shown in the next chapter, Section V-A, to bridge this same gap by converging onto the trinitarian triangle, these six other types can be metaphorically assigned royal seals to identify their specificities as it relates to the trinitarian triangle or throne. Thus, the royal seal can serve as a metaphor for 2's type. However, in the context of randomness where this bridging of the gap between counterbalancing opposites is irrelevant, the exclusivity of a crown can only be imaginary, thus, all nine personalities can lay claim to a crown, as well as lay claim to a false seal or mark.

– **Challenging and interactive transport metaphors**

The challenging transitional nature of establishing the interactive 3, 6 and 9 triangular bridge between the counterbalancing opposite types (or between randomness and symmetric order) can be analogized to challenging and interactive transport metaphors. Also, if this bridge is being re-established after having lost it, the challenge is even greater and could involve transport metaphors of war. **In other words, challenging and interactive transport metaphors can represent 2's type in characterizing the interactive bridging between the mathematically identified non-specificities of the randomness types and the mathematically identified specificities of the symmetric order types.**

– **Gravitational force metaphor**

A less animated and very simple metaphor for both versions of 2's type is the interactive connective force of gravity. When redundantly applied, gravity becomes extremely restrictive as illustrated by black holes, which randomly gobble up particles of matter/energy and robs them of their specific identities. This black hole restrictiveness to maintain randomness is analogous to the numerical restrictiveness characterizing randomness discussed later (see Section VII-D). On the other hand, when non-redundantly applied, the interactive connective force of gravity provides for incredible order and flexibility, interconnecting the various opposing facets of matter/energy so that the specificities of the symmetric order types are identifiable throughout the physical universe (see Section XI-B, Gravity).

E. Summarizing 2's type:

- **In both the contexts of symmetric order and randomness 2's type characterizes the interactive relationships between pairs of digits (or their associated types) based on the division process. These interactive relationships can be seen as the mathematical analogues of "touching and feeling" relationships in the broadest sense of the words.**

– In the context of symmetric order 2's non-redundantly emphasized type characterizes the interactive connectivity between types which results in mathematically identifying the specificity of the involved types. This means mathematically identifying the exclusive specificity of the 3, 6 and 9 triangular types in bridging the gap for approaching symmetric order and exiting randomness. It also means mathematically identifying the specificities of 1's, 4's, 2's, 8's, 5's and 7's types which include equating 1's type / 7's type to 4's type despite being highly disruptive to conventional arithmetic during the transition from randomness towards symmetric order. <u>Note, mathematically identifying the specificity of a numerical type is also mathematically equivalent to showing recognition or appreciation of the numerical type or numerical type's specificity.</u>

– The focal role of the 3, 6 and 9 trinitarian triangle in bridging or spanning the interactive relationship gap between the pairs of counterbalancing opposites (or between randomness and symmetric order) can be mathematically analogized to love on the part of the trinitarian triangle for providing the interactive bridge and numerical reconciliation. Noteworthy, these reconciliation and love metaphors, as well as the appreciation metaphor mentioned above, pertain only to the context of symmetric order.

– In the context of randomness 2's redundantly emphasized type characterizes the interactive connectivity between types which does not result in mathematically identifying the specificities of the involved types. Because of the lost of specificity for the interactively connected types, the context of randomness ultimately leads to a quest by 2's type for a false image of its own specificity. This can be analogized to a search for false mathematical appreciation and love or the equivalent of searching for mathematical flattery by 2's type.

– In comparing this numerically derived type 2 with the Personality Enneagram's type 2 presented in Course 101C, the Personality Enneagram's type 2 is summarized as one whose identity strongly depends on the approval, appreciation, affection, love and esteem of other people. To achieve such recognition from others this personality type strives through focused giving to meet the needs of others. In other words, this can lead to this personality type giving flattery to in turn receive flattery. Accordingly, the Personality Enneagram's type 2 is similar to the numerical type 2 in the context of randomness. As such, the Personality Enneagram's type 2 strives to convey the contrary image of progressing towards symmetric order.

– The above described process for bridging or transitioning from interactively relating types with a randomness orientation to a symmetric order orientation (as characterized by 2's non-redundantly emphasized type) is best analogized to a very challenging battle. On the other hand, the reverse transition (as characterized by 2's redundantly emphasized type) is best analogized to a seductively compelling process.

– Since this chapter introduced the interactive relationships based on the division process and the next chapter will introduce the interactive relationships based on the multiplication process, both of which will be frequently referenced throughout the course, the interactive and non-interactive relationships are redefined below.

- **Interactive relationships:**

  ✶ Division and multiplication are interactive relationships. Interacting arithmetically means there must be a change in the mathematical identity of at least one of the relating entities in order to produce an answer. Therefore, the relating entities must have specific identities in order to experience a change in identity.

  ✶ The interactive relating between the involved digits (or equivalent types) can be metaphorically expressed as touching one another and then changing as a result of this touching process.

  ✶ This touching one another and then changing as a result of the touching process can be seen as the mathematical analogues of "touching and feeling" relationships in the broadest sense of these words.

- **Non-interactive relationships:**

✶ Addition and subtraction are non-interactive relationships. Non-interacting arithmetically means that the relating entities are simply arranged or regrouped so the answer is nothing more than gathering them together without any change in their mathematical identities (unlike division and multiplication where the relating entities interact and thus change their identities to produce the answer).

– **Since 2's type is non-redundantly emphasized when characterizing the mathematical identification of the exclusive specificity of the 3, 6 and 9 triangular types as well as the specificity of the other types, this highly effective and very important mathematical identification process is also non-redundantly emphasized or very subtle and can be easily overlooked or missed.**

As a reference, simplified versions of the types thus far discussed are outlined below.

	Context of Symmetric Order		Context of Randomness
Five's type: **(Chapter II)**	Abstract mathematical conceiver	vs.	Self-focused mathematical observer
One's type: **(Chapter III)**	Mathematical criteria for judging emphasizing specificity	vs.	Mathematical criteria for judging de-emphasizing specificity
Two's type: **(Chapter IV)**	Relationships of sincere mathematical appreciation	vs.	Relationships of insincere mathematical flattery

Chapter V

Four's type:

The special art and sacrifice of collectively connecting mathematically vs. The ordinary melancholy and envy of mathematical disconnectivity

A. 4's type in the context of symmetric order

In the previous chapter, we saw that the non-redundant emphasis of 2's type characterized the interactive arithmetic relationships connecting all possible pairs of the nine Arabic digits that make up the circle of symmetric order (based on the division process). In that process, the symmetric order version of 2's type focused on the exclusive specificity of the triangular digits or types (3, 6 and 9) as well as the specificity of the digits or types (i.e., 1, 2, 4, 5, 7 and 8). This chapter presents 4's type as characterizing the extension of the 3, 6 and 9 trinitarian triangle's unique capacity to span the gap between counterbalancing opposites bisected by 9 to the other six digits or types (i.e., 1, 2, 4, 5, 7 and 8) which must be done to maintain symmetric order.

In Figure 21 below, we see that 4's type, like that of 2, can also characterize the interactive arithmetic relationships connecting all the possible pairs of the nine Arabic digits (1-9) making up the circle of symmetric order (as seen in Figure 4(a-f)), this time using multiplication. The multiplication relationship is arithmetically interactive in that, as in division, there is a dynamic change in the identity of at least one of the relating entities in order to produce an answer.[9]

[9] Except when 1 is the multiplier (as discussed in Section III-B).

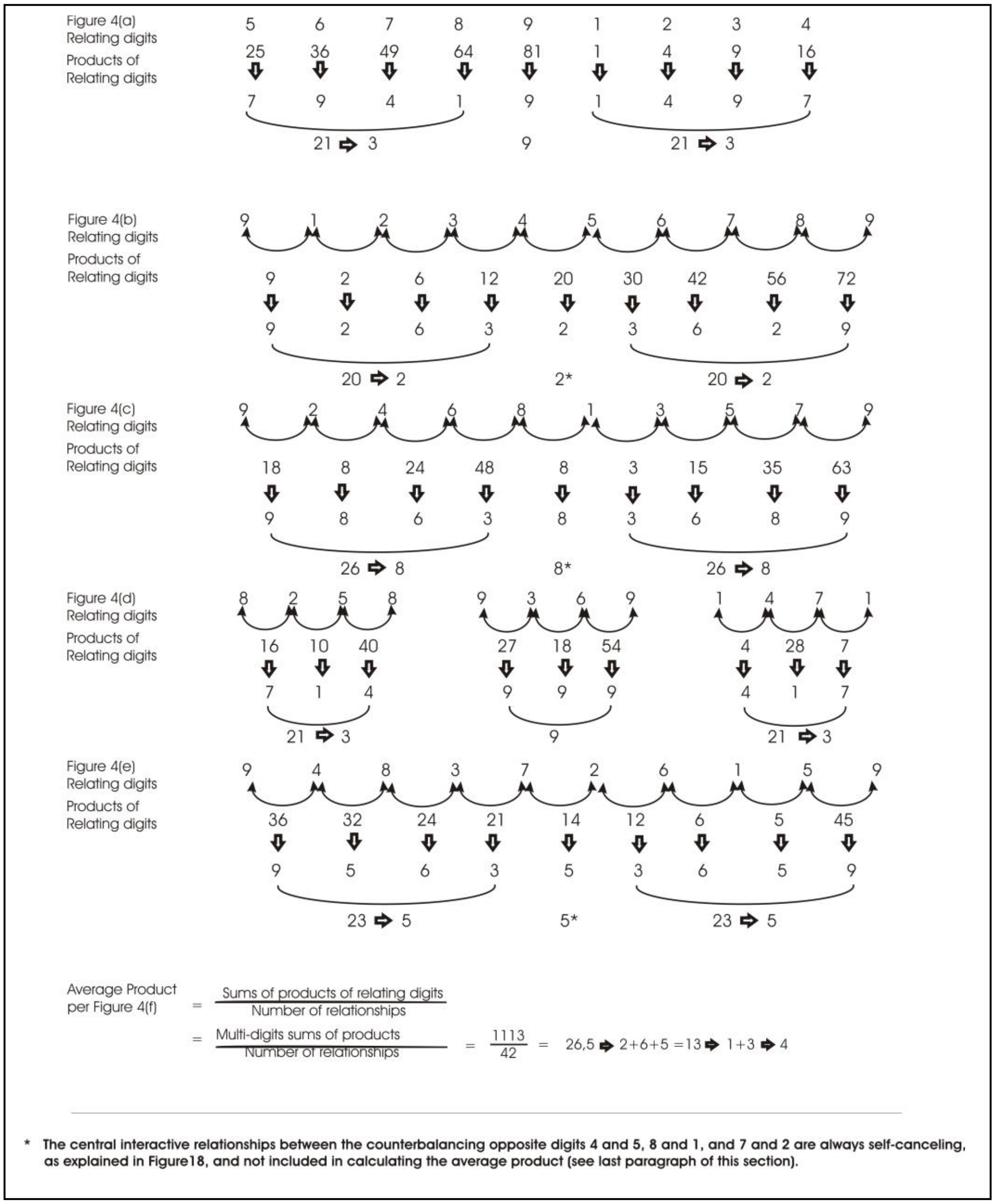
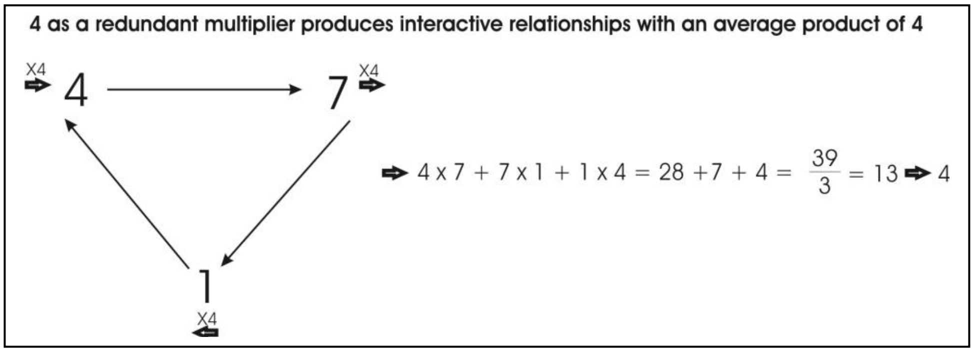


Figure 20. Average product of 4 from multiplying the relating digits in Figure 4(a-f)

We saw in footnote 8 that 2's type, in characterizing the division process, also identifies 4 or 4's type as being redundantly emphasized in the context of symmetric order. Accordingly, to begin the exploration of 4's type, the implications of redundantly emphasizing 4's type are set out below. Since 4's type characterizes the **interactive** multiplication process, its redundant emphasis should involve redundant **interactive** multiplication. Accordingly, when any digit other than 3, 6 and 9 is redundantly multiplied by 4, the average product of the resulting interactive relationships is always 4 as shown in Figure 21 below.[10] Given the characterization of multiplication by 4's type, it is appropriate that 4 is the only type that when redundantly multiplied with other digits produces interactive relationships with an average value which is the same as the redundant multiplier (i.e., 4). Also, as shown in Figure 21, the resulting products that collectively average to 4 can represent two triangles of interactive relationships as you progress through the successive multiplications.



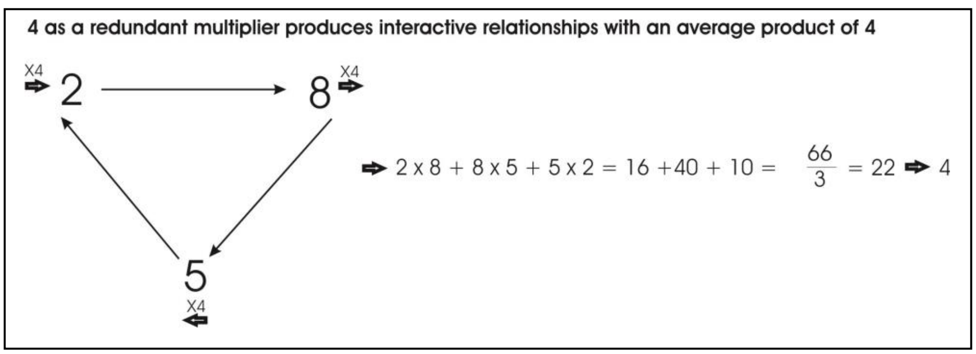


Figure 21. Redundantly emphasizing 4's type

As we saw in the previous chapter the ultimate focus of the interactive relationships is for the exclusive 3, 6 and 9 triangle to bridge the gap between the pairs of counterbalancing opposite digits represented by 1 and 8, 2 and 7, and, 4 and 5 in transitioning from randomness towards symmetric order (as shown in Figure 19). Importantly, as will be shown later, the 7, 1 and 4 triangle of Figure 21 above, represents the types that, when redundantly emphasized, drive towards the circle of symmetric order while the above 2, 8 and 5 triangle represents the types that, when redundantly emphasized, drive towards square of randomness (see Sections II-D, III-B, IV-B, V-A, VIII-D and X-C). Accordingly, to achieve this ultimate focus the above 7, 1 and 4 triangle and 2, 8 and 5 triangle of interactive relationships must converge, as triangles of counterbalancing opposites onto the bridging 3, 6 and 9 triangle, as outlined below. **Importantly, such a convergence represents a continuation or extension of the process for forming the above interactive triangular relationships**

[10] When 3, 6 and 9 are involved in redundant multiplications with 4, the same-digit equivalent answers are always the same original 3, 6 and 9, respectively, (i.e., 4x3=12 --> 1+2=3; 4x6=24 --> 2+4=6; 4x9=36 --> 3+6=9). This means that no resulting interactive relationships are formed between 3, 6 and 9 as was the case when 2's type was implemented in the previous chapter (see Figure 19).

in Figure 21, as characterized by 4's type.

Since the direct interactive relationships between 7 and 2, 1 and 8, and 4 and 5 self cancel by netting to zero in the context of the circle of symmetric order (see Figures 18 and 20), the converging configuration of the two triangles must not involve any direct relationships between these three pairs. While the 7, 1 and 4 and 2, 8, and 5 triangles can be converged in multiple ways without creating direct relationship between 7 and 2, 1 and 8, and 4 and 5, only one of the multiple ways results in a converged configuration that is distinctly identifiable with 4's type, as explained below and subsequently in Figures 60b, 61a and 61b. Because this identification with 4's type contributes to the redundant emphasis of 4's type, it is chosen as the way to physically converge the 7, 1 and 4 and 2, 8 and 5 triangles, as outlined in the following series of figures.

7 ➡ 1 ➡ 4	2 ➡ 8 ➡ 5
7 ➡ 1 ➡ 4 ➡ 2 ➡ 8 ➡ 5	

Figure 22a. Converging the 7, 1, 4 and 2, 8, 5 triangles

1 ➡ 4 ➡ 2 ➡ 8 ➡ 5 ➡ 7

Figure 22b. Restating the converged triangles to equate to the endless repeating digits of the 1/7th series

The converged series or configuration of relationships shown in Figure 22b is the same endlessly repeating sequence of digits found in the decimal equivalent of the 1/7th series, which is, .142857142857.. .. However, the repeating sequence of digits found in the decimal equivalent of the 1/7th series (i.e., .142857…) occurs in the context of randomness; whereas, the repeating sequence of digits presented in the 1 ➡ 4 ➡ 2 ➡ 8 ➡ 5 ➡ 7 configuration of Figure 22b occurs in the context of symmetric order from Figure 20 which is based on the circle of symmetric order. Consequently, the former represents an ever changing random numeral; whereas, the latter represents a repeating sequence of numerical types. Since the .142857… series equates to 1/7 and is referred to as the 1/7th series, the 1 ➡ 4 ➡ 2 ➡ 8 ➡ 5 ➡ 7 configuration will be referred to as the 1/7th configuration. In sum, the transition from randomness to symmetric order involves transitioning from the 1/7th series to the 1/7th configuration.

Interestingly, the 1/7th configuration is the result of redundantly emphasizing 4 or 4's type in the context of symmetric order, as outlined above; and, 1/7 or 1's type / 7's type equates to 4 or 4's redundantly emphasized type only in the context of symmetric order, as mathematically identified in Section IV-B and footnote 8. By extending this line of reasoning, we could say that 4 or 4's type effectively yields or initiates the 1/7th configuration 1 ➡ 4 ➡ 2 ➡ 8 ➡ 5 ➡ 7 underlying symmetric order in transitioning from the 1/7th series of randomness. Indeed, even the physical convergence that

forms this 1/7th configuration of interactive relationships could be viewed as representing the third redundant emphasis of 4 or 4's type. However, since this derivation is mathematically disruptive outside the context of symmetric order, the 1/7th configuration 1 ⇒ 4 ⇒ 2 ⇒ 8 ⇒ 5 ⇒ 7 must be labeled as the 1/7th mathematically disruptive configuration reflecting its rejection of the randomness orientation.

If the above process of converging the 7, 1 and 4 and 2, 8 and 5 triangles (shown in Figures 22a and b) is presented in the context of the circle of symmetric order, the resulting 1/7th mathematically descriptive configuration of interactive relationships, appears as follows in Figure 23a.

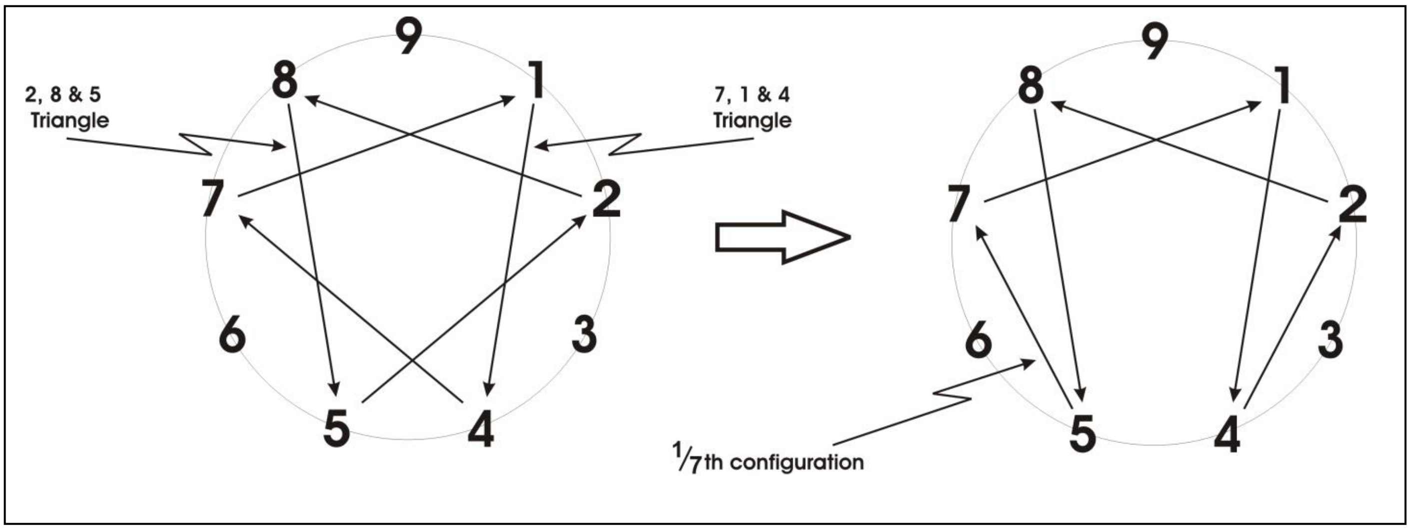


Figure 23a. Convergence of the 7, 1 and 4 and 2, 8 and 5 triangles to initiate the 1/7th mathematically disruptive configuration of interactive relationships

Since this convergence process can be viewed as a process of graphic (or even artistic) creativity, the resulting beauty of symmetric order can also be viewed artistically. **Moreover, since this process of artistic creativity has a goal of appealing to the eye's desire for visual beauty and the perfection of symmetric order, it can also be referred to as a sensory process of relating or connecting.**

Also, keep in mind that while the graphically or physically converged 1/7th mathematically disruptive configuration results in the formation of interactive relationships, the converged types will be shown to consist of those associated with the non-interactive relationships (i.e., 7, 5 and 1) as well as those associated with the opposite interactive relationships (i.e., 2, 4 and 8).[11] Thus, the converging process can be viewed as the 7, 1 and 4 and the 2, 8 and 5 triangles both non-interactively and interactively coming together simultaneously to form the 1/7th mathematically disruptive configuration.

If the converging 1/7th mathematically disruptive configuration of Figure 23a is now presented with the 3, 6 and 9 trinitarian triangle from Figure 19, the resulting configuration of

[11] See Sections X-B, II-B, and III-B to associate 7, 5 and 1 with non-interactive relationships and see Sections IV-B, V-A, and VIII-B to associate 2, 4 and 8 with interactive relationships.

interactive relationships appears as follows in Figure 23b. **In other words, when the graphical converging process that created or formed the 1/7th mathematically disruptive configuration is perpetuated, it becomes the 1/7th disruptive mathematically configuration graphically converging onto the 3, 6 and 9 trinitarian triangle and thus approaching the output of symmetric order.**

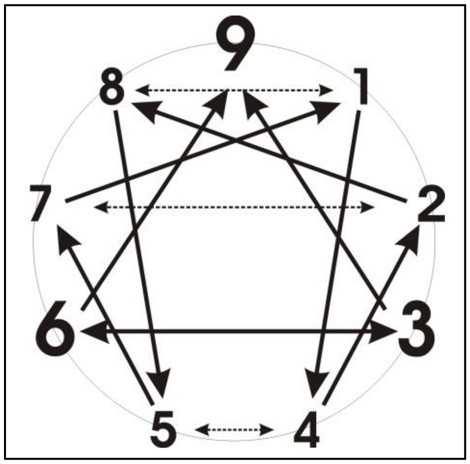


Figure 23b. The 1/7th mathematically disruptive configuration converging onto the 3, 6, 9 trinitarian triangle

REGARDING GURDJIEFF'S APPROACH, HE COLLECTIVELY INTERRELATED THE SIX DIGITS (I.E., 1, 2, 4, 5, 7 AND 8) SIMILARLY UTILIZING THE 1/7TH SERIES. HOWEVER, HE ADDED FOR CONSIDERATION A SEVENTH COMPONENT (I.E., 7/7 → .9999….) TO CONVEY THE SIX DIGIT CONFIGURATION'S INITIAL TIE TO THE TRINITARIAN TRIANGLE THROUGH 9. MOREOVER, HE THEN TIES TO THE TRINITARIAN 3 FOLLOWED BY THE TRINITARIAN 6 UTILIZING THE DIATONIC SCALE TO ILLUSTRATE THIS PROCESS. AS SUCH, THIS SIX DIGIT CONFIGURATION (I.E., 1, 2, 4, 5, 7 AND 8) WAS GOVERNED BY THE LAW OF SEVEN. HE THEN VIEWED THE TRINITARIAN TRIANGLE (I.E., 9, 3 AND 6) AS UNIFYING OR CONVERGING THE LAW OF SEVEN AND THE LAW OF THREE (SEE SECTION IV-B) WHICH WAS REFERRED TO AS THE FOURTH WAY OR FOURTH ORDER (I.E., AN ADDITIONAL STEP BEYOND THE LAW OF THREE). THIS UNIFYING CONVERGING TRANSITION WAS CONSIDERED TO BE IMPORTANT AND DISRUPTIVE BY GURDJIEFF. THUS, HIS OVERALL ENNEAGRAM IS EQUIVALENT TO THE MATHEMATICALLY DISRUPTIVE CONFIGURATION CONVERGING ONTO THE TRINITARIAN TRIANGLE. ALSO, IN UTILIZING THE DIATONIC SCALE TO ILLUSTRATE THE SIX DIGIT CONFIGURATIONS TIE TO THE TRINITARIAN TRIANGLE, THE DIATONIC SCALE IS REPEATED AT THE 9 POSITION WHICH INTRODUCES THE CONCEPT OF SAME-DIGIT SYMMETRY.

Noteworthy, the 7, 4 and 1 and 2, 8 and 5 equilateral triangles that converge to form the 1/7th mathematically disruptive configuration are of the same size as the 3, 6 and 9 equilateral triangle (each is separated by the same interval of 3) as shown in Figure 24 below. Thus, when viewed in this context, extending the convergence of the two triangles (that formed the 1/7th mathematically disruptive configuration) onto the 3, 6 and 9 trinitarian triangle can be viewed or interpreted as a graphical process of the 1/7th mathematically disruptive configuration reaching to become an extension of the 3, 6 and 9 trinitarian triangle in its exclusive role of spanning the gap between the pairs of counterbalancing opposite digits to maintain symmetric order. Otherwise, the counterbalancing opposite pairs self-cancel by interactively netting to zero (i.e., 7 and 2, 1 and 8, and 4 and 5 in Figure 16). **When viewed from this perspective, the 1/7th mathematically disruptive configuration's ultimate goal is to become an "enabler" of the 3, 6 and 9 triangle's exclusive role to maintain symmetric order. Thus, the 1/7th disruptive mathematically configuration becomes the "1/7th mathematically disruptive enabler" or simply the "mathematically disruptive enabler" of symmetric order to reflect its ultimate purpose**. Similarly, the 3, 6 and 9 trinitarian triangle can be referred to as simply the trinitarian triangle,

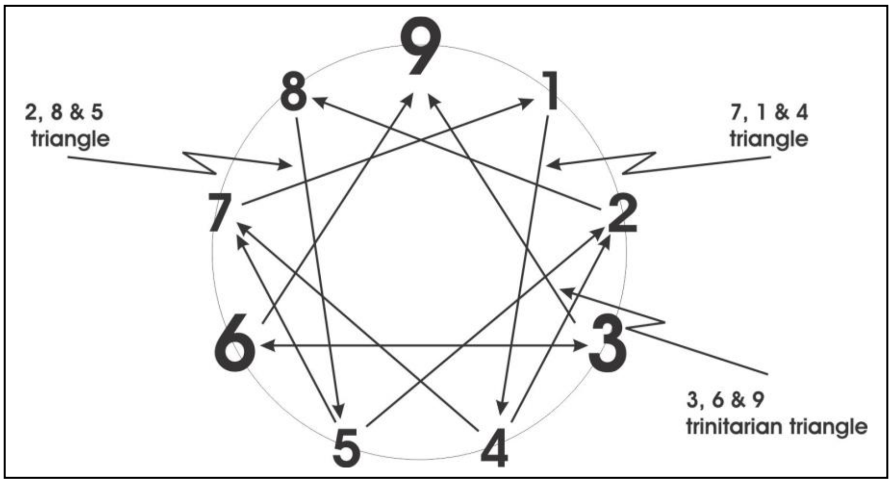


Figure 24. Overlaying the 2, 8, 5 and 7, 1, 4 triangles on the 3, 6, 9 trinitarian triangle

Also, because all nine types become a part of this ultimate convergence of the mathematically disruptive enabler onto the trinitarian triangle, they must also participate in characterizing this process. Thus, this ultimate convergence cannot be limited to only the graphical or physical process but must also include the interactive process (as represented by division and multiplication relationships, as well as, the non-interactive process as represented by addition and subtraction relationships) all of which will be further developed in subsequent chapters. This consideration is similar to, or an extension of, the above convergence process which formed the mathematically disruptive configuration.

Because this is a collective process involving all nine of the types, the integrative benefit of forming the mathematically disruptive enabler is not exclusive but is equally or collectively available to all types. In other words, as a collective body, the six interactively relating types of the mathematically disruptive enabler can approach symmetric order. That is something they could not do as independent types. **Thus, the role of 4's redundantly emphasized type in yielding initiating the graphic (or even artistic) formation of the mathematically disruptive enabler can be viewed as sensitive to the opportunity for the other types to become a part of the integrated beauty of symmetric order.**

Also keep in mind, since initiating the mathematically disruptive enabler and subsequently converging it onto the trinitarian triangle to approach symmetric order occur within the hostile environment of randomness (see Section III-D, sacrificial death metaphor), the types constituting the mathematically disruptive enabler experience the sacrificial killing of their randomness orientation. **Moreover, since initiating and converging the mathematically disruptive enabler are primarily characterized by 4's type, it can best personify the sacrificial victim of the hostile environment of randomness as well as the initiator of the sacrifice (as discussed above).**

Finally, since 4's type (when redundantly emphasized) represents the counterbalancing opposite to 5's type (when non-redundantly emphasized), their characterizations should also represent counterbalancing opposites. In the above discussion, we have seen that the former characterizes the sensing process while the latter characterizes the intuitive process (see Section II-F). In the sensing process, the focus is on awareness of what's happening in the presence through the senses, such as sight. On the other hand, in the intuitive process the focus is on possibilities, meaning, and relationships by way of insights into the conceptual or abstract world. This sensing/intuitive axis of counterbalancing opposite types (presented in Figure 25 below) is also seen in the Myers-Briggs' application of Carl Jung's typology of human psychology.

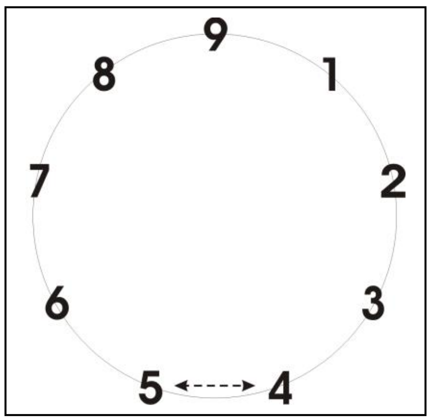


Figure 25. Sensing / Intuitive axis of counterbalancing opposites bisected by 9

These counterbalancing opposites (i.e., 4 and 5) can also be viewed in the context of Figure 20 which initiated this section by showing that 4's type characterized the average product from multiplying all the relationships in Figure (a-f) except between the self-cancelling counterbalancing opposites (i.e., 4 and 5, 8 and 1, and 7 and 2) which have an average product characterized by 5's type. In other words, as discussed throughout this section, 4's type characterizes the interactive collective relationships whereby the mathematically disruptive enabler converges onto the triangle to ultimately bridge the above self-cancelling or non-relating counterbalancing opposites which are characterized by 5's type. **Since these self-cancelling counterbalancing opposites in Figure 20 spatially bisect this entire convergence process leading towards symmetric order, 5's type is characterizing the abstract mathematical concept of spatial symmetric order just as it did in Section II-B.**

Also, in contrasting 5 and 4 as counterbalancing opposite types we saw in Section II-F that the former serves as the **non-interactive or conceptual initiator** of symmetric order and we saw in the above discussion that the latter serves as the **interactive sensory initiator** of symmetric convergence. Specifically, because the non-redundant emphasis of 5's type characterizes the mathematical conceptualization of symmetric order, 5's type can be viewed as the mathematical conceptual initiator leading towards symmetric order. Likewise, because the redundant emphasis of 4's type results in the interactive relationships initiating the 1/7th mathematically disruptive enabler, 4's type can be viewed as the interactive initiator leading towards symmetric order. **On the other hand, since we saw in the above discussion that 4's type redundantly drives this mathematically disruptive enabler as far as possible towards converging onto the trinitarian triangle, 4's type can also be viewed as characterizing the special interactive closer or converger in the process of moving towards symmetric order. Noteworthy, only the role of 4's type characterizing the interactive initiator was mathematically identified through the division process characterized by 2's type in Section IV-B. Accordingly, the special role of 4's type characterizing the interactive closer or converger will be mathematically identified through the division process characterized by 2's type in the text between Figures 63 and 64.**

In sum, 4's redundantly emphasized type characterizes the interactive initiation of the mathematically disruptive enabler as well as the special interactive closure or convergence of the mathematically disruptive enabler onto the trinitarian triangle. As such 4's type, when redundantly emphasized, effectively "yields" the mathematically disruptive enabler. Moreover, since 2's type, when non-redundantly emphasized, characterized the disruptive dividing of 1's type by 7's type to equate to 4's type (see Section IV-B), the following equation can summarize the overall sequence in transitioning towards symmetric order.

To review the overall transition towards implementing the 1/7th mathematically disruptive enabler or simply the mathematically disruptive enabler:

- **First, 1's type divided by 7's type must be equitable to 4's type, as identified by 2's type (see Section IV-B).**

- **Second, 4's type characterizes yielding the convergence to initiate the mathematically disruptive configuration (see Section V-A, Figures 21, 22a and b, and 23a).**

- **Third, 4's type characterizes yielding the special closing convergence of the mathematically disruptive enabler onto the trinitarian triangle (see Section V-A, Figures 23b and 24).**

This entire transition can be summarized by following equation:

1's type / 7's type = 4's type ➨ 1/7th mathematically disruptive enabler (or simply) mathematically disruptive enabler

Figure 26. Transitioning towards the mathematically disruptive enabler of symmetric order

Note, the term "yield" may be particularly appropriate in that the mathematically disruptive enabler is transitioning towards being produced and at the same time surrendering the randomness orientation to the symmetric order orientation.

B. 4's type in the context of randomness

Turning away from the redundant emphasis of 4's type characterizing the interactive initiator converging towards symmetric order, in the context of randomness the mathematically disruptive configuration cannot even be formed, much less converge as the mathematically disruptive enabler onto the trinitarian triangle. Also, as we saw in Section IV-C, the trinitarian triangle as the numerically reconciling bridge spanning the counterbalancing opposite types bisected by 9 does not exist in the context of randomness. Consequently, the opportunity to extend the numerical reconciliation role collectively to all types, as characterized by 4's type, when redundantly emphasized, simply does not exist in the context of randomness.

To numerically characterize this situation, we must return back to Figure 20 where 4's type was derived in the symmetric order context as characterizing the interactive relationships based on the multiplication process because 4 represented the average product. However, the calculation of the average product excluded the central interactive relationships between the counterbalancing opposite digits 4 and 5, 8 and 1 and 7 and 2 which are always self-canceling in the context of symmetric order, as explained in Figure 18. On the other hand, in the context of randomness (as represented by the square of randomness) the concept of counterbalancing opposites does not exist and these central interactive relationships must be included in calculating the average which would then no longer equate to 4.

Therefore, turning to the square of randomness for representation, we see the only possible aspect related to 4 associated with the square of randomness is its 4-sided outside perimeter. Thus, 4's type could be viewed as characterizing the 4-sided graphics that form the outermost or non-interactive perimeter of the square of randomness, abandoning the art of collectively connecting the types associated with the mathematically disruptive enabler converging towards symmetric order, as shown below in Figure 27.

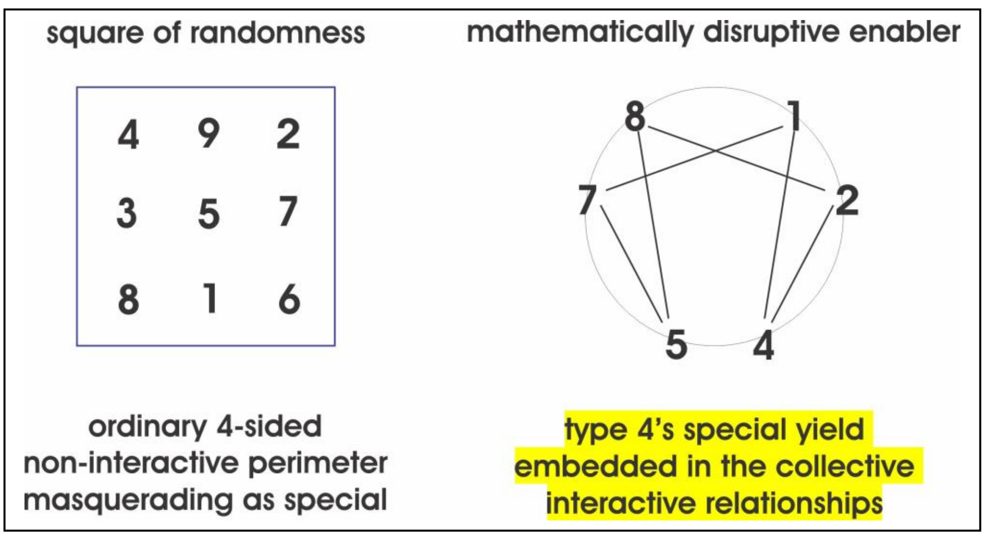


Figure 27. **Ordinary status vs. special status for the role of type 4**

Again, note in Figure 27 this 4-sided or 4-cornered perimeter does not collectively interact with the other types, whereas, the full collective interactive relationships of the mathematically disruptive enabler is specially yielded by 4's type. Also, this 4-sided perimeter is the most prominent graphic or artistic feature of the square of randomness. In contrast, within the mathematically disruptive enabler the specialty of 4 is embedded within the six digits making up the configuration. In other words, when 4's type characterizes collective mathematical disconnectivity in the context of randomness, a false sense of special status is masqueraded. Thus, suffering the loss of the specialty of collectively connecting interactively with other types translates into the mathematical equivalent of melancholy. Moreover, because this characterization only applies to 4's type, this feeling of melancholy can extend to the mathematical equivalent of outright envy of the other types.

Accordingly to combat this tendency to the mathematical equivalent of melancholy and envy, 4's type in the context of randomness should strive to connect with the other types in an attempt to create at least an image of the mathematically disruptive enabler's interactive relationships. To the extent these attempts move from randomness towards symmetric order, as shown in Figure 27, requires figuratively moving through the outer 4-sided perimeter of the square of randomness towards the configuration of the mathematically disruptive enabler as specially yielded by 4's redundantly emphasized type in the context of symmetric order (see the gateway metaphor in the next section). Such a transition would be necessary because the unique permutation or circle of symmetric order exists only outside the unlimited number of random permutations associated with the context of randomness.

In regard to the non-redundant versus redundant status of 4's type, we saw in the previous section that 4 clearly characterized the relationship based on the redundant multiplication process in the context of symmetric order (see Figures 21 and 22). However, in the context of randomness, the association of 4's type with characterizing the multiplication process is much weaker and certainly not redundant.

C. Allegorical reflections of 4's type (generally drawn from the Book of Revelation)

- **Amplification of 2's reconciliation / love metaphors**

When redundantly emphasized, 4's type collectively extends the numerical reconciliation role (characterized by 2's type in Section IV-D) for the 3, 6 and 9 triangle fully to the types constituting the mathematically disruptive enabler (i.e., 1, 4, 2, 8, 5 and 7). This special extension fully to all types can only amplify the reconciliation / love metaphors.

- **Envy / melancholy metaphors**

When not redundantly emphasized, 4's type cannot access the numerical reconciliation / love metaphors described above. Such loss can lead to the equivalent of numerical melancholy or envy of the other numerical personalities.

- **Sacrificial victim**

Since 4's type characterizes yielding or initiating the mathematically disruptive enabler of symmetric order within the hostile randomness environment, 4's type can be viewed as initiating the sacrifice as well as representing the sacrificial victim of the hostile randomness environment. Among the most frequently used metaphors for 4's type includes the sacrificial calf or lamb.

– **Long suffering / martyr metaphor**
As illustrated in Figure 27, 4’s non-redundantly emphasized type characterizes a false sense of special status in the context of randomness. Moreover, this false sense of special status can manifest itself as a martyr initiating a false image of the sacrificial victim role characterized by 4’s type when redundantly emphasized (see end of Section V-A).

– **Metaphors for a collective body of types**
When redundantly emphasized, 4's type characterizes graphically or artistically a collective body of types interactively connected. Thus, the following collective body metaphors can be used.

- An artistically beautiful body of clear water represented by a calm and pure sea.

- Nations, races, and ethnic groups connected by such sensory or artistic relationships as languages or voices, appearances, customs, friendships, cultures, and types of God relationships (e.g., church communities), or an interactive gathering of these types such as at a meal.

- The fruit of a tree which are related by such sensory considerations as color, texture, taste and smell.

When 4's type is oriented towards randomness, the above collective body metaphors become graphically or artistically disconnected. The waters become turbulent and polluted. The nations, races and ethnic groups become the usual non-interactive people. The fruit falls prematurely unripen.

– **Gateway or doorway metaphor**
The mathematically disruptive enabler graphically can also be viewed as the gateway or doorway for initiating passage from randomness to the output of symmetric order. As such, each of these gateways or doorways could appear as an exit portal for each side of the 4-sided square of randomness (shown in Figure 27). Such gateways or doorways are necessary since the unique permutation of symmetric order only exists external to the unlimited number of randomness permutations.

– **Electromagnetic force metaphor**
Since the electromagnetic force pulls the particles of matter together and thereby enables the gravitational force, the electromagnetic and gravitational forces can be analogized to the complementary roles of 4's and 2's types, respectively (see Sections IV-D and XI-B).

D. Summarizing 4's type:

- **In both the contexts of symmetric order and randomness 4's type characterizes the interactive relationships collectively involving digits (or their associated types) based on the multiplication process.**

- **In the context of symmetric order 4's type collectively extends or amplifies the numerical reconciliation / love role (characterized by 2's type) to include all of the types. This collective process converges through graphic or artistic (i.e., sensory based) relationships. Also, in this context 4's type can be viewed as initiating the formation of the collective interactive relationships of the mathematically**

disruptive enabler for which 4's type can become a sacrificial victim to the hostile environment of randomness. In addition to serving as the initiator of the mathematically disruptive enabler, 4's type can be viewed as the special interactive closer in completing the process of converging towards symmetric order. As such, 4's type, when redundantly emphasized, effectively "yields" the mathematically disruptive enabler.

- **In the context of randomness 4's type completely loses the ability to characterize the special interactive connections between the types making up the mathematically disruptive enabler. As such, this loss of being special to being ordinary equates mathematically to suffering numerical melancholy that leads to envy of the other types with a strong need to re-establish the loss connections. These features of 4's type in the context of randomness are conveyed graphically or artistically.**

- **In comparing this numerically derived type 4 with the Personality Enneagram's type 4 presented in Course 101C, the Personality Enneagram's type 4 is summarized as feeling or sensing a profound loss of original and special deep connections (or even love) involving others resulting in the following:**

  - **Ongoing expressions of deep emotions and feelings stemming from this loss including melancholy and even envy of those not exhibiting such feelings**

  - **Strong needs or desires to feel special through meaningful connections with others**

  - **This continuing needs or desires to connect (or reconnect), as well as the associated emotional pain, can be extended and expressed artistically.**

    Accordingly, the Personality Enneagram's type 4 is similar to the numerical type 4 in the context of randomness. As such, the Personality Enneagram's type 4 strives to convey the contrary image of progressing towards symmetric order.

As a reference, simplified versions of the types thus far discussed are outlined below.

	Context of Symmetric Order		Context of Randomness
Five's type: (Chapter II)	Abstract mathematical conceiver	vs.	Self-focused mathematical observer
One's type: (Chapter III)	Mathematical criteria for judging emphasizing specificity	vs.	Mathematical criteria for judging de-emphasizing specificity
Two's type: (Chapter IV)	Relationships of sincere mathematical appreciation	vs.	Relationships of insincere mathematical flattery
Four's type: (Chapter V)	The special art and sacrifice of collectively connecting mathematically	vs.	The ordinary melancholy and envy of mathematical disconnectivity

Chapter VI

Three's type:

Subtle mathematical enabler vs. Recognized mathematical achiever

A. 3's type in the context of symmetric order

The number 3 or 3’s type is the factor mathematically underlying the enablement of symmetric order in three different, but redundant, ways, as outlined below. While the following three roles for 3's type are subtle, don't be fooled by this subtlety; 3's type still redundantly characterizes the factor mathematically underlying the enablement of symmetric order.

