

Consciousness – Brain Gene Behavioural Psychology by Using Quantum Dots for DNA Sequences and for a Single DNA Sequence

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ABSTRACT

Psychological / philosophical terms such as soul, self, Atman, ego, mind, consciousness is randomly used without clear cut meanings and definitions in philosophy and psychology. In this paper, we scientifically interpreted and arrived at possible meanings and definitions for consciousness in terms of quantum dots which could be applied in interpreting the biological DNA base pair sequences and for DNA individual molecules. A theoretical detection of cognitive behaviour of mind is attempted with individual molecules of DNA and with that of DNA base pairs. A rule governing the DNA base pairs with that of DNA single molecule is stated in the form of DNA theorems as “If the left hemisphere of the brain is equal to DNA sequence information hemisphere and the right hemisphere is equal to the individual DNA sequence hemisphere, then it may be proved that the distinct part of Ramanujan numbers represent base pair DNA hemisphere and odd part of Ramanujan numbers represent the other non-base pair DNA individual molecules hemisphere are equal”. This theorem has multiple applications in tackling the social and health issues. It is possible to detect cognitive behaviour of mind with quantum dots that bind to sequences of DNA which are associated with the individual DNA which shows the cognitive behaviour. If quantum dots are stimulated with light, they emit their unique bar codes making the critical consciousness associated DNA sequences visible and explain the personality development. And also, using number theory, consciousness may be defined as a line of essential singularity lying in a circle of the brain having radius unity with an origin at zero point. This paper will not only has applications in tackling health and social issues, but will also start a new chapter in bringing psychology nearer to the doorsteps of neurological sciences.

Key Words: consciousness, DNA sequence, quantum dots, DNA individual sequence, DNA theorem

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1. Introduction

In Bhagavad Gita text (Prabhupada, 1966), the verse on consciousness declares that it is an

infinite quantity and therefore, it is difficult to measure. It has no death till it takes up another new physical body by giving up the older ones – something like changing old shirt with a new one. The immediate logical question arises in one's mind is how? It is difficult to answer the question. The present day psychology of consciousness depends on cognitive reasoning of the mind. From the viewpoint of Descartes, consciousness is isomorphic to the brain. Tarlacı (2013), quotes Sufi verses to make it clear that there is an existence of duality relationship between consciousness – brain by taking the example of a glass – wine. Gupta Chaitanya (2006) also makes it clear by using dualistic point of view that the name of any

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person and his own self are separate entities (in our case self is consciousness).

In the literature of psychology and philosophy, various researchers have used the terms like mind, thought, behaviour, self, ego, very haphazardly (Tarlaci, 2013), points out that at present we don't have a good scientific theory terms or concepts to explain consciousness – brain interaction. And ultimately, with critical examination of the usage of terms he settles down in using the word consciousness, meaning the same for the mind, atman and self. In a different vein, in a review by (Mather and Randell, 2013) on the book “*The Psi Phi of Thermodynamic Flow and the atoms of our hearts*” points out that the concept of consciousness and self are different and used these interpretations to explain the sciences such as genetics and astrophysics.

In the above reference, consciousness and self are used as separate words, while (Tarlaci, 2013) recommends usage of one word consciousness meaning the same for self. The above example is just to show the lack of clarity or unscientific attitude prevailing in the usage of words. Here, the two different authors uses the same words, but the former treats it as same, while the latter treats it as different. This unscientific attitude is quite common in the literature of psychology and philosophy. There are many examples in the literature to show that how unscientific these subjects are? This unseeing use of the words is a philosophical paradox in psychology and philosophy have contributed to say that theories involved in these two subjects are not scientific. (Sadia *et al*, 2010) critically analyses the interaction between biological brain and consciousness and comes to the conclusion that mind is a non-biological component of the brain gene. The question raised is how something non-physical (consciousness) can have a physical effect on biological brain?