- The first involves the underlying structure of symmetric order. The structure of symmetric order always features **three** digits (the central bisecting digit and the two bracketing digits). As explained in Section II-B, symmetric order mathematically means that the average value (expressed as a single-digit equivalent) of the digits making up every possible pair in the circle of symmetric order is equal to the central digit bisecting the respective pair.

- The second involves the exclusive role of the 3, 6 and 9 trinitarian triangle in mathematically bridging the gap between counterbalancing opposites bisected by 9 or 9’s type. Three and 6 represent the only pair of counterbalancing opposite types bisected by 9 that when divided, produce a non-zero net quotient, which is 3 (i.e., 3/6 = 0.5 --> 5 and 6/3 = 2, subtracting the quotients nets to 5 - 2 = 3, as shown in Figure 16). Thus, 3's type characterizes the only bridge for interactively spanning the gap between counterbalancing opposites bisected by 9. Further, the exclusive specificity or indivisibility of the 3, 6 and 9 trinitarian triangle (presented in Section III-B) is attributable to 3, 6 and 9 being the only digits into which 3 can divide and still produce a final single-digit equivalent quotient. Thus, when dividing by 3, 6 and 9 into other digits, you are ultimately dividing by 3 which cannot result in a final single-digit quotient and thus excluded from the context of symmetric order.

  Indeed, given 3's role as the exclusive factor underlying the 3, 6 and 9 trinitarian triangle we can refer to this triangle as simply the 3 or trinitarian triangle. Moreover, by changing the 3, 6 and 9 labels to simply 3 make this label consistent with the 1/7 label for the 1/7th mathematically disruptive enabler (see Section V-A). However, as we have seen in the previous chapter, textual references to both will more often be further simplified to the trinitarian triangle and the mathematically disruptive enabler.

- The third involves the process of mathematically categorizing the types according to their complementary processes for relating. This categorization process results in **three** categories where each consists of **three** digits or types, i.e., [2, 3 and 4], [5, 6 and 7] and [1, 9 and 8].

As we have seen in the discussion thus far, [2, 3 and 4] as the category of types directly rely on complementary interactive relationships (i.e., division and multiplication) in the pursuit of symmetric order. Likewise, it will be shown in subsequent discussion that [5, 6 and 7] and [1, 9 and 8] are categories of types which directly rely on complementary non-interactive relationships (i.e., addition and subtraction) and complementary graphical or physical convergent relationships, respectively, in the pursuit of symmetric order.

Stated another way, the pursuit of symmetric order involves the 1/7th mathematically disruptive enabler of 1, 2, 4, 5, 7 and 8 types converging onto the 3 or trinitarian triangle of 3, 6 and 9 types through three different complementary relationships. First, the mathematically disruptive enabler interactively relates with the 3 or trinitarian triangle through the complementary division and multiplication processes; second, the mathematically disruptive enabler non-interactively relates with the trinitarian triangle through the complementary addition and subtraction processes; and, third, the mathematically disruptive enabler converges onto the trinitarian triangle through complementary graphical or physical processes. Accordingly, the label describing the first or interactive approach is derived below in Figure 28.

$$3_{\text{triangle}} \div \tfrac{1}{7}\text{th mathematically disruptive enabler} = 3 \div \tfrac{1}{7} = 21 \Rightarrow 2 + 1 = \text{“}3\text{“}_{\text{label}}$$

$$3_{\text{triangle}} \times \tfrac{1}{7}\text{th mathematically disruptive enabler} = 3 \times \tfrac{1}{7} \Rightarrow 3 \times 4^{*} = 12 \Rightarrow 1 + 2 = \text{“}3\text{“}_{\text{label}}$$

* 4's type ⇨ $\tfrac{1}{7}$th disruptive enabler in the context of symmetric order as described in Section V-A

Figure 28. Deriving the label describing the 1/7th mathematically disruptive enabler converging onto the 3 or trinitarian triangle through complementary interactive processes.

However, since the convergence of the mathematically disruptive enabler onto the trinitarian triangle is a transitional process from the context of randomness to the context of symmetric order, the above label describing the process should reflect it as transitional rather than as fully realized. This can be accomplished simply by indicating that the 3 label is only approached as the upper limit (i.e. <3), as the 1/7th mathematically disruptive enabler interactively divides into or multiplies with the 3 triangle. **Appropriately, <3 is an unlimited non-terminating number (or decimal) reflecting that we are still in the context of randomness even though we have an orientation of transitioning towards symmetric order.**

The <3 label is incorporated into Figure 29 below which shows the mathematically disruptive enabler converging onto the trinitarian triangle. This label accompanies 3's type in Figure 29 because 3 is the central bisecting digit of the types (i.e., 2, 3 and 4) which directly rely on complementary interactive relationships (i.e., division and multiplication) in characterizing their pursuit of symmetric order.

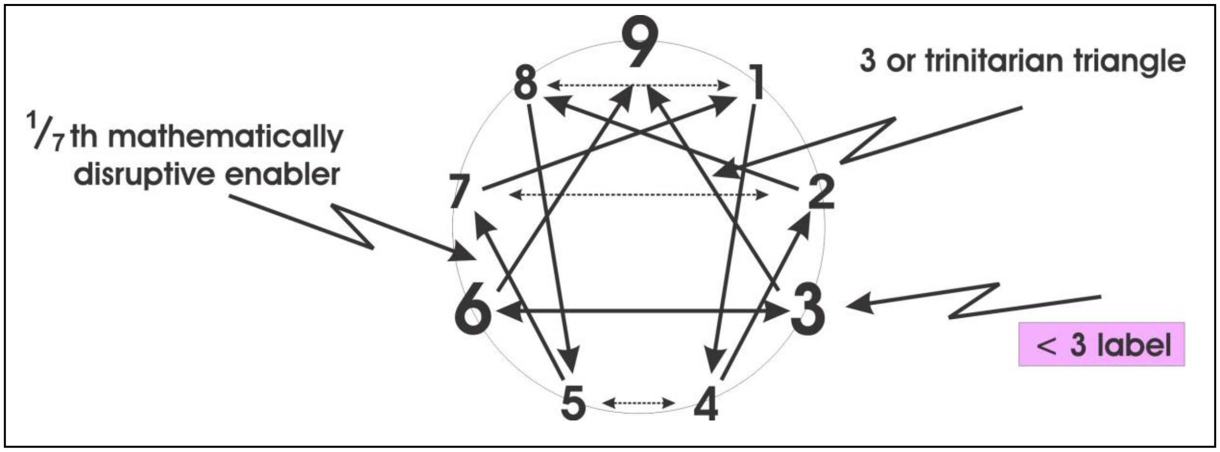


Figure 29. Incorporating the <3 label which describes the 1/7th mathematically disruptive enabler interactively converging onto the 3 or trinitarian triangle.

On the other hand, since 2's and 4's types also characterize the interactive division and multiplication relationships (see Sections IV-B and V-A), they too can be accompanied by labels describing their respective roles in the mathematically disruptive enabler as it interactively converges onto the trinitarian triangle. Since in this case the mathematically disruptive enabler would be represented by its types that characterize the interactive relationships (i.e., 2 and 4), the trinitarian triangle also should be represented by its type that underlies the interactive relationships (i.e., 3), as shown in Figure 30 below. Appropriately for the convergence process, 2's and 4's types are shown to bracket 3's type.

3 of the 3 triangle ÷ 2 of the 1/7 th mathematically disruptive enabler = 3 ÷ 2 = "1.5" label*

3 of the 3 triangle x 4 of the 1/7 th mathematically disruptive enabler = 3 x 4 = 12 ⇨ 1 + 2 = "3" label

* 1.5 cannot be expressed as a universal single-digit quotient of 6 (i.e., 1.5 ➡ 1 + 5 = 6), because 3 and 6 can serve as the single-digit equivalent of multi-digit numerals in this division process only when 6's multi-digit counterpart is 2 times 3's multi-digit counterpart (see footnotes 7 and 17). AS SUCH, IN THIS LABEL THE EXCLUSIVE SPECIFICITIES OF THE TRIANGULAR TYPES 3 AND 6 ARE BEING MATHEMATICALLY IDENTIFIED BY 2'S NUMERICAL PERSONALITY (CONSISTENT WITH SECTION IV-B).

Figure 30. Deriving the labels describing the 2 and 4 types of the 1/7th mathematically disruptive enabler interactively converging onto the 3 type of the 3 or trinitarian triangle

As explained above, the labeling should reflect the process of only approaching, rather than fully attaining, symmetric order. Again, as shown above, this can be accomplished by indicating that the 1.5 and 3 labels are only approached, as the upper limit (i.e., <1.5 and <3) as 2 and 4 of the mathematically disruptive enabler interactively divides into and multiplies with the trinitarian triangle, respectively. In other words, <1.5 and <3 are unlimited non-terminating numbers (or decimals) reflecting that we are still in the context of randomness even though we have an orientation of transitioning towards symmetric order. Appropriately, the <1.5 and <3 labels are shown accompanying 2's and 4's types, respectively, in Figure 31 below.

In comparing the above derived labels in Figures 28 and 30, we see that the <3 label is associated with both 3's and 4's types. This reflects the close tie between 4's and 3's types. As discussed in Section V-A, when redundantly emphasized to approach symmetric order, 4's type characterizes the mathematically disruptive enabler converging onto the trinitarian triangle (i.e., the triangle for which 3's type characterizes the underlying mathematical factor, as discussed earlier in this section).

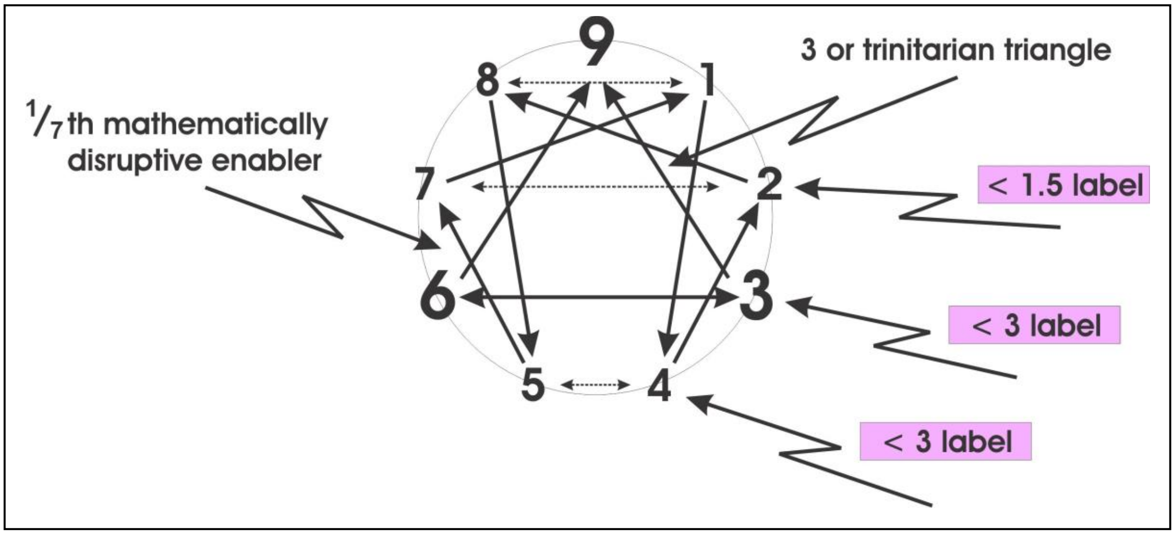


Figure 31. Incorporating (into Figure 29) the <1.5 and <3 labels which describe the 1/7th mathematically disruptive enabler interactively converging onto the 3 or trinitarian triangle

Importantly, because the establishment of the mathematically disruptive enabler and then converging it onto the trinitarian triangle is mathematically disruptive in the context of randomness, the labeling defining this entire process must be exhaustively complete. In other words, the labeling must leave absolutely no option for variations or alternatives given the unlimited choices available in the randomness environment. Accordingly, the above labeling in Figure 31 will continue to be rigorously developed through Chapter X.

B. Allegorical reflections of 3's type in the context of symmetric order
(generally drawn from the Book of Revelation)

– **Triangle Metaphors**

Given 3's role as the exclusive factor underlining the 3 or trinitarian triangle, 3's type can be represented by a simple triangular metaphor.

– **12 based numerical metaphors**

In Section V-A we saw that the redundant multiplication of 4 provided the basis for the formation of the mathematically disruptive enabler as it converges onto the trinitarian triangle. Thus, a numerical metaphor for reflecting this process is simply the multiplication of 4 and 3 to produce 12 (i.e., 12 => 1 + 2 = 3).

As a metaphor for 3's type in the context of symmetric order, 12 fulfills two requirements.

- 12 is the smallest multi-digit number that sums to a single-digit equivalent of 3.

- While 12 represents the product of 3's and 4's types, both are represented as subtle underlying mathematical factors buried within 12, consistent with their types.

To complete the 12 metaphor it needs to be combined with some of the earlier presented metaphors for 4's type from Section V-C, as follows.

- Since 4's type was portrayed by metaphorical collections of interactively related types (i.e., nations, races, ethnic groups, and fruit from a tree), these same items can be multiplied by 12 and presented as metaphors for 3's type.

- Since the redundantly emphasized type 4 yielding the mathematically disruptive enabler graphically converging onto the trinitarian triangle can be viewed as the gateway or doorway for initiating passage from the square of randomness to the circle of symmetric order, 12 gateways or doorways could appear as portals distributed around the 4-sided square of randomness.

- Even though 2's type like 4's type is complementary to 3's type in that all three share interactive characterizations (see Section VI-A), 2's type does not lend itself to the above role served by 4's type for two reasons. First, when multiplied or divided by 2, 3's type becomes a single-digit equivalent of 6 (i.e., 3 x 2 = 6 or 3 ÷ 2 = 1.5 => 1 + 5 = 6), not 3. Second, when redundantly emphasized, 2's type drives towards randomness, not symmetric order. In other words, 2’s type, when not redundantly emphasized, accompanies 3’s type; whereas, 4’s type, when redundantly emphasized, accompanies 3’s type.

C. 3's type in the context of randomness

As we saw in Section IV-C, in the context of randomness the division process can result in answers which cannot be expressed as final single-digit equivalent answers, but only as non-terminating decimals which in turn have to be expressed as constantly changing single-digit equivalent answers. Accordingly, in the context of randomness 3 becomes divisible into numbers other than multiples of itself to produce an endless array of non-terminating decimals or constantly changing single-digit equivalent answers. Because of this, 3's type in the context of randomness no longer enjoys the specificity (much less exclusive specificity) found in the context of symmetric order, as discussed in the previous section. In other words, the exclusive specificity or indivisibility of the 3 triangle being attributable to 3, 6 and 9 being the only digits into which 3 can divide and still produce a final single-digit equivalent quotient or answer in no longer exclusive in the context of randomness. **This means that the role of 3 changes from being the key factor mathematically enabling or underlying symmetric order to being a factor mathematically enabling or underlying randomness.**

However, unlike the circle of symmetric order where the key underlying enablement role of 3’s type was very understated or subtlety manifested as the 3 digits underlying the concept of symmetric order or the 3 categories of 3 digits constituting symmetric order (see introduction to Section VI-A), in the square of randomness the underlying enablement role of 3’s type represents the most prominent digital role for everyone to see. (Note, the role of 4’s type as the ordinary 4-side non-interactive perimeter masquerading as special, see Section V-B). Likewise, since 3 represents the number of digits in the horizontal rows, vertical columns, and diagonals that make up the core of the square of randomness, it basically masquerades as a three numbered matrix, as shown in Figure 32 below.

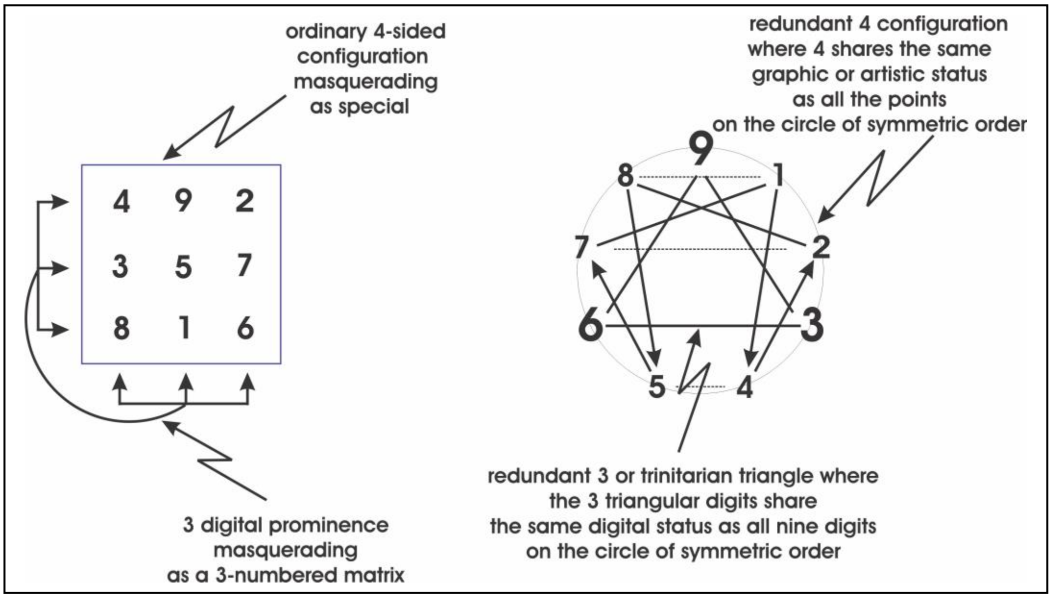


Figure 32. Integrated presentation of 3's and 4's types in the configurations representing randomness and symmetric order

To recap, in the context of the low side of randomness, 3's non-redundantly emphasized type characterizes a key factor mathematically underlying the non-exclusivity or non-specificity of the square matrix of randomness while also masquerading as the most prominent or visible (but non-exclusive) role. On the other hand, in the context of the high side of symmetric order, 3's redundantly emphasized type characterizes the key factor mathematically underlying exclusive specificity while still being the least prominent factor.

It is also noteworthy that both the contexts of randomness and symmetric order graphically integrate the presentations of 3’s and 4’s types, reflecting the close association between them, as shown above in Figure 32. In the square of randomness, each of the graphically or artistically prominent 4 sides presents the prominent 3 members characterizing the matrix. In the symmetric order configuration, the redundant 4 configuration (i.e., 4’s redundantly emphasized type yielding the 1/7th mathematically disruptive enabler) subtly converges onto the redundant 3 triangle. Note, this intense effort to create an image of recognition, we see above for 3's and 4's types, was also evident in the randomness version of 2's type which pursued the mathematical equivalent of flattery (see Section IV-C).

D. Allegorical reflections of 3's type in the context of randomness

– **1/3 based numerical metaphors**

As discussed in the previous section, in the context of randomness 3 is divisible into numbers other than multiples of itself, but not in the context of symmetric order. Metaphorically, this can be reflected by dividing into thirds the physical metaphors for the types other than multiples of 3 (i.e., 1, 4, 2, 8, 5 and 7). Since the exclusive specificity in the context of symmetric order was based on the divisibility of the 3, 6 and 9 trinitarian types by 3 to produce terminal single-digit equivalent answers, the false image of exclusive specificity in the context of randomness can be metaphorically conveyed by showing that 3 can be divided into the other types (1, 2, 4, 5, 7 and 8) and produce constantly changing or non-permanent single-digit equivalent answers. Metaphorically, the futility of this endeavor can be conveyed by the physical metaphors for these other types not achieving their intended objectives when divided into thirds. Another metaphorical example of this futile attempt to create exclusive specificity by dividing into 3 component parts is provided by the Apocalyptic character made up of a dysfunctional composite of 3 component features (i.e., body of a leopard, feet of a bear and mouth of a lion).[12]

– **Success image metaphors**

As noted at the end of Sections V-B, the randomness version of 3's type conveys a false sense of prominence or exclusive specificity. Accordingly, this false image of exclusive specificity can metaphorically represent excessive emphasis on wealth, appearance, power, etc.

– **12 based numerical metaphors**

As we saw above, in Section VI – B, the 12 based metaphors portrayed 4's type converging onto the 3 or trintarian triangle in the context of symmetric order. Alternatively, to create this false image of symmetric order while remaining steadfast in the context of randomness, the classical pyramid can be used to corrupt the 12 based metaphor. Specifically, the pyramid's four triangular sides, each representing 3's type, sit atop a 4-sided square base representing the square of randomness from Figure 27. This corruption of the 12 based metaphor can be further reinforced with a pyramid base consisting of 12 + 1 steps as is the case with the pyramid in the Great Seal of the United States and the 25 cm high ancient black pyramid found near Quito Equador.

Noteworthy, Gurdjieff drew on the culture underlying the metaphorical role of the Egyptian pyramids in his teachings, such as incorporated into the Tales of Beelzebub (i.e., Satan) to His Grandson (i.e., humanity). While, there were no direct references to "pyramids", the racket ship facilitating Beelzebub's travels was named Karnak after the major temple complex in ancient Egypt.

---

[12] To approach symmetric order the dysfunctional composite character with multiple component features must metaphorically transition to realistic characters where each has only one specific feature. For example, the four separate Apocalyptic characters represented by a lion, a calf, a man and an eagle ultimately transitioned from less functional composite characters where each was made up of a lion, an oxen, a man and eagle. Or vice-versa, to revert to randomness the characters with a more specific identity. metaphorically revert to a dysfunctional composite character with multiple component features.

E. Summarizing 3's type:

- **When redundantly emphasized, 3's type characterizes the subtle underlying factor that mathematically enables the gap between counterbalancing opposites bisected by 9 to be successfully bridged or reconciled by the trinitarian triangle. In a broader sense, this trinitarian type 3 is the exclusive underpinning mathematical factor that subtly enables the high side of symmetric order to be approached and maintained.**

- **When non-redundantly emphasized, 3's type characterizes the most prominent or visible (non-subtle) underlying factor that mathematically enables the square of randomness. In this context, 3's type conveys digital visibility and importance, despite the absence of exclusive specificity.**

- **In comparing this numerically derived type 3 with the Personality Enneagram's type 3 presented in Course 101C, the Personality Enneagram's type 3 is summarized as a highly energized and efficient achiever or enabler where the achievements must represent prominent success in the eyes of those the type 3 considers important. Success takes precedent over feelings and emotions. Accordingly, the Personality Enneagram's type 3 is similar to the numerical type 3 in the context of randomness. As such, the Personality Enneagram's type 3 strives to convey the contrary image of progressing towards symmetric order.**

- **The metaphors for 3's type must be accommodative to the other types that directly depend on the underpinning mathematical role characterized by 3's type. For this to happen, 3's type can be reflected through non-physical numerical metaphors (i.e., 12 in the context of symmetric order and 1/3rd in the context of randomness). These 12 and 1/3 numerical metaphors can then accompany the physical world metaphors for the other types that directly depend on the roles characterized by 3's type in the contexts of symmetric order and randomness, respectively.**

As a reference, simplified versions of the types thus far discussed are outlined below.

	Context of Symmetric Order		**Context of Randomness**
Five's type: **(Chapter II)**	Abstract mathematical conceiver	vs.	Self-focused mathematical observer
One's type: **(Chapter III)**	Mathematical criteria for judging emphasizing specificity	vs.	Mathematical criteria for judging de-emphasizing specificity
Two's type: **(Chapter IV)**	Relationships of sincere mathematical appreciation	vs.	Relationships of insincere mathematical flattery
Four's type: **(Chapter V)**	The special art and sacrifice of collectively connecting mathematically	vs.	The ordinary melancholy and envy of mathematical disconnectivity
Three's type: **(Chapter VI)**	Subtle mathematical enabler	vs.	Recognized mathematical achiever

Chapter VII

Six's type:

Open minded mathematical guidance vs. Closed-minded restrictive mathematical guidance

A. 6's type in the context of symmetric order

The mathematical guiding focus leading towards symmetric order is the three-digit sequence drawn from randomness. Specifically, these three-digit sequences represent all possible pairs of digits and the central bisecting digits of all the pairs. Moreover, in the context of the circle of symmetric order the average value (expressed as a single-digit equivalent) of the digits making up every possible pair is equal to the central digit spatially bisecting them. Accordingly, to characterize the mathematical guiding focus leading towards symmetric order, we must consider all of the possible three-digit sequences separated by equal intervals that make up the circle of symmetric order, as shown in Figures 4(a-f). Thus, to determine the type which characterizes the mathematical guiding focus towards symmetric order all of these three-digit sequences must be summed and averaged to a single-digit equivalent, as outlined in detail below.

In proceeding with this calculation, all the possible three-digit sequences that meet this equal interval criterion are summed and averaged which results in the single-digit equivalent average of 6 (as shown in Figure 33 below). While the calculations in Figure 33 are performed by different separating intervals taken from Figure 4(a-f), the overall net sum is essentially a single summation following the outline of the circular dimension. This is the same approach followed in Sections II-B and III-A for calculating, respectively, the average value of 5 for the nine digits and the average sum of 1 from adding the relating digits making up the circle of symmetric order.[13]

[13] The fact that 5's type characterizes the individual digits making up the three-digit sequences of symmetric order, which are characterized by 6's type, is further confirmed by the simple multiplication of 5 and 3 producing the same-digit equivalent answer of 6 (i.e., 5x3=15 => 1+5=6)

Figure 4(a)
Relating digits: 5 6 7 8 9 1 2 3 4

Sums of three digit sequences:
5+5+5 = 15
6+6+6 = 18
7+7+7 = 21
8+8+8 =24
9+9+9 = 27
1+1+1 = 3
2+2+2 = 6
3+3+3 = 9
4+4+4 = 12
Subtotal 135*

Figure 4(b)
Relating digits: 9 1 2 3 4 5 6 7 8 9

Sums of three digit sequences:
9+1+2 = 12
1+2+3 = 6
2+3+4 = 9
3+4+5 = 12
4+5+6 = 15
5+6+7 = 18
6+7+8 = 21
7+8+9 = 24
8+9+1 = 18
Subtotal 135*

Figure 4(c)
Relating digits: 9 2 4 6 8 1 3 5 7 9

Sums of three digit sequences:
9+2+4 = 15
2+4+6 = 12
4+6+8= 18
6+8+1 = 15
8+1+3 = 12
1+3+5 = 9
3+5+7 = 15
5+7+9 = 21
7+9+2 = 18
Subtotal 135*

Figure 4(d)
Relating digits: 8 2 5 8 9 3 6 9 1 4 7 1

Sums of three digit sequences:
8+2+5 = 15
2+5+8 = 15
5+8+2 = 15
9+3+6 = 18
3+6+9 = 18
6+9+3 = 18
1+4+7 = 12
4+7+1 = 12
7+1+4 = 12
Subtotal 135*

Figure 4(e)
Relating digits: 9 4 8 3 7 2 6 1 5 9

Sums of three digit sequences:
9+4+8 = 21
4+8+3 = 15
8+3+7 = 18
3+7+2 = 12
7+2+6 = 15
2+6+1 = 9
6+1+5 = 12
1+5+9 = 15
5+9+4 = 18
Subtotal 135*

Averages of sums = $\frac{\text{Sum of groups of digit sequences}}{\text{Number of groups of three digit sequences}} = \frac{5 \times 135}{5 \times 9} = \frac{135}{9} = 15 \Rightarrow 1+5 = 6$

Note, the average of each group is also 6 (i.e. 135 / 9).

Figure 33. Average sum of 6 from adding all the possible series of three-digit sequences in Figure 4(a-f)

To summarize 6's type characterizes the mathematical guiding focus required to transition from randomness (i.e., an unlimited random pool of digits) towards the three-digit sequences making up the circle of symmetric order. However, this mathematical guiding focus does not stop with the circle of symmetric order but continues ultimately towards the three-digit sequence making up the 3 or trinitarian triangle (i.e., 3, 6 and 9). In other words, since the nine digits of the circle of symmetric order are made up of the six digits constituting the mathematically disruptive enabler and the three digits constituting the 3 or trinitarian triangle, 6's type can be viewed as characterizing the mathematical guiding focus that directs the former (i.e., six) towards converging onto the latter. Thus, 6's type characterizes the mathematical guiding focus all the way from randomness to symmetric order as represented by converging onto the trinitarian triangle.

Since the above process of summing and averaging the three-digit sequences followed only the outline of the single circular dimension rather than all possible permutations, type 6's characterization in this circular or symmetric order context is non-redundantly emphasized.

Turning to comparing the roles of 6 and 3 as a pair counterbalancing opposite types bisected by 9, just as we saw 3's type characterizing the underlying role for the <u>three</u> types of the trinitarian triangle, 6's type can be seen as fulfilling a counterbalancing opposite role in characterizing the mathematical guiding focus for the <u>six</u> types of the mathematically disruptive enabler within the context of the circle of symmetric order, as the mathematically disruptive enabler converges onto the trinitarian triangle shown in Figure 34 below. In other words, 6's type characterizes from the perspective of the mathematically disruptive enabler; whereas, 3's type characterizes from the perspective of the trinitarian triangle.

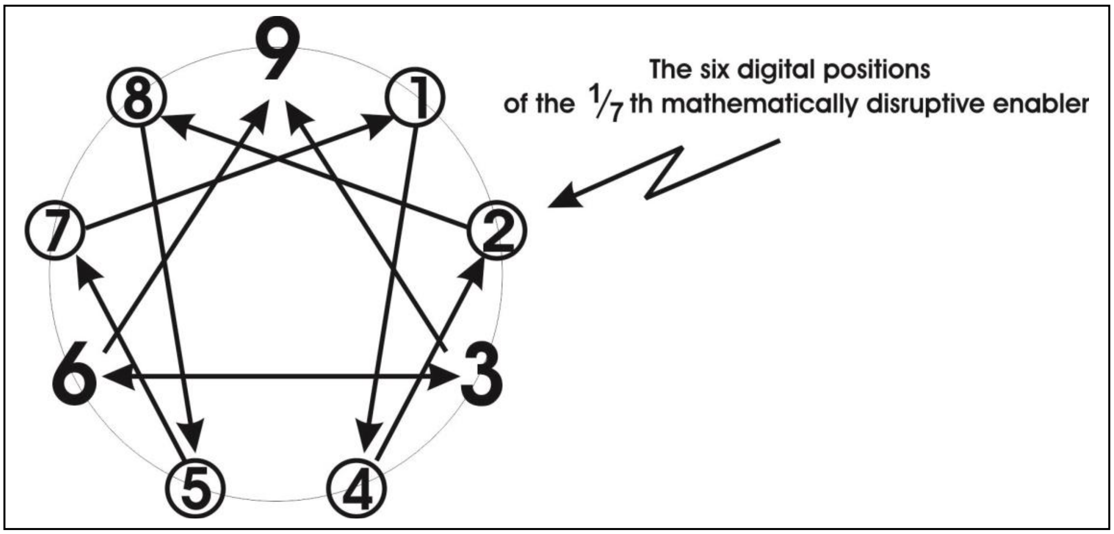


Figure 34. 6's type characterizes the mathematical guiding focus of the six positions of the 1/7th mathematically disruptive enabler converging onto the 3 or trinitarian triangle within the context of the circle of symmetric order

The label describing the process illustrated in Figure 34 above is derived in Figure 35 below. It specifically shows the mathematically disruptive enabler relating with, or converging onto, the trinitarian triangle through the non-interactive process of addition.[14] Importantly, since Figure 35 only addresses the addition process in the convergence of the mathematically disruptive enabler onto the trinitarian triangle, the other non-interactively relating process, namely subtraction, will be addressed later in Chapter X. Both the addition and subtraction process must be addressed in the labeling for 6's type in the same way that the multiplication and division processes were addressed in the labeling for 3's type (see Figure 28).

[14] As described in Section IV-A, the addition and subtraction process, unlike the division and multiplication process, represent non-interactive processes because the relating numerical entities do not arithmetically interact where there is a change in the mathematical identity of at least one of the relating entities in order to produce an answer. In addition, and subtraction, the relating entities are simply rearranged or regrouped so that the answer does not change the identities of the relating entities.

Figure 35. Deriving the label describing the 1/7th mathematically disruptive enabler non-interactively converging onto the 3 or trinitarian triangle through the process of addition

However, since the convergence of the mathematically disruptive enabler onto the trinitarian triangle is a transitional process, the above label describing the process should reflect it as transitional rather than as fully realized. This can be accomplished simply by indicating that the $3^1/_7$ label is only approached as the upper limit or maximum summation, (i.e., $<3^1/_7$), as the mathematically disruptive enabler non-interactively adds to the trinitarian triangle. Moreover, since the naturally occurring constant of "circularity" (π) or 3.142 … is 99.96 % of 3 1/7, π can be substituted for the <3 1/7 label (as also shown below in Figure 33) to more specifically convey and **confirm** the circularity of symmetric order characterized by 6's type. Also, since 6's type characterizes mathematical guiding focus for the circle of symmetric order shown in Figure 34 and labeled in Figure 35, the $<3^1/_7$ or π label should be associated with 6's type, as shown in Figure 36 below (which builds on Figure 31). Also keep in mind, π as an unlimited non-terminating number (or decimal) reflects we are still in the context of randomness even though we have an orientation of transitioning towards symmetric order.

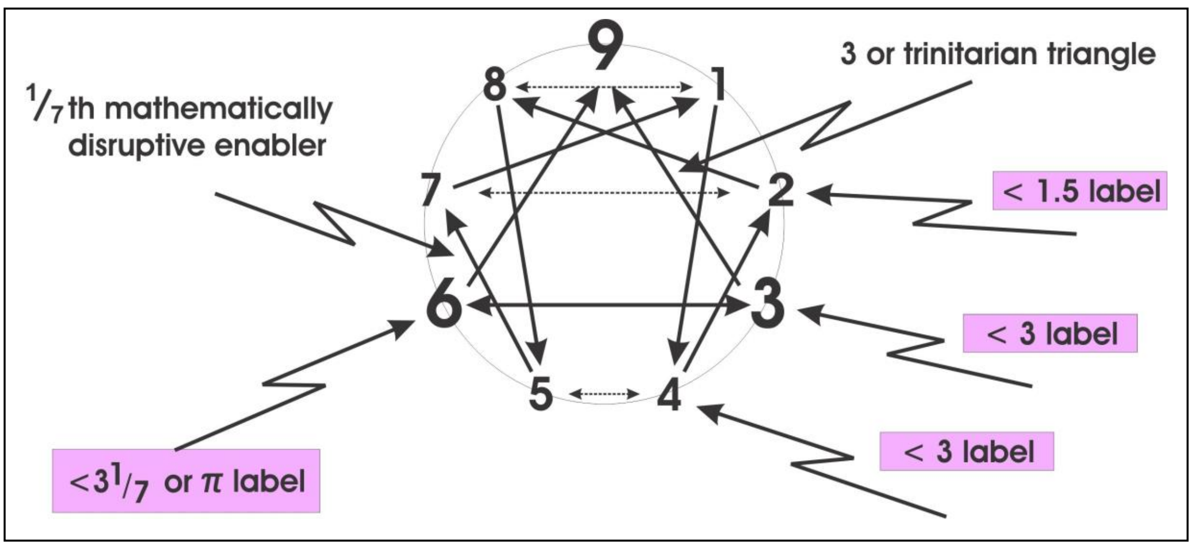


Figure 36. Incorporating (into Figure 31) the $<3^1/_7$ or π label which describes the guiding focus for the 1/7th mathematically disruptive enabler non-interactively converging onto the 3 or trinitarian triangle through the process of addition

Just as Figure 35 derives a label describing the mathematically disruptive enabler non-interactively converging onto the trinitarian triangle through the process of addition; the 5 type of the mathematically disruptive enabler, which is characterized through the non-interactive addition process (see Section II-B), can be shown to non-interactively converge onto the non-interactively oriented type of the trinitarian triangle (i.e., 6) through the process of addition, and accordingly labeled.[15] Specifically, since 5's type characterizes spatial symmetric order whereby the average value (calculated through the process of addition) of the digits making up every possible pair of digits on the circle of symmetric order is always equal to the central digit spatially dissecting them (see Section II-B), 5's and 7's type can be labeled as bisected by 6's type. Accordingly, 5 and 7 must be presented as stand-alone labels in Figure 37 below to describe the concept of symmetric order, as characterized by 5's type.[16] Again note, the labeling based on the other non-interactive process, namely subtraction, will be the focus of Chapter X.

As explained earlier, the labeling should reflect the process of only approaching, rather than fully attaining, symmetric order. Accordingly, this can be accomplished by indicating the 5 and 7 labels are only approached as the maximum summation in calculating the average values (i.e., <5 and <7 as unlimited non-terminating numbers or decimals), rather than fully attained as types 5 and 7 of the 1/7 mathematically disruptive enabler.

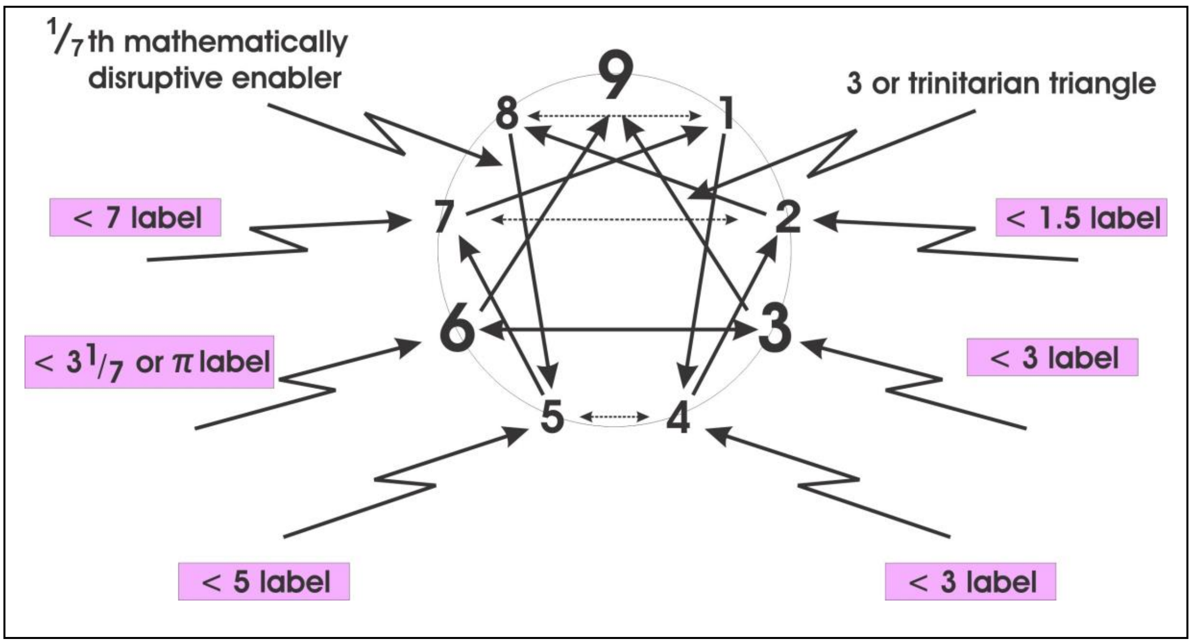


Figure 37. Incorporating (into Figure 36) the <5 and <7 labels which describe the 1/7th mathematically disruptive enabler non-interactively converging onto the 3 or trinitarian triangle through the process of addition

---

[15] This is similar to the way in which the 2 and 4 types of the mathematically disruptive enabler were shown to interactively converge onto the interactively oriented type of the 3 triangle (i.e., 3) through the division and multiplication process and accordingly labeled in Figures 30 and 31.

[16] **Remember the labels in Figure 37 reflect the addition process as presented through 5's stand-alone type and not through 1's type characterizing the interrelational nature of the addition process because 5's (not 1's) type brackets 6's type.**

B. Allegorical reflections of 6’s type in the context of symmetric order
(generally drawn from the Book of Revelation)

– **Guiding spirit**

The abstract, cerebral or non-bodily aspect associated with the term “spirit” usually applies to guiding the non-cerebral or bodily aspect of a being. Thus, guiding spirit is a very effective metaphor for the mathematical guiding focus characterized by 6’s type.

– **Elders**

The guiding focus provided by the wise elders of a community can be analogized to the mathematical guiding focus characterized by 6’s type. Since the elders are drawn from the community they help to guide, they can represent the perspective of the community. Thus, the elders metaphor is well suited to represent 6’s type because the mathematical guiding focus characterized by 6’s type is from the perspective of the mathematically disruptive enabler.

– **24 based numerical metaphors**

If 3's symmetrically oriented type is to be expressed in terms of the 12 numerical metaphor (see Section VI-B), 6's type should also be expressible in terms of 12, when oriented towards symmetric order. This reflects that 3 is the interactive factor mathematically underlying, not just 3, but also 6 and 9 of the trinitarian triangle, as discussed earlier. Thus, the corresponding numerical metaphors for 6's type is 24 (i.e., 2x12=24 => 6 instead of 2 x 3 = 6).[17] Again, to be consistent, the corresponding type 6 metaphors (associated with 24) should be at the stage of approaching symmetric order. Moreover, the non-numerical metaphor accompanying the 24 numerical metaphor should be consistent with the non-numerical metaphor accompanying the 12 numerical metaphor.

– **42 based numerical metaphors**

Just as the numerical metaphors for the trinitarian type 3 are accompanied by metaphors for 4's redundantly emphasized type, so too can the numerical metaphors for the trinitarian type 6 be accompanied by metaphors for 7's redundantly emphasized type, as presented in Section X-D. In other words, just as 3’s and 4’s types rely on the complementary interactive relationships (see Section VI-A and V-A), so too do 6’s and 7’s types rely on the complementary non-interactive relationship. Further supporting this parallelism, both 4’s and 7’s (unlike 2’s and 5’s) types are oriented towards symmetric order when redundantly emphasized (see Sections V-A and X-C, introductory paragraph). Just as the accompanying types 3 and 4 were expressed as the 12 numerical metaphor (i.e., 3 x 4 = **12** => 1 + 2 = 3); so too are the accompanying types 6 and 7 expressed as the 42 numerical metaphor (i.e., 6 x 7 = **42** => 4 + 2 = 6).

When the trinitarian type 6 is expressed in terms of the 42 numerical metaphor, the trinitarian type 3 should not also be expressible in terms of 42 which would be 21 (i.e., 42 ÷ 2 = 21 just as 6 ÷ 2 = 3) because 6 is not the interactive factor mathematically underlying the trinitarian types as was 3.

However, since we earlier saw that 6’s type characterizes from the perspective of the mathematically disruptive enabler versus 3’s type characterizing from the perspective of the trinitarian triangle, type 6’s accompaniment with type 7 (as a member of the

[17] 3, 6 and 9 cannot serve as single-digit equivalents of multi-digit numerals in interactively relating with one-another through the division process except when the multi-digit counterparts of 3, 6 and 9 have the same ratio to one another as do the respective single-digit equivalents (i.e., 3, 6 and 9).

mathematically disruptive enabler) is much more reflective of the disruptive enabler's perspective than type 3's accompaniment of type 4. Moreover, this reflectiveness of the disruptive enabler through the accompaniment with the redundantly emphasized type 7 is even further intensified because the trinitarian type 6 is not redundantly emphasized; whereas, the trinitarian type 3 is redundantly emphasized (see Section X-D).

Also note, since 5's non-redundantly emphasized type is complementary with 6's type, 5's type can non-redundantly accompany 6's type; as opposed to type 7's redundant accompaniment of 6's type.

C. 6's type in the context of randomness

Our discussion so far has assumed 6's type is non-redundantly emphasized in that the above summation and averaging of three-digit sequences followed the outline of only the single circular dimension. We now can explore what happens if 6's type is redundantly emphasized. Just as the redundant emphasis of 5's type resulted in characterizing all the isolated digital positions in the square of randomness in three redundant ways (i.e., horizontally, vertically, and diagonally, see Figure 11), so too can the redundant emphasis of 6's type result in characterizing all of the three-digit relationships in the square of randomness in three redundant ways.

When Figure 11 is viewed horizontally, vertically, and diagonally, all of the three-digit sums of 15 can be equated (using the casting out nines process) to the single-digit value of 6 (15 => 1+5=6), as shown in Figure 38 below.

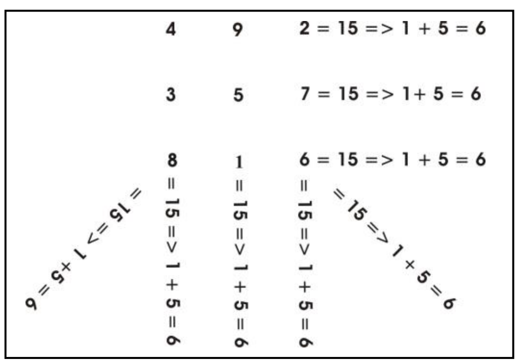


Figure 38. All rows, columns and diagonals in the square of randomness sum to the single-digit equivalent of 6

Assuming the above model is representative of all the three-digit sequences involving the nine digits 1-9, this would imply that if all the possible three-digit sequences involving these nine digits were summed and averaged, the average would equate to a single-digit equivalent of 6. Since we do not show the many (9^3) permutations of calculations to check this assumption, we offer the following abbreviated or shortcut approach. Given that 5 represents the single-digit equivalent average of all the individual, standalone digits 1-9, then the single-digit equivalent average of all the possible three-digit sequences involving the digits 1-9 can be confirmed to be 6 (3-digit sequences x 5 avg. value of digits = 15 => 1+5=6).[18]

Paradoxically, the square of randomness can be viewed as more restrictive than the circle of symmetric order, in that every possible three-digit sequence redundantly (i.e., in three different dimensions - horizontally, vertically, and diagonally) equals 15 or the same-digit value of 6. In the circular organization of symmetric order, the three-digit sequences non-redundantly equate to the single-digit value of 6 in only one dimension: circularly. Accordingly, just as 6’s non-redundantly emphasized type characterized the mathematical guiding focus associated with the less restrictive circle of symmetric order, so too does 6’s redundantly emphasized type characterize the mathematical guiding focus associated with the more restrictive sequence of randomness.