Here, in this paper, we give possible proof in the use of word consciousness by giving scientific reasoning using the subjects of Quantum dots; Ramanujan's number theory and biological DNA of the brain. At present we have no viable theory to explain the interaction between brain and consciousness. Deshpande (2006) points out that it may not be possible to believe that how a soul (consciousness or mind) can interact with each other but that doesn't mean that interaction is not possible. He states

that “*the physical does not get its full sense until it stands in right relation to supra physical; the complexity of the universe could not be explained in the present terms of man or seen by his superficial sight, that there were and other powers behind, other powers within man himself of which normally he is unaware, that he is conscious of only a small part by himself*”. Albert Einstein goes one step ahead to remark that everything is determined by forces by which we have no control and that we all dance to a ‘*mysterious tune intoned in the distance by an invisible piper*’. The question is; who is that invisible piper? The attempted answer in this paper is measurable consciousness in terms of thought changes. A study by (Chaitanya, 2006), using an online poll conducted by *News week* revealed that that about 60% of 1.2 lakh surveyed population are belief based than objective based people. Now the belief based systems have become the mainstream science.

In this paper, we are making an attempt to explain and define a possible measurable definition of the age old Ψ - Φ problem by way of defining Ψ in terms of conscious function and Φ as a body function. The human body is made up of 12 major organs. Out of these 12, the brain is the most important and controller part of the human body. There are 27000 billion cells in the body and out of that one hundred and odd billion cells are in the brain (Chaitanya, 2010). Consciousness is related to such 100 billion cell neuron network complicated interaction mechanisms in the brain. Recently, Monti, (2013) from the UCLA school of Psychology tries to define consciousness through brain imaging techniques. His finding shows that consciousness does not live in a particular place in the brain, but rather arises from the mode in which billions of neurons communicate with one another.

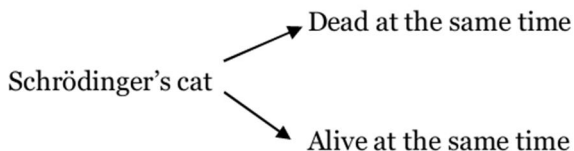
Some Theories of Consciousness

2. Schrödinger's thought experiment on the Cat: Explaining the difference between thought (a theoretical single molecule quantum dot DNA model) and DNA base pair sequences

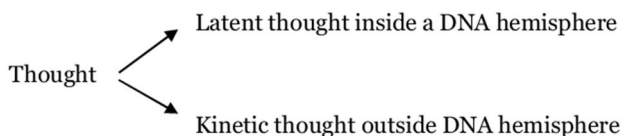
Schrödinger's cat is a famous illustration of principle of superposition in modern quantum theory. Thought is a well-directed specific behaviour of consciousness. In this paper, theoretically thought is equated to a suitably identified single molecule DNA sensor.



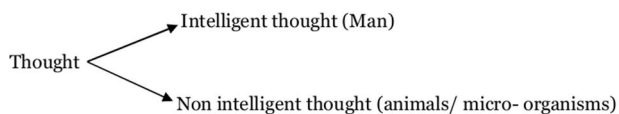
Schrödinger could perform a thought experiment on the cat because of well-defined brain functioning or consciousness gene behaviour. This theory of the cat was proposed in the year 1935 as a thought experiment. Schrödinger's cat "death –alive" relation occurring at the same time, thought is also assumed to get into two states at the same time as shown below in a simplified diagrammatic form, Schrödinger's cat is shown below:



The Schrödinger's cat is very much akin to biological cell theory, where the old cells die to give rise to new cells at the same time: it is possible that it can happen at the same time but we are unable to measure the inside biological phenomena in the body. Quantum dots will be a helpful tool in measuring the "death – alive" action at the same time. Now let us see the mechanism of thought process in the brain:



Kinetic thought is a conscious brain action defined objectively while latent thought is related to cognitive psychology or subjective behaviour of brain gene. Newton's and Einstein's physical sciences deal with objective behaviour in the form of action and reaction. Jung uses the word "Late thoughts" for the latent thoughts for describing life after:



The philosophical basis for linking the above classification is from the Bhagavad Gita (Prabhupada, 1966). As seen in the introduction, the consciousness is given by the states of the brain and thought. Thought in its latent form is desire and its kinetic form is sound. Quantum dot signifies *quantum superposition of brain – consciousness in the excited states of energy at the same time.*

3. Rene Descartes theory: "I think; therefore I am": I Think - denoted by Ψ



as a function of single DNA sequence and I am denoted by Φ as a function of DNA sequence