Also, the redundant pervasiveness of this restrictiveness to place limitations on every position in the square of randomness creates a natural resistance to moving away from randomness. Said another way, this restrictiveness creates a natural resistance to moving toward symmetric order (see entropy rules discussion in Section II-C).

To again summarize, just as 6’s non-redundantly emphasized type characterized the less restrictive mathematical guiding focus for transitioning randomness to symmetric order, so too does 6’s redundantly emphasized type characterize the more restrictive mathematical guiding focus resisting the transition from randomness to symmetric order.

D. Allegorical reflections of 6's type in the context of randomness
(generally drawn from the Book of Revelation)

- **The 666 numerical metaphor to convey the restrictive guidance resisting the transition from randomness towards symmetric order**

For a metaphor to reflect the restrictive mathematical guidance of 6's redundantly emphasized type, it should demonstrate that every three-digit horizontal row, vertical column and diagonal in the square of randomness’s organization is characterized by the same-digit sum of 6 as was shown above in Figure 38. This can be accomplished simply by specifying that each of the eight rows, columns and diagonals that constitute the square matrix must sum to the single-digit equivalent of 6. Accordingly, these same-digit sums of 6 for first the rows, second the columns and third the diagonals, can be represented as three 6’s or 6, 6 and 6, respectively. Adding further credibility to the 6, 6 and 6 characterization or numerical metaphor is its redundant use of 6’s to reflect the square of randomness which in turn is characterized by 6’s type when redundantly emphasized.

Moreover, this 6, 6 and 6 labels can be further simplified to just a 666 label or mark so long as it is recognized that 666 is not a conventional Arabic multi-digit number based or repeating increments of 10. This means the 666 label or mark cannot be reduced to a single

---

[18] Just as the addition process was used in the context of both the circle of symmetric order and the square of randomness to derive 5's and 1's types (see Section II-B and C and III-A), so too can the addition process be used in both contexts to derive 6's type. In other words, since the addition process has the universal flexibility to be equally applicable in both contexts, the average sum of all the possible series of three-digit sequences in both Figures 33 and 38 must equate to a single-digit value of 6. **As a result, the non-redundantly type 6 can characterize the mathematical guiding focus to transitional from within the context of randomness to the context of symmetric order which at the same time being relatively vulnerable to regressing towards randomness, if the type 6 becomes redundantly emphasized.**

digit equivalent through the casting out nines process. Accordingly, the 666 label or mark can serve as a metaphor for the imagined or false exclusive specificity conveyed by 2's type when oriented towards randomness, as discussed in Section IV-D. In sum, Figure 38’s square of randomness could also be referred to as the 666 square of randomness.

– **The metaphorical thrones of randomness and symmetric order**

When interpreting 5's redundantly emphasized type within the context of the 666 metaphorical label for the square of randomness (see Figures 11 and 38), 5 is seen to be the central or focal point, both functionally and graphically. Moreover, only 5's redundantly emphasized type can serve as the central position of the 666 square of randomness. Thus, within the metaphorical domain of randomness (as characterized by the 666 mark), the redundant emphasis of 5's type can represent the metaphorical throne of its domain (also see Section IV-D).

Likewise, when interpreting the trinitarian triangle’s role within the context of the circle of symmetric order (see Figures 29 and 31), it is seen to be the central focus, both functionally and graphically. Thus, within the metaphorical domain of the circle of symmetric order the trinitarian triangle can represent the metaphorical throne of its domain (also see Section IV-D).

E. Summarizing 6's type:

- **When not redundantly emphasized, 6's type characterizes the mathematical guiding focus required to transition from randomness (i.e., an unlimited random pool of digits) towards the three-digit sequences making up the circle of symmetric order. However, this mathematical guiding focus does not stop with the circle of symmetric order but continues to provide the mathematical guiding focus for the six digital positions of the mathematically disruptive enabler converging onto the three digit sequence constituting the trinitarian triangle and thereby ultimately approach symmetric order.**

- **When redundantly emphasized, 6's type characterizes the restrictive mathematical guiding focus resisting or preventing the transition from randomness towards symmetric order.**

- **In comparing this numerically derived type 6 with the Personality Enneagram’s type 6 presented in Course 101C, the Personality Enneagram’s type 6 is summarized in dealing or coping with restrictive or authoritarian situations as phobic, counterphobic or a combination of the two. The phobic responses to restrictive or authoritarian situations include: fearfulness, anxiety, self-doubt, paranoia, insecurity, procrastination, tendencies to create worst case scenarios, overly compliant or loyal, and analysis paralysis. The counterphobic response to restrictive or authoritarian situations includes: challenging and rebellious actions, hostility, engaging in high-risk activities to prove both to themselves and to others that they are not fearful, and the skeptical devil’s advocate stance. Accordingly, the Personality Enneagram's phobic type 6 is similar to the numerical type 6 in the context of randomness. On the other hand, the Personality Enneagram's counterphobic type 6 could, in some instances, be viewed as striving to break away towards symmetric order.**

– **The 666 metaphorical label or mark for 6's redundantly emphasized type conveys the restrictive mathematical guidance resisting the transition from randomness towards symmetric order.**

As a reference, simplified versions of the types thus far discussed are outlined below.

	Context of Symmetric Order		Context of Randomness
Five's type: (Chapter II)	Abstract mathematical conceiver	vs.	Self-focused mathematical observer
One's type: (Chapter III)	Mathematical criteria for judging emphasizing specificity	vs.	Mathematical criteria for judging de-emphasizing specificity
Two's type: (Chapter IV)	Relationships of sincere mathematical appreciation	vs.	Relationships of insincere mathematical flattery
Four's type: (Chapter V)	The special art and sacrifice of collectively connecting mathematically	vs.	The ordinary melancholy and envy of mathematical disconnectivity
Three's type: (Chapter VI)	Subtle mathematical enabler	vs.	Recognized mathematical achiever
Six's type: (Chapter VII)	Open-minded mathematical guidance	vs.	Closed minded restrictive mathematical guidance

Chapter VIII

Eight's type:

The mathematical producer vs. The mathematical enforcer

A. Background

To introduce 8's type, we contrast it with 1’s, its counterbalancing opposite type when bisected by 9. One's type characterizes the equal status of all the types through the process of multiplying or dividing by 1 (where no change is involved), as discussed in Section III-C. In contrast, 8's type mathematically produces the greatest change by converting each type into its most extreme (or counterbalancing) opposite. It does so through the process of multiplying or dividing by 8, as shown below in Figure 39.[19]

“1” x 8 =		“8”		
“2” x 8 = 16	⇨	1 + 6 = “7”		
“3” x 8 = 24	⇨	2 + 4 = “6”		
“4” x 8 = 32	⇨	3 + 2 = “5”		
“5” x 8 = 40	⇨	4 + 0 = “4”		
“6” x 8 = 48	⇨	4 + 8 = 12	⇨	1 + 2 = “3”
“7” x 8 = 56	⇨	5 + 6 = 11	⇨	1 + 1 = “2”
“8” x 8 = 64	⇨	6 + 4 = 10	⇨	1 + 0 = “1”
“9” x 8 = 72	⇨	7 + 2 = “9”		

Figure 39. 8's type mathematically produces the greatest change

Interpreting the characteristics of mathematically producing the greatest change within the contexts of symmetric order and randomness.

- In the context of symmetric order, mathematically producing the greatest change characterized by 8's type involves a single or non-redundant multiplication by 8 mathematically producing a single pair of counterbalancing opposite types bisected by 9, as shown in Figure 40 below. In the context of symmetric order, as represented by the circle of symmetric order, a non-redundant type, such as 5 or 6, is always opposite a redundant type (i.e., 4 or 3), when the opposites are bisected by 9 in the context of symmetric order. When any pair of opposites is not bisected by 9 in the context of symmetric order, they cannot represent redundant / non-redundant (i.e., counterbalancing) opposites. Because these opposite types bisected by 9 always represent the component pairing of types for the circle or symmetric order, the circle of symmetric order represents the output of the first way of mathematically producing the greatest change. Also, opposites bisected by 9 in the context of symmetric order are also

[19] To be divided by 8 is the same as being multiplied by 8 in that the single digit equivalent of 1/8 is 8 (i.e., .125 ---> 1+2+5 = 8).

referred to as counterbalancing opposites (see Section II B).

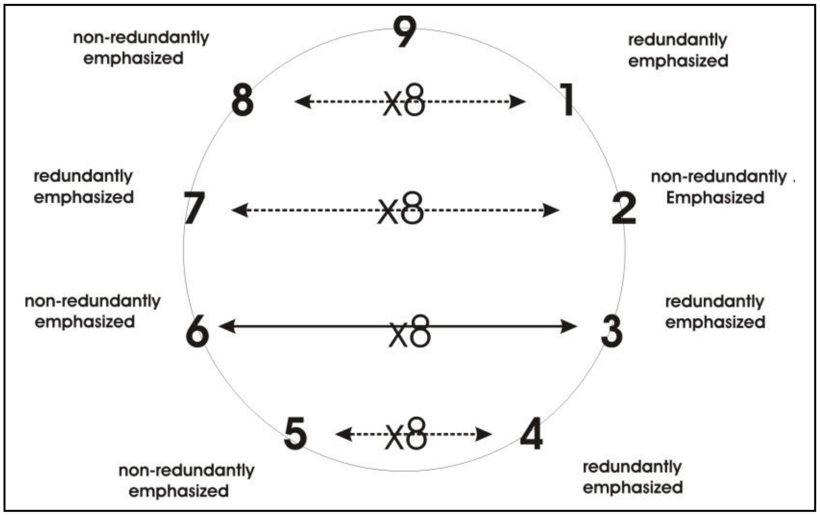


Figure 40. Non-redundant or single multiplication by 8 mathematically producing the counterbalancing opposite types bisected by 9 or the circle of symmetric order

– In the context of randomness, mathematically producing the greatest change characterized by 8's type involves repetitively or redundantly multiplying by 8 resulting in the redundant mathematical producing of opposite types, as shown in Figure 41 below. In this case the opposite types are produced without regard for their redundant or non-redundant status and without regard for being bisected by 9, and thus cannot be included in the circle of symmetric order. Moreover, because they are mathematically produced redundantly, these redundant pairs of opposites can be viewed as representing redundant pairs of competing types. This is analogous to the competition between types with randomly interchangeable identities as they compete for a false sense of identity or specificity in the context of randomness. Since competing types represent the component pairing of types in the square of randomness, the square of randomness represents the output of the second way of mathematically producing the greatest change.

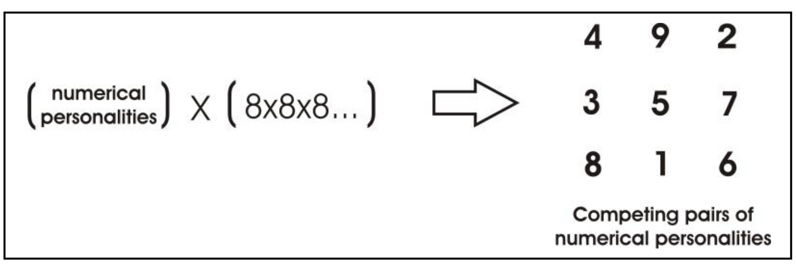


Figure 41. Redundant multiplication of 8 mathematically producing competing types or the square of randomness

B. 8's type in the context of symmetric order

As explained above, the non-redundant emphasis of 8's type characterizes mathematically producing opposite types bisected by 9 where only one of the opposites is redundantly emphasized and the other is not. Since the circle of symmetric order can be viewed as consisting entirely of counterbalancing opposites bisected by 9 (as shown above in Figure 40 and below in Figure 42), the non-redundant emphasis of 8's type characterizes mathematically producing the circle of symmetric order.

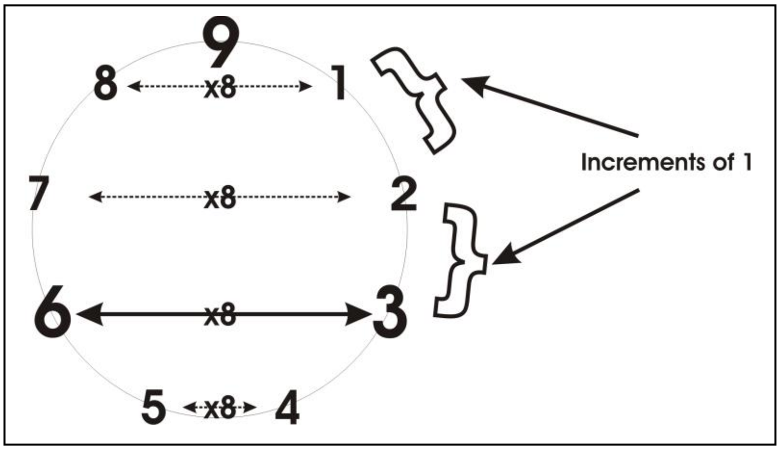


Figure 42. Counterbalancing opposites bisected by 9 in the circle of symmetric order

Also recall from Section III-C that the redundant emphasis of 1's type characterizes the mathematical specificity criteria for all the types that make up the circle of symmetric order. This means that the consecutive digits in Figure 42 are separated by intervals of 1. Since, the non-redundant emphasis of 8's type characterizes mathematically producing the circle of symmetric order and its counterbalancing opposite type (i.e., the redundant emphasis of 1's type) characterizes the mathematical specificity criteria (based on the separating intervals) for all the types of the circle of symmetric order, 8's and 1's types can also be considered complementary.

Because this complementariness involves the characterization of both the mathematical producer and the mathematical specificity criteria for production, 8's and 1's types can even be considered interchangeable at the initial stage of production. To better understand this concept of the interchangeability of 8's and 1's types at the initial stage of production, think of 1 as characterizing the basic mathematical unit of measurement for measuring the output or production and 8 as characterizing mathematically producing of the output. By characterizing the basic mathematical unit of measurement for production, 1's type characterizes the mathematical specificity criteria for production in that all production must consist of at least one unit of measurement. Thus, 8's and 1's types can be viewed as interchangeable when the production or total output is equal only to the basic mathematical unit of measurement, which would have to be the case at the initiating stage of production. Thus, without this initial interchangeability between 1 and 8, the initial production characterized by 8's non-redundantly emphasized type could not begin.

Also keep in mind that the above specificity of the nine types constituting the circle of symmetric order also incorporates that six of these types make up the mathematically disruptive enabler and the other three types make up the trinitarian triangle where the former converges onto the latter. Therefore, because 8's type when fully implemented characterizes mathematically producing the complete fulfillment of the mathematical specificity criteria for symmetric order, 8's type (when fully implemented) can also be viewed as the mathematical driver characterizing the full production of the mathematically disruptive enabler and its subsequent convergence onto the trinitarian triangle. Noteworthy, while this full implementation goes beyond the initial interchangeability of 8's and 1's types, the full implementation still subsumes this interchangeability.

Noteworthy, only the role of 8's type being initially interchangeable with 1's type was mathematically identified through the division process characterized by 2's type in Section IV-B. Accordingly, the full implementation of 8's type will be mathematically identified through the division process characterized by 2's type in the text between Figures 63 and 64.

C. Allegorical reflections of 8's type in the context of symmetric order
(generally drawn from the Book of Revelation)

Since, when operating in the context of symmetric order, 8's type characterizes the mathematical production required to fulfill the mathematical criteria characterized by 1's type, allegorical reflections of the former should be capable of accompanying the allegorical reflections of the latter. However, in mathematically fulfilling these criteria, 8's type characterizes two stages of fulfillment. First, 8's type characterizes mathematically fulfilling these mathematical criteria only to the extent that 8's and 1's types are interchangeable, as explained in the previous section. Second, 8's type characterizes mathematically fulfilling these mathematical criteria to the extent that symmetric order is fully produced mathematically, as represented by the full production of the mathematically disruptive enabler and its subsequent convergence onto the triniterian triangle. As such, the second subsumes the first.

Keep in mind that 1's redundantly emphasized type characterizes the mathematical criteria for the numerical specificity that determines the symmetric order manifested in the circle of symmetric order (see Section III-C). As explained in Section II-B, the ultimate focus on the numerical specificity of symmetric order is best expressed, both conceptually and as the criteria, when any digit on the circle of symmetric order is viewed as being paired only with itself which is referred to as same-digit symmetry.[20] Thus, when 8's type allegorically characterizes mathematically producing symmetric order, it can characterize the mathematical fulfillment of numerical specificity by allegorically conveying fulfillment of the concept of same-digit symmetry, as documented below.

---

[20] Remember within the context of the circle of symmetric order, the specificity of symmetric order is determined by the ability to equate the average value (expressed as a single-digit equivalent) of the digits making up every possible pair of digits to the central digit spatially bisecting them. Thus, in same-digit symmetry the spatially bisecting digit is also the digit being paired.

– 3.5 years (or time, times and half a time) metaphors

- **Since the earlier presented metaphorical reflections of 1's type involved the sacrificial death of the randomness orientation as a criterion for moving towards symmetric order (see Section III-D), a metaphorical reflection of 8's type could quantify the dying process. Accordingly, if we use the sacrificial death or killing criterion in the battle for symmetric order as a metaphor to reflect 1's type, 8's type could metaphorically represent the death period following the killing, which can be viewed from two perspectives. First, when viewed from the perspective of the death period of the randomness orientation, the death period metaphorically represents 8's type when only interchangeable with 1's type. Secondly, when viewed from the perspective of arising from death to usher in the full implementation of symmetric order, the death period metaphorically represents the full implementation of 8's type.**

- **The most flexible time metaphor for expressing this death period is 3.5 years (i.e., 3 + 5 = 8) to convey 8's type. When expressed as year, years, and half a year or time, times and half a time, which represent the component numerals of 3.5 (i.e., 1, 2 and 0.5), the metaphor can convey the process of doubling where 1 is the doubling of 0.5 (i.e., 0.5 and 0.5) and 2 is the doubling of 1 (i.e., 1 and 1). Within the context of symmetric order the doubling or pairing of the same digits (0.5 and 1) represents same-digit symmetry.**

- **Of all the possible multi-digit numbers that sum to a single-digit equivalent of 8, 3.5 is the only one which, when expressed in terms of its component numerals (i.e., 1, 2 and 0.5), also can directly refer to same-digit symmetry.**

- **In addition to conveying same-digit symmetry, the time, times and half a time metaphor conveys a further focus on 1 and its associated type. The 1 focus is established because of the three numbers that make up the sequence 0.5, 1 and 2, 1 is the only number that fulfills both roles of the sequence, namely, the number that is doubled as well as the sum of a doubled number.**

- **Alternatively, the metaphorical 0.5, 1 and 2 can be expressed as fractions of the total 3.5 years (i.e., $\frac{0.5\text{ yr}}{3.5\text{ yr}} = \frac{1}{7}$, $\frac{1\text{ yr}}{3.5\text{ yr}} = \frac{2}{7}$, and $\frac{2\text{ yr}}{3.5\text{ yr}} = \frac{4}{7}$ which when added $\frac{1}{7} + \frac{2}{7} + \frac{4}{7} = \frac{7}{7} = 1$). This process strips the metaphor of its time dimension and ties it to the 1/7th series underlying the mathematically disruptive enabler (see Section IV-B).**

- **To summarize, the 3.5 years (and time, times and half a time) represent the metaphorical time period from the sacrificial death of the randomness orientation to the resurrection of full symmetric order. When viewed from the perspective prior to the resurrection, the time, times and half a time can serve as a metaphor for 8's type interchangeable with 1's type (as represented by same-digit symmetry). On the other hand, when viewed from the perspective following the resurrection, the 3.5 years can serve as a metaphor for the fully implemented type 8 characterizing the full mathematical producing of symmetric order.**

- **When viewed as 3.5 metaphorical years, it can be seen from two perspectives. First, viewed as 42 months conveys the perspective of the trinitarian type 6 (i.e.,**

4 + 2 = 6) accompanied by 7's type (see Section VII-B). Secondly, viewed as the totality of 1260 days (assuming 30-day metaphorical months) conveys the trinitarian type 9 (i.e., 1260 => 1 + 2 + 6 + 0 = 9) as well as the underlying interactive role of the trinitarian type 3 (i.e., 30 => 3 + 0 = 3).

− **Killing the 1/3 numerical metaphors**

Another approach for fulfilling the death of the randomness influence involves killing the randomness metaphors for the various types. In this regard, the only randomness metaphor common to all of the various types is the 1/3 numerical metaphor from Section VI-D. Specifically, the 1/3 numerical metaphor conveys a false image of exclusivity by dividing 3 into the non-trinitarian types (i.e., 1,2,4,5,7 and 8) and mathematically producing constantly changing or non-permanent single-digit equivalent answers or quotients in the same way that 3 exclusively divides into the trinitarian types (3, 6 and 9) and mathematically produces final or permanent single-digit answers or quotients.

Thus, the metaphors oriented towards randomness for the various types can approach being completely killed by killing the metaphors for 1's, 2's, 4's, 5's, 7's and 8's types as they are divided by 3. Moreover, since this is a collective killing exercise, it can be presented collectively or grouped together. Accordingly, if these 1/3 metaphors are redundantly killed twelve different ways, while being viewed as a collective group, they redundantly produce a final or permanent single-digit quotient of 4 (i.e., 12 x 1/3 =4). At this point, 4's redundantly emphasized type would characterize yielding the mathematically disruptive enabler converging onto the trinitarian triangle, the mathematical production of which would be characterized by the fully implemented type 8.

− **Fulfilling the white color metaphors**

As we saw in Section III-D, the purification process, as characterized by 1's type, is associated with the color of white (i.e., without blemish); thus, the fulfillment (or even the anticipation of fulfillment) of this purification process or criterion, as characterized by 8's type, can be conveyed by being dressed completely in white.

− **Group Leader**

When a group leader is viewed as the provider and protector of the group, 8's non-redundantly emphasized type could be metaphorically represented by this leadership role, such as the father of a family or the king of a nation.

D. 8's type in the context of randomness

As explained above in Section A, the redundant emphasis of 8's type characterizes mathematically producing pairs of competing opposites or competing types, as found in the context of randomness. This complements the discussion of 2's type in Section IV-C where the non-specificity of digits in the context of randomness leads to an endless search for a false sense of (the unattainable) numerical differentiation or appreciation which is mathematically equivalent to seeking flattery. Effectively, the mathematical producing of competing types (as characterized by 8's type) represents the same futile struggle for appreciation through competitive differentiation and is associated with the false attempt to have numerical specificity, but through mathematical competition rather than mathematical flattery. Also, in both, 2's and 8's types, it is the redundant version which characterizes them in the context of randomness

Because of this, the redundantly emphasized 2 and 8 types were reversed in the earlier derivation of the square of randomness (see Section II-D and Figure 43 below). Moreover, without reversing the 2 and 8 positions, the rows, columns, and diagonals making up the square of randomness could not sum to the single-digit equivalent of 6 (see Figure 35), nor could each position represent an average value of 5 (see Figure 11). **Also, since the redundant emphasis of types 5, 2 and 8 destroy the context of symmetric order and usher in the context of randomness, these three types represent the diagonal around which the square of randomness is formed, as highlighted in Figure 43 below.**

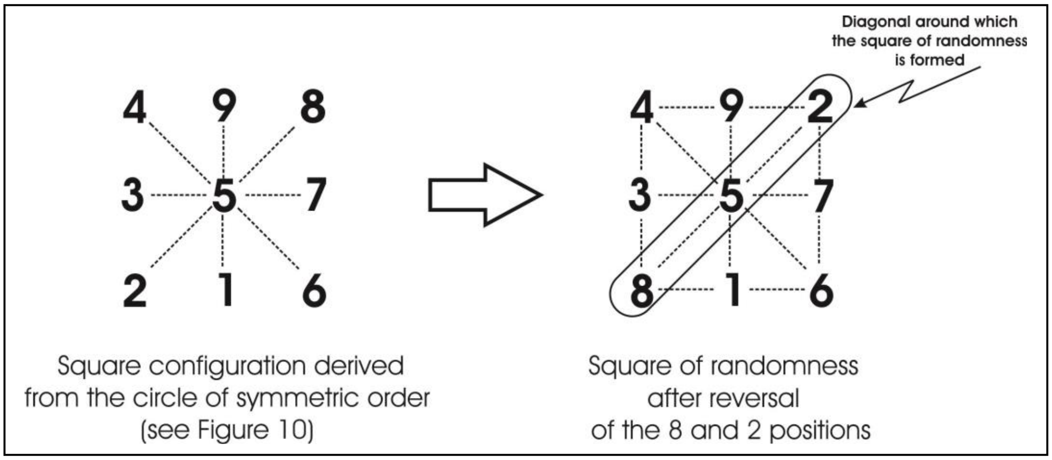


Figure 43. Reversal of 8 and 2 destroys the specificity of symmetric order

To recap, redundantly multiplying 8's type with other types mathematically produces competing types, which ultimately populate the square of randomness. Since 1's non-redundantly emphasized type characterizes the basic mathematical criterion for establishing the square of randomness (see Section III-E), 8's redundantly emphasized type can be viewed as driving the fulfillment of the mathematical criterion for mathematically producing the square of randomness (as characterized by 1's non-redundantly emphasized type). This is the same way that 8's non-redundantly emphasized type was viewed in the previous section as driving the fulfillment of the mathematical criteria for mathematically producing symmetric order (as characterized by 1's redundantly emphasized type).

Since the natural tendency is towards randomness, not towards symmetric order (i.e., entropy rules, see Section II-D), 8's non-redundantly emphasized type is considered to be mathematically "producing" the new symmetric order that otherwise would not exist without the drive characterized by 8. Therefore, to be consistent, 8's redundantly emphasized type is considered to be mathematically "enforcing" the maintenance of the ever-present randomness to counter any effort to transition towards symmetric order.

Moreover, since 1's non-redundantly emphasized type characterizes the mathematical justice of equal status, as represented by an eye for an eye or a tooth for a tooth type of justice, the mathematical fulfillment of this mathematical justice, as characterized by 8's redundantly emphasized type, can represent mathematical enforcement of revenge or vindictiveness depending on the intensity of 8's redundant emphasis (see Section III-B).

E. Allegorical reflections of 8’s type in the context of randomness

- **Metaphorical composite of 8 competing parts**

This metaphor can be presented as 8 competing entities or attributes that reflect the non-unifying incompleteness of randomness. An example of this metaphorical extension can be provided by the Apocalyptic locust character made up of a dysfunctional composite of 8 competing features (i.e., body shaped like a horse, with a crown of fake gold, face of a man, hair of a women, teeth of a lion, breastplates of iron, wings that sounded like battle chariots, and stinging tail of a scorpion). Because the Apocalyptic character represents a dysfunctional composite of 8 different competing features, the overall identity of the composite character lacks the individuality or specificity necessary for symmetric order.

- **Group Leader**

When a group leader is viewed as exploitive and abusive of his role as the provider and protector of the group, 8’s redundantly emphasized type could be metaphorically represented by this leadership role, such as an exploitive or abusive father in regard to his family and a king in regard to his nation.

F. Summarizing 8's type:

- **When non-redundantly emphasized, 8's type characterizes mathematically producing the fulfillment of the mathematical specificity criteria for driving towards symmetric order as characterized by 1's redundantly emphasized type. Accordingly, 8’s type initially characterizes mathematically fulfilling these mathematical criteria only to the extent that 8’s and 1’s types are interchangeable. However, because symmetric order (when fully implemented) consists of the mathematically disruptive enabler converging onto the trinitarian triangle, 8’s type can also be viewed as the mathematical driver producing the mathematically disruptive enabler and its subsequent convergence onto the trinitarian triangle.**

- **When redundantly emphasized, 8's type characterizes mathematically producing pairs of competing types and thus enforces the mathematical non-specificity criterion for preserving randomness as characterized by 1's non-redundantly emphasized type.**

- **Since 1’s non-redundantly emphasized type characterizes the mathematical justice of equal status, as represented by an eye for an eye or a tooth for a tooth type of justice, the fulfillment of this type represents mathematically enforcing revenge or vindictiveness depending on the intensity of 8’s redundant emphasis.**

- **Since 8's type characterizes the ability to bring about or mathematically produce the greatest change, 8's type can be analogized to mathematical power or strength as well as the leadership to bring about the greatest change. When non-redundantly emphasized, 8's type can be analogized to constructive power, strength, or leadership driving towards symmetric order. When redundantly emphasized, 8's type can be analogized to destructive power, strength, or leadership driving towards randomness.**

- **In comparing this numerically derived type 8 with the Personality Enneagram’s type 8 presented in Course 101C, the Personality Enneagram’s type 8 is summarized as enjoying the combative and angry enforcement of vengeance to an**

excess, pushing the limits of rules, laws, authority or all vulnerabilities to show strength, dominance and control. Also, excesses can extend to lust. Accordingly, the Personality Enneagram's type 8 is very similar to the numerical type 8 in the context of randomness.

As a reference, simplified versions of the types thus far discussed are outlined below.

	Context of Symmetric Order		Context of Randomness
Five's type: **(Chapter II)**	Abstract mathematical conceiver	vs.	Self-focused mathematical observer
One's type: **(Chapter III)**	Mathematical criteria for judging emphasizing specificity	vs.	Mathematical criteria for judging de-emphasizing specificity
Two's type: **(Chapter IV)**	Relationships of sincere mathematical appreciation	vs.	Relationships of insincere mathematical flattery
Four's type: **(Chapter V)**	The special art and sacrifice of collectively connecting mathematically	vs.	The ordinary melancholy and envy of mathematical disconnectivity
Three's type: **(Chapter VI)**	Subtle mathematical enabler	vs.	Recognized mathematical achiever
Six's type: **(Chapter VII)**	Open-minded mathematical guidance	vs.	Closed minded restrictive mathematical guidance
Eight's type: **(Chapter VIII)**	The mathematical producer	vs.	The mathematical enforcer

Chapter IX

Nine's type:

Independent mathematical unifier vs. Anonymous mathematical accommodator

A. Background

Obviously, 9 is the largest of the nine digits. As a result, 9's type can be viewed as representing the mathematical totality of all the digits. This means that the single-digit equivalent of the mathematical totality of all conceivable numbers cannot exceed 9. Said another way, it is impossible to conceive of a multi-digit number so large that its single-digit equivalent is greater than 9. Also, because 9 is the largest digit, it cannot be increased in size no matter how large the multiplier may be, as long as the result is always expressed as a single-digit equivalent. For example, 99999….. **X** 99999….. will ultimately yield a single-digit equivalent product of 9, regardless of the number of 9's included in the numbers being multiplied. Note, any number multiplied by 9 always produces a single-digit equivalent product of 9. Likewise, any number with a single-digit equivalent of 9 is always divisible by 9 and vice-versa. Said another way, because 9 is the largest of the 9 digits, 9 is the only digit that cannot divide into any other digit and produce a single-digit quotient, as shown in Figure 17.

As we saw in Chapter III, 1's type characterizes the mathematical criteria for producing types in the context of symmetric order or randomness, depending on whether 1's type is redundantly or non-redundantly emphasized. As we saw in Chapter VIII, 8's type characterizes the actual mathematical producing (or enforcing) of the types in the context of symmetric order or randomness, depending on whether 8's type is non-redundantly or redundantly emphasized. Since, as we saw above, 9's type represents the mathematical totality of all digits, it can be viewed as characterizing the mathematical totality or total production of all the types in the context of symmetric order or randomness, as explained below. Also, because 1's, 8's and 9's types share the complementary production-focused characterizations, they can be grouped together similar to the way in which 2's, 4's and 3's types shared the complementary interactive characterization and can be grouped together (see Chapters IV, V and VI).

This complementary tie between 9's and 1's types is further evidenced in that the former re-enforces the latter's characterization. As explained in Section III-B, 1's type characterizes the mathematical criterion for affirming or accepting the originally identified number, without any modification, because 1 is the only number that when multiplied by or divided into another number, the other number is always produced. Similarly, when 9 is added to or subtracted from any number, the same single-digit equivalent is always produced, as shown in Figure 44 below.

$32 \Rightarrow 3 + 2 = \boxed{5}$	$32 + 9 = 41 \Rightarrow 4 + 1 = \boxed{5}$
$32 \Rightarrow 3 + 2 = \boxed{5}$	$32 - 9 = 23 \Rightarrow 2 + 3 = \boxed{5}$

Figure 44. Adding or subtracting 9 always produces the same single-digit equivalent

Another reflection of the encompassing mathematical totality of 9's type, the above discussed applications of 9 involve the interactive multiplication and division process as well as the non-interactive addition and subtraction processes unlike all the other types which favor one or the other.

B. 9's type in the context of symmetric order

Because of the ultimate mathematical totality and the resulting indivisibility represented by 9, its associated type is assigned the status of exclusive specificity in the context of symmetric order, as discussed in Section IV-B. Nine is viewed as the central digit at the top of the circle of symmetric order bisecting 1 and 8, 2 and 7, 3 and 6, and, 4 and 5 as pairs of counterbalancing opposite digits. The counterbalancing opposite pairs bisected by 9, namely, the 1 and 8, 2 and 7, and, 4 and 5 pairs, but not the 3 and 6 pair, result in net quotients of zero (i.e. the gap in approaching symmetric order) when interactively related. **This is unacceptable in the context of symmetric order because of its emphasis on maximizing division-based relationships to identify numerical specificity. Consequently, as has been discussed in the previous chapters, the ultimate challenge in achieving symmetric order is to bridge the above gap between counterbalancing opposites bisected by 9's type through the mathematically disruptive enabler converging onto the trinitarian triangle, since the trinitarian triangle provides the only mathematical pathway to spanning this gap.**

In this regard, just as the relationship between 3 and 6 within the trinitarian triangle serves as a mathematical pathway to spanning the above gap, so too does 9 as the bisecting type between all the counterbalancing opposites serve as a similar mathematical pathway within the trinitarian triangle. Accordingly, the mathematical totality characterized by 9's type is a unifying mathematically totality in the context of symmetric order.

If 9's type is to characterize unifying mathematically totality in the context of symmetric order, its characterization of the mathematically disruptive enabler converging onto the trinitarian triangle must encompass the mathematical totality of both the interactive and non-interactive arithmetic convergences described above. As we saw in the previous section, 9's type does encompass both and must avoid favoring either the arithmetic interactive convergence or the arithmetic non-interactive convergence. To accomplish this, the convergence characterized by 9's type must be the non-arithmetic graphical or physical convergence of the mathematically disruptive enabler onto the trinitarian triangle, as illustrated in Figure 45 below. [As a point of comparison, remember 3's and 6's types characterize the mathematically disruptive enabler converging onto the trinitarian triangle solely through the interactive and non-interactive arithmetic relationships, respectively (see Chapters VI and VII).]

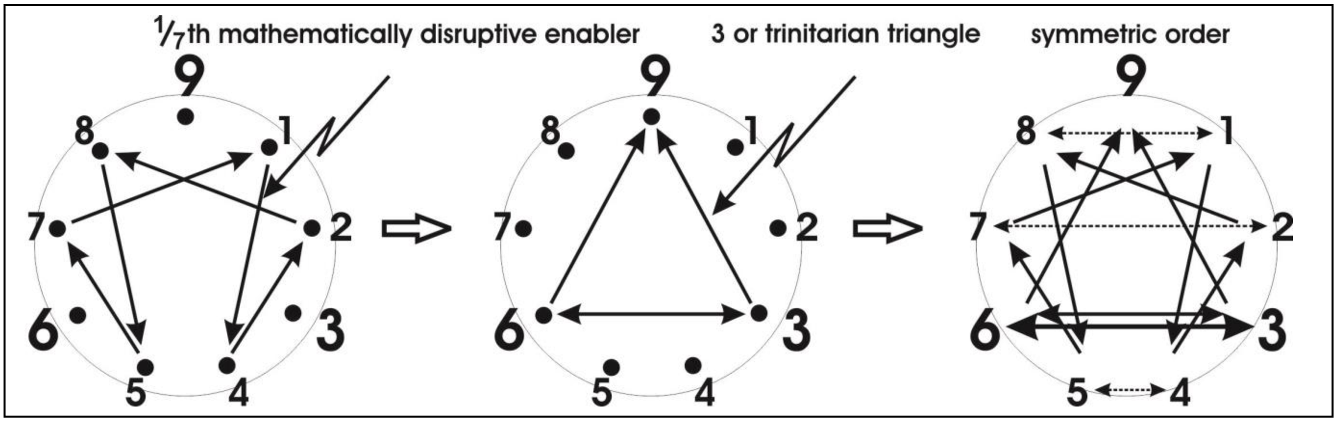


Figure 45. Graphically or physically converging the 1/7th mathematically disruptive enabler onto the 3 or trinitarian triangle to approach symmetric order

The label describing the above graphical or physical convergence of the mathematically disruptive enabler onto the trinitarian triangle is derived in Figure 45(a) below.

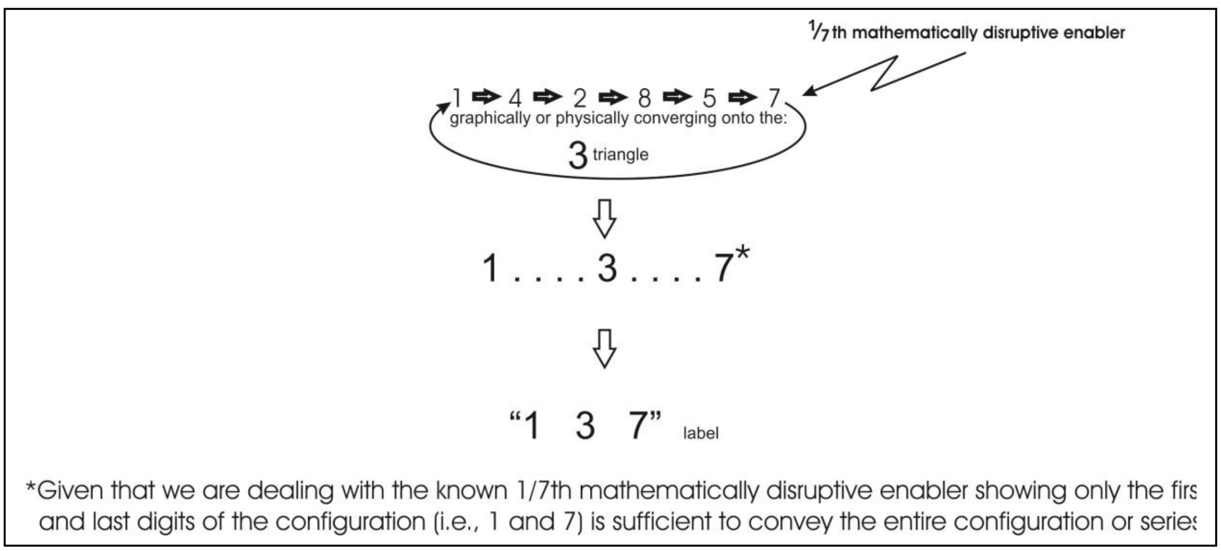


Figure 45(a). Deriving the label describing the 1/7th mathematically disruptive enabler graphically or physically converging onto the 3 or trinitarian triangle

Since the above graphically or physically derived 137 is not an arithmetically derived multi-digit Arabic numeral based on increments of 10, it cannot be reduced to a single-digit equivalent (as explained in Chapter I).

Also, since the above labeling describes only the process (rather than the full realization) of the mathematically disruptive enabler graphically or physically converging onto the trinitarian triangle (or the process of approaching symmetric order), the labeling should accordingly reflect the process of approaching (rather than fully attaining) symmetric order. This can be accomplished by indicating that the 137 label is only approached as the lower limit (i.e., >137), as the mathematically disruptive enabler graphically and physically converges

inwardly onto the trinitarian triangle. Remember in the cases of the interactive and non-interactive convergence, they **outwardly** approached upper limits (see Section VI-A and VII-A). Again, recall that >137 is an unlimited non-terminating number (or decimal) reflecting that we are still in the context of randomness even though we have an orientation of transitioning towards symmetric order.

Because the > 137 label reflects the graphical or physical convergence forming the total output or mathematical totality of symmetric order, the >137 label is associated with 9's type which characterizes the mathematical totality of symmetric order, as illustrated in Figure 46 below (which builds on Figure 37).

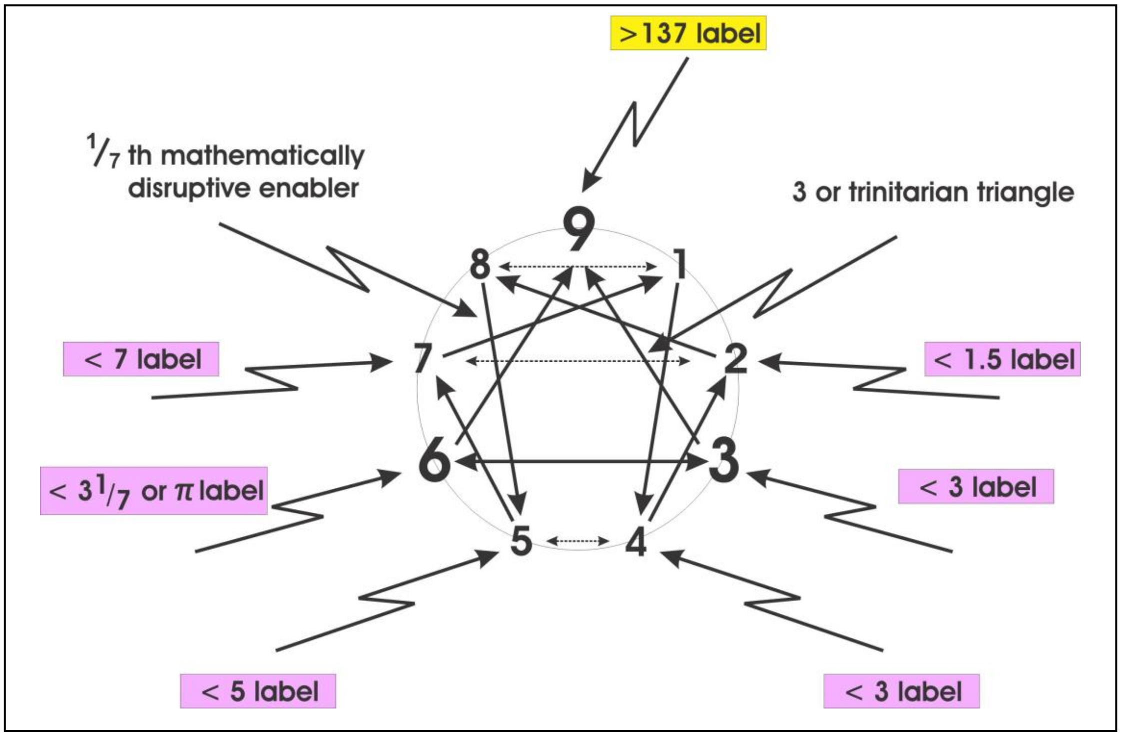


Figure 46. Incorporating (into Figure 37) the >137 label which describes the 1/7th mathematically disruptive enabler graphically or physically converging onto the 3 or trinitarian triangle

IT MUST BE REMEMBERED, HOWEVER, THAT THE ABOVE GRAPHICAL OR PHYSICAL CONVERGENCE PROCESS IS A CONTINUANCE OR AUGMENTATION OF THE PROCESS CHARACTERIZED BY 4'S REDUNDANTLY EMPHASIZED TYPE WHERE THE 7, 1 AND 4 TRIANGLE AND THE 2, 8 AND 5 TRIANGLE GRAPHICALLY OR PHYSICALLY CONVERGED TO PRODUCE THE MATHEMATICALLY DISRUPTIVE ENABLER (SEE FIGURE 23 AND 24). THUS, WHILE THE >137 LABEL IS ASSOCIATED WITH 9'S TYPE IN FIGURE 46, THE ABOVE CONVERGENCE AUGMENTS OR REDUNDANTLY EMPHASIZES THE PROCESS CHARACTERIZED BY 4'S TYPE. THIS AUGMENTATION PHENOMENON WILL CONTINUE TO APPEAR THROUGHOUT THIS ENTIRE TRILOGY OF COURSES AND WILL BE HIGHLIGHTED WITH A YELLOW BACKGROUND. NOTE, GURDJIEFF ALSO INTRODUCED HIS FOURTH WAY THROUGH THE 9TH DIGIT OR 9TH POSITION (SEE PARAGRAPH FOLLOWING FIGURE 23b).

Since 1's and 8's types share the complementary production-focused characterizations with 9's type (see previous section), they too can be accompanied by labels describing their respective roles in the mathematically disruptive enabler graphically and physically converging onto the trinitarian triangle.

Since in this case the mathematically disruptive enabler would be represented by its types which are production-focused (i.e., 1 and 8), the trinitarian triangle also should be represented by its type which is production-focused (i.e., 9), as shown below in Figure 47. Appropriately, in the circle of symmetric order 1's and 8's types bracket 9's type onto which they graphically or physically converge. The labels describing this process are directly derived from the process, as shown in Figures 47 and 48 below.

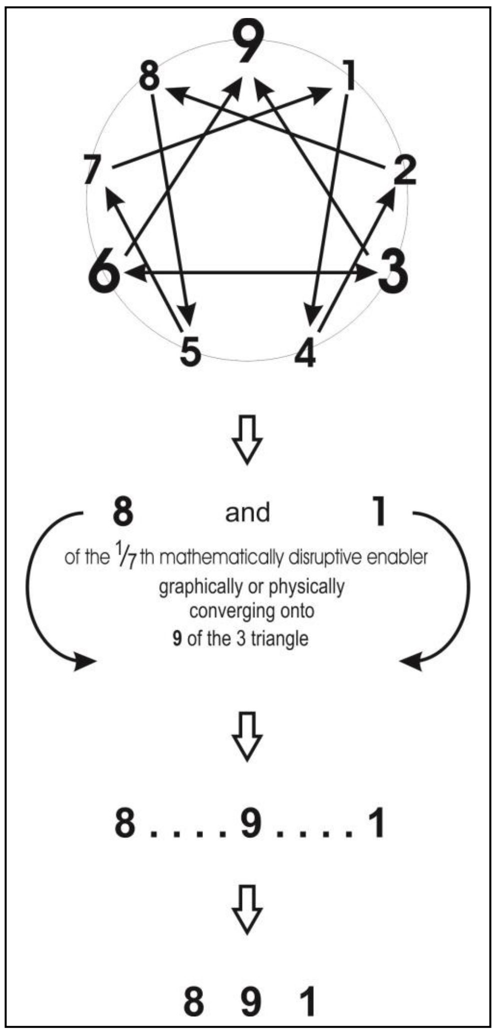


Figure 47. Deriving the label describing the 1 and 8 types of the 1/7th mathematically disruptive enabler graphically or physically converging onto the 3 or trinitarian triangle

Again, since the above graphically or physically derived 891 is not an arithmetically derived multi-digit Arabic numeral based on increments of 10, it cannot be reduced to a single-digit equivalent (as explained in Chapter 1). Also, since the 891 label is associated with 8's and 1's types, it has to be graphically or physically allocated to 8's and 1's types as 89 and 91, respectively, as shown in Figure 48 below. Importantly, these two labels, while separated, still convey the same message of physically converging onto the trinitarian type 9 to produce symmetric order.

Finally, as explained earlier, the labeling should reflect the process of only approaching, rather than fully attaining, symmetric order as shown in Figure 45. This can be accomplished by indicating that the 89 and 91 labels are only approached, rather than fully attained (i.e., >89 and > 91 as unlimited non-terminating numbers or decimals), as shown in Figure 48 below.

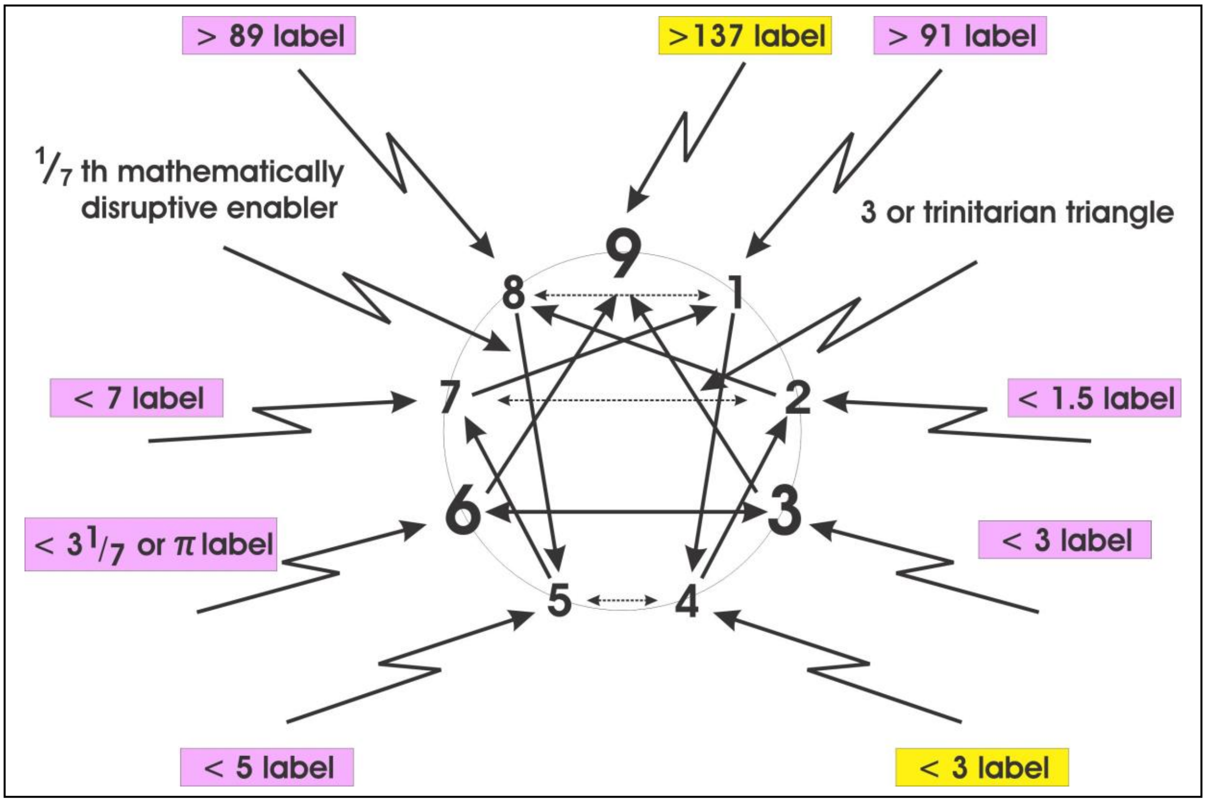


Figure 48. Incorporating (into Figure 46) the >89 and >91 labels which describe the 1/7th mathematically disruptive enabler graphically and physically converging onto the 3 or trinitarian triangle

AS A POSTSCRIPT, NOTE THAT SINCE THE 9 DIGITS ENCOMPASSED BY THE INDEPENDENT UNIFIER, CHARACTERIZED BY 9'S TYPE, ARE ALSO IDENTICAL TO THE 9 DIGITS EXPRESSABLE AS SAME-DIGIT SYMMETRY, THE FORMER COVERS THE LATTER. HOWEVER, THIS INCLUSION UNDER THE 9 UMBRELLA DOES NOT NEGATE THAT SAME-DIGIT SYMMETRY ALSO REPRESENTS THE MOST ELEMENTARY EXPRESSION OF THE ABSTRACT CONCEPT OF SYMMETRY ORDER, AS CHARACTERIZED BY 5'S TYPE.

C. Allegorical reflections of 9's type in the context of symmetric order
(generally drawn from the Book of Revelation)

– **144 based numerical metaphors**

If in the context of symmetric order, the trinitarian type 3 is to be expressed in terms of the 12 numerical metaphor (see Section VI-B), 9's type should also be expressible in terms of 12 when similarly oriented towards symmetric order. This reflects that 3 is the factor mathematically underlying, not just 3, but also 6 and 9 of the trinitarian triangle as discussed earlier. Thus, the corresponding numerical metaphor for the trinitarian type 9 is 144 (i.e., 12x12=144 => 1+4+4 => 9 instead of 3x3=9).[21] Again, to be consistent, the corresponding 9 metaphors (associated with 144) should be at the stage of approaching symmetric order. Moreover, the non-numerical metaphor accompanying the 144 numerical metaphor should be consistent with the non-numerical metaphor accompanying the 12 numerical metaphor.

The 144 based numerical metaphor can also represent that 9's type augments the convergence towards symmetric order that was initiated and characterized by the redundantly emphasized type 4 (i.e., 9 x 4 x 4 = 144).

– **Combining the metaphors for 9's and 1's types**

Just as the numerical metaphors for the trinitarian type 3 and 6 redundantly combine with metaphors for 4's and 7's redundantly emphasized types (see Sections VI-B and X-D), so too does the numerical metaphor for the trinitarian type 9 redundantly combine with metaphors for 1's redundantly emphasized type. In other words, just as 3's and 4's types as well as 6's and 7's types rely on the complementary interactive and non-interactive characterizations, respectively, so too do 9's and 1's types rely on the complementary production-focused characterizations (see Sections VI-B and VII-B). Also important, 4's 7's and 1's (unlike 2's, 5's and 8's) types are oriented towards symmetric order when redundantly emphasized (see Sections V-A and X-C, introductory paragraph and III-C).

However, as explained in Section IX-A, this complementary tie between 9's and 1's types is further evidenced in that the former re-enforces the latter's characterization. In other words, just as 1 is the only number that when multiplied by or divided into another number, the other number is always produced, so to is 9 the only number that when added to or subtracted from any number, the same single-digit equivalent is always produced. Moreover, this re-enforcing tie between 9's and 1's types applies equally in both the contexts of symmetric order and randomness unlike the complementary ties between 3's and 4's as well as 6's and 7's types which apply only in the context of symmetric order (see Section VI-B and VII-B). This is a logical conclusion given that 1's redundantly emphasized type subsumes 1's non-redundantly emphasized type (see Section III-E).

On the other hand, just as we saw 2's and 5's non-redundantly emphasized types, respectively, accompany the complementary 3 and 6 trinitarian triangular types, so too does 8's non-redundantly emphasized type accompany the complementary 9 trinitarian triangular type. In other words, 4's, 7's and 1's types redundantly accompany the complementary 3, 6 and 9 trinitarian triangular types, respectively; whereas, 2's, 5's and 8's types non-redundantly accompany the complementary 3, 6 and 9 trinitarian triangular types, respectively.

[21] 3 and 9 can serve as same-digit equivalents of multi-digit numerals in interactively relating with one-another through the division process only when 9's multi-digit counterparts are the square of 3's multi-digit counterpart.

–   The universal father and son(s) metaphors

The unifying totality encompassing all the types (as characterized by the trinitarian type 9) can be metaphorically represented by the universal father of the totality of all the children who have complied with the criteria for symmetric order (as characterized by the complementary type 1 which accompanies the trinitarian type 9). As such, his children metaphorically include the six types making up the disruptive enabler which are collectively characterized by 4's redundantly emphasized type (see Section V-C, metaphors for a collective body of types). Moreover, the children metaphor has been traditionally presented in the masculine gender as the son(s) of the father. ALSO, THIS COMBINED CONSIDERATION OF THE FATHER AND SON(S) METAPHORS FOR 9'S AND 4'S TYPES CALLS TO MIND THAT THE TOTALITY OF THE CONVERGENCE PROCESS CHARACTERIZED BY THE TRINITARIAN TYPE 9 IS AN AUGMENTING CONTINUATION OF THE PROCESS CHARACTERIZED BY 4'S REDUNDANTLY EMPHASIZED TYPE, AS DISCUSSED IN THE PARAGRAPH FOLLOWING FIGURE 46.

D. 9's type in the context of randomness

As we saw in section IV-C, in the context of randomness the division process can result in answers which cannot be expressed as final single-digit equivalent answers, but only as non-terminating decimals which in turn have to be expressed as constantly changing single-digit equivalent answers. Accordingly, in the context of randomness 9 becomes divisible into numbers other than multiples of itself to produce an endless array of non-terminating decimals or constantly changing single-digit equivalent answers. Because of this, 9's type in the context of randomness no longer enjoys the specificity (much less exclusive specificity) found in the context of symmetric order, as discussed in the previous section**. Also, since there is no unifying convergence of the mathematically disruptive enabler onto the trinitarian triangle in the context of randomness, the mathematical totality encompassing all types characterized by 9's type no longer enjoys the exclusive specificity of being mathematically unifying as it was in the context of symmetric order.** Instead, in the context of randomness the totality is only mathematically accommodating of all the other types without providing mathematically unifying leadership. Thus, 9's type appears as just another random or anonymous digit without any specific mathematical identity in the square of randomness, as shown in figure 49 below.

While 9's type occupies the top central position in the square of randomness (see Figure 49), similar to its position in the circle of symmetric order (see Figure 48), the former conveys only a graphical image of the significance represented by the latter.

Note, unlike the other numerical types, the randomness version of 9's type is neither more or less redundantly emphasized than the symmetric order version of 9's type. This equilibrium state is reflected by 9's central position on the circle of symmetric order, unlike the other types.

4	9	2
3	5	7
8	1	6

Figure 49. The anonymity of 9's type in the square of randomness

E. Summarizing 9's type:

- **When oriented towards symmetric order, the exclusive specificity of 9's type characterizes the mathematically unifying totality encompassing all the types.**[22]

- **When oriented towards randomness, the non-specificity of 9's type characterizes the non-unifying mathematical totality which anonymously accommodates all the types.**

- **In comparing this numerically derived type 9 with the Personality Enneagram's type 9 presented in Course 101C, the Enneagram's type 9 is summarized as sufficiently unassertive to appear:**

  - **nondescript, invisible, fading into the background, and living through others**

  - **disengaged, indolent, and oblivious to what needs attention to have difficulty prioritizing and overcoming inertia**

  - **to avoid conflict and disagreements, placing others before themselves, and thus natural mediators or peacemakers**

  Accordingly, the Personality Enneagram's type 9 is similar to the numerical type 9 in the context of randomness.

- **In the context of symmetric order, metaphorical representations for 9's type can involve expanding the numerical and physical metaphors for 3's and 6's types to comparable metaphors for 9's type. Also, manifestations of the trinitarian type 9 should incorporate features of 1's type because of the close complementary ties between the two.**

[22] Because 9's type characterizes the unifying totality encompassing all nine types within the context of symmetric order, the final graphical model for representing this unifying totality encompassing the nine types can be referred to as an enneagram since the Greek word for 9 is ennea.

As a reference, simplified versions of the types thus far discussed are outlined below.

	Context of Symmetric Order		Context of Randomness
Five's type: (Chapter II)	Abstract mathematical conceiver	vs.	Self-focused mathematical observer
One's type: (Chapter III)	Mathematical criteria for judging emphasizing specificity	vs.	Mathematical criteria for judging de-emphasizing specificity
Two's type: (Chapter IV)	Relationships of sincere mathematical appreciation	vs.	Relationships of insincere mathematical flattery
Four's type: (Chapter V)	The special art and sacrifice of collectively connecting mathematically	vs.	The ordinary melancholy and envy of mathematical disconnectivity
Three's type: (Chapter VI)	Subtle mathematical enabler	vs.	Recognized mathematical achiever
Six's type: (Chapter VII)	Open-minded mathematical guidance	vs.	Closed minded restrictive mathematical guidance
Eight's type: (Chapter VIII)	The mathematical producer	vs.	The mathematical enforcer
Nine's type: (Chapter IX)	Independent mathematical unifier	vs.	Anonymous mathematical accommodator

Chapter X

Seven's type:

The mathematically radiant, inspirational and disruptive planner vs. The mathematically dilettante planner

A. Background

In Section VIII-A, we saw that 1's type characterizes the non-interactive arithmetic relationships between all possible pairs of the nine Arabic digits based on the addition process.[23] In exploring both the symmetric order and randomness environments below, we see that 7's type similarly characterizes the non-interactive arithmetic relationships based on the subtraction process between the pairs of digits making up the square of randomness (see Figure 50) and the circle of symmetric order (see Figure 52). In other words, 7's type characterizes the average difference between all of the separate digits or types making up the non-interactive arithmetic relationships. However, calculating how each digit or its associated type is different from another ultimately requires determining or defining each digit or its associated type, but within the mathematical framework of all of the differing entities. As such, this defining process is effectively laying out a mathematical framework or plan based on the subtraction process for presenting the digits or their associated types. Thus, 7's type can be viewed as ultimately characterizing the mathematical plan or framework for presenting the types.

Because 7's type characterizes how all of the different types are framed into a mathematical presentation or plan, 7's type can be viewed as fulfilling more of the generalist role. As a corollary to this generalist role, 7's type tends to be more accepting, open-minded or understanding of other types.

B. 7's type in the context of randomness

Before exploring 7’s type in the context of symmetric order, as represented by the circle of symmetric order, we turn to exploring it in the context of randomness, as represented by the square of randomness. Since the subtraction process is directionally dependent (i.e., the answer depends on the direction in which you subtract two different numbers), it is only half as effective when viewed in the context of randomness. Because the nine digits are randomly interchangeable in the square of randomness, directional specificity cannot be maintained. Nonetheless, the average difference of the basic arithmetic relationships originally used to construct the square of randomness is 7, as shown below in Figure 50.

---

[23] The interactive arithmetic relationships are represented by the division and multiplication processes.

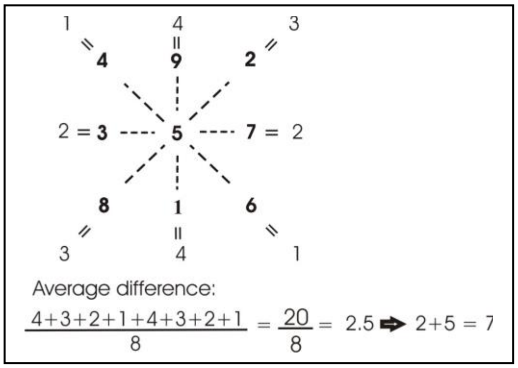


Figure 50. Average difference from subtracting the digits in the square of randomness

All the perimetric relationships (e.g., perimeter based) had to be excluded to produce an average difference of 7. By comparison, when addition was used to calculate 5's, 1's and 6's types, all the perimetric relationships were included (as shown in Figures 11, 17 and 15) because the addition process is not directionally dependent. While the subtraction process excludes the perimetric relationships, it does succeed in presenting the differences between the digits making up the relationships upon which the square of randomness is based (see Figure 11). As such 7's type characterizes the mathematical framework or plan for establishing the square of randomness which is consistent with the description of 7's type presented in the above introductory section.

However, because the directionally dependent perimetric relationships are excluded, the subtraction process (and thus the defining process) is not redundant or fully complete and can even be viewed as superficial. Said another way, this subtraction process avoids the mathematical constraint or pain of complying with directional dependency.

Figure 50's exclusion of the 4-sided perimetric relationships in deriving 7's non-redundantly emphasized type can be viewed as a superficial graphical inversion of the derivation of 4's non-redundantly emphasized type, which exaggerated the importance of the 4-sided perimeter as shown in Figure 27 and repeated in Figure 51 below. However, as presented in Section V-A, the context of randomness cannot support equating the numerical inversion of 7's type (i.e., 1/7) to 4's type since this represents a key mathematically disrupting process that is unique to symmetric order. In other words, the superficial graphical inversion avoids the pain of mathematically disrupting conventional arithmetic by not defining the inversion of 7's type as equating to 4's type which it does in the context of symmetric order discussed below.

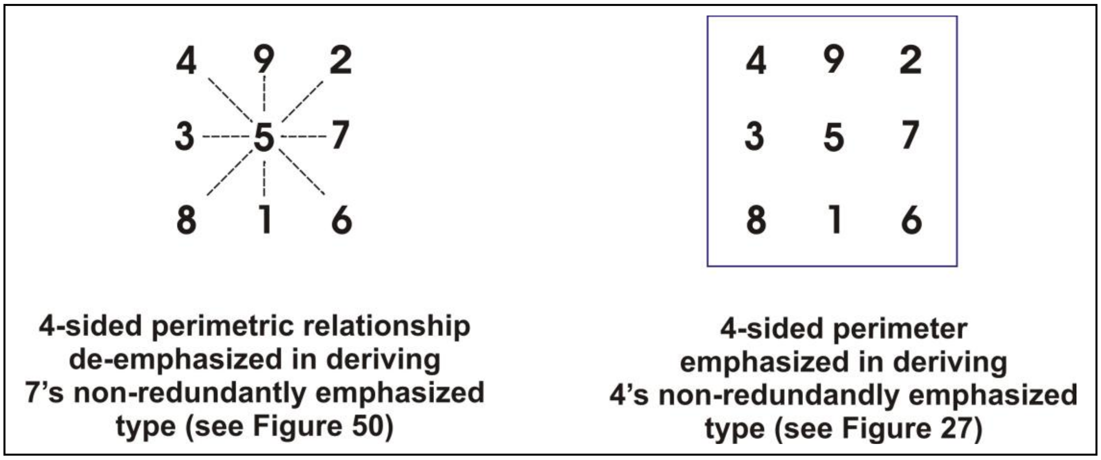


Figure 51. A superficial graphical inversion of 4's type

To recap, in defining the mathematical framework or plan for establishing the square of randomness, 7's type's defining role is not fully complete and certainly not redundant and thus viewed as more superficial or dilettantish when compared to the same process in the context of symmetric order which is thoroughly redundant as will be explained in the next section. Also, because 7's type in the context of randomness is incapable of fully completing the planning process, this superficial or dilettantish quality cannot be eliminated or overcome and thus can appear as unending or insatiable.

C. 7's type in the context of symmetric order

Similar to Figure 6, the following Figure 52 presents the redundant iterations of the subtraction process between the pairs of digits making up the circle of symmetric order, as seen in Figure 4(a-f). The average difference from this redundant subtraction process is 7 supporting the role of 7's type in characterizing the non-interactive arithmetic relationships based on the subtraction process between the pairs of digits making up the circle of symmetric order. Importantly, the calculations in Figure 52 are directionally dependent which is consistent with the nature of the subtraction process. **<u>While the average difference calculated in opposite directions is 7, the net of the opposite directions is self-canceling or zero which must be conveyed in the mathematical plan derived subsequently.</u>**

As we saw in the previous chapter (Section IX-A), when opposite types are bisected by 9, the opposites must represent the pairing of redundantly emphasized and non-redundantly emphasized types from the circle of symmetric order. Accordingly, given that 2's type is non-redundantly emphasized when oriented towards symmetric order, 7's type must be redundantly emphasized, when similarly oriented, and thereby confirms the redundant subtraction process of Figure 52 as well as the non-redundant subtraction process in the context of randomness, as shown in Figure 51.

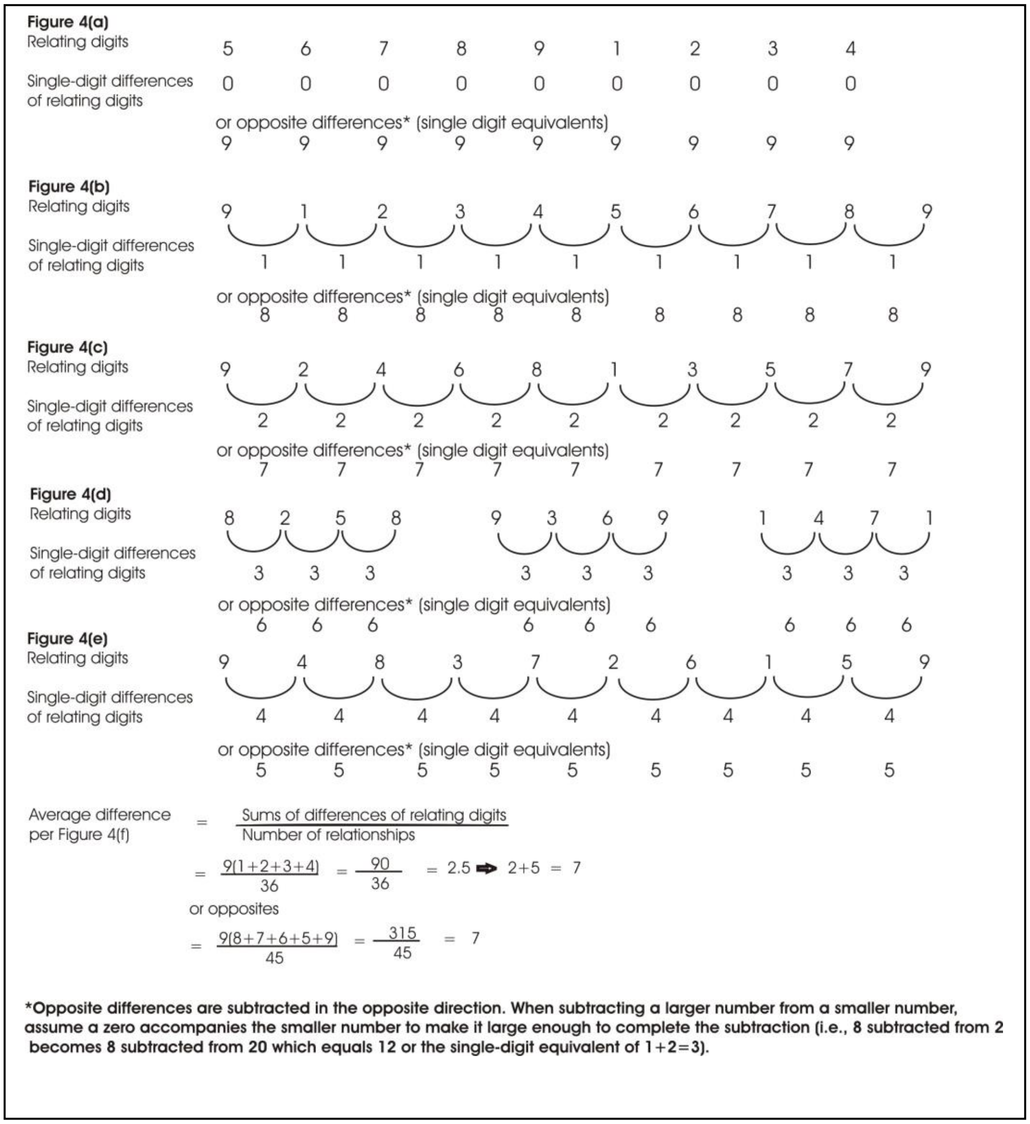


Figure 52. Average difference of 7 from subtracting the relating digits in Figure 4(a-f)

Just as we saw 7's type define the mathematical framework or plan for establishing the square of randomness in the previous section, in this section we will see 7's type defines the mathematical framework or plan for establishing symmetric order. In this regard 7's type defines the mathematical framework or plan focusing on establishing the mathematically disruptive enabler and the mathematically disruptive enablers converging onto the trinitarian triangle.

Thus far in this course (as shown in Figure 48), labels have been derived describing the mathematically disruptive enabler converging onto the trinitarian triangle through interactive, non-interactive and graphical or physical processes. While the earlier derived labels describing the interactive convergence utilized both the division and multiplication processes (see Figures 29 and 31), the earlier derived labels describing the non-interactive convergence utilized only the addition process (see Figures 35, 36 and 37). **Accordingly, the non-interactive subtraction process (characterized by 7's type) utilizes these already derived labels to define the mathematical framework or plan focusing on the mathematically disruptive enabler converging onto the trinitarian triangle, as**

presented in the following "Mathematical Plan for Converging the Mathematically Disruptive Enabler". Also, the subsequent "Incorporating the Mathematical Plan for Establishing the Mathematically Disruptive Enabler" utilizes the non-interactive subtraction process (characterized by 7's type) to define that mathematical plan.

Discussion of mathematical plan for establishing the mathematically disruptive enabler would normally precede the convergence mathematical plan for the mathematically disruptive enabler; however, most of the labels to be used in the mathematical plan for convergence have already been derived in the previous chapters, so it is addressed first. <u>More importantly, as will be shown in subsequent chapters, earth's environment represents the culmination of transitioning away from randomness towards symmetric order; thus, we must analyze this transition through a rear view mirror looking backwards from the symmetric order perspective. As a result, our analysis of the mathematical plan for converging the mathematically disruptive enabler onto the trinitarian triangle precedes our analysis of the mathematical plan for establishing the mathematically disruptive enabler.</u>

Since both of these mathematical plans are very disruptive to conventional mathematics in the context of randomness, the combined mathematical plan defining this entire process must be exhaustively complete given the unlimited choices available in the randomness environment. In other words, the combined mathematical plan must leave absolutely no option for variations or alternatives. Not surprisingly, the painfully disruptive process for defining this mathematical plan for establishing symmetric order abruptly contrasts with the previous section's process for defining the mathematical plan for succumbing to the square of randomness which was superficially incomplete and not painfully disruptive to conventional mathematics.

THE MATHEMATICAL PLAN FOR CONVERGEING THE MATHEMATICALLY DISRUPTIVE ENABLER

– ***Step 1: Deriving the mathematical framework or plan for initiating convergence of the* mathematically *disruptive enabler***

The six labels developed thus far for defining various aspects of the convergence process for the mathematically disruptive enabler, as shown in Figure 48, must be interrelated or connected by a mathematical framework or plan because the six types of the mathematically disruptive enabler are interrelated or connected. Thus, the subtraction process will be shown below to provide such a mathematical framework or plan for inter-connecting the six labels associated with the mathematically disruptive enabler. However, since the mathematically disruptive enabler consists of six types that are interactively related and the subtraction process represents non-interactive relationships, the mathematical framework or plan interconnecting the six labels **must** be based upon exponential powers which, when subtracted, represent being interactively related through the division process. Also, as we saw in Section III-C, the mathematical specificity criteria of symmetric order, as characterized by 1's redundantly emphasized type, can be represented through multiplication with exponential powers of 10 which always have a single-digit equivalent value of 1. Accordingly, the labels (thus far derived) describing the convergence of the six types of the mathematically disruptive enabler (i.e., 1, 4, 2, 8, 5 and 7) can be multiplied by 10^1, 10^4, 10^2, 10^8, 10^5 and 10^7 to convey their respective specificity and simultaneously provide the framework or plan for expressing the interactive relationships connecting the mathematically disruptive enabler, but doing so through the subtraction process, as explained below.

Again, consistent with the role characterized by 7's type, as described in Section A above, this approach not only incorporates the subtraction process, but also provides a mathematical framework or plan for presenting the labels describing the types.

The ultimate object of this approach is to redundantly or repetitively subtract the exponential powers of 10 associated with the mathematically disruptive enabler (i.e., 10^1, 10^4, 10^2, 10^8, 10^5 and 10^7) in such a way that their net interactive relationships approach self-cancellation or zero and thus approach relying on the interactive relationships of the trinitarian triangle. **Recall this requirement for self-canceling of the opposites to zero was introduced in Figure 52 which provides the basis for deriving 7's type.**

Given these constraints, the only configuration of interactive relationships that provide for self-cancellation through graphic (and arithmetic) subtraction is shown in Figure 53 below which is followed by explanatory text.

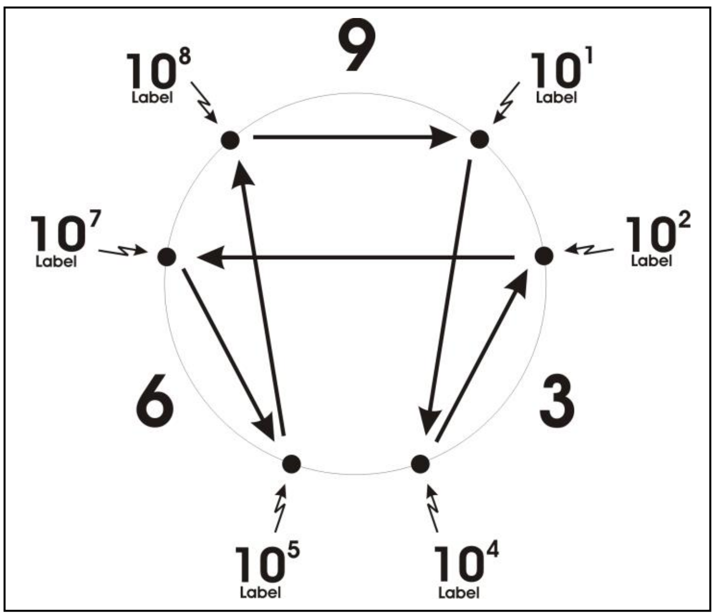


Figure 53. The mathematical framework or plan becoming directionally self-canceling through the subtraction process

Because they are directional opposites, the 10^8 => 10^1 cord or its exponents can be subtracted from and thus partially cancels the opposite 10^7 <= 10^2 cord or its exponents. Since the 10^8 => 10^1 cord spans two arcs (i.e., 8 => 9 and 9 =>1) or an exponential difference of 7 (i.e., 8 – 1 = 7) and the 10^7 <=10^2 cord spans four directionally opposite arcs (i.e., 7 <= 8, 8 <= 9, 9 <= 1 and 1 <= 2) or an exponential difference of 5 (e.g., 7 – 2 = 5), the net directional cancellation or net subtraction leaves a residual of two arcs or a net exponential difference of 2. Directionally, the 10^7 => 10^5 cord or its exponents can be subtracted from and thus partially cancels the opposite 10^8 <= 10^5 cord or its exponents. Since the 10^7 => 10^5 cord spans two arcs (i.e., 7 => 6 and 6 => 5) or an exponential difference of 3 (i.e., 8 – 5 = 3) and the 10^8 <= 10^5 cord spans three directionally opposite arcs (i.e., 8 <= 7, 7 <= 6 and 6 <= 5) or an exponential difference of 2 (i.e., 7 – 5 = 2), the net directional cancellation or net subtraction leaves a residual of one arc or a net exponential difference of 1. Directionally, the $10^4 \Rightarrow 10^2$ cord can be subtracted from and thus partially cancels the opposite $10^4 \Leftarrow 10^1$ cord. Using the same reasoning as above, the net directional cancellation or net subtraction again leaves a residual of one arc or a net exponential difference of 1.

Since each of the latter two net residuals of one arc or a net exponential difference of 1 are more vertical and not directionally opposite the horizontal net residual of two arcs or net exponential difference of 2, they cannot directionally or through graphical subtraction self-cancel. Indeed, the only way these directionally derived net residuals can self-cancel is through numerical subtraction.

Accordingly, the simplest and most direct way to bring about the arithmetic self-cancellation through subtraction of these directionally derived, net residuals is by assigning a negative value to the commonly shared vertexes of 10^4 and 10^5 (i.e., 10^{-4} and 10^{-5}). By doing this the latter two directionally derived, net residuals of one arc or net exponential difference of 1 become arithmetically self-canceling with the former directionally derived, net residual of two arcs or net exponential difference of 2, as shown below in Figure 54.

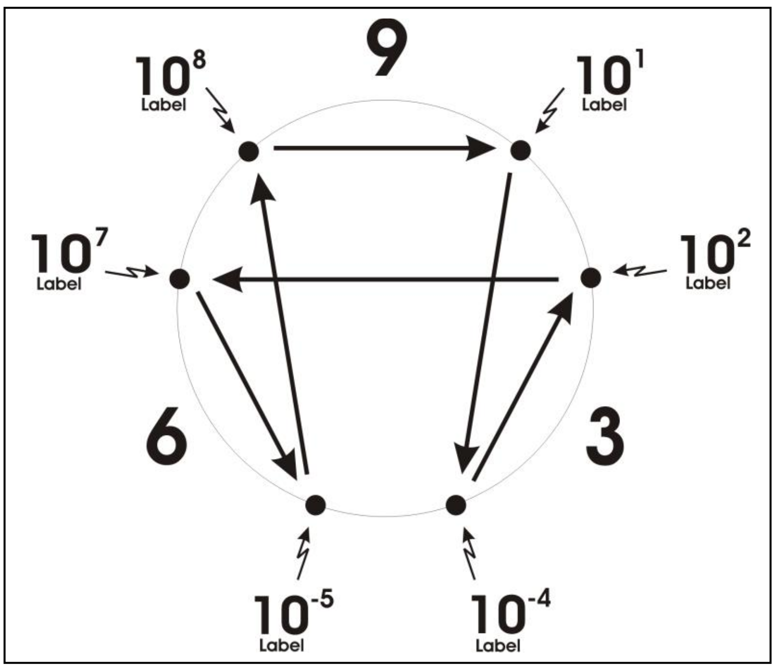


Figure 54. Becoming directionally and arithmetically self-canceling through the subtraction process to provide a mathematical framework or plan

Having derived the $10^1 \Rightarrow 10^{-4} \Rightarrow 10^2 \Rightarrow 10^7 \Rightarrow 10^{-5} \Rightarrow 10^8$ series or framework of labels representing the self-canceling aspect of the interactive connectivity of the mathematically disruptive enabler, as shown in Figure 54, the former must be integrated with the latter as labels of the mathematical plan for convergence. **Proceeding on this basis, an orientation or defining point must be identified for incorporating this self canceling series of**

exponential powers of 10 as labels of the convergence mathematical plan for the individual types of the mathematically disruptive enabler. Since this entire exercise represents furthering the redundant emphasis of 7's type, it should serve as the orientation or defining point, as shown below in Figure 55.

						orientation point
Six types of the mathematically disruptive enabler	1,	4,	2,	8,	5,	7
Integrating the self-canceling series or framework of exponential powers of 10 with the mathematically disruptive enabler	10^{-5},	10^{8},	10^{1},	10^{-4},	10^{2},	10^{7}

Figure 55. Identifying the orientation point for integrating the self-canceling series or framework of exponential powers of 10 associated with the mathematically disruptive enabler.

Accordingly, this self-canceling series or framework of exponential powers of 10 can be introduced into Figure 48 to provide a mathematical framework or plan which incorporates the labels associated with the mathematically disruptive enabler, as shown in Figure 56 below**.**

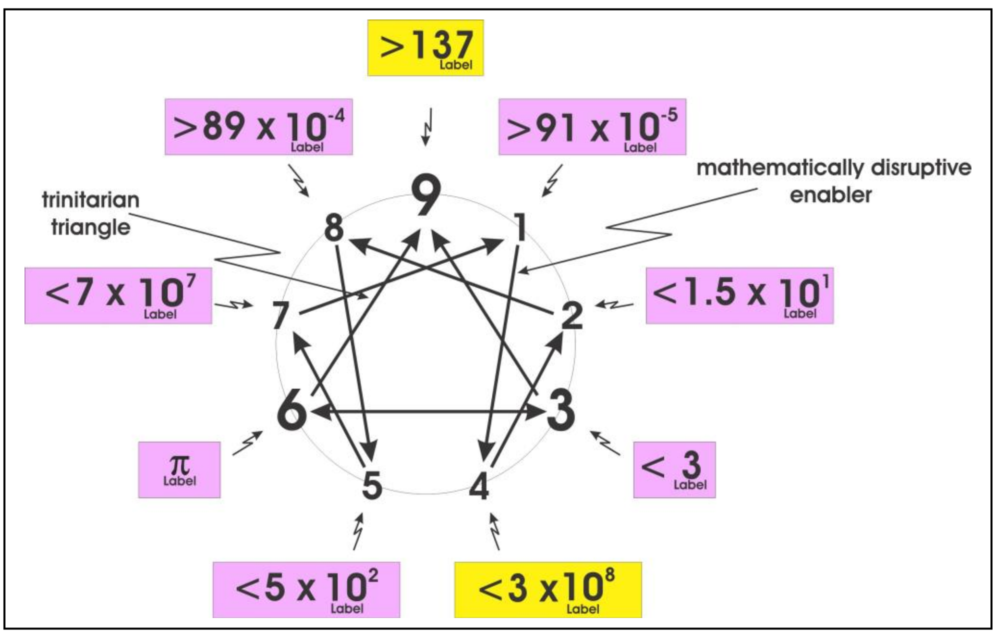


Figure 56. Introducing (into Figure 48) the self-canceling series or framework of exponential powers of 10 to provide a mathematical framework or plan which incorporates the labels associated with the mathematically disruptive enabler

Noteworthy, the self-cancellation process we saw above in Figure 54 extends to Figure 56. Specifically, in the case of the 4 – 2 or $10^8 – 10^1$ cord and the 5 – 7 or $10^2 – 10^7$ cord, each cord spans two arcs (i.e., 4 => 3 => 2 and 5 => 6 => 7) or two exponential sums of 9 (i.e., 8 + 1 and 2 + 7); but, since the two cords radiate outwardly in opposite directions, they equally cancel each other. Likewise, in the case of the 7 – 1 – 4 or $10^7 – 10^{-5} – 10^8$ pair of cords and the 2 – 8 – 5 or $10^1 – 10^{-4} – 10^2$ pair of cords, each pair of cords span six arcs (i.e., 7 => 8 => 9 => 1 => 2 => 3 => 4 and 2 => 1 => 9 => 8 => 7 => 6 => 5) or two exponential sums of (7 – 5 + 8 = 10 => 1 + 0 = 1 and 1 - 4 +2 = -1); but, since the two sums are arithmetic opposites (i.e., +1 and -1), they equally cancel each other.

– ***Step 2: Deriving the mathematical framework or plan providing the mathematical guiding focus for the mathematically disruptive enabler converging onto the trinitarian triangle***

Thus far we have only developed through the subtraction process the exponential power of 10 labels which provide the mathematical framework or plan for initiating convergence of the mathematically disruptive enabler. We have not developed the comparable mathematical framework or plan which provides the mathematical guiding focus for the mathematically disruptive enabler converging onto the trinitarian triangle. **Remember the counterpart labeling process based solely on the stand-alone addition process in Section VII-A incorporated both the mathematically disruptive enabler and the trinitarian triangle through the π label for describing the non-interactive convergence of the mathematically disruptive enabler onto the trinitarian triangle (see Section VII-A, Figures 35 and 36). Also, recall that the π label in the convergence mathematical plan is associated with the mathematical guiding focus characterized by 6's type of the trinitarian triangle, as shown in Figure 56. Appropriately, the stand-alone addition process referred to above is characterized by 5’s type which is complementary to 6’s type, as discussed in the text between Figures 36 and 37.**

Given the constraint of only being able to work with the exponents of Figure 56, the simplest most direct and only way to reflect the interactive relationship of the trinitarian triangle, onto which the mathematically disruptive enabler converges, is through expanding the single-digit equivalent exponents of 10 in Figure 56 to their respective multi-digit equivalent exponents of 10 which convey this converging focus onto the trinitarian triangle, as outlined in the following paragraphs. In other words, the multi-digit equivalent aspect plays a comparable role to π, but in the context of the interconnected subtraction process as characterized by 7’s type, whereas, π was derived in the context of the stand-alone addition process as characterized by 5’s type (see Section VII-A). Likewise, the framework of multi-digit equivalent exponents can be associated with 6's type similar to the way that π was associated with 6’s type which is complementary to both 5’s and 7’s types. However, in both cases they provide the mathematical guiding focus for the mathematically disruptive enabler converging onto the trinitarian triangle as characterized by 6’s type.[24]

[24] **Because this mathematical guiding focus role characterized by 6’s type is so integral to the radiant mathematical framework or plan characterized by 7’s type, these two types are, not only complementary, but also always accompany one another in the context of symmetric order.**

Proceeding on this basis in deriving the labels for the convergence mathematical plan, the trinitarian triangle numerals (i.e., 3, 6 and 9) can be expressed as their multi-digit equivalents (i.e., 30 for 3, 60 for 6, and 90 for 9) and then integrated with the above exponents of 10 in Figure 55 to produce multi-digit equivalents of these exponents. For example, in the case of 8's and 1's types we must select multi-digit equivalent exponents of 10 which can convey mathematically producing the output of symmetric order characterized by 8's type and the mathematical criteria for the output of symmetric order characterized by 1's type. Since we are looking for the ultimate output of the interactive relationships of the overall mathematically disruptive enabler converging onto the interactive relationships of the trinitarian triangle, the ultimate output is the interactive relationships of the trinitarian triangle for which 3's type is the underlying mathematical factor (see Section VI-A). Thus, the multi-digit equivalent exponents of 10 associated with 8's and 1's types should be in the 30's. **While 3's type is being emphasized here as the output-focus of the trinitarian triangle, we will see below the other two types (i.e., 6 and 9) being similarly emphasized in completing the output-focus on the trinitarian triangle.** Accordingly, moving ahead on this basis, the multi-digit equivalent exponents of the single-digit equivalent exponents 10^{-4} and 10^{-5} (from Figure 55 above) which are in the 30's, has to be 10^{-31} and 10^{-32} (i.e., 31 => 3 + 1 = 4 and 32 => 3 + 2 = 5), respectively, which are incorporated into the labels of the convergence mathematical plan, as shown below in Figure 57.

If the context had not been the convergence of the interactive relationships, the ultimate output would have been conveyed by the mathematical totality characterized by 9's type and thus lead to multi-digit equivalent exponents of 10 in the 90's. While this was not the case, we will see (a few paragraphs below) 9's type incorporated in a different manner through 1's type which always accompanies 9 as a complementary type in the context of symmetric order (see Section IX-A and B).