The proposition of Rene Descartes – "I think, therefore I am" has become a fundamental element of Western philosophy which is a yet – to – be proven statement in the scientific world. Fundamentally, thought could be about any thing – be it a scientific or philosophical or it could be a fragment of imagination, instinct, deception, a dream, the very act of doubting one's own thinking behaviour arguably serves as a proof of reality of one's own existence or at least of one's own intelligent thought. Let us now examine the scientific significance of the statement:

I think = Latent thought (In the language of Quantum physics, it is at 0th quantum state or at static equilibrium state),

I am = Kinetic thought - a dynamic, excited state,

The following empirical relation is suggested between "I think" and "I am" which are roughly equivalent to saying that these two phrases are related Ψ and Φ problem in Psychology,

I think = Ψ function is a subjective one,

I am = Φ function is an objective one.

The suggested empirical relation between these two functions is given by; $\Psi - \Phi = \Psi$. It may be explained that thought comes first and then objective reaction comes second. In the case of animals it is instincts coming first and then reaction comes second. But as per Newton's third law of motion, action and reaction should be equal and opposite. If it is applied here to Ψ - Φ problem, then we have the following relation: $\Psi = -\Phi$ or $\Psi + \Phi = 0$. By solving, we get $\Psi = \Phi/2$. The physical significance of this relation is 50% physical body action or objective action through a DNA pair base sequence function and the other 50 % is mental action through DNA single molecule function.

Our day- today experience suggests that thought function, Ψ originates only if the biological brain function exists and therefore, Φ is subtracted from thought function at the same time. At some point of time, the biological brain DNA dies because of its decaying properties and only thought substance exists without physical form. The particular non biological thought or quantum dot never dies because of its excited

quantum energy state: something like a radioactive substance. This non biological form is same as the Ψ function, it - self. And therefore, the above relation it is equated only with Ψ function and not with Φ function.

On the same lines, the present day science is based on objective study. This implies that the subjective consciousness or thought is zero. If subjective science is considered, then it will not be equal to zero. It will take some value say n , an integer. If Φ is objective science and Ψ is a thought or conscious or subjective science, the relation - ship between these Ψ and Φ are given by; $\Psi - \Phi = 0$: Simultaneously it is also equal to n which is the thought experiment of Schrödinger's cat. And therefore, $\Psi - \Phi = n$: There can be a number of geometric relationships between these two functions. For example, the simplest linear relationship between these two functions is given by an equation of straight line gradient: $\Psi = \text{gradient } (\delta) \Phi + \text{constant}$.

In Indian Vedic scriptures (2013), there is a mention of straight line extending from the base of the spinal cord to the top most head regions of the body called as Kundalini (coiled serpent) power. We are tempted to have parallels in the statement made by Jung's words as quoted by (Wolff, 1961), the publisher of the book on;

"On Life after Death," he (Carl Jung) said to me (Kurt Wolff), "Something within me has been touched. A gradient has formed, and I must write." Such was the origin of "Late Thoughts," in which he voiced his deep and perhaps his most far-reaching convictions.

It may be possible that Jung's gradient is the straight line gradient that what we see in the above $\Psi - \Phi$ equation. We can infer now that the human brain functions in 2 ways at the same time: One is objective way or biological part of the brain and the other quantum dot thought DNA sensor of the brain which is a thought process or consciousness.

4. Theoretical thought based Quantum Dot DNA sensor model: Quarks weak interactions

The isomorphic theory on Combinatorial mathematics will be helpful in understanding the quantum dot thought DNA model which could be explained by using additive

combinatorics theory because, it often deals with subsets rather than infinite ones: the finite subject is brain (B) and infinite subject is thought process (C). Now the question is how the structure looks like for a pair of subsets whose sum set has cardinality in relation to $|B|$ and $|C|$. The sum set of two subsets B and C of elements from an Abelian group containing a (individual nucleic acid molecule in a DNA structure) and b (second individual nucleic acid molecule) given by $B+C = \{b+c: b \in B, c \in C\}$ → the infinite qualities of thought process are isomorphic to the brain. Similarly, we can have the additive relation for another 2 DNA individual molecule.