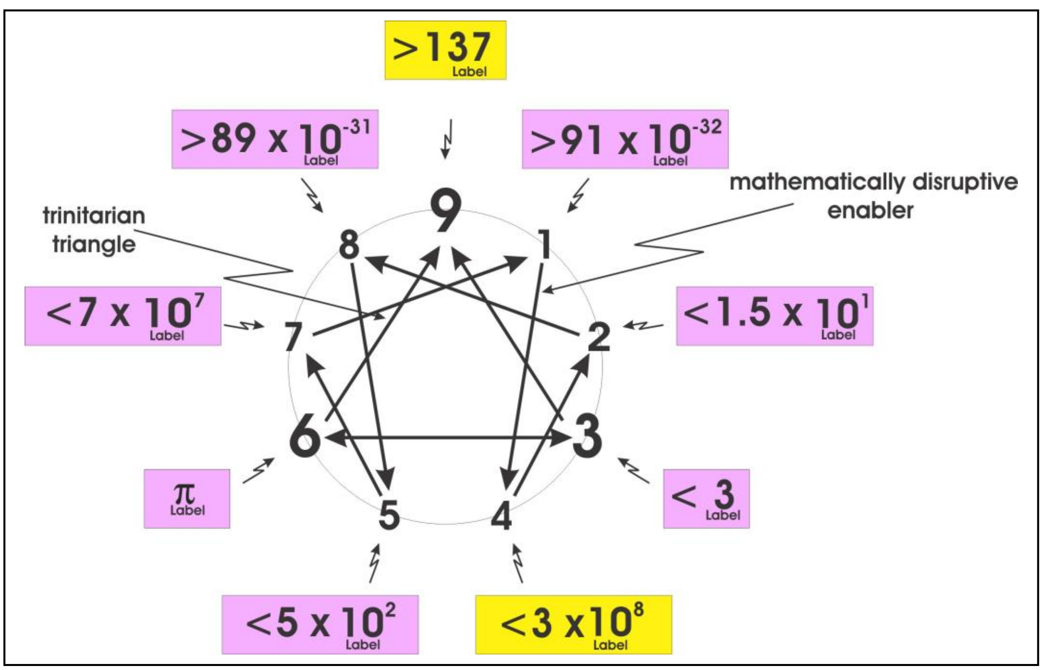


Figure 57. Integrating (into Figure 56) 10^{-31} and 10^{-32} as multi-digit equivalent exponents for 10^{-4} and 10^{-5} in the mathematical framework or plan for convergence

Having addressed the exponents of 10 associated with the counterbalancing opposite types of 8 and 1 at the top of the symmetric circle in the mathematical plan for convergence, we now turn to the exponents of 10 associated with the opposite types of 5 and 4 (which are bisected by 9) at the bottom of the symmetric circle. As we saw at the end of Section V-A, 5's type serves as the non-interactive or (mathematically) conceptual initiator of symmetric order and 4's type serves as the interactive initiator of symmetric convergence. In other words, 5's and 4's types, as the initiators of symmetric order, are at the other end of the spectrum from 8's and 1's types which are associated with mathematically producing symmetric order. The simplest and most direct way to illustrate this initiation role is by leaving the single-digit equivalent exponential labels of 10 associated with 5's and 4's types as the only exponential label in the convergence mathematical plan not converted to multi-digit equivalents, as shown above in Figure 57. Appropriately, this is just the opposite of what was done above for the exponents associated with 8's and 1's types in this mathematical framework or plan where they conveyed approaching the completed production of symmetric convergence.

Of the two remaining types to address (i.e., 7 and 2), 7 is the appropriate candidate to utilize a multi-digit exponential label taken from the 60's since 7's and 6's types are, not only complementary, but also always accompany one another in the context of symmetric order (see footnote 24). Accordingly, the multi-digit equivalent exponent of the single-digit equivalent exponent 10^7 (from Figure 57 above) which is in the 60's, has to be 10^{61} (i.e., 61 --> 6 + 1 --> 7), which is integrated into the mathematical plan for convergence, as shown below in Figure 58.

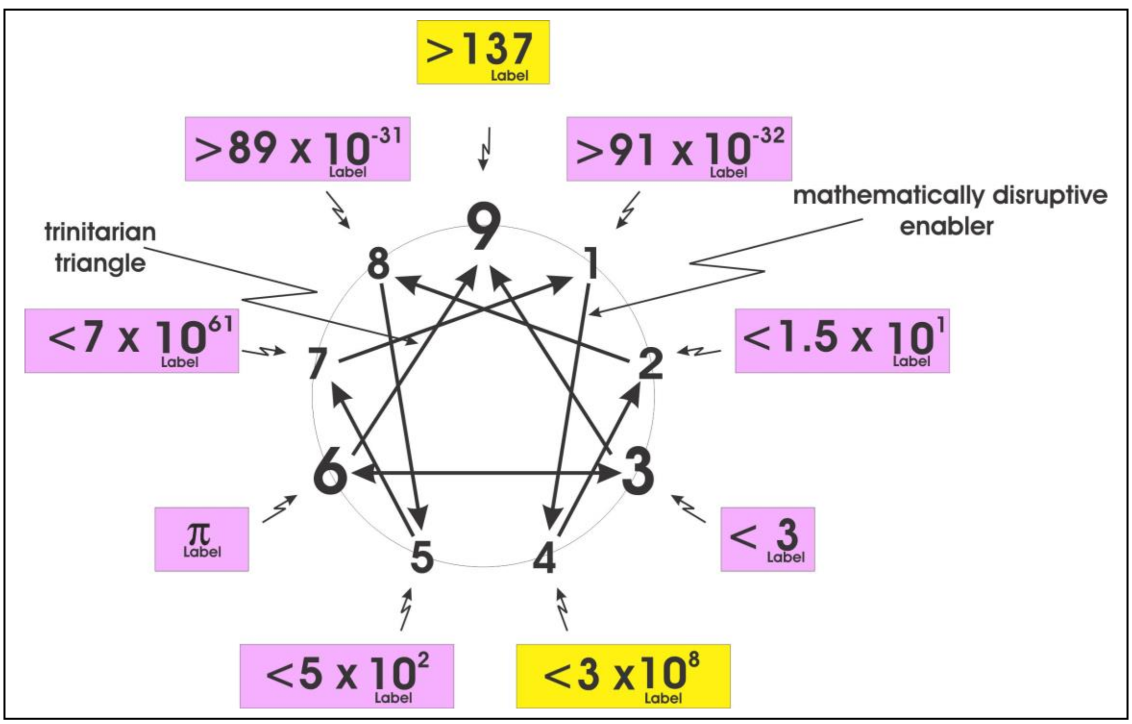


Figure 58. Integrating (into Figure 57) 10^{61} as the multi-digit equivalent exponent for 10^7 in the mathematical plan for convergence

We now turn to constructing the multi-digit exponent based on 10^1 associated with 2's type in the mathematical framework or plan for convergence and note that only the triangular type 9 has not yet been directly addressed.

- Accordingly, if we select the multi-digit equivalent exponent of the single-digit equivalent exponent 10^1 (similar to the approach above for the triangular types 3 and 6), the multi-digit equivalent exponent in the 90s' would be 10^{91} (i.e., 91 => 9 + 1 = 10 => 1 + 0 = 1). However, because of 10^1's association with type 2 which characterizes the non-redundant or subtle mathematical identification of the exclusive specificity of all three of the triangular types, the simple selection of 10^{91} is not appropriate because it focuses directly on identifying the triangular type 9 and does not focus on identifying the triangular types 3 and 6.

- Fortunately, the identification of 9's type along with 3's and 6's types has already been addressed because 9's type characterizes the mathematical totality of symmetric order (see Section IX-A) and this mathematical totality can be found in the summations of the exponents bracketing each of the three triangular points 9, 6 and 3 in Figure 58. For example, the exponents bracketing the triangular point or type 9 are 10^{-31} and 10^{-32} (or formerly 10^{-4} and 10^{-5}) where the exponents sum to 31 + 32 = 63 => 6 + 3 = 9 (or formerly 4 + 5 = 9). Likewise, the exponents bracketing the triangular point or type 6 are 10^{61} and 10^2 (or formerly 10^7 and 10^2) where the exponents sum to 61 + 2 = 63 => 6 + 3 = 9 (or formerly 7 + 2 = 9). Continuing on, the exponents bracketing the triangular point or type 3 are 10^1 and 10^8 where the exponents sum to 1 + 8 = 9. Of course, the summation or totality of these sub-summations is also 9 (i.e., 9 + 9 + 9 = 27 => 2 + 7 = 9).

- Thus, the simplest multi-digit equivalent exponent of the single-digit equivalent exponent 10^1, which is not in the 90's, is 10 or 10^{10} (i.e., 10 => 1 + 0 = 1), as shown in Figure 59 below. Moreover, the use of 10^{10} instead of 10^{91} can be further justified in that 1's type always accompanies the triangular type 9 (see Sections IX-A and B).[25] Note, 1's type is represented by the multi-digit equivalent exponent 10^{10}, not the single-digit equivalent exponent 10^1, consistent with the above discussion following Figure 57.

To recap, the multi-digit equivalent exponents of 10 in Figure 59 constitute the mathematical framework or plan which provides the mathematical guiding focus for the mathematically disruptive enabler converging onto the trinitarian triangle utilizing the subtraction process, but in the interactive context. Note, this convergence onto the trinitarian triangle disproportionally accentuates the triangular type 9 in characterizing the mathematical totality of symmetric order. This accentuated totality was reflected in the summations of the exponents bracketing each of the three triangular points 9, 6 and 3 in Figure 59. Appropriately, the identification of this exclusive specificity role for 9's type was confirmed by 2's type. Moreover, this accentuation on 9's type was further reinforced through its exponential associated with 3's type which characterizes the factor mathematically underlying the trinitarian triangle (see third paragraph of this Step 2). The correspondingly disproportionate accentuation on the triangular types 6 and 3 will be addressed at the end of courses 101B and C, respectively.

[25] **Also this association between 1's and 2's types is further supported since 1's type characterizes the mathematical criteria for symmetric specificity (see Section III-C) whereas 2's type characterizing mathematically identifying the specificity of the various types (see Section IV-B).**

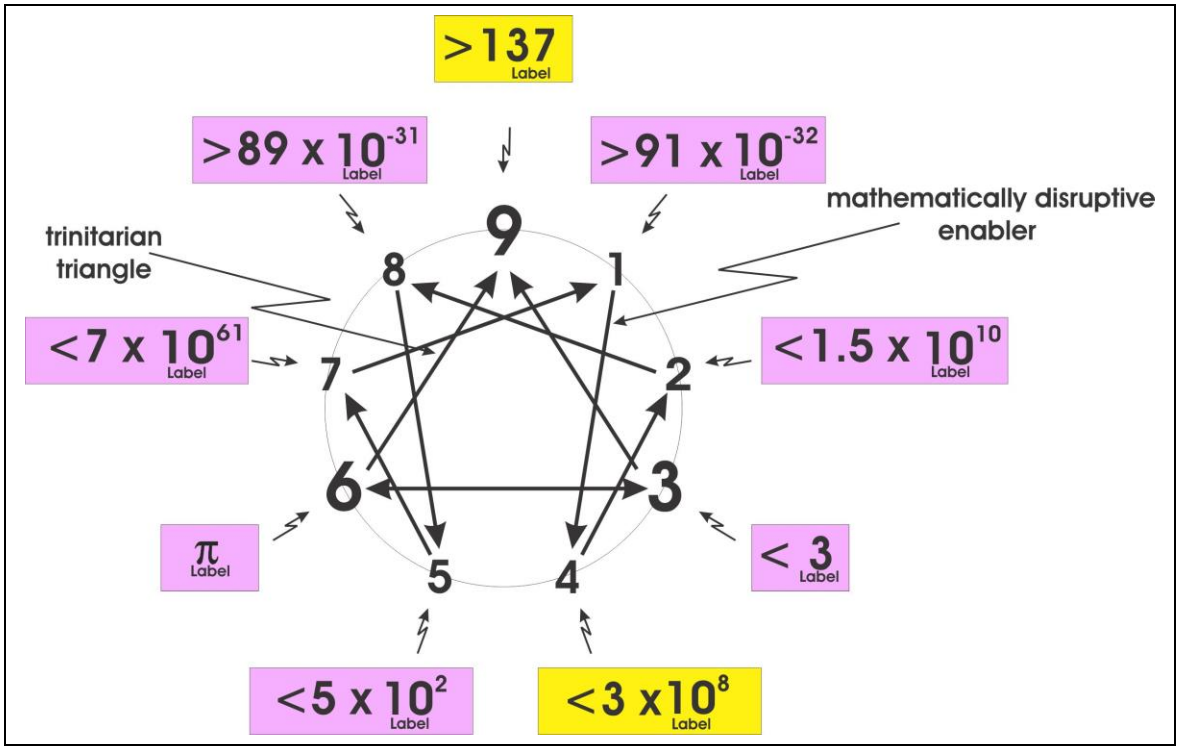


Figure 59. Integrating (into Figure 58) 10^{10} as the multi-digit equivalent exponent for 10^{1} <u>which completes the mathematical framework or plan focusing on the mathematically disruptive enabler converging onto the trinitarian triangle based on the subtraction process</u>.

<u>ALSO, KEEP IN MIND, THAT YIELDING THE CONVERGENCE OF THE MATHEMATICALLY DISRUPTIVE ENABLER ONTO THE TRINITARIAN TRIANGLE, AS DESCRIBED ABOVE, IS CHARACTERIZED BY THE REDUNDANTLY EMPHASIZED TYPE 4 (SEE SECTION V-A). THUS, GIVEN THE ABOVE ACCENTUATION OF THE TRINITARIAN TYPE 9, THE SUMMATION OF FIGURE 59 INCORPORATES THE ASSOCIATION BETWEEN TYPES 4 AND 9 INTRODUCED IN THE PARAGRAPH FOLLOWING FIGURE 46.</u>

Having completed the framework in Figure 59 which constitutes that part of the mathematical plan focusing on the mathematically disruptive enabler converging onto the trinitarian triangle, the next six-step presentation incorporates the mathematical framework or plan focusing on establishing the mathematically disruptive enabler to provide the complete unified mathematical plan.

INCORPORATING THE MATHEMATICAL PLAN FOR ESTABLISHING THE MATHEMATICALLY DISRUPTIVE ENABLER

Just as the non-interactive subtraction process (characterized by 7's type) was utilized in defining the above convergence mathematical plan for converging the mathematically disruptive enabler, so too is it utilized in defining the mathematical plan for establishing the mathematically very disruptive enabler. Also, the following mathematical plan is likewise mathematically disruptive to conventional mathematic in the context of randomness. Moreover, since the mathematical plan for establishing the mathematically disruptive enabler precipitates the numerical death of the randomness orientation and the key to awakening the symmetric order orientation, the labeling of this part of the mathematical planning process must be exhaustively complete given the unlimited choices available in the randomness environment. In other words, the defining completeness of the mathematical plan, as presented in the following six step discussion must leave absolutely no option for variations, alternatives or misrepresentations.

– ***Step 1: Initiating the mathematical framework or plan for establishing the mathematically disruptive enabler***

To define the initiating step, we begin by defining type 2's characterization of the division process as applied to type 1 divided by type 7 to yield either the 1/7 series (i.e., 0.142857142….) or type 4 (see Section IV-B). However, since the process for establishing the mathematically disruptive enabler must originate with conventional mathematics in the context of randomness, where 1's type / 7's type cannot equate to 4's type, we must convert this equation to a format acceptable in the context of randomness to initiate the mathematical framework or plan, as shown below in Figure 60a.

1's type / 7's type = 4's type

⇩

7's type (1's type / 7's type) = (4's type) 7's type

⇩

~~7's type~~ (1's type / ~~7's type~~) = (4's type) 7's type

⇩

1's type = 4's type x 7 type

or

4's type x 7's type = 1's type

Figure 60a. Converting 1's type / 7's type = 4's type to a format acceptable to conventional mathematics in the context of randomness to initiate the mathematical framework or plan for establishing the mathematically disruptive enabler

Since 4's type, when redundantly emphasized, yields the initiation of the mathematically disruptive enabler (see Figures 21-22b), the initiation of the mathematically disruptive enabler, represented as 1 ⇨ 4 ⇨ 2 ⇨ 8 ⇨ 5 ⇨ 7, can be substituted for 4's type from Figure 60a, as shown below in Figure 60b. In other words, 4's type can be viewed as effectively yielding the initiation of 1 ⇨ 4 ⇨ 2 ⇨ 8 ⇨ 5 ⇨ 7 from the 1/7 series or the 0.142857142…. series. While 4's redundantly emphasized type also was shown to yield the closure or convergence of the mathematically disruptive enabler onto the trinitarian triangle, that closure is not included in Figure 60b because we are only at the initiation stage at this point.

4's type x 7's type = 1's type

⇩

1 ⇨ 4 ⇨ 2 ⇨ 8 ⇨ 5 ⇨ 7 x 7's type = 1's type

the initiating mathematically disruptive enabler

Figure 60b. Substituting the initiating mathematically disruptive enabler for 4's redundantly emphasized type to initiate the mathematical framework or plan

Since six iterations of 4's type as a redundant multiplier were used in initiating the mathematically disruptive enabler in Figure 21-22, six iterations or redundant multiplications of 7's type must now be used to fully implement the equation 4's type x 7's type = 1's type from Figure 60b, as shown below in Figure 61a. In other words, Figure 61a presents the matrix product from redundantly multiplying 7's type with the initiating mathematically disruptive enabler to initiate the mathematical framework or plan for establishing the mathematically disruptive enabler.[26 and 27]

[26] **Remember the redundantly emphasized versions of the 4's, 7's and 1's types serve as the drivers towards symmetrical order, see Sections V-A, X-B and III-C.**

[27] **As shown in Figure 21, the six iterations of 4 as a multiplier were done in two sets of three iterations. However, whether two sets of three or one set of six iterations are involved, the single digit equivalents are the same when the iterations arise from either 4 or 7 as the redundant multiplier (for proof of this as it involves 7, see Figure 68).**

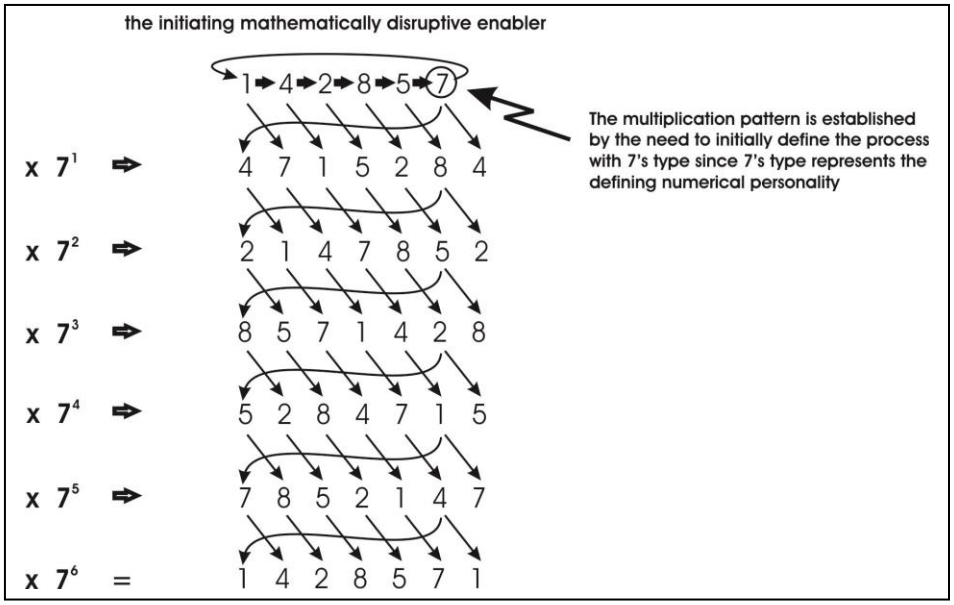


Figure 61a. Matrix of single-digit equivalent products from the redundant multiplication of 7's type with the initiating mathematically disruptive enabler to initiate the mathematical framework or plan

However, since at the initiation of the mathematically disruptive enabler or symmetric order, 1's and 8's types must be interchangeable (see Section VIII-B). Thus, the positioning of 1's and 8's types in the matrix of single-digit equivalent products in Figure 61a must be interchanged as shown in Figure 61b below. Moreover, as a result of this interchange, the vertical columns of the matrix in Figure 61b represent every possible placement or iteration in the mathematical framework or plan for establishing the mathematically disruptive enabler.

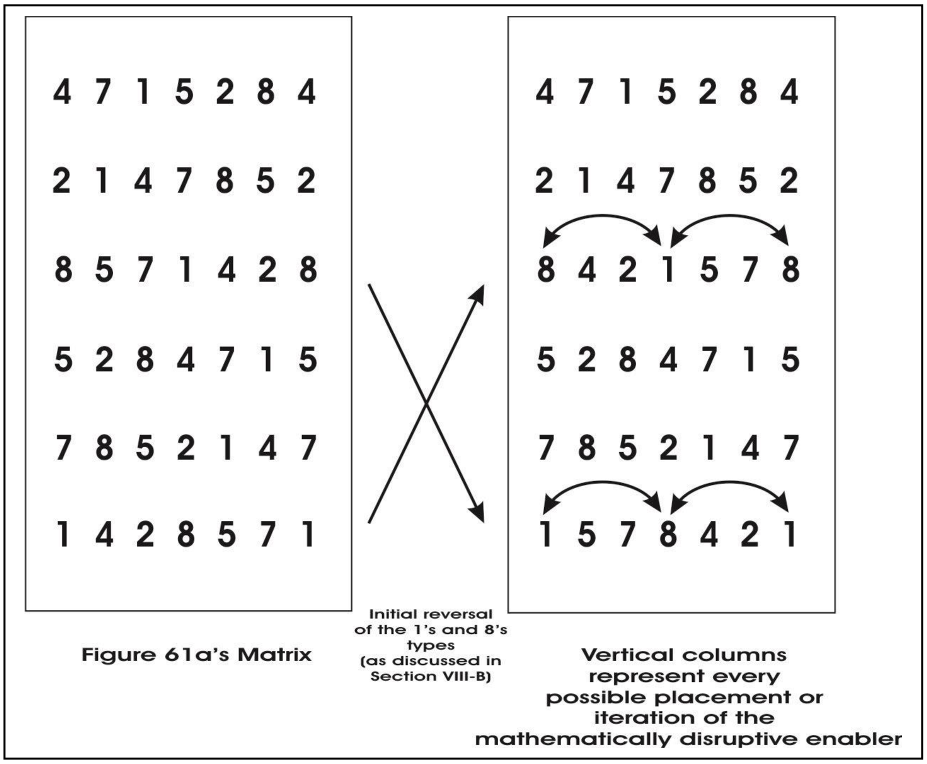


Figure 61b. Interchanging 1's and 8's types resulting in the vertical columns representing every possible placement or iteration in the mathematical framework or plan for establishing the mathematically disruptive enabler

Noteworthy, the matrix of single-digit equivalent products in Figure 61b is essentially the mathematical output of the equation in Figure 60b where:

4's type or (the initiating mathematically disruptive enabler) x 7's type = 1's typ

Thus, the above matrix essentially represents 1's type characterizing the initial mathematical output in transitioning towards symmetric order when 1's and 8's types are interchangeable (see Section IX-B).

Since the initiating mathematically disruptive enabler must transition towards closure or convergence onto the trinitarian triangle, the iterations of the initiating mathematically disruptive enabler in Figure 61b must represent the mathematically disruptive enabler transitioning towards convergence onto the trinitarian triangle. Accordingly, the vertical columns representing all the permutations of the

mathematically disruptive enabler in Figure 61b are shown as a mathematical framework or plan of concentric circles transitioning towards converging onto the trinitarian triangle in Figure 62 below. Note, the descriptive labeling from Figures 60b and 61a, namely,

(4's redundantly emphasized type expressed as <u>initiating</u> the mathematically disruptive enabler) X (7's redundantly emphasized type expressed as 7^x)

has been replaced in Figure 62 with

(4's redundantly emphasized type expressed as <u>converging</u> the mathematically disruptive enabler) X (7's redundantly emphasized type expressed as 7^x)

which can be expressed as the following mathematical framework or plan

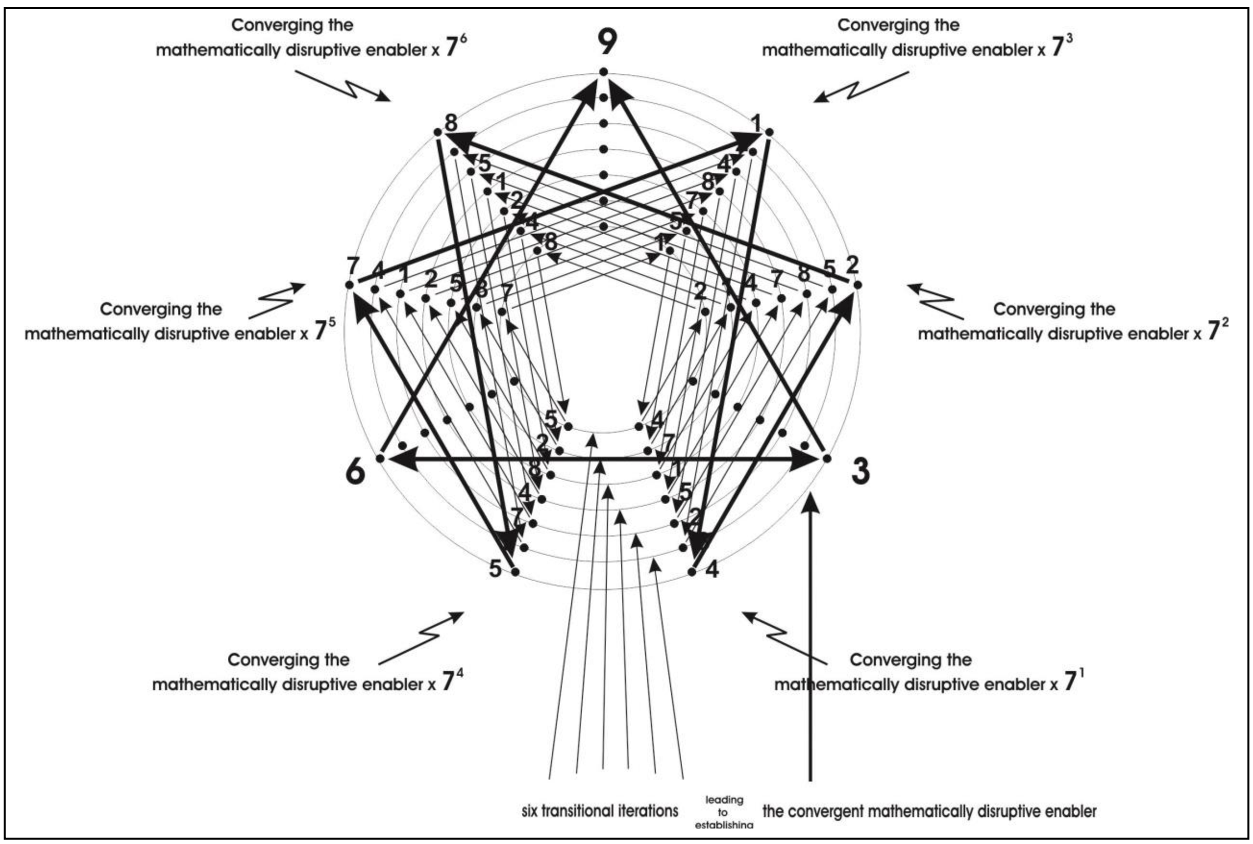


Figure 62. The mathematical framework or plan of six transitional iterations in the mathematical plan leading to establishing the mathematically disruptive enabler

Since the seven vertical columns of Figure 61b represent iterations of the mathematically disruptive enabler transitioning towards convergence onto the trinitarian triangle, the outwardly radiating concentric circles of Figure 62 represent iterations in the mathematical plan leading to establishing the mathematically disruptive enabler transitioning towards convergence onto the trinitarian triangle.

Accordingly, with the completion of the seventh iteration 8's type becomes fully implementable and is no longer limited to being interchangeable with 1's type. Also note, that since the iterations progress away from randomness, the square of randomness will be later shown in the center of the mathematical framework or plan for establishing the mathematically disruptive enabler (see Figure 63).

LOOKING FOR THE COUNTERPART TO THESE SEVEN ITERATIONS IN GURDJIEFF'S WORK, WE FIND HIS DISCUSSION OF SEVEN COSMOSES WHICH P.D. OUSPENSKY THEN REFINED TO SEVEN DIMENSIONS. THE LATTER'S REFINED INTERPRETATION SEEMS CONSISTENT WITH OUR SEVEN STAGES OR TRANSITIONAL ITERATIONS. THIS CONSISTENCY IS FURTHER REINFORCED BY INCORPORATING OUSPENSKY'S MULTIPLE ITERATIONS OF THE DIATONIC SCALE TO ILLUSTRATE THE CONVERGING OF GURDJIEFF'S LAWS OF SEVEN AND THREE (SEE SECTION V-A).

Importantly, each of the transitional iterations or stages making up this entire process can be primarily characterized by a particular numerical type, as developed in the next Step 2.

Step 2: Characterizing the stages or transitional iterations in the mathematical framework or plan leading to establishing the* mathematically *disruptive enabler

In moving away from randomness, the first transitional iteration or stage must provide for the initial mathematical conceptualization, as characterized by 5's type, of the targeted mathematically disruptive enabler (see Section II-B). Thus, the first transitional iteration shown in Figure 62 is characterized primarily by 5's type, as shown in Figure 63 below.

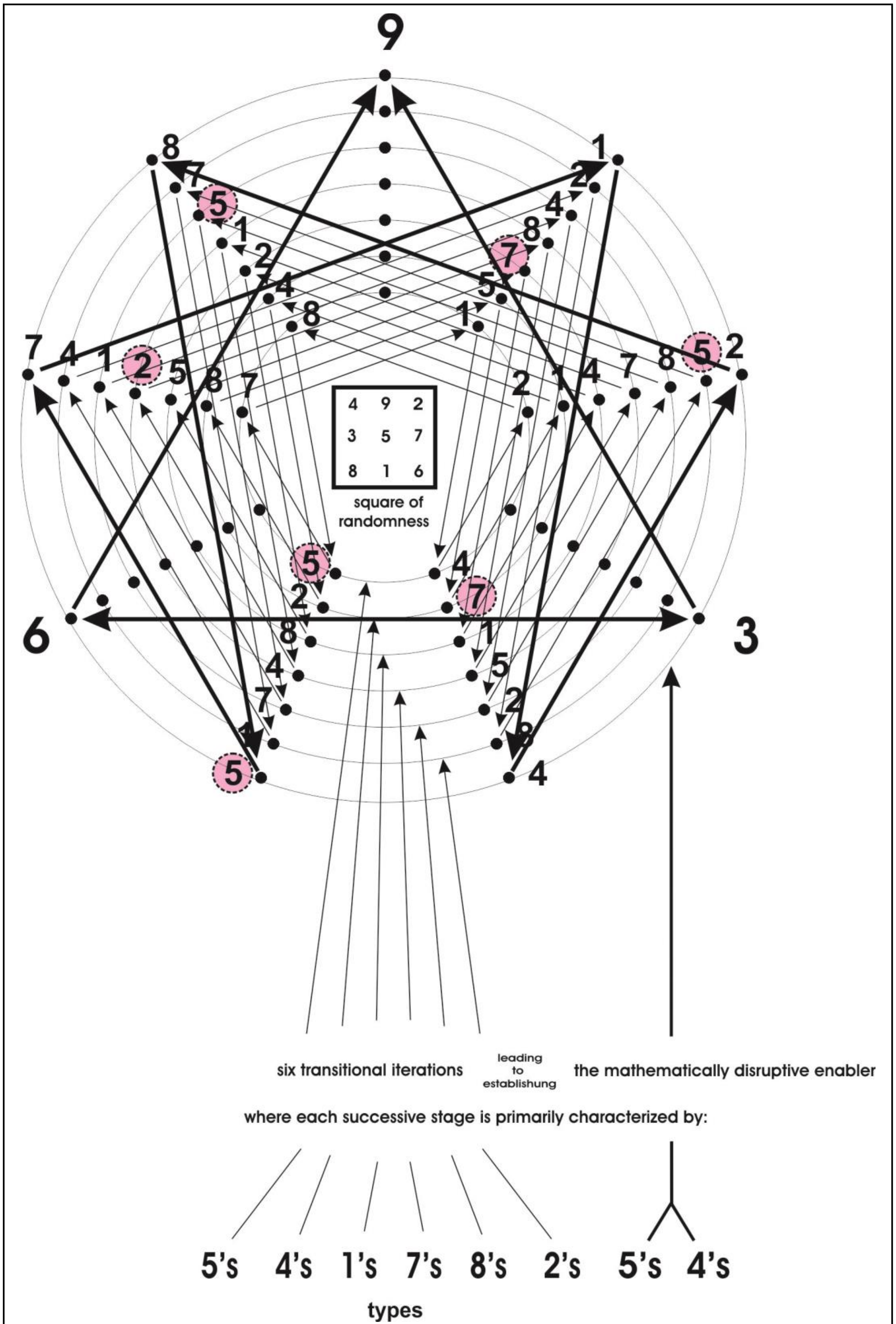


Figure 63. Characterizing the successive stages in the mathematical framework or plan leading to establishing the mathematically disruptive enabler
or
THE GURDJIEFF ENNEAGRAM WITH SEVEN DIMENSIONS

Having completed the mathematical conceptual initiation stage, as represented by the first transitional iteration in Figure 63, the second transitional iteration must represent the other (i.e., interactive) initiation process or stage in leading to establishing the mathematically disruptive enabler which is characterized primarily by 4's type as shown above in Figure 63, (also see end of Section V-A).

Since the initiation of the mathematically disruptive enabler follows from or is yielded by 4's type (assuming 4's type equates to 1's type / 7's type), the next two (i.e., third and fourth) stages or transitional iterations must be characterized by 1's and 7's types, respectively, as shown in Figure 63 above. In other words, the third stage primarily characterized by 1's type can be viewed as being divisible by the fourth stage primarily characterized by 7's type and equal to 4's type in characterizing the second stage and thereby effectively yielding the initiation of the mathematically disruptive enabler.

Having initiated the mathematically disruptive enabler in the preceding stages, we now approach mathematically producing the mathematically disruptive enabler, as characterized by 8's type (see Section VIII-B). Accordingly, the next or fifth stage is characterized by 8's type, as shown in Figure 63. However, 8's type remains interchangeable with 1's type until the seventh stage is completed, as shown in Figure 61b. Thus, in characterizing the fifth stage 8's type represents, first, 8's type as only being interchangeable with 1's type and, second, as being fully implemented at the completion of the seventh stage. Moreover, since mathematically approaching the full production of the mathematically disruptive enabler must approach converging onto the trinitarian triangle, the sixth stage or transitional iteration must be characterized by 2's type because 2's type also characterizes mathematically identifying the exclusivity of the trinitarian triangle (see Sections IV-B and VI-A). In other words, since mathematically approaching production of the mathematically disruptive enabler, as characterized by the fully implemented type 8, requires approaching convergence onto the trinitarian triangle, the mathematical identification of which is characterized by 2's type, this overall process can be represented by the sixth stage, characterized by 2's type, going into (or dividing into) the fifth stage, characterized by 8's type.

Accordingly, when 2's type in characterizing the sixth stage goes into or divides into the stage characterized by 8's type, the outcome can be either 5's or 4's type depending on whether 8's type is still only interchangeable with 1's type (i.e., 1's type ÷ 2's type => 5's type) or fully implementable (i.e., 8's type ÷ 2's type => 4's type). Thus, the seventh stage must be characterized initially by 5's type and then by 4's type. In other words, 5's type (in characterizing the seventh stage) is characterizing the mathematical conceptualization of the mathematically disruptive enabler converging onto the trinitarian triangle as yielded by 4's type which also characterizes the seventh stage.

Moreover, since 5's and 4's types are counterbalancing opposites, the production of which is characterized by 8's type (see Section VIII-A), 8's type is also characterizing mathematically producing the mathematically disruptive enabler converging onto the trinitarian triangle and thereby fulfilling its role in characterizing the fifth stage, as described immediately above (see Section VIII-B).

To summarize, the first six transitional iterations sequentially interrelate in such a way that the mathematically disruptive enabler is established which can then converge onto the trinitarian triangle. As a result, the final (or seventh) stage represents mathematically producing the mathematically disruptive enabler converging onto the trinitarian triangle upon which all subsequent manifestations of symmetric order are based. Moreover, because the first six transitional iterations are solely dedicated to establishing the mathematically disruptive enabler represented by the seventh stage, only the types making up this seventh stage need to be shown in the mathematical framework or plan, as illustrated in Figure 64 below.

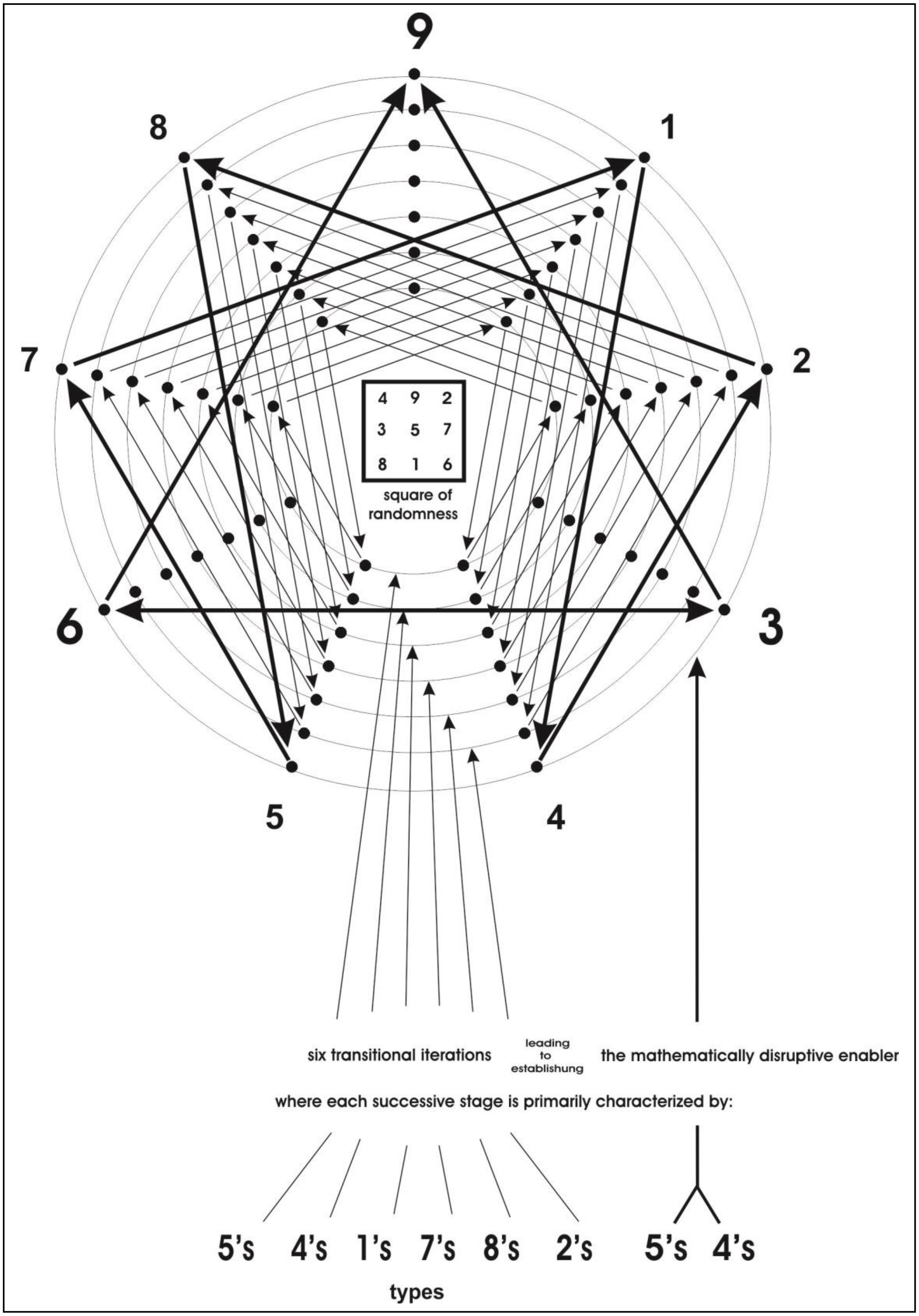


Figure 64. Eliminating the individual types for the transitional iterations in the mathematical framework or plan leading to establishing the mathematically disruptive enabler

As a way of checking the above assignments for sequencing the types characterizing the stages represented by the six transitional iterations in the mathematical framework or plan leading to establishing the mathematically disruptive enabler (i.e., 5, 4, 1, 7, 8, 2 and 5), they can be plotted on the circle of symmetric order, as shown below in Figure 65. Such an exercise produces a bisecting axis which intersects 6's type, as shown in Figure 65.

The opposite pairs of digits or their associated types, which are bisected by the 6 axis, always equate to a single-digit sum of 3 (i.e., 7 + 5 = 12 => 1 + 2 = 3; 8 + 4 = 12 => 1 + 2 = 3; 9 + 3 = 12 => 1 + 2 = 3; and 1 + 2 = 3). Importantly, if the sequence had been anything other than 5, 4, 1, 7, 8, 2 and 5, the axis could not intersect 6’s type, nor could the bisected pairs add to the counterbalancing opposite of 3. **In other words, 6’s type characterizes the mathematical guiding focus around which the six transitional interactions leading to establishing the mathematically disruptive enabler is organized.**

However, since we earlier saw that 6’s type characterizes from the perspective of mathematically disruptive enabler versus 3’s type characterizing from the perspective of the trinitarian triangle, type 6’s accompaniment with type 7 (as a member of the mathematically disruptive enabler) is much more extensive than type 3’s accompaniment of type 4. Moreover, this accompaniment with the redundantly emphasized type 7 is even further intensified because type 6 is not redundantly emphasized; whereas, type 3 is redundantly emphasized (see Section X-D).

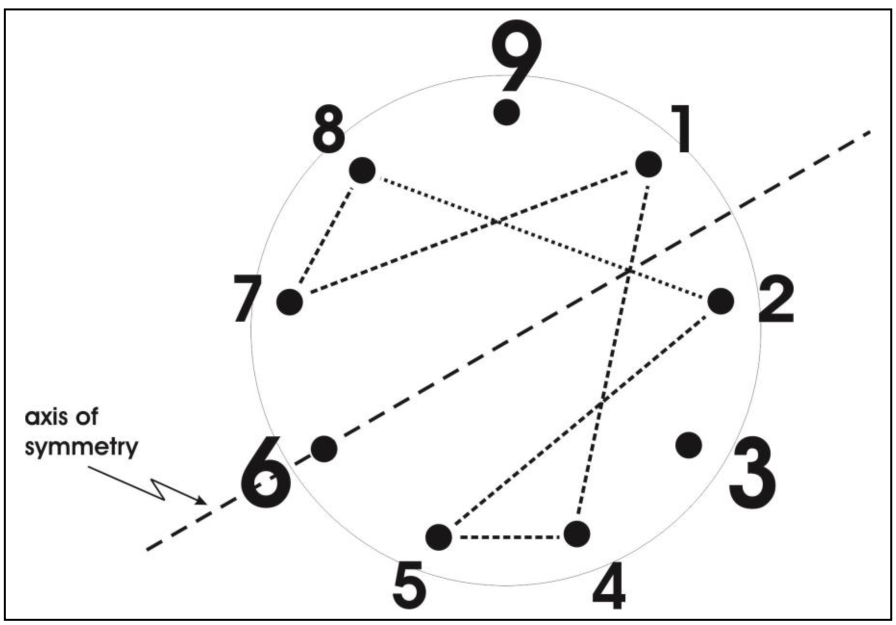


Figure 65. Presenting the types characterizing the successive stages in the mathematical plan leading to establishing the mathematically disruptive enabler from Figure 64

In addition to viewing Figure 64 as seven stages which are primarily characterized by 5's, 4's, 1's, 7's, 8's, 2's and 5's (and 4’s) types, it can also be viewed as a mathematical framework or plan of six series of seven types outwardly radiating to one of the types of the mathematically disruptive enabler (i.e., 1,4,2,8,5 and 7). When the types characterizing these two viewpoints are identical and are 5, 8 or 2, the common intersection between these two viewpoints always occurs at 5’s type, as shown by the circled numbers in Figure 63. Likewise, when the types characterizing these two viewpoints are identical and are 4, 1 and 7, the common intersection between these two viewpoints occurs at 7’s type, except for the pair characterized by 7 which occurs at 7’s counterbalancing opposite or 2’s type (see Figure 63).

The intersecting roles for 5's and 7's types is appropriate given that the overall schema is bisected by the axis through 6's type, as shown in Figure 65. Remember from the end of Section VII-A, 5's type, as well as 7's type, bracket 6's type in forming the complementarily oriented, non-interactive group of types.

THE ABOVE DISRUPTIVE EXCEPTION WHERE THE TWO VIEWPOINTS (i.e., THE OUTWARDLY RADIATING SERIES AND THE STAGE) ARE BOTH CHARACTERIZED BY 7’s TYPE INTERACT AT 2’s TYPE, RATHER THAN AT 7’s TYPE, IN FIGURE 63 IS VERY NOTEWORTHY. SINCE 2’S TYPE CHARACTERIZES IDENTIFYING THE MATHEMATICALLY DISRUPTIVE ROLE OF 7’s TYPE, WHEREBY 7’s TYPE DIVIDES INTO 1’s TYPE AND EQUATES TO 4’s TYPE TO FORM THE BASIS FOR INITIATING THE MATHEMATICALLY DISRUPTIVE ENABLER (see Section IV-B), THE DISRUPTIVE APPEARANCE OF 2’s, RATHER THAN 7’s TYPE AT THIS INTERSECTION IN FIGURE 63 INTRODUCES THE DISRUPTIVENESS THAT UNDERLINES THE MATHEMATICALLY DISRUPTIVE ENABLER. ACCORDINGLY, WE WILL SEE BELOW IN STEP 4 THAT THE DEFINING LABEL ASSOCIATED WITH THIS OUTWARDLY RADIATING SERIES DRAWS DIRECTLY ON THE TYPE 2 APPEARING AT THIS INTERSECTION.

At this point the labels shown in Figure 62 can be incorporated into the above derived Figure 64. However, rather than showing each label as “Converging the mathematically disruptive enabler x 7^x” directly from Figure 62, “Converging the mathematically disruptive enabler” can be replaced by the actual labels from the mathematical framework or plan in Figure 59 focusing on converging the mathematically disruptive enabler, as shown below in Figure 66. Also remember, the accompanying “7^x” labels are intended to provide the mathematical framework or plan focusing on establishing the mathematically disruptive enabler. Accordingly, all the remaining Steps (3 through 7) will address evolving or developing the mathematical framework or plan of 7^x labels to completely define the mathematical process or plan for establishing the mathematically disruptive enabler. Appropriately, the development of this mathematical framework or plan of 7^x labels draws heavily on the subtraction process which is characterized by 7’s type (see Figure 52 and the associated text).

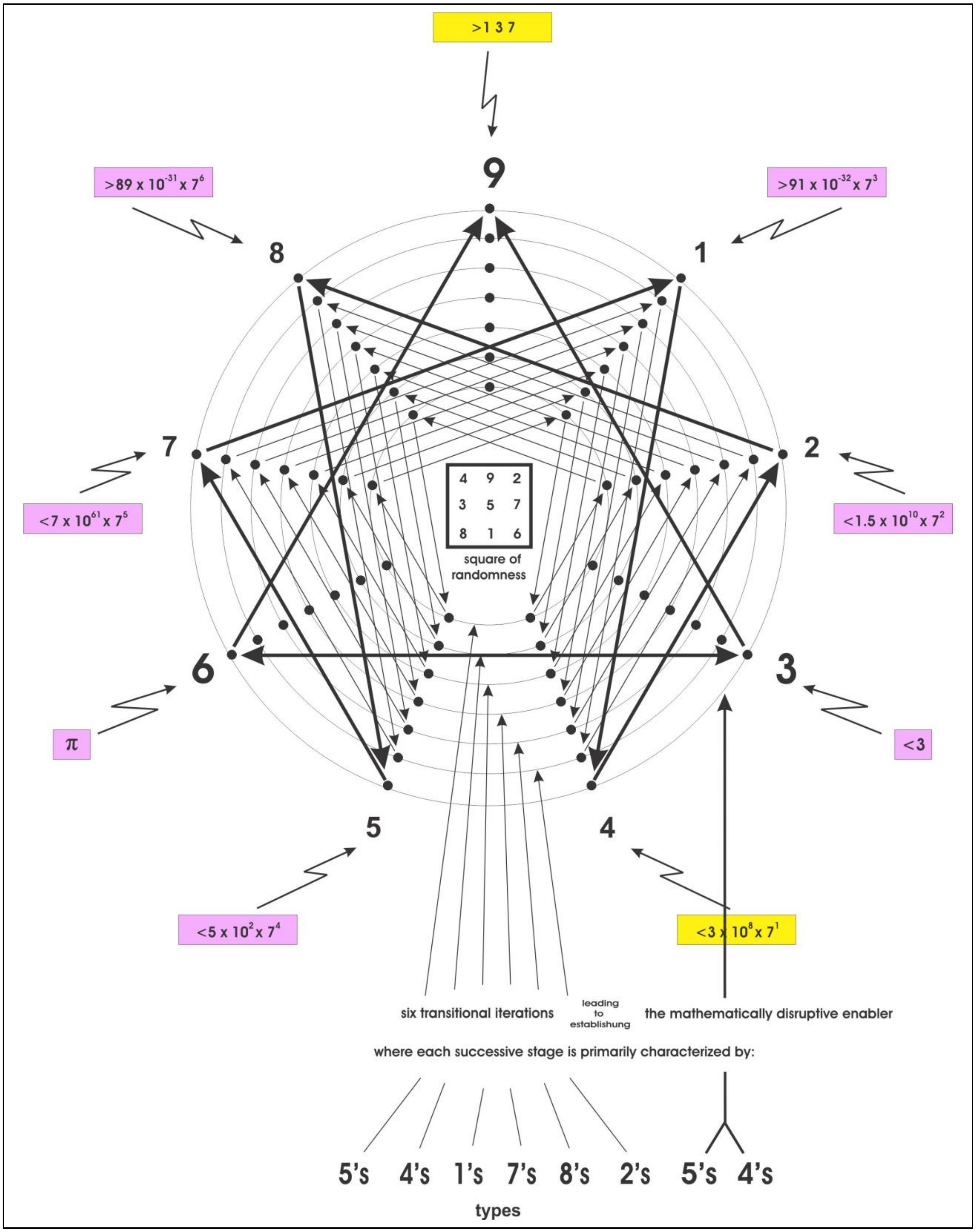


Figure 66. Incorporating the actual labels from the mathematical plan for converging the mathematically disruptive enabler in Figure 59 with the mathematical plan for establishing the mathematically disruptive enabler.

– ***Step 3: Evolving the 7^x labels to define equating 1's type / 7's type to 4's type as represented by the second, third and fourth transitional iterations or stages in the mathematical framework or plan for establishing the mathematically disruptive enabler***

As the next step towards completing the 7^x labels from Figure 66 in the mathematical framework or plan for establishing the mathematically disruptive enabler, the single-digit equivalent value of each 7^x label is presented in Figure 67 below.

$7^1 =$ "7"
$7^2 = 49$ ⇨ $4 + 9 = 13$ ⇨ $1 + 3 =$ "4'
$7^3 = 343$ ⇨ $3 + 4 + 3 = 10$ ⇨ $1 + 0 =$ "1'
$7^4 = 2401$ ⇨ $2 + 4 + 0 + 1 =$ "7'
$7^5 = 16807$ ⇨ $1 + 6 + 8 + 0 + 7 = 22$ ⇨ $2 + 2 =$ "4"
$7^6 = 117649$ ⇨ $1 + 1 + 7 + 6 + 4 +9 = 28$ ⇨ $2+ 8 = 10$ ⇨ $1 + 0 =$ "1'

Figure 67. The single-digit equivalent values of the 7^x labels

Appropriately, given the focus towards symmetric order in Figure 66, Figure 67 shows that the above single-digit equivalent values of the 7^x's from Figure 66 are 7, 4 and 1 representing the types that, when redundantly emphasized, drive towards symmetric order.

Additionally, each of these types belong to a different category of complementary characterizations. For example, 7 represents a non-interactive characterization, 4 represents an interactive characterization, and 1 represents a production-focused characterization, as presented in Sections X-C, V-A and III-C, respectively.

Figure 68 below compares the single-digit equivalent values of the 7^x labels, the types with which the 7^x labels are associated in Figure 66, and the corresponding categories of complementary characterizations

7^x labels	Single-digit equivalent values of 7^x labels (corresponding categories of complementary types)	Numerical types associated with the 7^x labels in Figure 66 (corresponding categories of complementary types)
7^1	7 (non-interactive characterization)	4 (interactive characterization)
7^2	4 (interactive characterization)	2 (interactive characterization)
7^3	1 (production-focused characterization)	8 (production-focused characterization)
7^4	7 (non-interactive characterization)	5 (non-interactive characterization)
7^5	4 (interactive characterization)	7 (non-interactive characterization)
7^6	1 (production-focused characterization)	1 (production-focused characterization)

Figure 68. 7^x labels reflect single-digit equivalent values and the types with which they are associated in Figure 66, as well as the corresponding categories of complementary characterizations.

The only inconsistencies in Figure 68 occur with the 7^1 and 7^5 labels in their respective categories of complementary types. Specifically, the two categories of complementing types are not consistent (or the same) for the rows labeled 7^1 and 7^5.

To rectify these inconsistencies, Figure 68's 7^1 label with a single-digit equivalent value of 7 and associated with 4's type as well as the 7^5 label with a single-digit equivalent value of 4 and associated with 7's type **must** be inverted (i.e., divided into 1) so that the single-digit equivalent value of each label (i.e., the quotient) is the same as its associated type. Moreover, since the inversion of 4 equates to the single-digit equivalent value of 7 and the inversion of 7 equates to the single-digit equivalent value of 4, these two inversion processes can be viewed as offsetting one another. In other words, while both pre-inversion single-digit equivalent values are eliminated through the inversion process, both pre-inversion single-digit equivalent values are also re-established through the inversion process but at the different or inverted positions on the circle of symmetric order, as will be shown in Figures 69-70 below.

Also, since the inversion processes involve dividing into 1, the 7 and 4 positions or types in Figure 66 are appropriately interconnected through the 1 position or type (i.e., => 7 => 1 => 4 =>) to schematically identify the inversion process. Moreover, since the mathematical identification of 7's type dividing into 1's type to equate 4's type is characterized by 2's type (see Section IV-B), the common intersection between the transitional intersection or stage characterized by 7's type and the series outwardly radiating to 7's type is represented by 2's type, as shown in Figure 63 and explained in the second to the last paragraph of Step 2 above.

Continuing this process, when 7^1 => 7 and 7^5 => 4 shown in Figure 68 are inverted (i.e., 7^{-1} => 1/7 => 4 and 7^{-5} = ¼ => 7), as shown in Figure 69 below, the inconsistencies between the categories of complementary types (i.e., the 7^x labels and the associated types) are eliminated.

7^x labels	Single-digit equivalent values of 7^x labels (corresponding categories of complementary types)	Numerical types associated with the 7^x labels in Figure 66 (corresponding categories of complementary types)
7^{-1}	4 (interactive characterization)	4 (interactive characterization)
7^2	4 (interactive characterization)	2 (interactive characterization)
7^3	1 (production-focused characterization)	8 (production-focused characterization)
7^4	7 (non-interactive characterization)	5 (non-interactive characterization)
7^{-5}	7 (non-interactive characterization)	7 (non-interactive characterization)
7^6	1 (production-focused characterization)	1 (production-focused characterization)

Figure 69. Resolving the inconsistencies of Figure 68

While 7^{-1} and 7^{-5} have been inverted from 7^1 and 7^5, the original labels (i.e., 7^1 and 7^5 from Figure 66) must continue to be included so that the label conveys the inversion process (i.e., the transition from randomness towards symmetric order). This means the original 7^1 label in Figure 66 would become $(7^1)(7^{-1})$ and the original 7^5 label in Figure 66 would become $(7^5)(7^{-5})$ as shown in Figure 70 below.

Importantly, since the above physical inversions of 7 and 4 represent a painfully disruptive assault on conventional mathematics in the same way that equating the inverted type 7 (i.e., 1's type / 7's type) to 4's type represents a painfully disruptive assault on conventional mathematics, the former can be used to represent the latter when transitioning from randomness towards symmetric order in the mathematical plan for establishing the mathematically disruptive enabler.

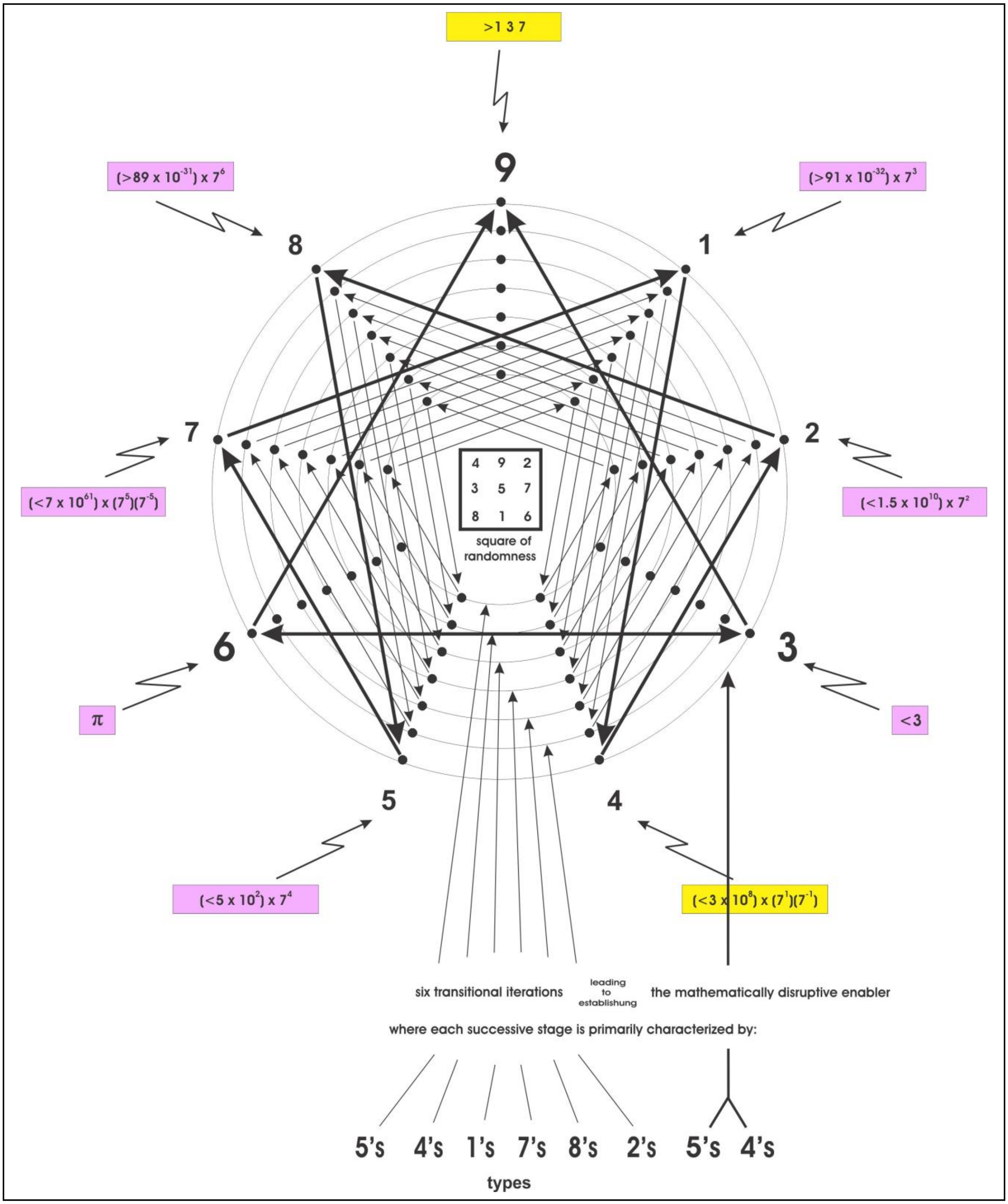


Figure 70. Evolving the 7^x labels to define equating 1's type / 7's type to 4's type as represented by the second, third and fourth transitional iterations or stages in the mathematical framework or plan for establishing the mathematically disruptive enabler

– ***Step 4: Incorporating the units of measurement for space and time to sustain equating 1's type / 7's type to 4's type as represented by the second, third and fourth transitional iterations or stages in the mathematical framework or plan for establishing the mathematically disruptive enabler***

Combining 7^{-1} and 7^{+1} as factors in one label and 7^{-5} and 7^{+5} as factors in another label (as shown in Step 3) means that these combined factors would normally net to 7^0 (i.e., $7^{-1+1} = 7^0$ and $7^{-5+5} = 7^0$), respectively, through the process of redundantly subtracting the exponential powers of 7. While this redundant subtraction process of netting the exponential powers to zero (or a single-digit equivalent value of 1) worked earlier in Step 1 of the Mathematical Plan for Converging the Mathematically Disruptive Enabler to describe the mathematically disruptive enabler converging onto the interactive relationship of trinitarian triangle, it does not work here in the Mathematical Plan for Establishing the Mathematically Disruptive Enabler where the focus is to describe the non-interactive sequential steps of inverting 7. **In other words, counterbalancing opposite approaches must be pursued to incorporate the redundant subtraction process to be consistent with the counterbalancing opposite characterizations of interactive versus non-interactive relationships. This means that while the interactive approach from Step 1 of the Mathematical Plan for Converging the Mathematically Disruptive Enabler required the subtracted exponential powers to net to zero, the non-interactive approach used here in Mathematical Plan for Establishing the Mathematically Disruptive Enabler must <u>prevent the subtracted exponential powers of 7 from interactively netting to zero</u>.[28] To accomplish this, the exponential powers must be presented as based on non-numerical units of measurement where the exponential powers cannot be netted to zero.** This requires that 7^1 and 7^{-5}, which have a single-digit equivalent of 7 (i.e., a non-interactively-oriented type), **must** be represented by the most non-interactive, non-numerical unit of measurement. Likewise, 7^{-1} and 7^{+5}, which have as single-digit equivalent of 4 (i.e., an interactively-oriented type), **must** be represented by the most interactive, non-numerical unit of measurement.

Since the most non-interactive unit of measurement is "space" (i.e., everything is separated by "space"), the 7^1 and 7^{-5} labels must evolve to incorporate the most basic unit of measurement for space which is distance or length, as represented by the symbol (l). Thus, 7^1 and 7^{-5} become l^1 and l^{-5}, and are incorporated into Figure 66, as shown in Figure 71 below. Likewise, **since the most interactive unit of measurement is "time" (i.e., everything interacts or changes with time), the 7^{-1} and 7^{+5} labels must evolve to incorporate a unit of the most basic measurement for time as represented by the symbol (t).** Thus, 7^{-1} and 7^{+5} become the t^{-1} and t^{+5}, and are incorporated into Figure 66, as shown in Figure 71 below.

Noteworthy, the other consideration supporting the inclusion of "space" and "time" units of measurement is that the above inversion procedure occurs in the spatial and time dimensional framework.

[28] **Importantly, both the interactive and non-interactive approaches still utilize the redundant subtraction process as characterized by 7's type and the focus of this chapter.**

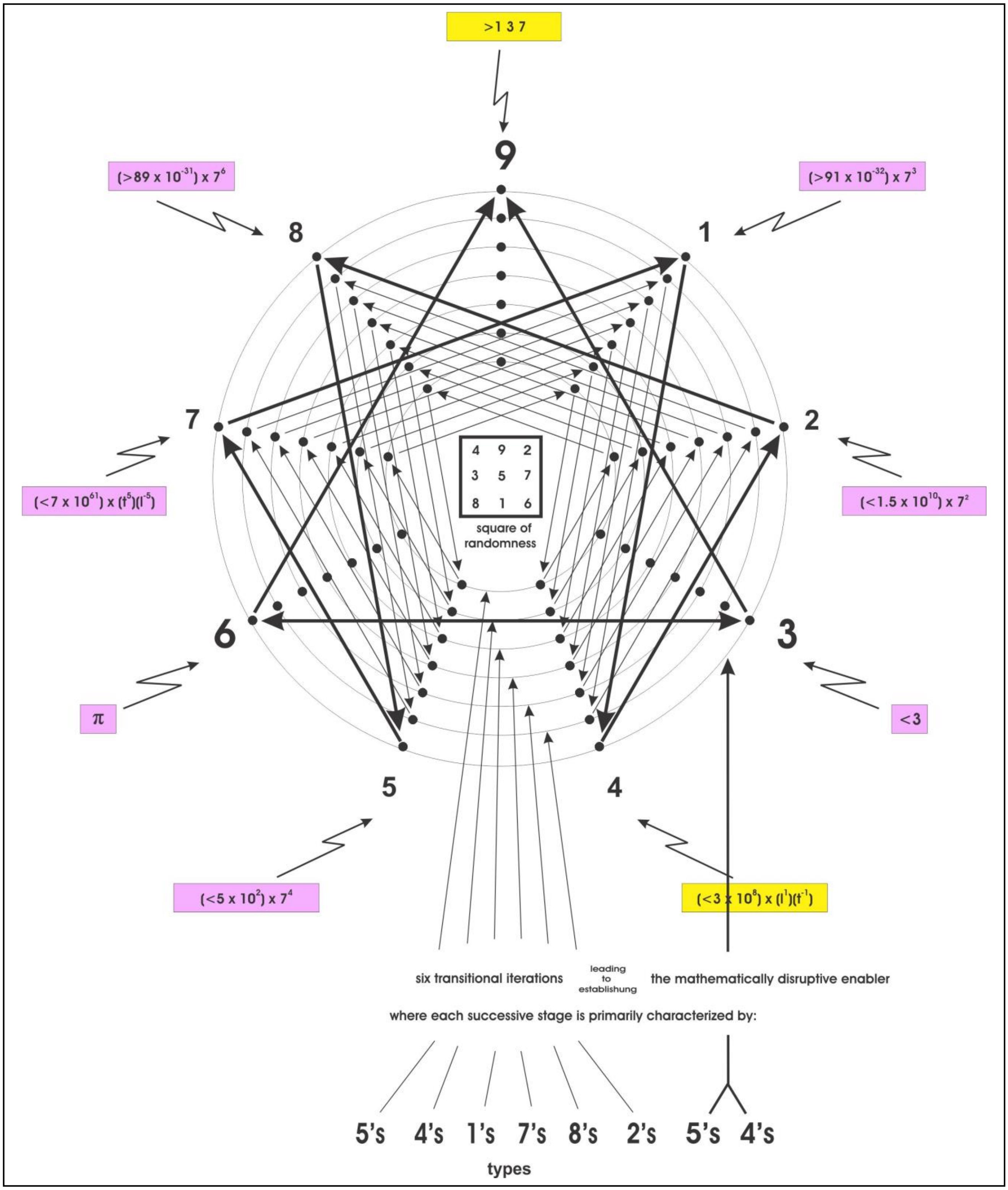


Figure 71. Evolving the 7^x labels associated with 7's and 4's types to incorporate the units of measurement for space (l) and time (t) to sustain equating 1's type / 7's type to 4's type as represented by the second, third and fourth transitional iterations or stages in the mathematical framework or plan for establishing the mathematically disruptive enabler

Since 4's type yields the interactive initiation of the mathematically disruptive enabler (see Section V-A), we begin with $(l^1)t^{-1})$ in the label which appears at the series radiating outwardly to 4's type in Figure 72. The exponential redundant emphasis of 1's type in the label is appropriate since 1's redundantly emphasized type characterizes the mathematical criteria for symmetric order. Also, since 1's non-redundantly emphasized type characterizes the mathematical criterion for randomness and is subsumed by 1's redundantly emphasized type in characterizing the mathematical criteria for symmetric order, the use of 1's type for both exponents in the label conveys the transition away from randomness towards symmetric order as well as the redundancy of 1's type (see Sections III-B and C). Because complying with (or dividing into) the mathematical criteria characterized by 1's redundantly emphasized type represents the most painfully disruptive assault on conventional mathematics in the transition from randomness towards symmetric order (see Section IV-B), it can be viewed as initiating the sacrificial killing of the randomness orientation. Moreover, since 4's type yields the mathematically disruptive enabler, 4's type can best personify the sacrificial violation of the hostile randomness environment. As such, this label $(l^1)(t^{-1})$ must appear at the series radiating outwardly to 4's type in the mathematical framework or plan for establishing the mathematically disruptive enabler, in Figure 72 below.

Turning to $(t^5)(l^{-5})$ in the label that appears at the series radiating outwardly to 7's type in Figure 72, the exponential use of 5's type in the label characterizes:

- first, the initial mathematical conceptualization of symmetric order as represented by the first stage in Step 2 above; and,

- second, the final mathematical conceptualization output of the mathematically disruptive enabler as represented by the final stage in Step 2 above.

However, since 5's type cannot be redundantly emphasized in the symmetric context, one of the 5 exponents in the t^5 or l^{-5} label **must** be further evolved by being replaced by a non-5 equivalent. Since 2 and 5 are interchangeable as exponents of 7 as shown in Figure 67, the simplest and most direct way to eliminate the 5 redundancy is to evolve the t^5 or l^{-5} label to t^2 or l^{-2}. **Importantly, 2 (rather than a larger number such as 8) must be selected as the exponential replacement for 5 because 2's type non-redundantly characterizes the subtle mathematical identification of 1/7 equating to 4 as a single-digit equivalent (see Section V-B) consistent with the intent of this inversion process. Moreover, this disruptive role for 2's type initiated this entire process as presented in the second to last paragraph in Step 2 and Figure 63 above where 2's type was associated with the series radiating outwardly to 7's type.** Accordingly, the initial t^5 is replaced by t^2 to utilize 2's type to characterize the mathematical identification of 1/7 equating to 4 which leaves l^{-5} to utilize 5's type in the mathematical framework or plan for establishing the mathematically disruptive enabler, as shown below in Figure 72.

As discussed above, this sequencing journey of 5's type in the above exponential roles reflects the transition from the first stage to the last (i.e., seventh) stage, where both are primarily characterized by 5's type in the journey leading to establishing the mathematically disruptive enabler (see Step 2 above). However, the presence of the seventh or final stage's characterization (i.e., type 5) eliminates the need to exhibit the first stage's characterization (i.e., also type 5). Moreover, because of the accompaniment by 2's type which also characterizes the sixth stage (see again Step 2 above), this sequencing or progression identifies the transitional sequence from randomness towards symmetric order in the label. Appropriately this label appears at the series radiating outwardly to 7's type which characterizes the mathematical framework or plan for establishing the mathematically disruptive enabler.

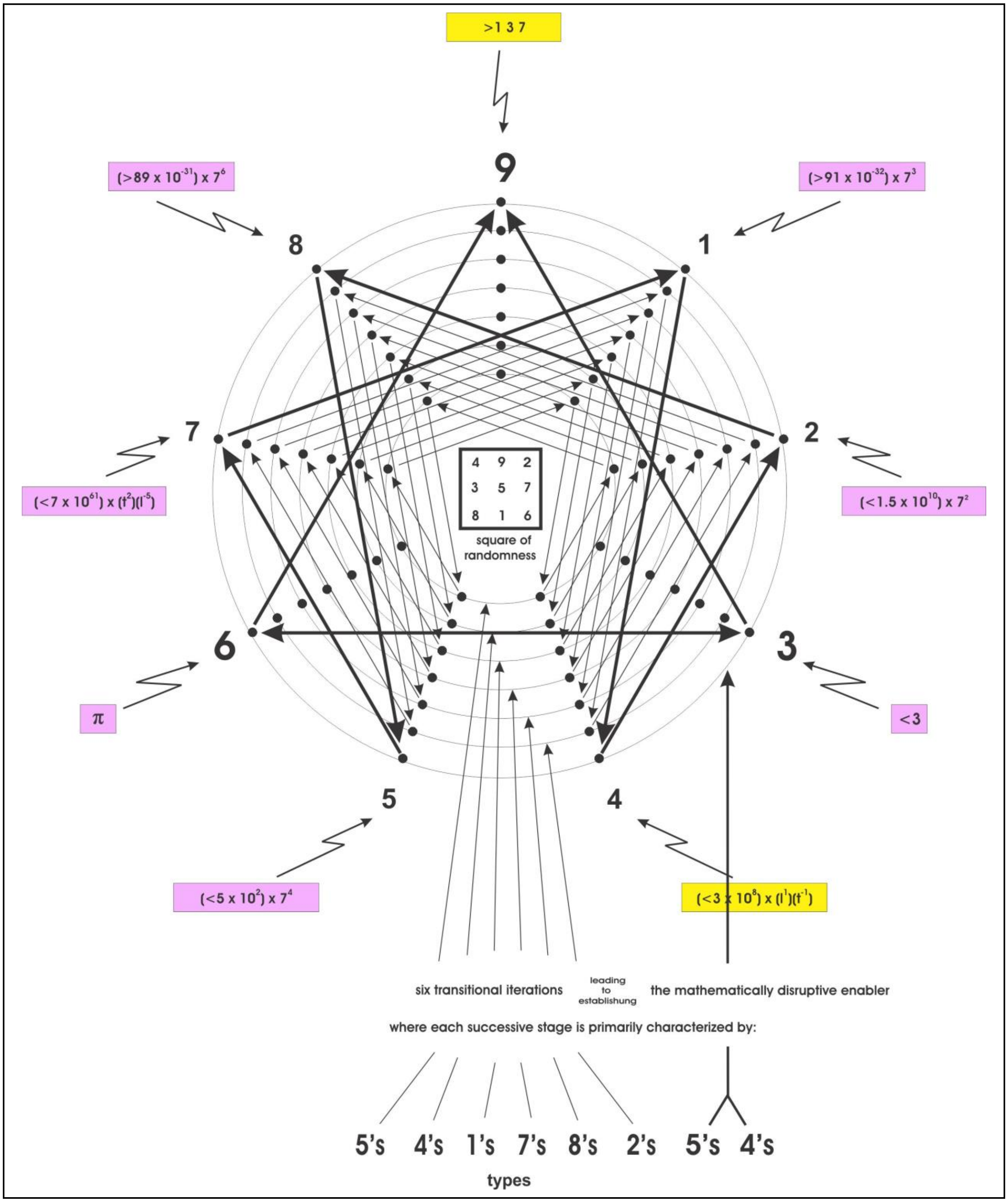


Figure 72. Evolving the 7^{x} labels by replacing the exponential 5 with the exponential 2 as represented by the fourth transitional iteration or stage in the mathematical framework or plan for establishing the mathematically disruptive enabler

Interestingly, this substitution of physical units of measurement (i.e., space and time) for the numerical 7 factors in the above 7^x labels effectively reflects the non-interactiveness of 7's type. Since different physical units of measurement [i.e., space (l) and time (t)] do not arithmetically interact, they represent the ideal substitutes for the 7 factor in the above 7^x labels in the mathematical framework or plan for establishing the mathematically disruptive enabler. Likewise, the Arabic numerals are equally well suited for the comparable role in the labels in the mathematical framework or plan describing the mathematically disruptive enabler converging onto the trinitarian triangle labels because this process is yielded by 4's redundantly emphasized type which is interactively-oriented. Since Arabic numerals are interactively relatable regardless of the different functions represented, they are ideally suited for the labels describing the mathematically disruptive enabler converging onto the 3 triangle.

In other words, the above labeling transitions (to incorporate dimensional units of measurement) ultimately convey that inverting 7's type and equating it to 4's type requires expanding the strictly numerical context to include physical dimensions of space and time. Also, this mathematical plan or process involves the death of the randomness orientation and the awakening of the symmetric order orientation.

Having introduced the substitution of space and time units of measurement for the 7's of the 7^x labels associated with 4's and 7's types (as shown in the previous Figures), we now turn to the situation with the 7^x labels associated with 5's and 2's types. As we saw in Figure 70, the 7^4 and 7^2 labels associated with 5's and 2's types have single-digit equivalent values of 7 and 4, respectively. As explained earlier (see Figure 68), the 7^4 and 7^2 labels associated with 5's and 2's types are not inconsistent and thus need not be disruptively inverted like the 7^x labels associated with their counterbalancing opposite types (i.e., 4 and 7, respectively).

Since 5's and 2's types have already been addressed immediately above, they cannot again be addressed without creating redundant emphases which are prohibited for 5's and 2's types in the context of symmetric order. Therefore, to unmistakenly convey this point, as well as, to maintain counterbalancing consistency to reaffirm the previous approach, these 7^x labels **must** reflect this fact in the same exacting way that was used with those 7^x labels that required inverting. Thus, for consistency, the l^4 and t^2 labels associated with 5's and 2's types in Figure 73 **must** also incorporate t^{-x} and l^{-x}, respectively. However, an exponent **must** be chosen that will result in a 7^x value of 1 to convey the specificity of the existing labels which means there is no disruptive change or transition from the inversion process. Remember from Step 1 of the Mathematical Plan for Converging the Mathematically Disruptive Enabler and Section III-C, the mathematical specificity criteria characterized by 1's redundantly emphasized type can be conveyed through multiplication with exponential numbers equating to the single-digit value of 1. Since any exponent with a multiple value of 3 results in 7^x equating to a same-digit value of 1, the above t^{-x} and l^{-x} should become t^{-3} and l^{-3} in the Mathematical Plan for Establishing the Disruptive Enabler, as shown below in Figure 73.[29]

In summarizing, Step 4 provides the dimensional units of measurement labeling necessary to sustain equating 1's type / 7's type to 4's type as represented by the second, third and fourth transitional iterations or stages in the mathematical framework or plan for establishing the mathematically disruptive enabler, as shown in Figure 73 below.

---

[29] While 7^0 also equates to 1, it could only be shown as 1, not as t^{-0} or l^{-0}

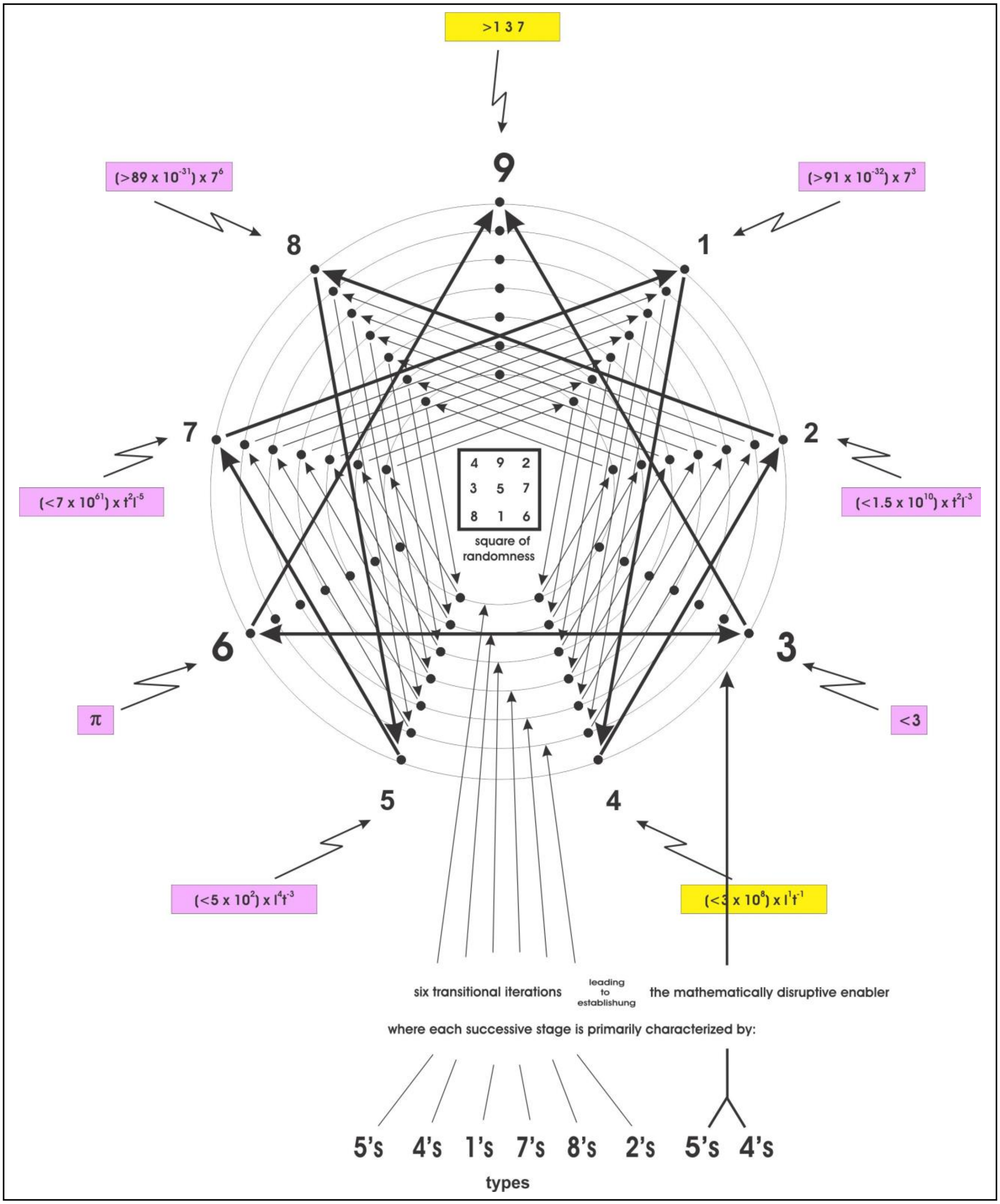


Figure 73. Evolving the 7^x labels associated with 5's and 2's types to incorporate the units of measurement for space (l) and time (t) to sustain equating 1's type / 7's type to 4's type as represented by the second, third and fourth transitional iterations or stages in the mathematical framework or plan for establishing the mathematically disruptive enabler

– ***Step 5: Incorporating the unit of measurement for mass to sustain the interchangeability of 1's and 8's types as represented by the fifth, sixth and seventh transitional iterations or stages in the mathematical framework or plan for establishing the mathematically disruptive enabler***

Thus far we have presented time (t) and space or distance (l) as the most interactive and most non-interactive units of measurement, respectively, to represent 7 in the 7^x labels with the single-digit equivalent values of 4 and 7, respectively, as shown in Figure 73. However, we have not yet presented the most production or output-focused unit of measurement to address the 7^x labels with the single-digit equivalent value of 1 in Figure 69. Also, to assure consistency among the different units of measurement the most production-focused unit of measurement must represent the production of everything defined by the space or distance (l) unit and changed by the time (t) unit of measurement. The only medium, as a unit of measurement, fulfilling these requirements is "mass" or (ma)[30].

Based on Figure 69, this production-focused mass (ma) unit of measurement would be associated with not only 1's type, but also 8's type in the mathematical framework or plan for establishing the mathematically disruptive enabler. Consistently, Section VIII-B indicates the basic unit of measurement for production or output [i.e., mass or (ma)], not only represents the mathematical criterion for production or output as characterized by 1's type, but also represents mathematically producing the initial output (i.e., the first mass unit produced) as characterized by 8's type. This simply reaffirms the interchangeability of 1's and 8's types when symmetric order is initiated, as was illustrated in Figure 61b and also represented by the fifth, sixth and seventh transitional iterations or stages in the mathematical framework or plan for establishing the mathematically disruptive enabler, as discussed in Step 2 above.

As noted above, Figure 69 presents the 7^3 and 7^6 labels with single-digit equivalent value of 1 as well as appropriately being respectively associated with 1's and 8's types.[31] Because of these different exponents (i.e., 3 and 6) and the above need for the mass (ma) unit of measurement associated with 1's and 8's types to be interchangeable, the mass (ma) unit of measurement must represent the complete 7^x labels which equate to the single-digit equivalent value of 1, not just the 7 factor as was expressed by the space (l) and time (t) units of measurement in Figure 73 above. Accordingly, the 7^3 and 7^6 labels from Figure 73 are replaced with the mass (ma) unit of measurement as shown in Figure 74 below.

While the common single-digit equivalent value of 1 associated with the underlying 7^3 and 7^6 labels conveys the interchangeability of 1's and 8's types, their different 3 and 6 exponents convey the difference between 1's and 8's types. Namely, 8's type evolves beyond its interchangeability with 1's type to characterize mathematically producing the full mathematically disruptive enabler and its subsequent convergence onto the trinitarian triangle. However, this full implementation of 8's type still subsumes the interchangeability role of 1's and 8's types. In this regard, 3's type characterizes the mathematical factor underlying the exclusive specificity of the trinitarian triangle similar to 1's type characterizing the mathematical criteria underlying the specificity of the circle of symmetric order (see Section VI-A and Figure 16). Likewise, 6's type characterizes the mathematical guiding focus for the mathematically disruptive enabler converging onto the trinitarian triangle similar to 8's type characterizing

[30] Energy can be included to the extent it can be converted to mass.

[31] **Appropriately, the relationships between 3's and 6's types is similar to the relationship between 1's and 8's types in that 3's and 1's types underlie 6's and 8's types, respectively (see Section VII-A and VIII-B).**

mathematically producing the full mathematically disruptive enabler and its subsequent convergence onto the trinitarian triangle.

As we saw above in Step 2, both of these roles for 8's type are represented by the fifth, sixth and seventh transitional iterations or stages in the mathematical framework or plan for establishing the mathematically disruptive enabler. The labeling for the latter role is addressed in the following Step 6.

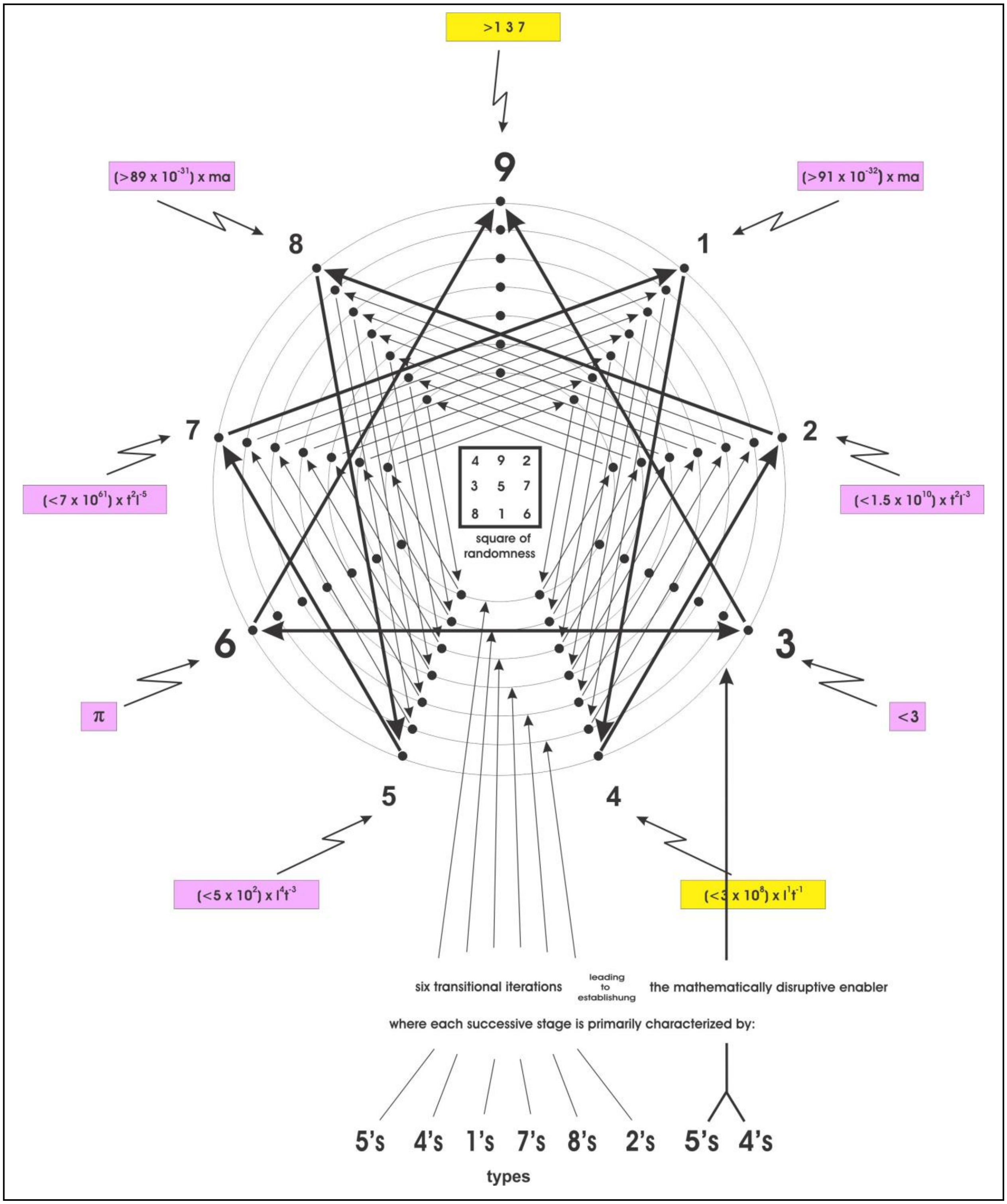


Figure 74. Evolving the 7^x labels associated with 1's and 8's types to incorporate the mass (ma) unit of measurement to sustain the interchangeability of 1's and 8's types as represented by the fifth, sixth and seventh transitional iterations or stages in the mathematical framework or plan for establishing the mathematically disruptive enabler

– ***Step 6: Utilizing the above derived units of measurement for mass to sustain the non-interchangeability of 1's and 8's types as represented by the fifth, sixth and seventh transitional iterations or stages in the mathematical framework or plan for establishing the mathematically disruptive enabler***

Since the output-focused mass (ma) unit of measurement was derived above to represent 8's type, it can also serve as a non-interactive linking mechanism, as described below. However, unlike the exponential powers of 10 serving as a linking mechanism interactively netting to zero in Step 1 of the Mathematical Plan for Converging the Disruptive Enabler, in this case the exponential powers of the mass unit of measurement can not interactively net to zero given its non-interactive status in the Mathematical Plan for Establishing the Mathematically Disruptive Enabler.

When 8's type evolves beyond being interchangeable with 1's type to characterize mathematically producing the full mathematically disruptive enabler, which culminates in the seventh transitional iteration or stage, all six types making up the mathematically disruptive enabler must reflect this culmination. As explained in the previous Step 5, the mass (ma) unit of measurement labels associated with 1's and 8's types reflect both 8's interchangeability with 1's type as well as its subsequent non-interchangeability. Likewise, the 7^x labels associated with the other four types (i.e., 4, 7, 2 and 5) must be similarly modified to incorporate the mass (ma) unit of measurement before the seventh transitional iteration can represent mathematically producing the full mathematically disruptive enabler as characterized by 8's type after no longer being interchangeable with 1's type.