The quantum field weak interaction takes place between the two components of the brain – thought could well be related to fundamental beta decay process which occurs when the nucleus of the atom in the brain emits an electron or positron and a type of bio neutrino, during particle interactions that changes proton to the neutron or the other way round. Imagine the brain is related to Fermions – electron – positron interactions and thought field by Bosonic quantum field which could be recognized by the virtual particle (photon becomes a *virtual electron-positron pair*). Let us consider a simple Feynman diagram for the electro - magnetic interaction between the particles.

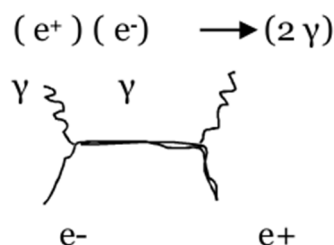


Figure 1. Feynman diagram showing electron – positron → annihilation into 2 photons. (+ DNA base pair positron)(-DNA single molecule electron) → 2 thought virtual particle.

As per quantum physics, single DNA molecule has 2 states - one at 0th amplitude state and the other consciousness at excited state. It is a linear combination of two levels. The quantum dots are formed at nano-scale because of these complicated self-generated quark annihilations. While the macroscopic DNA is action oriented (objective behaviour) and microscopic DNA is subjective behaviour in the form of quantum dots (it may be neutrinos



moving in and moving out of the physical body at every moment without any harmful effects to the neuron network system of the biological brain). It is reported (Bahcalle *al.*, 2005) that about 65 billion solar neutrinos per second pass through every square centimetre perpendicular to the direction of the sun in the region of the earth. There is every possibility that the quantum dots which are used in biomedical studies in the cancer diagnosis are the dots originated at the nano scale interaction of DNA individual nucleic acid molecules with harmless neutrinos. In a way, the sub consciousness, behaviour of the brain DNA, which is depicted in diversified quantum dot colour strains. The real secret of conscious level quantum dots lies in its ability to tune to the other colour output of the dots, by carefully controlling thought frequencies with fabricated crystals as they are synthesized so that their spectral peak output can be controlled within 2 nanometers wavelength to nearly any visible wavelength. A typical image is shown in Figure2 (Yurek, 2011).The colour displays that are brighter are more efficient and produce truly vibrant colours.

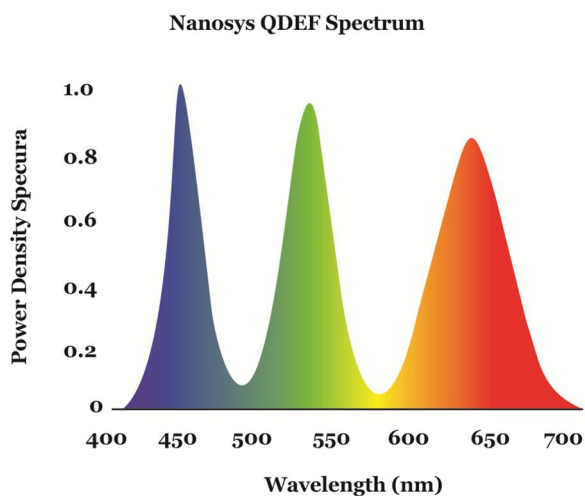


Figure 2. Spectrum from a nanosys quantum-dot enhancement film. The film contains green- and red- emitting phosphors and is stimulated by a blue GaN LED.

Consciousness may be now be defined as a state of quantum excitations or awareness (in a common man’s language) in the form of 3-D quantum dots of the biological brain DNA and more importantly its association with higher order things from the universe. The higher order things could be beyond the sensory objective based sciences or the limited nature of

understanding things about the brain itself. If medical science makes revolutionary breakthroughs in complete understanding of brain, still there will be much gap left in understanding the higher order. Consciousness is a finer matter because of its embedded nature with a brain; it could be quantified and measured. A proper theory is required to understand its nature. Various philosophical texts do talk about the consciousness by using the words such as self, mind, soul, Atman etc. Based on the above explanation, we prefer to use the word consciousness on the lines of the study carried out by (Tarlaci, 2013).