Proceeding with this background in mind, if the 7^x label has been <u>inverted</u> in the mathematical plan for establishing or producing the mathematically disruptive enabler, then the mass (ma) unit of measurement should be incorporated in the <u>denominator</u> of the associated 7^x label. Likewise, if the 7^x label has <u>not been inverted</u>, then the mass (ma) unit of measurement should be incorporated in the <u>numerator</u> of the associated 7^x label.

Beginning with 7's and 4's types, they were both inverted in Step 3, so the mass (ma) unit of measurement is incorporated into the denominator of the 7^x labels associated with 7's and 4's types, as shown in Figure 75 below. However, since 4's type yields, not only the initiation, but also the closure, of the mathematically disruptive enabler, 4's type is inverted in the former, but not inverted in the latter. Therefore, the mass (ma) unit of measurement is also incorporated into the numerator of the 7^x label associated with 4's type, as shown in Figure 75 below. However, in this case the denominator and numerator mass (ma) unit of measurement will ultimately cancel one-another and subsequently need not appear at all.

Regarding 2's and 5's types, they were both not inverted in Step 3, so the mass (ma) unit of measurement is incorporated into the numerator of the 7^x labels associated with 2's and 5's types, as shown in Figure 75 below.

Noteworthy, the incorporation of the mass (ma) unit of measurement representing 8's type provides a framework based on 8's type for non-interactively linking together the six 7^x labels making up the mathematical plan for establishing the mathematically disruptive enabler. Similarly, the incorporation of the exponential powers of 10 representing 1's type provided a framework based on 1's type for interactively linking together the six numerical labels making up the mathematical plan for converging the mathematically disruptive enabler (see Step 1). Accordingly, 8's and 1's types must be both complementary and counterbalancing to make this happen. Since 8's and 1's types bracket the trinitarian type 9, these linkage roles utilizing both 8's and 1's types

further disproportionately accentuate 9's type within the trinitarian triangle. Again, the framework based on 8's type does not net to (or towards) zero as did the framework based on 1's type.

In summarizing, Steps 5 and 6 provide dimensional units of measurement necessary to sustain the interchangeability as well as non-interchangeability of the 1's and 8's types as represented by the fifth, sixth and seventh transitional iterations or stages in the mathematical framework or plan for establishing the mathematically disruptive enabler.

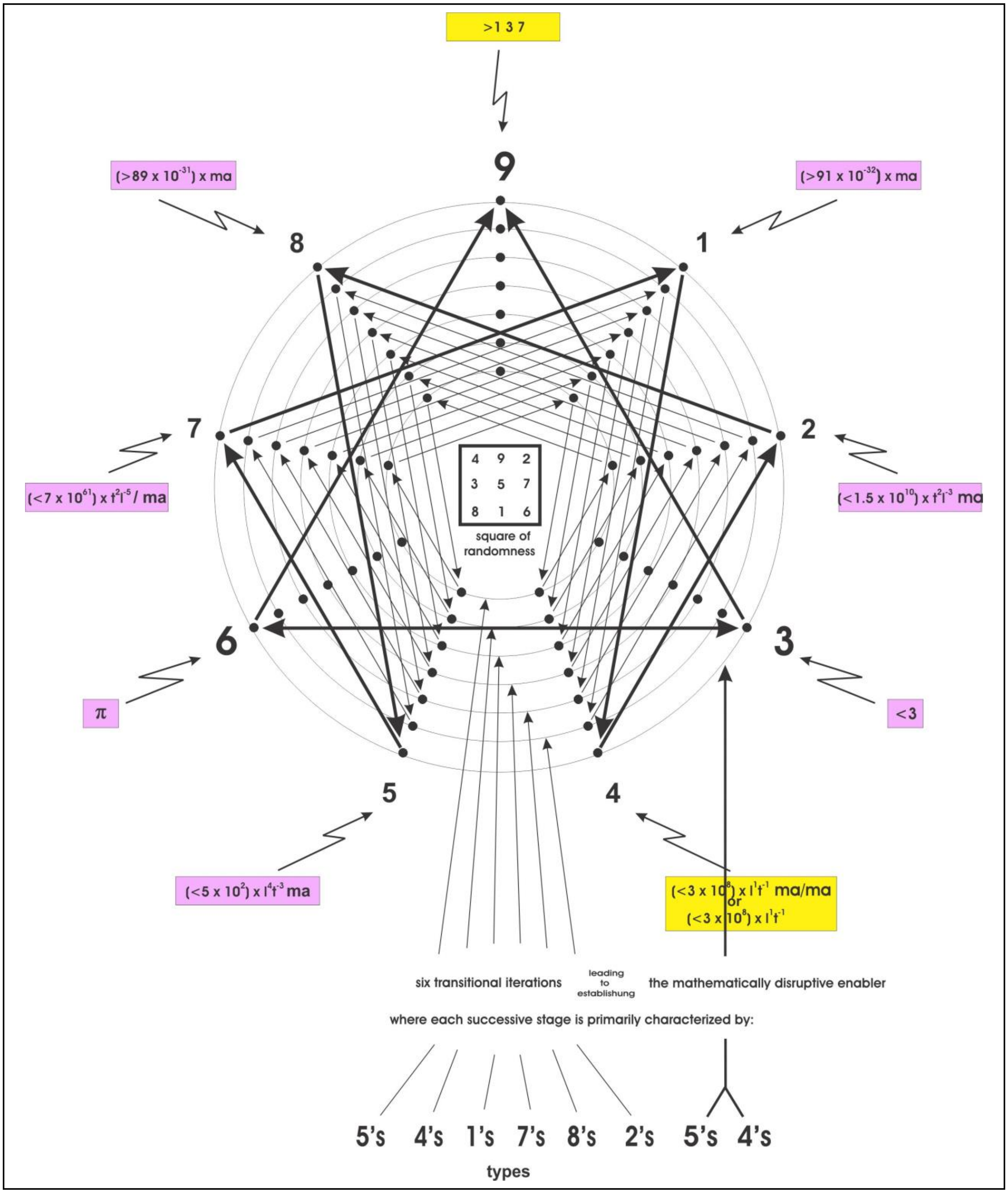


Figure 75. Evolving the 7^x labels associated with 7's, 4's, 2's and 5's types to incorporate the mass (ma) unit of measurement to sustain the non-interchangeability of 1's and 8's types as represented by the fifth, sixth and seventh transitional iterations or stages in the mathematical framework or plan for establishing the mathematically disruptive enabler

CALIBRATING THE UNIFIED PLAN

Since the Mathematical Plan for Converging the Mathematically Disruptive Enabler onto the trinitarian triangle primarily involved the **interactive context** and the Mathematical Plan for Establishing the Mathematically Disruptive Enabler primarily involved the **non-interactive context**, calibrating these two mathematical plans to the empirically-based physical world primarily involves the **production-focused context**, as follows.

– ***Step 1-a: Calibrating the space (l) unit of measurement***

As the first step of this process, one of the three units of measurement must be established as the reference unit for the other two. Since these units of measurement labels represent the redundancy of 7's type (as discussed above in Step 1), the unit of measurement representing 7 which means when the 7^x labels equate to 7 [i.e., space or (l)] must serve as the basic reference unit of measurement. Moreover, to maintain consistency with the numerical labels from the Mathematical Plan for Converging the Mathematically Disruptive Enabler, which also used the 7 label (i.e., 7×10^7) as the orientation point or references for their inter-connectivity (see Figure 55), requires that the same equivalent label (i.e., $l \times 10^7$) be used as the orientation point or reference for initiating this calibration process.

Accordingly, this theoretically derived unit of measurement (l) can now be calibrated to an empirically-based physical framework. To begin with, if we test the metric system for its space unit of measurement, namely the meter (m), the above $l \times 10^7$ label becomes a space quantity of meter x 10^7 (i.e., $m \times 10^7$) or ten million meters. In regard to a reference within the physical universe, we see that ten million meters is about 2 kilometers (or 0.02%) less than 1/4th of the earth's actual circumference, or essentially approaches 1/4th of the earth's circumference.[32]

If we view the earth as a platform that is approaching symmetric order within the physical universe, 1/4th of the earth's circumference could be viewed in terms of its single-digit equivalent or 7 (i.e., 1/4 = .25 => 2 + 5 = 7). In this context, 1/4th of the earth's circumference conveys 7's type. This is consistent with the single-digit equivalent value of the length (l) unit of measurement discussed above in Step 4. Also, the fact that 10^7 meters only approaches or approximates without fully attaining 1/4th of the earth's circumference is consistent with approaching from the context of randomness, but not fully attaining, the context of symmetric order.[33]

Thus, the length (l) unit of measurement from Figure 75 is replaced with the meter (m) in the unified and radiant mathematical plan which defines establishing the mathematically disruptive enabler as well as defines converging the mathematically disruptive enabler onto the trinitarian triangle to approach symmetric order, as shown in Figure 76 at the end of Step 1-C.

---

[32] Importantly, this circumference is always measured through the poles of the earth. Since the earth bulges slightly at the equator, all circumferences which are not measured through the poles cannot represent a constant valued circumference for the entire surface of the earth.

[33] While the meter was originally defined so that 1×10^7 meters equated to 1/4th of the earth's circumference, the 2-kilometer (or 0.02%) shortfall was subsequently discovered as measurement techniques improved. **The net outcome is the "meter" which is a perfect match with the numerically derived unit of measurement for length.**

- ***Step 1-b: Calibrating the mass (ma) unit of measurement***

Turning to the mass (ma) unit of measurement, it was presented above in Step 5 as the most universal production-focused unit of measurement defined by the space or distance (l) unit and changed by the time (t) unit of measurement. If we again test the metric system for its mass unit of measurement, the kilogram (kg), we see that 10^3 kilograms of water at "normal" conditions occupy a cubic meter (i.e., l^3 or m^3).[34] Since water is by far the most plentiful substance on the earth's surface, it uniquely qualifies for calibrating the mass (ma) unit of measurement.

Accordingly, just as we saw the space unit of measurement (l) calibrated as l or m x 10^7 within the framework of the earth surface, so too is the mass unit of measurement (ma or kg) similarly calibrated as ma or kg x 10^3 of water per cubic meter in the framework or context of the earth's surface (i.e., the water covering it). Likewise, just as 10^7 was associated with the non-interactive characterization of 7's type, so too was 10^3 associated with the production-focused characterization of 1's and 8's types to reflect 3's underlying role in characterizing the trinitarian triangle towards which the 1/7th disruptive enabler converges (see Figure 57 or the text preceding it).

Thus, the mass (ma) unit of measurement from Figure 75 is replaced with the kilogram (kg) in the unified mathematical plan, as shown in Figure 76 below.

- ***Step 1-c: Calibrating the time (t) unit of measurement***

Moving on to calibrate the unit of measurement of time (t) within the context of the earth's surface, we must focus on the time required for the earth to rotate through ¼ of its circumference to be consistent with the calibration of the unit of measurement of length (i.e., meter or m) as represented above by ¼ of the earth's circumference. If we test the metric unit of time or second (sec) within this framework, we see 10^2 x $(6)^3$ seconds represent ¼ day or ¼ of the earth's rotation (also, see footnote 35).

Since the unit measurement of time is primarily associated with the interactive types (i.e., 2 and 4) versus the unit measurement of space which is primarily associated with the non-interactive types (i.e., 7 and 5), the time and space units of measurement can be viewed as counterbalancing opposites (i.e., bisected by 9). Thus, the exponent selected for the base 10 exponential factor that accompanies time should be 2 (i.e., t or sec x 10^2) or the counterbalancing opposite to (l or m x 10^7), when bisected by 9.[35]

Having justified the 10^2 factor in the [sec. x 10^2 x $(6)^3$] calibration of the time unit of measurement as the "second", we now turn to the $(6)^3$ factor which can be interpreted as representing the trinitarian triangle towards which the mathematically disruptive enabler converges. Specifically, 3 represents the exponential power to convey the underlying interactive relationships (i.e., multiplication or division) making up the trinitarian triangle. Since 6's type is the non-interactive counterbalancing opposite to 3's type within the trinitarian triangle, it appropriately serves in the non-interactive base role for the $(6)^3$

[34] Since mass and time are to be viewed as ultimately related, the density of water is expected to vary over time as the surrounding conditions vary over time.

[35] Appropriately, the quarter of the earth's surface defined through the calibration of the length unit of measurement (meter) is 90^0 out of phase with the quarter of the earth's surface defined through the calibration of the time unit of measurement (second) because they represent counterbalancing opposites.

expression. Further, $(6)^3$ has a single-digit equivalent value of 9 (i.e., $(6)^3 = 216 \Rightarrow 2 + 1 + 6 = 9$) where 9's type characterizes the totality of this triangular manifestation. **Noteworthy, this $(6)^3$ expression for the trinitarian triangle is uniquely well suited to disproportionately accentuate the unifying totality role of 9's type within the trinitarian triangle similar to the way in which 9's type was disproportionately accentuated in the Convergent Plan, end of Step 2 and immediately above in Step 6.**

Recall from Step 2 in the Mathematical Plan for Converging the Mathematically Disruptive Enabler that the interactive linking mechanism which focused on converging the mathematically disruptive enabler onto the trinitarian triangle particularly emphasized 3's type within the trinitarian triangle. Likewise, recall from Step 2 in the Mathematical Plan for Establishing the Mathematically Disruptive Enabler that the non-interactive linking mechanism which focused on establishing the mathematically disruptive enabler particularly emphasized 6's type within the trinitarian triangle. Thus, since this production-focused calibration mechanism is linking or unifying the totality of the above two processes, it should particularly emphasize 9's type within the trinitarian triangle, which the $(6)^3$ expression does uniquely well.

Given that the trinitarian triangle represents the direct target of the interactive convergence, the $(6)^3$ factor should be incorporated into the most interactive unit of measurement or time (t). Also, the incorporation of the $(6)^3$ triangle factor into the time (t) unit of measurement is further reconfirmed by the fact that 2's type is the 10 exponent associated with time (t) and that 2's type mathematically identifies the trinitarian triangle [i.e., the $(6)^3$ triangle] as the interactive bridge that ties together the opposites (when bisected by 9), see Section IV-B. Yet another reason for incorporating the $(6)^3$ triangular factor into the (t) time unit of measurement is that time by definition reflects the natural propensity of the physical universe [as represented by mass (ma)] to change over time in moving towards randomness (i.e., the aging process). So, the $(6)^3$ triangular factor provides for the symmetric order reference (where time as a unit of measurement would end) against which to indicate the aging process.[36]

Thus, the time (t) unit of measurement from Figure 75 is replaced with the second (sec) in the unified mathematical plan, as shown in Figure 76 below.

[36] **Because the ultimate specificity of symmetric order allows for no change, complete symmetric order does not incorporate time as a unit of measurement. However, the mathematically disruptive enabler, as defined by the units of measurement in this Mathematical Plan for Establishing the Mathematically Disruptive Enabler, cannot fully approach symmetric order because the units of measurement must include time. On the other hand, the trinitarian triangle is not associated with any units of measurement. Thus for, the mathematically disruptive enabler to converge onto the trinitarian triangle and fully approach symmetric order, the mathematically disruptive enabler must evolve to the point of becoming sufficiently regenerative to become effectively independent of the above defined time unit of measurement (see footnote 64 and Sections XVI-G and XVIII-H, The Trinitarian type 9's perspective). Also, the space and mass dimensions would seem to correspondingly subside.**

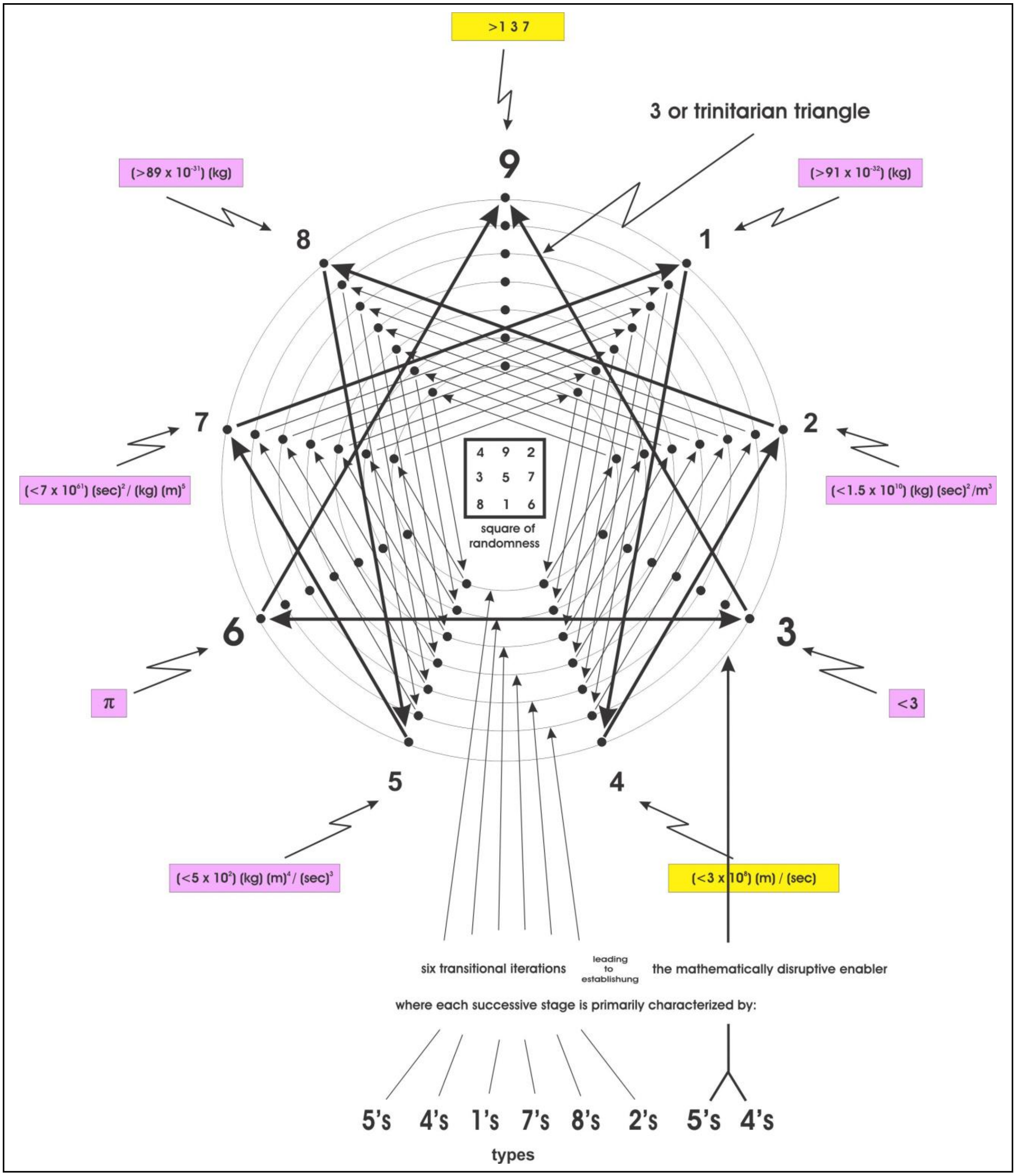


Figure 76. The unified and radiant mathematical plan which defines establishing as well as defines converging the mathematically disruptive enabler onto the trinitarian triangle to approach symmetric order.

or

THE MATHEMATICALLY DERIVED GURDJIEFF ENNEAGRAM WITH SEVEN DIMENSIONS

In reviewing Figure 76 keep in mind that the numerical labels were derived to define the Mathematical Plan for Converging the Mathematically Disruptive Enabler while the units of measurement labels were derived to define the seven stage process of the Mathematical Plan for Establishing the Mathematically Disruptive Enabler. While Figure 76 presents the seven stages moving radiantly outward from randomness towards symmetric order in establishing the mathematically disruptive enabler, only the last stage and its associated labels are needed to represent the mathematical plan for phenomena approaching symmetric order because the last stage represents the culmination of the previous six stages in establishing the mathematically disruptive enabler. However, to represent the mathematical plan for phenomena transitioning out of randomness towards symmetric order all seven outwardly radiating stages are needed.

D. Categorizing 5's, 6's and 7's types as complementary characterizations

Since 5's type addresses the abstract mathematical concepts (or the beginning of consciousness) of symmetric order and randomness (see Section II-F), the discussion of 5's type came first in this course. As a logical complement to the beginning of consciousness, we see cerebral closure through 7's type in characterizing the fully defined mathematical plan that inspires symmetric order (see Figure 76) as well as the incompletely defined or dilettantish mathematical plan of randomness (see Figure 50). Thus, the discussion of 7's type comes last in this course.

Further, 6's type characterizes the mathematical guiding focus which correlates with 5's and 7's types (see Section VII-A). In other words, the mathematical guiding focus characterized by 6's type underlies the abstract mathematical conceptualization and the radiant mathematical plan inspiring symmetric order, as characterized by 5's and 7's types, respectively. Accordingly, 5's 6's, and 7's types are directly complementary. **Additionally, as we saw in the Mathematical Plans for Establishing and Converging the Mathematically Disruptive Enabler, 7’s redundantly emphasized type always accompanies 6’s type in the context of symmetric order, similar to the accompaniment relationships between 3’s type and 4’s redundantly emphasized type as well as 9’s type and 1’s redundantly emphasized type (see Section VI-C and IX-C). Said another way, 4’s, 7’s and 1’s types redundantly accompany the complementary trinitarian 3’s, 6’s and 9’s types, respectively; and, 2’s, 5’s and 8’s types non-redundantly accompany the complementary 3’s, 6’s and 9’s types respectively.**

However, since we earlier saw that 6’s type characterizes from the perspective of mathematically disruptive enabler versus 3’s type characterizing from the perspective of the 3 or trinitarian triangle, type 6’s accompaniment with type 7 (as a member of the mathematically disruptive enabler) is much more reflective of the disruptive enabler’s perspective than type 3’s accompaniment of type 4. Moreover, this reflectiveness of the disruptive enabler through the accompaniment with the redundantly emphasized type 7 is even further intensified because type 6 is not redundantly emphasized; whereas, type 3 is redundantly emphasized (see Section X-D).

Importantly, the characterizations of all three of these types (5, 6 and 7) are based on the non-interactive arithmetic processes of addition and subtraction. Appropriately, the characterizations of their counterbalancing opposites (4, 3 and 2) are based on the interactive arithmetic processes of multiplication and division. Thus, the category of the complementary 5, 6 and 7 types can be referred to as non-interactive

characterizations in the same way that the category of the complementary 4, 3 and 2 are referred to as interactive characterizations, both of which are illustrated below in Figure 77.[37]

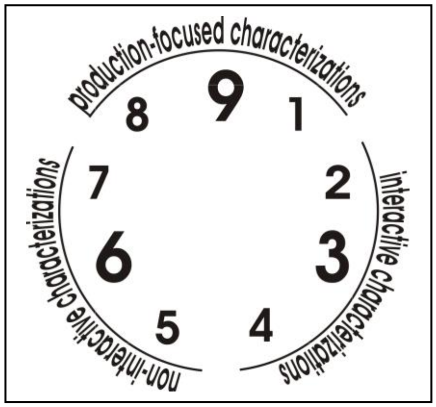


Figure 77. Categorizing the types based on their complementary characterizations

While each of these three categories are based on the complementarity of similar characterizations, one can also step back and view the three categories as complementary based on the complementarity of the different characterizations needed to complete the circular totality.

E. Allegorical reflections of 7's type (generally drawn from the Book of Revelation)

– **Nature's radiating light and water metaphors**

Light from celestial objects like the sun, moon or stars serves as a radiant map or plan of natural order. Similarly, the purifying water radiating from springs is radiating natural order. Moreover, the light and water metaphors can be further compared to, or viewed as, contributing to or going into the purifying fire[38] and purifying water metaphors of 1’s redundantly emphasized type and thus supporting the inversion of 7's redundantly emphasized type (i.e., 1/7). Appropriately, the light and water ultimately produce the growth of fruit and the body of many waters metaphors represented by 4’s redundantly emphasized type. Thus, metaphorically, 7's and 1's redundantly emphasized types (i.e., 1’s type / 7’s type) are equated to 4's redundantly emphasized type. Moreover, the naturally sourced water and light metaphors respectively correlate with the mother earth and heaven metaphors for 5’s non-redundantly emphasized type (see Sections II-C and E).

[37] While the characterizations of 1's and 8's types rely on the non-interactive addition process and the interactive multiplication process, respectively, these two types are better suited to the production or output-focused category (see Section IX-B).

[38] Accompanying the light radiating from nature's purifying fire could also be a radiating aroma such as the disrupting odor of brimstone burning in such a purifying fire.

– **Lightning**
As another radiating light metaphor for 7's type is lightning which conveys the disruptiveness of natural order and which is consistent with thundering as a metaphor for 1's type discussed in Section III-D.

– **Book or scroll metaphors**
A book or scroll can also serve as a metaphor for 7’s redundantly emphasized type. A book or scroll not only represents content, but also serves as a vehicle for perpetuating its content as a radiant plan inspiring symmetric order by being endlessly read and re-read. This assumes the content complies with the criteria for symmetric order as characterized by 1's redundantly emphasized type and thus supports the inversion of 7's type (i.e., 1/7). This further assumes the readership of the content can be represented by the "people" metaphor for 4’s type within the context of symmetric order (see Section V-C). In this same vein, a teacher's course could be viewed similarly to the book or scroll metaphor.

The ultimate book metaphor for 7's type is the book of life, referenced in the Bible, just as the ultimate tree metaphor for 5's type is the tree of life, similarly referenced in the Bible. Appropriately, the two metaphors play complementary Biblical roles. Interestingly, the tree of life is withdrawn from humanity at the beginning of the Bible's first book and restored at the end of the Bible's last book.

– **Music metaphors**
The above metaphorical contents of a book or scroll can be replaced by music metaphors which can be learned or heard only by those who are moving towards symmetric order. The music metaphors also can be presented as extensions of the performing musical instruments or musicians (i.e., harps or harpists and trumpets or trumpeters).

– **Angel metaphors**
When viewed as messengers or the radiance of God's plan for symmetric order, angels become metaphors for 7's redundantly emphasized type.

– **Measuring rod metaphors**
Another metaphor for the defining process characterized by 7’s redundantly emphasized type is a measuring rod with its repetitive scale for measuring. In this case, the iterative defining process is analogized to a repetitive measuring process and the plan is analogized to the overall metrics of the symmetric order being sought for measurement. This metaphor is particularly useful in conveying the authoritative quality of the inspirational plan. Likewise, the respective underlying measurement scale or concept can metaphorically represent 5's non-redundantly emphasized type.

– **DNA metaphor**
The most basic natural metaphor for 7’s redundantly emphasized type is biochemical, namely, the DNA molecule. Appropriately, the DNA molecule (through the use of genetic building blocks) iteratively radiates the inspirational plan that genetically guides the symmetric order of life from conception to death (see Chapter XII). DNA molecules also originate or evolve from mother earth, just as a spring originates from mother earth.

– **Randomness metaphors**
For the non-redundant emphasis of 7's type, we can draw upon the same metaphors used for the redundantly emphasized version, but they must be corrupted to reflect the low side of randomness. For example, the light metaphors become abruptly dark or lose their uniquely observable status, the water source metaphors become stagnant and contaminated, the

contents of the book metaphor or fallen angle's message become blasphemous. Also, the randomness version of the metaphors should de-emphasize their repetitive, radiant and inspirational features.

– **Gold metaphors**

The radiance of gold can be analogized to the radiance of 7's type. This can be accomplished by presenting the metaphors for 5's type from Sections II-C and E as made of gold and thus radiating the conceptual message of these metaphors (e.g., candlesticks, vials, cups, and cities). Similarly, metaphors for 7's type can be presented as gold to further re-enforce their radiance (i.e., the measuring rod and the crown metaphors). To differentiate the context of randomness with its inability to radiate symmetric order, the gold metaphor can be changed to fake gold.

– **Tree leaves as another metaphor for radiance**

As we have already seen in Sections II-C and E, trees can serve as the maternal metaphor for 5's type. Accordingly, as we saw in Section V-C, the tree's fruit serves as an offspring metaphor for 4's type. Likewise, since the life cycles (or plan) of a tree is conveyed through the radiance of its green leaves, the green leaves can serve as the radiance metaphor for 7's type.[39]

– **Birds and all-seeing eyes metaphors**

Another metaphor for 7's radiant type is provided by the radiant vision or all-seeing eyes of high-flying birds (such as the classic eagle) searching for their targeted prey and thus radiating nature's universal law for survival in support of evolution. Note, this bird metaphor can be further simplified to just the all-seeing eye(s) as represented by the mind's eye or Eye of Providence.

In turn this all-seeing eye metaphor representing the radiant plan as characterized by 7's type can be superimposed on the triangular metaphor representing 3's type in characterizing the 3 or trinitarian triangle. As such, this consolidated metaphor represents the guiding plan of the mind's eye or the Eye of Providence in the context of symmetric order.

Likewise, this all-seeing eye metaphor representing the radiant plan as characterized by 7's type can be superimposed on the triangular side of the pyramid metaphor representing 3's type in the context of randomness. Given this less evolved context of randomness, the above human eye would be replaced by a reptilian eye, such as the cobra eye used in the 25 cm high ancient black pyramid found near Quito, Ecuador. This cobra eye even becomes radiant if placed in black ultraviolet light. Since this consolidated metaphor represents the guiding plan in the context of randomness, the Black Pyramid of Quito can serve as the Rosetta Stone in understanding the ancient pyramid focused religious cultures.

In January 2018, when attempting to arrange a meeting with the owner/keeper of the Black Pyramid in Quito, his sister said he had become obsessive and paranoid about it and then unexpectedly died as we attempted to set up the meeting.

Moreover, the above two metaphorical configurations can be consolidated with the two-dimensional triangle/eye forming the top of the three-dimensional pyramid, as

---

[39] **In general, the green in nature conveys the radiance of natural order and need not be limited to leaves but could include grasses or other appropriate natural metaphors.**

found in the Great Seal of the United States. Accordingly, this consolidated metaphor represents the guiding plan for the challenging transition from the context of randomness at the pyramidal base towards the context of symmetric order at the triangular top.

– **High Mountain**

The perspective from a high mountain reaching up into heaven and standing out like an island can serve as a metaphor for both the guiding focus and radiant plan from heaven as characterized by 6's and 7's types, respectively. Mount Sion provides the classic biblical example.

– **42 based numerical metaphor**

Just as the numerical metaphors for the trinitarian type 3 are accompanied by metaphors for 4's redundantly emphasized type, so too can the numerical metaphors for the trinitarian type 6 be accompanied by metaphors for 7's redundantly emphasized type, as presented in Section X-D. In other words, just as 3’s and 4’s types rely on the complementary interactive relationships (see Section VI-A and V-A), so too do 6’s and 7’s types rely on the complementary non-interactive relationship. Further supporting this parallelism, both 4’s and 7’s (unlike 2’s and 5’s) types are oriented towards symmetric order when redundantly emphasized (see Sections V-A and X-C, introductory paragraph). Just as the accompanying types 3 and 4 were expressed as the 12 numerical metaphor (i.e., 3 x 4 = **12** => 1 + 2 = 3); so too are the accompanying types 6 and 7 expressed as the 42 numerical metaphor (i.e., 6 x 7 = **42** => 4 + 2 = 6).

When the trinitarian type 6 is expressed in terms of the 42 numerical metaphor, the trinitarian type 3 should not also be expressible in terms of 42 which would be 21 (i.e,, 42 ÷ 2 = 21 just as 6 ÷ 2 = 3) because 6 is not the interactive factor underlying the trinitarian types as was 3.

However, since we earlier saw that 6’s type characterizes from the perspective of the mathematically disruptive enabler versus 3’s type characterizing from the perspective of the trinitarian triangle, type 6’s accompaniment with type 7 (as a member of the mathematically disruptive enabler) is much more reflective of the disruptive enabler’s perspective than type 3’s accompaniment of type 4. Moreover, this reflectiveness of the disruptive enabler through the accompaniment with the redundantly emphasized type 7 is even further intensified because the trinitarian type 6 is not redundantly emphasized; whereas, the trinitarian type 3 is redundantly emphasized (see Section X-D).

Moreover, this redundant accompaniment of 6’s and 7’s types, as represented by the 42 based numerical metaphor, is further conveyed by the Mathematical Plans for Establishing and Converging the Disruptive Enabler which consists of 42 intersections (i.e., seven successive stages making up six outwardly radiating series).

– **Radiant (and guiding) spirit**

The abstract, cerebral or non-bodily aspect associated with the term “spirit”, not only provides guiding focus (as characterized by the trinitarian type 6, see Section VI-B), but does so in a radiant manner (as characterized by 7’s type). Further supporting this “radiant” interpretation, “spirit” comes from the Latin word “spiritus” which means “breadth”. In sum, the spirit can metaphorically represent the trinitarian type 6 and type 7, as well as their very close accompaniments of one another. As such, the spirit metaphor embodies the 42 based numerical metaphor above.

F. Summarizing 7's type:

- **In both the contexts of symmetric order and randomness 7's type characterizes defining a mathematical plan or framework based on the subtraction process.**

- **In the context of randomness 7's non-redundantly emphasized type characterizes defining the mathematical framework or plan for establishing the square of randomness. This mathematical plan is superficial, dilettantish, and avoids the pain of being mathematically disruptive. Because in the randomness context 7's type is incapable of fully completing the mathematical planning process, it can appear as unending or insatiable.**

- **In the context of symmetric order 7's redundantly emphasized type characterizes defining the mathematical framework or plan for establishing the mathematically disruptive enabler and then converging it onto the trinitarian triangle. Given that this mathematical plan has the pain of being mathematically disruptive in the context of randomness, the mathematical plan must be exhaustively complete and leave absolutely no option for variations or alternatives. Also, this mathematical plan for transitioning from randomness to symmetric order represents a radiant and iterative process.**

- **In comparing this numerically derived type 7 with the Personality Enneagram's type 7 presented in Course 101C, the Personality Enneagram's type 7 is summarized as a planner with the ultimate goal of avoiding pain. As a result, the type 7's plans include unlimited options to facilitate constant switching whenever the currently pursued option becomes painful. In turn this can lead to:**

    - **An insatiable or almost gluttonous pursuit of the never-ending options.**

    - **Superficial or dilettantish appreciation of and involvement with the unlimited options.**

    - **Enthusiastically presenting the options in a way that is somewhere between being overly optimistic and downright misleading.**

    - **Interrelating and synthesizing from the many options involved**

    Accordingly, the Personality Enneagram's type 7 is very similar to the numerical type 7 in the context of randomness.

- **The above metaphors for 7's type often utilize iterative processes as analogies for the radiant process that inspires the movement towards symmetric order underlying life and nature. The iterative processes include endless cycles, repetitions, seasons, and biological generations. These metaphorical manifestations also correlate with the conceiving maternal metaphors for 5's type. Also, to the extent these metaphors for 7's type in context of symmetric order incorporate metaphorical relationships with 1's and 4's types, the metaphorical representations must occur within a painfully disruptive sacrificial setting. Turning to the context of randomness, the metaphorical presentations for 7's type differentiate themselves from the context of symmetric order by abruptly truncating the iterative or radiant process, and thereby causes the process to**

become superficial or dilettantish and as well as avoids the painfully disruptive sacrificial setting.

- **Type 7 accompaniment with the complementary trinitarian type 6 is more extensive than the accompaniment between the complementary trinitarian type 3 and type 4 as well as the trinitarian type 9 and type 1 because type 6 characterizes from the perspective of the mathematically disruptive enabler and type 6 is the only non-redundantly emphasized trinitarian type.**

- **Since we earlier saw that 6's type characterizes from the perspective of the mathematically disruptive enabler versus 3's type characterizing from the perspective of the trinitarian triangle, type 6's accompaniment with type 7 (as a member of the mathematically disruptive enabler) is much more reflective of the disruptive enabler's perspective than type 3's accompaniment of type 4. Moreover, this reflectiveness of the disruptive enabler through the accompaniment with the redundantly emphasized type 7 is even further intensified because the trinitarian type 6 is not redundantly emphasized; whereas, the trinitarian type 3 is redundantly emphasized (see Section X-D).**

As a reference, simplified versions of the types thus far discussed are outlined below.

	Context of Symmetric Order		**Context of Randomness**
Five's type: **(Chapter II)**	Abstract mathematical conceiver	vs.	Self-focused mathematical observer
One's type: **(Chapter III)**	Mathematical criteria for judging emphasizing specificity	vs.	Mathematical criteria for judging de-emphasizing specificity
Two's type: **(Chapter IV)**	Relationships of sincere mathematical appreciation	vs.	Relationships of insincere mathematical flattery
Four's type: **(Chapter V)**	The special art and sacrifice of collectively connecting mathematically	vs.	The ordinary melancholy and envy of mathematical disconnectivity
Three's type: **(Chapter VI)**	Subtle mathematical enabler	vs.	Recognized mathematical achiever
Six's type: **(Chapter VII)**	Open-minded mathematical guidance	vs.	Closed minded restrictive mathematical guidance
Eight's type: **(Chapter VIII)**	The mathematical producer	vs.	The mathematical enforcer
Nine's type: **(Chapter IX)**	Independent mathematical unifier	vs.	Anonymous mathematical accommodator
Seven's type: **(Chapter X)**	The mathematically radiant, inspirational and disruptive planner	vs.	The mathematically dilettante planner

Chapter XI

Identifying the empirically derived disruptive enabler of matter/energy as the elementary building blocks of matter/energy
or
Identifying the Gurdjieff Enneagram in matter/energy

A. Equating the labels defining the mathematical plan for the mathematically disruptive enabler driving towards symmetric order to the numerically defined roles of the elementary building blocks of matter/energy

The known elementary building blocks of matter and energy are referred to as elementary particle types and consist of two types primarily expressed as matter particles (i.e., quarks and leptons) and four types primarily expressed as force or energy particles (i.e., the carriers of gravity, electromagnetism, and the strong and weak nuclear forces).[40] As the labels or titles would suggest, these six types of elementary building blocks divide into three complementary pairs, namely, two relating to matter, two relating to nuclear forces, leaving gravity and electromagnetism to form the third grouping.

These six building blocks of matter/energy can be evaluated from two completely different perspectives: one governed by classical physics and the other governed by quantum physics. Classical physics addresses these building blocks from the perspective characterized by a high degree of specificity; whereas, quantum physics addresses them from the perspective characterized by a high degree of non-specificity. In the latter case the physical, geometric and time status of the elementary building blocks cannot be precisely determined. The classical physics' perspective is from a larger than atomic scale vantage point, while the quantum physics' perspective is from a smaller than atomic scale vantage point.

Since the mathematically disruptive enabler represents the ultimate driver towards the specificity of symmetric order away from the non-specificity of randomness, its representation among the elementary building blocks of matter/energy can best be determined in a precise manner from the vantage point of the classical physics' perspective. Accordingly, we identify below the six naturally occurring numerical constants which best characterize the six elementary building blocks of matter/energy when viewed from the perspective of classical physics. In turn, five of these naturally occurring constants are shown below to exactly equate to the labels defining the mathematical plan for the mathematically disruptive enabler driving towards symmetric order, as shown associated with the seventh or final stage in Figure 76. **However, these naturally occurring constants were discovered solely through empirical observations; whereas, the labels defining the mathematical plan for the disruptive enabler were completely derived mathematically in the previous chapters.**

[40] **The technical labels for these two categories are fermions and bosons, respectively.**

Since the quantum physics' perspective ultimately leads to the development of classical physics' perspective where the naturally occurring constants equate to the labels for the mathematically disruptive enabler, Section C of this chapter compares the development stages leading up to the mathematical plan for the mathematically disruptive enabler from Chapter X with the developmental stages within quantum physics.

Proceeding on this basis, we begin with the building blocks of matter where both quarks and leptons come in six flavors; however, four of these six flavors primarily apply to the early development stages before the universe stabilized. Only the two flavors that characterize the most stabilized universe from the classical physics' perspective will be considered at this time. In the case of the stabilized quarks, these flavors consist of the up and down quarks which make up all neutrons and protons. Likewise, the stabilized leptons from the classical physics' perspective include electrons and electron neutrinos.

The naturally occurring numerical constant that best characterizes the building blocks of matter is simply a measurement of their average mass. Accordingly, the representative mass of the average quark is based on the proton's composition (i.e., two up quarks and one down). Since the analysis is focusing on the most stabilized entities from the classical physics' perspective, the neutron's composition is not included in the average since free neutrons ultimately decay into protons. Assuming 7.121 x 10^{-30} kg of mass for the up quark and 12.461 x 10^{-30} kg of mass for the down quark[41], then the average mass (m_q) is 8.901 x 10^{-30} kg (or 89.01 x 10^{-31} kg). However, the actual mass of proton 1.67 x 10^{-27} kg is much greater than the sum of the above mass quantities for the up and down quarks because of the mass/energy conversion associated with combining quarks.

The representative mass of the average lepton is assumed to be essentially the electron's rest mass (m_e) of 9.11 x 10^{-31} kg (or 91.1 x 10^{-32} kg). Since the tremendous background quantity of neutrinos is thought to be split about equally between neutrinos and antineutrinos (after adjusting for the neutron population), their impact on the average lepton mass calculation is effectively self-canceling. Also, to the extent that neutrinos may be their own antiparticle would not change this outcome.

Turning to the four types of force or energy building blocks (i.e., the carriers of gravity, electromagnetism, and the strong and weak nuclear forces), each of these types is associated with a particular force constant, as developed below.

Beginning with gravity, the gravitational force (F_g) between any two entities having mass equivalents of (m_1) and (m_2) and separated by a distance (r) can be calculated as shown in Figure 78.

$$\boxed{F_g = Gm_1m_2/r^2}$$

Figure 78. Gravitational force equation

(G) is the universal gravitational constant 6.671 … x 10^{-11} meter^3/kg sec^2 which can be used in all equations involving gravity, not just the above equation. Because of its broad acceptance, (G) will be used as the naturally occurring constant to characterize the gravitational force.

[41] Per Lawrence Berkley Laboratory, Contemporary Physics Education Project

In regard to the electromagnetic force or energy (i.e., electromagnetism), the most universal naturally occurring constant is the fine-structure constant α or 1/137.036 ….. The fine-structure constant consists of a combination of various dimensional constants (that all relate to electromagnetism), but these dimensional units cancel out one-another in the formation of the fine structure constant so that it is dimensionless. The fine structure constant characterizes better than any other single constant the many pervasive ways in which the electromagnetic force or energy directly and indirectly interacts throughout the universe at all levels from the smallest subatomic to the largest cosmic scales.

Turning to the force constant for the two nuclear forces (weak and strong), the weak force constant can be found in older reference materials, as shown below in Figure 79. Note, this weak force constant goes beyond the “coupling” constant’s role which is the primary indicator of relative force strength. **However, as quantum physics has evolved, all references to this weak force constant have gradually disappeared because it primarily applies to the weak force’s classical role as the cause of radioactivity decay. Since this course incorporates both the classical and quantum contexts for the weak force, the development of this course effectively had to include the period beginning after the quantum context was reasonably understood and accepted, but before learning about the classical weak force constant was no longer realistically available or published in the on-line or traditional reference literature (i.e., the period leading up to the year 2000). Interestingly, this time constraint or determinant for developing the course occurs with the weak force constant associated with 7’s type (see Figure 82) which serves as the orientation point for defining the numerical plan for the mathematically disruptive enabler driving towards symmetric order (see Figure 55, 61a and 63 and Calibrating the Unified Plans, Step 1-a). The quantum physics perspective on 7’s type is addressed in Section XI-C later.**

$$\boxed{g_w = 1.43 \text{ x } 10^{-62} \text{ kg m}^5/\text{sec}^2}$$

Figure 79. Weak nuclear force constant

In regard to the strong force or the force that binds quarks, it can be viewed from two perspectives. The first perspective involves binding the individual quarks to form protons, neutrons and other groupings. The second perspective involves binding the protons and neutrons to form the nuclei of atoms. Since the average mass of the individual quarks making up the proton was used above to numerically define the quark, we must adopt the first perspective (involving the bonds between quarks making up the proton) for numerically defining the strong force to be consistent. However, the bond between individual quarks becomes so tenacious that isolated quarks have never been observed (naturally or artificially). On the other hand, when viewed from the second perspective, the bond between groups of quarks (e.g., protons and neutrons) is broken naturally and artificially. Thus, scientific information on strong force constants seems to be from the second perspective where the mass quantities are much larger, and the binding tenacity is much lower than the first perspective. As a result, we are not aware of a scientifically derived strong force constant to compare with the numerically derived label.

To summarize, five of the six naturally occurring constants which provide the best overall characterization of the six building blocks of matter/energy (assuming the most stabilized or naturally occurring conditions from the classical physics' perspective) are shown below in Figure 80.

Building Blocks of Matter	
Quarks (m_q)	$89.01... \times 10^{-31}$kg
Leptons (m_e)	$91.1... \times 10^{-32}$ kg
Building Blocks of Energy	
Gravity (G)	$6.671 ... \times 10^{-11}$ m^3/kg sec^2
Electromagnetism ($\propto$) (Fine-structure constant)	1/137.036 ...
Weak nuclear force (g_w)	$1.43 ... \times 10^{-62}$ kg m^5/sec^2
Strong nuclear force (g_s)	n/a

Figure 80. Naturally occurring constants that best characterize the six elementary building blocks of matter/energy

In regard to the average mass of a quark (m_q) or lepton (m_e), the values of these two naturally occurring constants are independent of any specific formula or equation. On the other hand, the value of the gravitational constant (G), the fine structure constant (α) for electromagnetism, and the weak force constant (g_w) are intended for, or dependent on, specific formulae or equations. In other words, the latter three constants have no meaning outside the context of specific formulae or equations. On the other hand, since the strong force constant (g_s) value is inseparable from the measurements of the mass and range of the very tenaciously associated quarks, its value can be treated similar to the way the quark mass quantities were handled and thus viewed as independent of formulae or equations.