5. Ramanujan’s Number theory Conjecture 1

Integers do have a relation to a number of thoughts

For the first time, Ramanujan’s theory of integers (Rao, 1998) is applied to the brain to prove that the number of thoughts in the left hemisphere is same as that of the right hemisphere of the brain. And this is true as per medical sciences also. This implies that the present day psychology view of the two hemispheres is different-left hemisphere with thinking and right hemisphere with emotions is wrong. Thought is a primordial force which gives rise to the origin of matter or physical bodies/brain. The thought functions through the brain and which in turn creates permanent dynamic inertial body movements like heart beatings, pulse rates, etc. Without the intelligent thought process, the brain cannot function. It is this intelligent thought process is called awareness. Generally, thought pervaded in cascades inside the brain. It is not infinite cascades, but measurable thoughts in numbers. How many thoughts are formed at a given time? Before one talks, he or she thinks in two to three different fields of latent thoughts. But when he expresses it will be a single thought in the form of meaningful words or combination of words or otherwise it will be a confusion of randomized thoughts on the same topic. Thoughts could be measured in terms of integers. The thought could be anything – positive, negative, neutral or no thought at all (zero thoughts). These thoughts are represented by - even, composite, highly composite or distinct numbers. At a given instant of time, thoughts are finite. These numbers are embedded in the central nervous system of the finite brain. Finite thoughts – finite brain –

finite numbers – it is good to start with a possible scientific theory. As per the classification (Rao, 1998) the integers are given in Table 1.

Table1. Prime, composite, and highly composite real numbers.

N	Divisors of N	d(N)	Remarks
$2=2^1$	1,2	2	Prime, highly composite
$3=3^1$	1,3	2	Prime
$4=2^2$	1,2,4	3	Highly composite
$5=5^1$	1,5	2	Prime
$6=2^1.3^1$	1,2,3,6	4	Highly composite
$24=2^3.3^1$	1,2,3,4,6,8,12,24	8	Highly composite
$25=5^2$	1,5,25	3	Composite

Ramanujan starts his paper with highly composite numbers with; “The number $d(N)$ of divisors of N varies with extreme irregularity as $N \rightarrow \infty$ ”. In our case,

- Thought = $d(N)$ as $N \rightarrow \infty$. *Extremely irregular*, if the brain is loaded with direction less thoughts. In the words of Jung (1961) it is attributed to the behaviour of collective unconsciousness of a living thing – it can be a man or animal or microorganism. He further looked at his own soul with a telescope and remarked extremely irregular but it is a beautiful Constellation of stars.
- Thought = $d(N)$ at $N \neq \infty$. *Extremely regular*, if the brain is loaded with a finite number of thoughts in a straight line. As per Jung, the gradient factor of the straight line is conscious behaviour

Partition functions are important to explain the behavioural pattern of thoughts in the brain. The advantage of this function is splitting of more than one thought into simple additive thoughts with a basic thought recognized as a number in terms of the basic integer 1. The partition functions will be helpful in the analysis of thoughts. Ramanujan’s theory states that a partition of an integer n is a division of n into any number of positive integral parts. The number of partitions of n is denoted by $p(n)$. For example, biological brain gene involves a complex mechanism, of molecular interactions with out – side solar radiation. Suppose, if the thought is a DNA helical structure which has 4 biological molecular sequence ATCG represented numerically by

$$\text{DNA} = 0 \text{ and } A = 1, C = 2, G = 3, T = 4$$

$$P(\text{DNA}) = A$$

$$P(C) = C \text{ and } C = C, A+A$$

$$p(G) = G \text{ and } G = G, C+A, A+A+A$$

$p(T) = 5$ and $T, G+A, C+A+A, C+C, A+A+A+A$. What we want to convey through this example is a complex thought could be broken up into a simplified thought in terms of integer partition function. The partition function of a single thought is a single thought, it self-i.e., $(1) = 1$.

Conjecture 2 DNA Theorem

If left hemisphere neuron connection number of the brain is equal to DNA information hemisphere and right hemisphere neuron connection number is equal to the DNA single sequence hemisphere, then it may be proved that the distinct part of Ramanujan numbers represent DNA hemisphere and odd part of Ramanujan numbers represent the other DNA individual sequence hemisphere are equal. This DNA theorem has inbuilt mathematical proof in Euler’s theorem of integers.

Let us take an example to understand the theorem. $\text{DNA} = A^n T^n C^n G^n$, where the n = number of repetitions in a genome sequence and if $n=1$, then a nucleotide sequence in a genome is a summand which is a partition function of 4 DNA molecules A, T, C, G.

$$p(4) = 5$$

$$4$$

$$3+1$$

$$2^2$$

$$2,1^2$$

$$1^4$$

Odd

Distinct

Common factor

$$3+1$$

$$1+3$$

$$1+3$$

$$1^4$$

$$4$$

On the same lines, nucleotide sequence of billion and odd numbers are to be partitioned and show that the Euler’s theorem can equally be applied for DNA studies also.

Conjecture 3 A Graphical representation of DNA theorem

DNA theorem is represented in a graphical form by a DNA arrow (the shape of the curve is in arrow form) is an arrow plotted on a 3-D graph representing X – axis with distinct numbers, odd numbers on Y- axis and $p(n)$ along the Z – axis. If these numbers are plotted, it will be an asymptotic curve roughly in the form of an arrow. This arrow is called thought arrow. The presence of arrows in this 3-D structure is called Ramanujan’s space. A similarity may be seen with quantum dots which is also a 3 – D structure having the quantum mechanical



properties between DNA molecules and those of bulk materials.

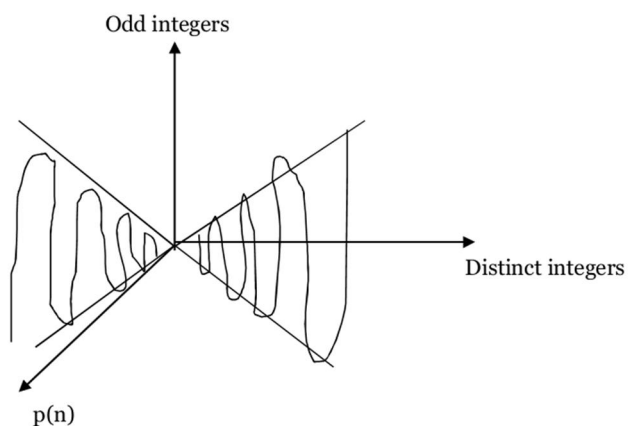


Figure 3. A graphical representation of DNA theorem in the form of DNA arrow.

Conjecture 4
The Circle method of Hardy, Ramanujan and Little wood: Measuring the thoughts

To explain the behaviour of the thought arrow functioning in the brain, the circle method given by Ramanujan, Hardy and Little wood as enumerated by (Zaccagnini, 2013) is applied. It is common sense experience of every individual that thought in its latent form is directionless and roams in a zigzag fashion or in a random way as indicated by $d(N)$ of natural integers. These numbers, if ordered in a proper method using Ramanujan's theorem, it makes a lot of sense in explaining the cognitive functioning of the brain as explained in a graphical arrow curve using 3 -D space for the distinct - odd - $p(n)$ numbers.

Imagine the brain as a circle having a radius of unity. Now imagine that there are numbers getting rotated in a circle. Rotation of numbers is equivalent to saying that thoughts are directionless. But there is an order in the circle. It is a circular number or said to be automorphic whose square ends in the same digit as the number itself. For example, $6^2 = 36, 4^2 = 16$ etc.

Then how the directionless mind or latent thoughts behave? It will be a vicious circle of latent thoughts like churning of cement, sand, gravel and water in a circular concrete mixer and also it is something like a coiled serpent inside the brain. In the language of psychology, how one can concentrate and focus the mind? The circle method of Hardy, Ramanujan and Little wood combinatorial theory of integers explains to how to measure

these hidden circular thoughts inside the brain in its latent form? The vicious circle of thoughts rotates in the brain at the same time in the pattern of 3-D waves as explained earlier. The circle method is specifically used to compute the residues by partitioning the circle into major and minor arcs.