Accordingly, to present on a comparable basis the constants that are dependent on specific equations with the constants that are independent of specific equations, the former must reflect their dependence and the latter must reflect their independence. Since the existence of the latter is totally independent of any equation, this independence can be demonstrated by presenting the constant simply as itself as a stand-alone factor. On the other hand, since the existence of the former is dependent on an equation, this dependency can be demonstrated by <u>not</u> presenting the constant simply as itself as a stand-alone factor. Indeed, the closest a dependent constant can come to being viewed as a stand-alone constant is to be isolated as a stand-alone constant <u>within</u> the equation on which its existence depends. For example, the gravitational constant (G) in the equation from Figure 78 can be viewed as an isolated stand-alone constant within the context of this equation by multiplying the entire equation by both the inverse of the gravitational constant (i.e., 1/G) and the inverse of the gravitational force (i.e., $1/F_g$) resulting in $1/G = m_1m_2 / r^2F_g$. Since establishing this isolated status within the dependent equation involved multiplying by the above inverted entities, this dependency can best be conveyed or reflected by presenting the dependent constants as being inverted. Accordingly, the presentation of the gravitational constant (G), the fine structure (α) constant for electromagnetism and the weak force constant (g_w) should be inverted (as shown below in Figure 81) and the average mass of a quark (m_q) and lepton (m_e) as well as the strong force constant (g_s) should not be inverted.

Building Blocks of Matter	
Quarks (m_q)	$89.01\ldots \times 10^{-31}$ kg
Leptons (m_e)	$91.1\ldots \times 10^{-32}$ kg
Building Blocks of Energy	
Gravity (1/G)	$1.499\ \ldots \times 10^{10}$ kg sec^2/m^3
Electromagnetism ($1/\alpha$) (Fine-structure constant inverted)	137.036 ...
Weak nuclear force ($1/g_w$)	$6.99\ \ldots \times 10^{61}$ sec^2 /kg m^5
Strong nuclear force (g_s)	n/a

Figure 81. Naturally occurring constants adjusted for equation dependency

As shown below, in Figure 82, these naturally occurring constants, adjusted for equation dependency, compare very well to the labels defining the numerical plan for the disruptive enabler in driving towards symmetric order. Recall that these labels were associated with the seventh or final stage of the unified and radiant plan from Figure 76.

	Naturally Occurring Constants (adjusted for equation dependency)	Labels for the mathematically disruptive enabler
Building Blocks of Matter		
Quarks (m_q)	$89.01\ldots \times 10^{-31}$(kg)	$> 89 \times 10^{-31}$ (kg)
Leptons (m_e)	$91.1\ldots \times 10^{-32}$ (kg)	$> 91 \times 10^{-32}$ (kg)
Building Blocks of Energy		
Gravity (1/G)	$1.499\ \ldots \times 10^{10}$ (kg) (sec)^2/ (m)^3	$< 1.5 \times 10^{10}$ (kg)(sec)^2/(m)^3
Electromagnetism ($1/\alpha$) (Fine-structure constant inverted)	137.036 ...	>137
Weak nuclear force ($1/g_w$)	$6.99\ \ldots \times 10^{61}$ (sec)^2 / (kg) (m)^5	$< 7 \times 10^{61}$ (sec)^2 / (kg) (m)^5
Strong nuclear force (g_s)	n/a	$< 5 \times 10^{2}$ (kg) (m)^4 / (sec)^3

Figure 82. Equating the labels defining the mathematical plan for the mathematically disruptive enabler driving towards symmetric order to the numerically defined roles of the elementary building blocks of matter/energy

Because of this equivalency shown in Figure 82, these building blocks of matter/energy can be incorporated into Figure 76, as shown below in Figure 83. Since only the final (i.e., outermost) stage and its associated labels from Figure 76 are needed to represent approaching symmetric order, Figure 83 presents only the seventh or final stage from Figure 76.

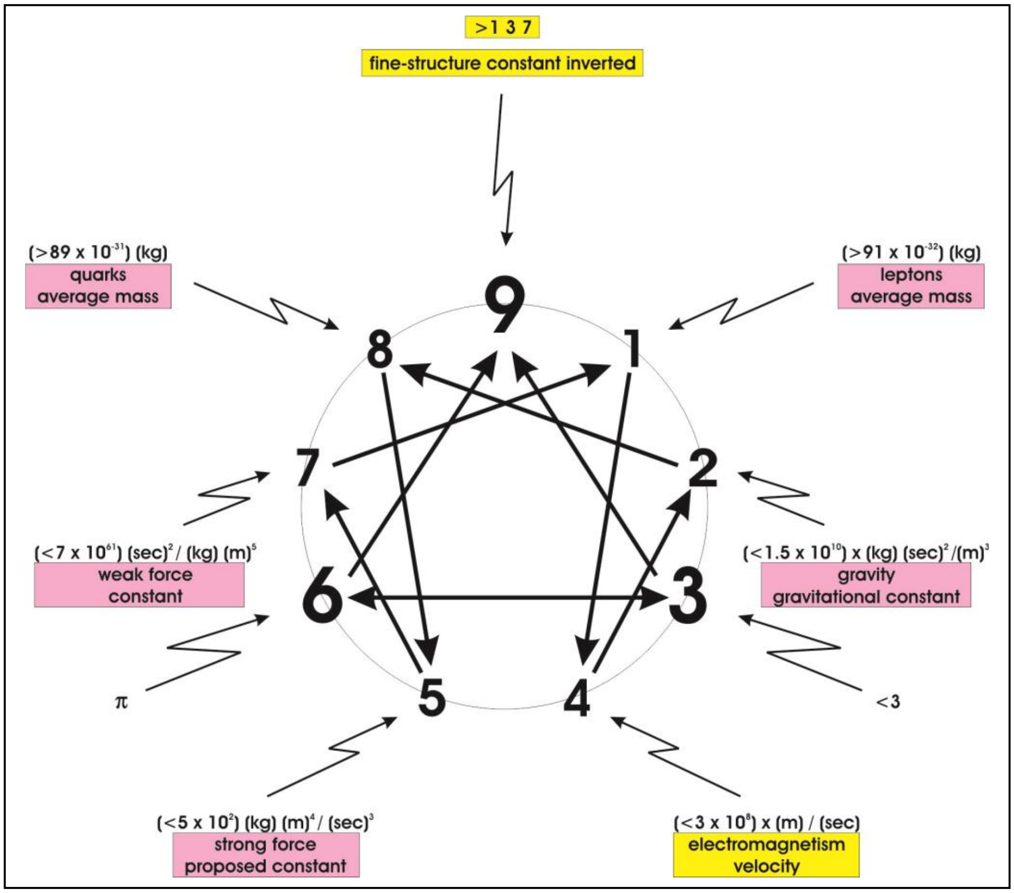


Figure 83. Assigning the building blocks of matter/energy to the appropriate labels defining the mathematical plan for the mathematically disruptive enabler driving towards symmetric order

Note, all the building blocks of matter/energy, shown in Figure 83, except for electromagnetism, are associated with the numerical types of the mathematically **d**isruptive enabler. Instead of being associated with the label for 4's type, electromagnetism's fine structure constant is equated to the label associated with 9's type.

According to the earlier derivation of the >137 label associated with 9's type in Section IX-B, it reflects augmenting the convergence process characterized by 4's redundantly emphasized type as symmetric order is ultimately approached (see Section V-A). Thus, the >137 label can trace its origin to 4's type, even though it is ultimately associated with 9's type in the evolved context of approaching symmetric order. As a result, 4’s type can be redundantly emphasized to the point of characterizing the mathematically disruptive enabler approaching full convergence onto the trinitarian triangle (see Section V-A).

IMPORTANTLY, THIS REQUIRED TRANSFERENCE OF THE >137 LABEL'S ASSOCIATION WITH 4'S TYPE TO THE CENTRAL MATHEMATICAL TOTALITY ROLE CHARACTERIZED BY 9'S TYPE DISPROPORTIONALLY ACCENTUATES 9'S TYPE WITHIN THE TRINITARIAN TRIANGLE AS THE FOCUS OF CONVERGENCE FOR THE MATHEMATICALLY DISRUPTIVE ENABLER AND CONSISTENT WITH THE MATHEMATICALLY DERIVED PLAN (SEE THE MATHEMATICAL PLAN FOR CONVERGING THE DISRUPTIVE ENABLER, END OF STEP 2, THE MATHEMATICAL PLAN FOR ESTABLISHING THE MATHEMATICALLY DISRUPTIVE ENABLER, STEP 6, AND CALIBRATING THE UNIFIED MATHEMATICAL PLANS, STEP 1-C).

THE CENTRAL MATHEMATICAL TOTALITY ROLE OF THE FINE-STRUCTURE CONSTANT MAY BEST BE EXPRESSED BY RICHARD FEYNMAN, ONE OF THE MOST IMPORTANT PIONEERS IN PARTICLE PHYSICS, WHO REFERRED TO IT AS FOLLOWS:[42]

> **"IT HAS BEEN A MYSTERY EVER SINCE IT WAS DISCOVERED MORE THAN FIFTY YEARS AGO, AND ALL GOOD THEORETICAL PHYSICISTS PUT THIS NUMBER UP ON THEIR WALL AND WORRY ABOUT IT. IMMEDIATELY YOU WOULD LIKE TO KNOW WHERE THIS NUMBER FOR A COUPLING COMES FROM: IS IT RELATED TO PI OR PERHAPS TO THE BASE OF NATURAL LOGARITHMS? NOBODY KNOWS. IT'S ONE OF THE GREATEST DAMN MYSTERIES OF PHYSICS: A MAGIC NUMBER THAT COMES TO US WITH NO UNDERSTANDING BY MAN. YOU MIGHT SAY THE "HAND OF GOD" WROTE THAT NUMBER, AND "WE DON'T KNOW HOW HE PUSHED HIS PENCIL." WE KNOW WHAT KIND OF A DANCE TO DO EXPERIMENTALLY TO MEASURE THIS NUMBER VERY ACCURATELY, BUT WE DON'T KNOW WHAT KIND OF DANCE TO DO ON THE COMPUTER TO MAKE THIS NUMBER COME OUT, WITHOUT PUTTING IT IN SECRETLY!"**

BASED ON THE PREVIOUS TEN CHAPTERS OF THIS COURSE, THE ANSWER TO RICHARD FEYNMAN'S QUESTION MAY BE PROVIDED BY THE LABELS DEFINING THE MATHEMATICAL PLAN FOR THE MATHEMATICALLY DISRUPTIVE ENABLER CONVERGING ONTO THE TRINITARIAN TRIANGLE. IN OTHER WORDS, THE BUILDING BLOCKS OF MATTER/ENERGY HAD TO EVOLVE IN SUCH A WAY THAT THEY COULD BE BEST CHARACTERIZED BY NATURALLY OCCURRING MATHEMATICAL CONSTANTS WHICH EQUATE TO THE LABELS DEFINING THE MATHEMATICAL PLAN. NONETHELESS, THE NUMERICAL DESCRIPTION OF THE EMPIRICAL DERIVATION OF THE NATURALLY OCCURRING NUMERICAL CONSTANTS NEED NOT BE EXACTLY THE SAME AS THE THEORETICAL DERIVATION OF THE LABELS DEFINING THE MATHEMATICAL PLAN BECAUSE THE FORMER ESSENTIALLY REVERSE ENGINEERS A COMPLEX PHYSICAL PROCESS WHILE THE LATTER REPRESENTS A SIMPLER MATHEMATICAL PROCESS.

Regarding electromagnetism's fine structure constant, to equate it to the >137 label associated with 9's type requires that electromagnetism be characterized by another naturally occurring constant that can be equated to the $<3 \times 10^8$ m/sec label associated with 4's type in Figure 83. Since the natural occurring velocity of electromagnetic particle types (i.e., light in a vacuum) is 2.998 …. X 10^8 m/sec (or c), electromagnetism can be associated with the $< 3 \times 10^8$ m/sec label that in turn is associated with 4's type, as shown below in

[42] Richard P. Feynman (1985), QED: The Strange Theory of Light and Matter, Princeton University Press, p. 129, ISBN 0691083886

Figure 84. Using this more elementary or initiating characterization for electromagnetism (i.e., its velocity) assumes that the fine-structure constant also characterizes the very broad encompassing role for electromagnetism in facilitating convergence towards symmetric order within the universe. In other words, this broad role of convergence towards symmetric order is predicated on utilizing a more elementary or initiating characterization for electromagnetism as represented by its velocity and consistent with 4's type (see Section V-A). Also, because the value of electromagnetism's (i.e., light's) velocity is independent of any specific formula or equation, it is not inverted when compared with the other naturally occurring constants.

Noteworthy, the non-inverted naturally occurring velocity of electromagnetism (i.e., light), which is associated with 4's type, is similar to the strong force constant, which is associated with 5's type or the counterbalancing opposite to 4's type. Similarly, the naturally occurring constants associated with the counterbalancing opposite types 8 and 1 are not inverted, whereas 7 and 2 are inverted, thus maintaining the symmetry of the counterbalancing opposites.

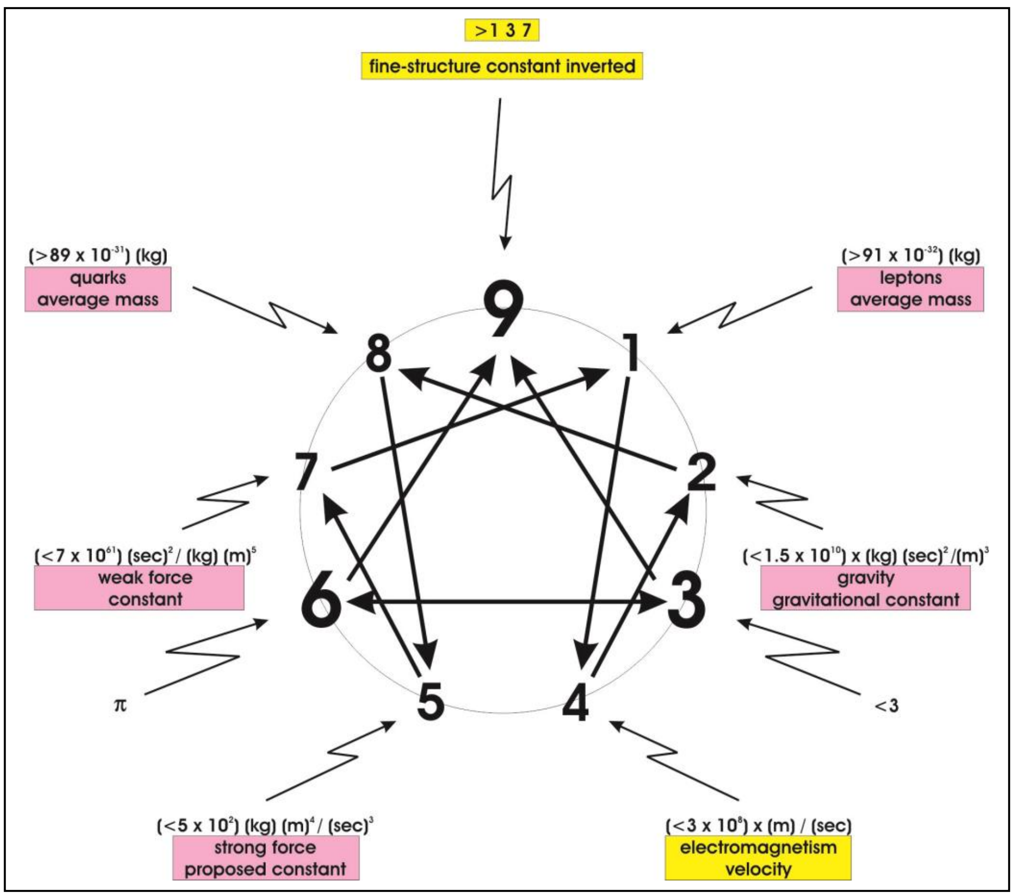


Figure 84. Assigning electromagnetism to the appropriate label in the mathematical plan for the mathematically disruptive enabler driving towards symmetric order which in turn becomes the mathematical format for presenting the disruptive enabler of matter/energy

or

IDENTIFYING THE GURDJIEFF ENNEAGRAM APPLIED IN MATTER/ENERGY

We now turn to the π label, or the naturally occurring constant of "circularity" or the circular guidelines focused on symmetric order, associated with 6's type (see Section VII-A).

In regard to “circularity” in the universe of the elementary building blocks of matter/energy, we appropriately find the focus on circular guidelines to be as prevalent as in the above-mentioned mathematical universe of symmetric order. Circularity essentially underlies the guiding focus of the universe of molecular matter/energy, whether viewed at the atomic nuclei level, at the electron shell level, or at the cosmic level. Thus, the π label associated with 6’s type is completely consistent with the universe of the elementary building blocks of matter.

However, remember from Section VII-A that the π label describes the mathematical guiding focus of the disruptive enabler non-interactively converging onto the trinitarian triangle through the process of addition, not subtraction. Also, recall from Section VII-A that 5’s and 7’s types are complementary to 6’s type where they characterize the non-interactive convergence of the disruptive enabler through the process of addition and subtraction, respectively. Thus, π is appropriately associated with the guiding focus of circularity originating with 5’s type, which we saw above characterizes the strong force holding together the atomic nucleus and thus representing the radii or circularity beginning with the atomic nucleus.

On the other hand, as we saw in the Mathematical Plan for Converging the Mathematically Disruptive Enabler (Step 2) and the Mathematical Plan for Establishing the Mathematically Disruptive Enabler (Step 6), the mathematical guiding focus of the mathematically disruptive enabler non-interactively converging onto the 3 or trinitarian triangle through the process of subtraction is described through factors imbedded in the labels associated with all six types making up the disruptive enabler.

Lastly, turning to the <3 label associated with 3’s type, we see that it represents the mantissa of the <3 x 10^8 m/sec which is the velocity of not only electromagnetism, but also gravity, both of which immediately bracket the <3 label in the above Figure 84.

By serving as a mantissa or underlying factor for both gravity’s and electromagnetics’ velocities, the <3 label serves as the underlying factor for the interactive relationships represented by the building blocks of matter/energy. Appropriately, this is analogous to 3’s type (to which the <3 label is associated) serving as the underlying factor for the interactive relationships of symmetric order (see Section, VI-A). Moreover, 3 serving directly in the labels associated with both 3’s and 4’s types is very consistent with the close complementariness between 3’s and 4’s types (see Section VI-A).

While the π and <3 labels are associated with the 6 and 3 counterbalancing opposites, they fit into neither the category for only the non-inverted physical constants nor the category for only the inverted naturally occurring constant where each category was shown above to be associated with counterbalancing opposites. Instead the π and <3 labels can be viewed as representative of both the inverted and non-inverted categories.

In sum, assuming all the labels defining the mathematical plan for the mathematically disruptive enabler driving towards symmetric order equates exactly to the naturally occurring constants which numerically defined roles of the elementary building blocks of matter/energy (including the strong force), then the latter can be viewed as an extension of the former in driving the physical universe towards the specificity of symmetric order. In other words, since the mathematically disruptive enabler, in its

drive towards the specificity of symmetric order, evolves from the mathematical context to incorporate the physical context of the universe, this evolutionary incorporation of the physical context must be viewed as furthering the mathematically disruptive enabler's drive towards the specificity of symmetric order. In other words, the mathematical plan for the mathematically disruptive enabler driving towards symmetric order becomes the mathematical format for presenting the disruptive enabler of matter/energy, as shown in Figure 84.

Moreover, the exacting rigor or specificity of the radiant mathematical plan for the mathematically disruptive enabler is dramatically evidenced in the naturally occurring constants since the smallest change in their values would modify the evolution of the physical universe to the point where it very likely could not support the evolution of life on earth. In other words, the naturally occurring constants provide absolutely no tolerance for any deviations in the building blocks of matter/energy as constituents of evolution's disruptive enabler of matter/energy. Also, such exacting specificity would be characterized by 1's redundantly emphasized type which always accompanies 9's type and thereby further reflects the disproportionate accentuation of 9's type in the disruptive enabler of matter/energy (see Section IX-E, last paragraph).

According to our understanding of Einstein's General Relativity Theory, these naturally occurring constants should appear the same throughout the universe.

B. Qualitatively comparing the roles of the elementary building blocks of matter/energy with their corresponding numerical types

At this time we will not embark on a brief qualitative comparison of the properties of the individual building blocks of matter/energy and their corresponding numerical types; however, the following limited comments are offered as an introduction to further discovery.

– **Leptons**

In the stabilized universe, leptons represent the building block of matter, which includes electrons and electron neutrinos. As such, they represent the smallest quantities of matter and probably the smallest quantities of energy when expressed as energy equivalents. Accordingly, as the smallest quantities of matter/energy, they effectively constitute the minimum criteria for specifying the presence of matter/energy. This can be analogized to 1's redundantly emphasized type which characterizes the minimum criteria for specifying the presence of types in the context of symmetric order (see Section III-C).

– **Gravity**

As described in Section IV-D, gravity as the long-range force, which can interactively attract every building block of matter/energy, provides an ideal analogy to 2's type which characterizes maximizing interactive connectivity.

When redundantly applied, gravity can become extremely restrictive as illustrated by black holes, which randomly gobble up building blocks of matter/energy trying to rob them of any specific identity. This black hole restrictiveness to maintain randomness is analogous to the numerical restrictiveness discussed in Section VII-B and D.

On the other hand, when non-redundantly applied, gravity provides for incredible order and flexibility holding together various counterbalancing opposite facets of matter/energy. Moreover, this interconnectivity of gravity provides the framework for identifying the building blocks of matter/energy similar to the way in which the numerical interconnectivity characterized by 2’s type provides the framework for identifying the specificity of the various types (see Sections IV-B, D and E).

Thus, gravity, as the principal force that interacts with both black holes and all the building blocks of galactic matter/energy outside the black holes, would resemble 2’s type in characterizing the process for bridging or transitioning from interactively relating types with a randomness orientation (i.e., black holes) to a symmetric order orientation (i.e., the building blocks of galactic matter/energy outside the black holes). Moreover, this bridging role between randomness and symmetrical order may limit our ability to fully model the specificity of gravity.

– **Electromagnetic force**

The electromagnetic force can be viewed as electrically interacting to consolidate the various building blocks of matter/energy so there is sufficient equivalent mass for the gravitational force to have impact. This involves interactively consolidating the six building blocks of matter/energy which are represented by the six types of the disruptive enabler in Figure 84. Further, this process could be analogized to initiating the disruptive enabler as characterized by 4’s redundantly emphasized type (see Section V-A). Thus, the electromagnetic and gravitational forces can be analogized to the complementary roles of 4’s and 2’s types. Further, re-enforcing electromagnetism’s interactive relationship with all other building blocks of matter/energy is its ability to serve as the only force or energy through which all the building blocks of energy or force and matter can be expressed or manifested. However, electromagnetism’s role is not limited to the molecular or submolecular scale in that it can interact throughout the universe from the smallest dimension to the large cosmic scale.

The role of the electromagnetic force characterizing the converging totality of all the building blocks is probably best characterized by the fine-structure constant which is associated with 9’s type in Figure 84 in characterizing the totality of symmetric order. Also, the comparability to 4’s type continues since 4’s type characterizes yielding this convergence process (see Section V-A).

– **Quarks**

In the stabilized universe quarks consist of the up and down versions or flavors which always exist as combinations to form neutrons and protons. The strong nuclear force holds the quarks together to form the neutrons and protons, which in turn are also held together by the strong nuclear force to form the nucleus of every atom. Around these atomic nuclei all of molecular matter is built which means the combined quark mass essentially represents the mass of all atomic and/or molecular matter/energy. Said another way, if the above discussed leptons represent the minimum criteria for specifying the presence of matter/energy, then the quarks bring about the fulfillment or production of these criteria.

Since the lepton criteria for specifying the presence of matter/energy was analogized above to 1’s redundantly emphasized type in characterizing the minimum energy criteria for specifying symmetric order, the quarks fulfillment or production of these criteria can also be analogized to 8’s non-redundantly emphasized type in characterizing the production required to fulfill the criteria characterized by 1’s type. **Appropriately, during the earliest stage of the universe's evolution, leptons and quarks were thought to be interchangeable in the same way that 1's and 8's types were interchangeable during the earliest stage in the derivation of the mathematical plan for inspiring symmetric order (see Figure 61b).**

– **Strong nuclear force**

Regarding the strong nuclear force, since it serves as the conceptual initiator of molecular matter/energy by holding together the quarks, it can be analogized to 5's non-redundantly emphasized type in serving as the conceptual initiator for symmetric order as represented by classical physics or the final (seventh) stage in Figure 76. However, the strong force does not represent the conceptual indicator, characterized by 5's type, for quantum physics (see next Section C).

– **Weak nuclear force**

When the weak nuclear force interacts with quarks, leptons are released which disrupts and transforms the quarks defining flavors (i.e., up to down and vice versa). By redefining quarks, the associated atomic nuclei must be commensurately disrupted and redefined (i.e., neutrons to protons) which also dictates a corresponding redefinition of any associated atomic and molecular structures, somewhat analogous to the defining role of 7's type. When viewing this release of leptons from a stellar level, the weak force can counterbalance the gravitationally induced collapse of a star causing it to explode and thus be disruptively redefined as a super nova star. Since gravity was earlier analogized to 2's type, this example of counterbalancing the weak force and gravity can be analogized to the counterbalancing opposite relationship between 7's and 2's types.

C. Comparing the quantum physics' perspective to the Mathematical Plans for Establishing and Converging the Mathematically Disruptive Enabler

Quantum physics can be viewed as addressing the physical transition of the elementary building blocks or particle types of matter/energy away from a random perspective (where their precise physical, geometric and time status cannot be specified) to the above discussed classical physics' perspective emphasizing specificity. Likewise, the development for the mathematically disruptive enabler, as laid out in the Mathematical Plan for Establishing and Converging the Mathematically Disruptive Enabler, addresses the numerical transition away from a random perspective emphasizing non-specificity towards the specificity of symmetric order. Accordingly, the reminder of this section compares the physical transition explained by quantum physics with the numerical transition explained, first, in the Mathematical Plan for Converging the Mathematically Disruptive Enabler and, second, in the Mathematical Plan for Establishing the Mathematically Disruptive Enabler, all of which is summarized in Figure 84a below.

However, before beginning the comparisons recall from Section X-C that the overall Mathematical Plan for Establishing and Converging the Mathematically Disruptive Enabler was characterized by 7's type even though the plan addresses all nine types. Thus, if quantum physics is analogous to the plan for establishing and converging the disruptive enabler (or at least the first six stages of the plan), the earlier discussion of 7's type in Section XI-A should provide the opening for discussing quantum physics. Indeed, that was the case, since the classical physics' description of the weak force in representing 7's type had given way to the quantum physics' description in all the reference materials.

– **Comparing QED to the Mathematical Plan for Converging the Mathematically Disruptive Enabler**

- The quantum theory's description of the electromagnetic force's on-going interactions with leptons (i.e., electrons) is called quantum electrodynamics (i.e., QED). Since there are always an infinite number of such possible interactions, QED accounts for the possible interactive histories using very sophisticated graphical and mathematical modeling. Then a renormalization process of netting the infinite positive and negative interactive values to almost zero results in finite values consistent with the classical physics perspective.

- Since the electromagnetic force and electrons are respectively associated with 4's and 1's types, as shown in Figure 84, the counterpart to QED is the two-step process of the Mathematical Plan for Converging the Mathematically Disruptive Enabler which can be viewed as primarily describing the numerical roles characterized by 4's and 1's types. In the two-step process of the Mathematical Plan for Converging the Mathematically Disruptive Enabler all the numerical labels defining the convergence of the six numerical types of the mathematically disruptive enabler incorporate exponential powers of 10 which always equate to a single-digit value of 1 and thus can represent 1's type (see Figure 59). On the other hand, 4's type characterizes the interactive relationships graphically diagramed to connect the exponential powers of 10 which are associated with converging the six types of the mathematically disruptive enabler. Then, to assure convergence of the mathematically disruptive enabler onto the trinitarian triangle, the interactive relationships connecting the exponential powers of 10 are renormalized to facilitate the positive and negative values netting to (or towards) zero, similar to the way in which the graphically diagrammed interactions between the electromagnetic force (i.e., 4's type) and electrons (i.e., 1's type) were renormalized in the above QED process. However, the nine pages of graphical and mathematical modeling involved in building upon the purely numerical transition is much simpler than QED which essentially reverse engineers a complex physical process. Nonetheless, both approaches confirm the transition to the same labels defining the classical physics' perspective, as summarized in Figure 84a below.

– **Comparing the electroweak interactions to the Mathematical Plan for Establishing the Mathematically Disruptive Enabler**

- The above renormalization approach used in QED does not work for the weak force alone but does work when the weak force is unified with the electromagnetic force to form the electroweak force. Although these two forces appear very different at everyday temperatures of classical physics, quantum theory models them as unified at the very hot temperatures prevailing shortly (less than one second) after the Big Bang (see Figure 84a below). Moreover, quantum theory goes on to hypothesize that the very disruptive process of breaking the unifying symmetry of the electroweak force to produce the electromagnetic and weak forces also introduces the first production of matter particles.

- Since the weak force and the electromagnetic force are respectively associated with 7's and 4's types, as shown in Figure 84, the counterpart to the above initiating unification, but in the numerical transition to establishing the mathematically disruptive enabler, is the initiating unification of 7's and 4's types in Figures 60 and 61 of Step 1 in the Mathematical Plan for Establishing the Mathematically Disruptive Enabler. In turn, the unification of 7's and 4's types equates to or produces 1's type which, as we saw above, is associated with the lepton matter particles. Moreover, at this initiating stage (as shown in Figure 61b) 1's and 8's types are reversible or interchangeable. Since 8's type is associated with the quark mass particle, this reversibility or interchangeability of 1's and 8's types is analogous to leptons and quarks being interchangeable shortly after Big Bang which indeed is suppose to be the case.

- Continuing on, the role of type 8 (or the associated **production** of the quark matter particle) is modeled in Step 6 of the Mathematical Plan for Establishing the Mathematically Disruptive Enabler similar to the way in which the role of type 1 (or the associated interaction of the electron matter particle) was modeled in Step 1 of the Mathematical Plan for Converging the Mathematically Disruptive Enabler. Again, recall from Step 6 of the Mathematical Plan for Establishing the Mathematically Disruptive Enabler that since 8's type characterizes mathematically producing the output of the mathematically disruptive enabler of symmetric order, the production of the quark counterpart of 8's type also represents progress towards the production of symmetric order. **However, the transition mechanism from the interchangeability of 1's and 8's types to being non-interchangeable is subtle and occurs towards the end of the Mathematical Plan for Establishing the Mathematically Disruptive Enabler.**

  In sum, the highly disruptive numerical process through which the unified 4 and 7 types (i.e., the counterpart to the electroweak forces) become the independent 4 and 7 types (i.e., the counterparts to the electromagnetic and weak forces) is rigorously defined in the more than 30 pages of tedious numerical derivations constituting Steps 1-6 of the Mathematical Plan for Establishing the Mathematically Disruptive Enabler. In this situation, breaking the symmetric order of the unified 4 and 7 types is replaced by the independent 4 and 7 types as part of the **broader symmetric order** involving the other independent 5, 2, 1 and 8 types (as shown in Figure 76) which are respectively associated with the strong force, gravity, leptons and quarks (as shown in Figure 84 above and Figure 84a below).

- Regarding the introductory transition from randomness towards symmetric order, we saw in Section X-C (Incorporating the Mathematical Plan for Establishing the Mathematically Disruptive Enabler, Step 2, second to last paragraph) that 2's type characterizes identifying the initiating disruptive role for 7's type. Specifically, this is the role whereby 7's type divides into 1's type and equates to 4's type to form the basis for initiating the mathematically disruptive enabler. As such, this would suggest that gravity (as the counterpart to type 2) may have played a role in identifying or precipitating the mass intensive boson of the electroweak force (as the counterpart to the initiating interplay between types 4 and 7). Likewise, the possible gravitational effect in identifying or precipitating the mass intensive boson of the Higgs force (as the originating input to this overall process) could represent a similar role (see Higgs boson discussed below).

– **Comparing QCD to the Mathematical Plan for Establishing the Mathematically Disruptive Enabler**

- After quarks are no longer interchangeable with leptons, quantum theory describes the possible quark combinations through interacting with the strong force which is called quantum chromodynamics (i.e., QCD). QCD further describes the strong force's interactions with quarks as becoming sufficiently tenacious to preclude breaking them apart into isolated quarks, either naturally or artificially.

- The strong force and quarks are respectively associated with 5's and 8's types, as shown in Figure 84. Recall from the last portion of Step 2 of the Mathematical Plan for Establishing the Mathematically Disruptive Enabler that 5's and 8's type become associated with one another at the seventh stage, as 8's type is becoming no longer interchangeable with 1's type (see Figure 84a below). Moreover, this association or relationship involving 8's and 5's types is further reflected in that the defining label for 5's type is treated similar to the defining label for 8's type (i.e., not inverted as are the labels for the weak force, the electromagnetic force and gravity) in preparing for inclusion in Figures 81 and 82.

– **Higgs boson**

- While the above type 5 characterizes the seventh or final stage which in turn characterizes the conceptual introduction of molecular matter (see Section B above) type 5 also characterizes the first stage which in turn characterizes the conceptual introduction of the disruptive enabler, as presented in the beginning portion of Step 2 of the Mathematical Plan for Establishing the Mathematically Disruptive Enabler. Accordingly, the physical analogue to this latter role for 5's type could be the essentially confirmed **Higgs boson** which provides for the conceptual introduction of the mass aspects for the particle types of matter/energy. In this regard, a parallel can be drawn between the strong force's (or strong force boson's) association with quarks in the conceptual introduction of molecular matter/energy and the Higgs boson's association with the elementary mass in the above discussed electroweak force in the conceptual introduction of the particle types of matter/energy. As such, the strong force boson and the Higgs boson would represent 5's type at the final (seventh) and initial (first) stages, respectively, as shown in Figure 84a below. Further, the Higgs boson could serve as the transitional catalyst that conceptually introduced symmetric order to matter/energy from the context of randomness which in turn may limit our ability to establish the specificity of the Higgs boson.

– **Comparing the dark universe to randomness**

- The inability of the scientific community to thus far empirically identify the specificity of the random building blocks making up black holes, dark matter and dark energy could lead one to speculate that all three of these dark categories (constituting more than 90% of the universe) are analogues to the non-specificity of randomness in the numerical context presented throughout Chapters II – X. If the above is true, then gravity, as the counterpart to 2's type, would provide for the bridging or transitioning role between the ordinary matter/energy of symmetric order and the above representatives of randomness which appears to be the case at least regarding black holes and dark matter. Furthermore, if the above is true, then the Big Bang energy, serving as the initiator of the universe and counterpart to 5's type, was somehow involved in the creation of the physical representatives of both randomness and the symmetric order orientation striving to overcome randomness, which appears to be the case. Also, as applied to this dark side of the universe, 2's and 5's types (i.e., gravity and the Big Bang energy) would be viewed as redundantly emphasized consistent with the numerical model for randomness (see Sections IV-E and II-F). Similarly, since the dense mass of black holes would be viewed as the physical manifestation or counterpart of the redundantly emphasized version of 8's type, all three redundantly emphasized types associated with randomness (i.e., 2, 5 and 8) would be represented (see Section VIII-F). However, given the possible role of the Higg's energy field (described in the previous paragraph), there could be some tie-in between the roles of the Big Bang's energy and the Higg's energy field. All of these considerations are referenced in Figure 84a below.

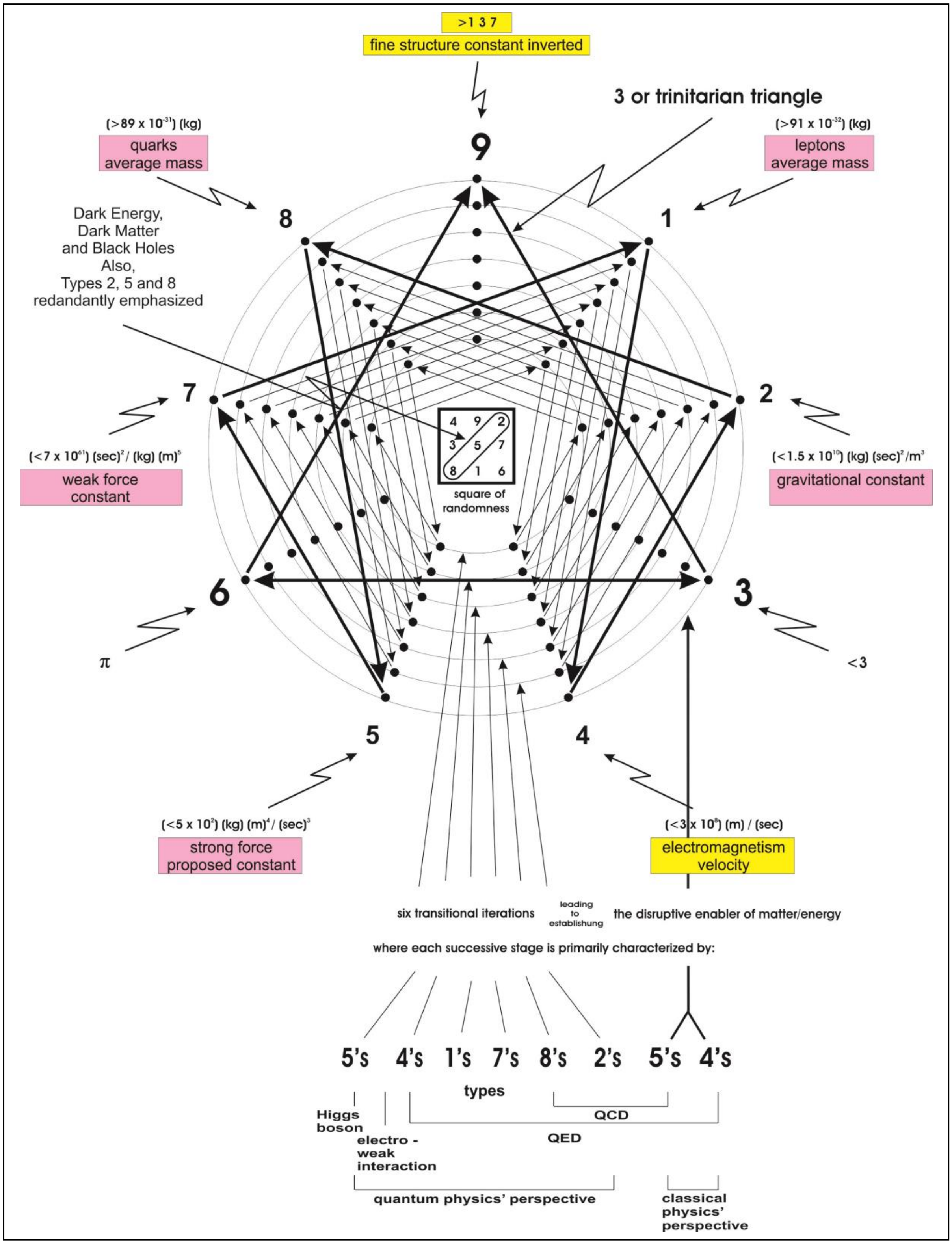


Figure 84a. THE DISRUPTIVE ENABLER OF MATTER/ENERGY
or
IDENTIFYING THE GURDJIEFF ENNEAGRAM IN MATTER/ENERGY
INCORPORATING BOTH
THE QUANTUM AND CLASSICAL PHYSICS' PERSPECTIVES

- **Comparing quantum entanglement to same-digit symmetry**

  - **Quantum entanglement occurs when a pair of the same quantum particle types (i.e., photons and electrons) interact in such a way that their distinctive features become instantaneously correlated as a pair of symmetrical opposites (i.e., left and right polarizations or up and down spins, respectively) <u>regardless of the distance separating each pair</u>. As a result, quantum entanglement represents the most exacting or precise expression of symmetric specificity within the context surrounding the disruptive enabler of matter/energy. However, entanglement involving pairs of other quantum particle types making up the disruptive enabler of matter/energy (i.e., the particle types for gravity, the strong and weak forces, as well as quarks) have not yet been fully demonstrated or proven.**

  - **Same-digit symmetry occurs when any digit on the circle of symmetric order is viewed as being paired only with itself but still viewed as forming a pair of symmetric opposites (i.e., left and right positions). As such, same-digit symmetry can be viewed as the most exacting or precise expression of digital specificity that makes up the circle of the symmetric order (see Sections II-B and III-D).**

  - **In sum, both quantum entanglement and same-digit symmetry involve pairs of the same types which are also always symmetric left/right opposites. However, they are reversible opposites in that the left can serve in the role of the right and vice-versa. As such, they both represent the culmination of the most exacting or precise expression of symmetric specificity within their two respective contexts. Additionally, since 1's redundantly emphasized type characterizes the most exacting and precise criteria for symmetric simplicity, quantum entanglement's representation of same-digit symmetry disproportionately accentuates 1's type (see Section IV-C and D). Because 1's redundantly emphasized type always accompanies 9's type which is also disproportionately accentuated when the disruptive enabler of matter/energy converges onto the trinitarian triangle, these two disproportionate accentuations are consistent (see Section XI-D).**

D. To summarize:

- **Assuming all the defining labels associated with the final stage of the mathematical plan for the mathematically disruptive enabler driving towards symmetric order equates exactly to the naturally occurring constants which numerically defined roles of the elementary building blocks of matter/energy (including the strong force), then the latter can be viewed as representing (or an extension of) the former in driving the physical universe towards the specificity of symmetric order. In other words, since the mathematical disruptive enabler, in its drive towards the specificity of symmetric order, evolves from a numerical context to incorporate the physical context of the universe, this evolutionary incorporation of the physical context must be viewed as furthering the mathematically disruptive enabler's drive towards the specificity of symmetric order. <u>In other words, the mathematical plan for the mathematically disruptive enabler driving towards symmetric order becomes the mathematical format for presenting the disruptive enabler of matter/energy, as shown in Figure 84.</u>**

– Moreover, the exacting rigor or specificity of the radiant mathematical plan for the mathematically disruptive enabler is dramatically evidenced in the naturally occurring constants since the smallest change in their values would modify the evolution of the physical universe to the point where it very likely could not support the evolution of life on earth. In other words, the naturally occurring constants provide absolutely no tolerance for any deviations in the building blocks of matter/energy as constituents of the disruptive enabler of matter/energy. Also, such exacting specificity would be characterized by 1's redundantly emphasized type which always accompanies 9's type and thereby further reflects the disproportionate accentuation of 9's type in the disruptive enabler of matter/energy.

– While this course has not provided in-depth qualitative comparisons between the roles of the numerical types and the roles of the particle types of matter/energy, Section B's initial comparisons appear supportive.

– Section C's comparison of the quantum physics' perspective of the elementary particle types of matter/energy with the transitional stages leading up to the final stage of the mathematical plan for the mathematically disruptive enabler shows a consistent progression between the two. However, the graphical and mathematical modeling involved in building upon the purely numerical transition is much simpler than the quantum physics' derivation which essentially reverse engineers a complex physical process.

– Section C also goes beyond quantum physics and introduces the possibility that the non-specificity of the random particle types making up more than 90% of the universe that is dark (i.e., black holes, dark matter and dark energy) is analogous to the non-specificity of randomness in the numerical context.

– In comparing the trinitarian triangle onto which the theoretically derived mathematically disruptive enabler and the empirically derived disruptive enabler of matter/energy converge, we see they both disproportionally accentuate 9's type. On the other hand, in comparing the trinitarian triangles onto which evolution's disruptive enablers of life and the remediated human personality converge in Courses 101B and C, we will see they disproportionately accentuate 6's and 3's types, respectively. In other words, the empirically derived disruptive enabler of matter/energy must evolve to evolution's disruptive enabler of life which then evolves to the remediated disruptive enabler of the human personality before convergence involving all three trinitarian types can be completely fulfilled. As such, the empirically derived disruptive enabler of matter/energy provides for the unifying totality of matter/energy so that it can serve as the foundation for the evolution's disruptive enabler of life and ultimately the disruptive enabler of the human personality.

– The ultimate objective of the above unfolding comparative analysis of the theoretically derived mathematically disruptive enabler versus the empirically derived disruptive enabler of matter/energy is to provide new insights into many questions that have not been addressed by conventional research, such as the possible origins of the fine structure constant and quantum entanglement. Additionally, keep in mind that while this course has identified the disruptive enabler of matter/energy on a subatomic scale, it equally well applies the physics

of matter and energy all the way up to the cosmic scale.

Bibliographic References:

Davies, P.C.W.; The Accidental Universe; Cambridge University Press, **1982**

Hawking, Stephen and Mlodinow, Leanard; The Grand Design; Bantam Books, **2010**

Ouspensky, P.D.; In Search of the Miraculous: Fragments of an Unknown Teaching; Harcourt Brace Jovanovich, **1976**.