The major arc signifies the singularity behaviour of thought processes which leads to a good approximations in defining the thought specifically while the minor arc we have to content ourselves with a bound biological DNA base pairs. In practice, the definition of major and minor arcs depends on the actual behaviour of a person. If brain contribution is small (minor arc) in comparison with the major arc otherwise the contribution is small and we can consider that we are dealing with minor arc. A bigger major arc exists when the minor arc is small (because of lower oscillation):

Angle CB = Minor arc = DNA base pairs and

Angle CDB = Major arc = DNA non base pair individual molecules

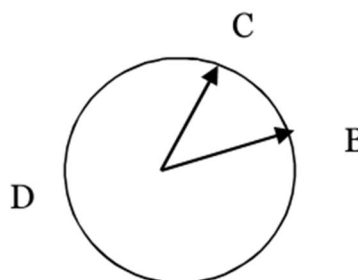


Figure 4. Representation of DNA in the form of major and minor arcs of a unit circle.

The behavioural characteristics of hidden thoughts are synonymous to the cognitive reasoning of mind without having any verbal communication: it is non-verbal. As per the above Mock theta function, it is mathematically reasoned to occur at 'nth root of unity which in physics we call it as a singularity point.

The asymptotic behaviour of thought state is a generating function with the residues about zero (essentially related to Fourier coefficient). Technically, the generating function is scaled to have a radius of convergence 1, so that it has singularities on the unit circle. What does this mean in a common man's language? Here asymptotic behaviour of



the thought implies the endless behaviour of thought curve and if a line is drawn it never meets the curve at a finite distance (look at the arrow of the curve in the graph). Generating function implies the latent thought bouncing back again and again inside the brain. Ultimately the hidden thought has to come out in the open in kinetic form and this process mathematically expressed at zero point which is a Fourier coefficient value. As long as thought is on the straight line inside the brain, it is called in mathematical language as a line of singularity. Having thus explained, the hidden thought may now be defined as a line of essential singularities of the function lying in a unit circle of the brain with an origin at zero point.

Astonishing theorem of Hardy and Ramanujan shows that $p(n)$, the number of unrestricted partitions of n , can be calculated exactly to any value of n . In this it is shown that $p(n)$ is not only represented by an approximate asymptotic formula (Rao, 2006) but that it can be calculated exactly for any value of n ... $p(n)$ as the coefficients in the expansion ;

$$f(z) = 1 + \sum p(n)z^n = \frac{1}{(1-z)(1-zx^2)}$$

$$\text{So that } p(n) = \frac{1}{2\pi i} \int f(z) dz / z^{n+1}$$

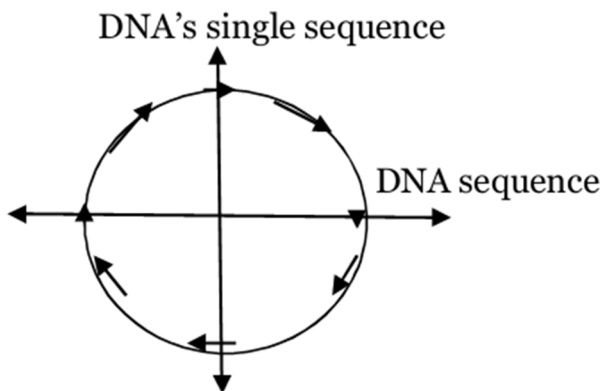


Figure 5. Ramanujan's circle of arrow consciousness characteristics of DNA's single sequence.

Each arrow on the circle represents a 3-D thought wave in Ramanujan's space. The thought arrow moves around this circle. It may be noted that the DNA's single molecule is shown as an imaginary number along Y- axis.



In pure mathematics lot of forced approximations are made to make minor arc really small (something like a logarithm) when compared to major arc contributions which uses prime number theorem. In our context, it implies that singularities occur at the n^{th} root of unity which in our case is quantum dots. The fundamental property of theta function is its automorphic (it is a circular number whose square ends with the same digit as the number itself). From the theory of Ramanujan's circle method one can make a wild guess in the existence of a "Singularity particle" having the characteristics of virtual photons and antimatter particles. The singularity particle in all probability could be a signature of quantum dot itself.

Conjecture 5
Mechanism of Thought transfer: From DNA sequence to DNA's single sequence

The mechanism of thought transfer from DNA sequence and the individual DNA sequence could possibly be understood through the concept of mutual Inductance in Electronics. Thought transfer, $M_{21} = N_1 \times N_2 \times \text{permeable cosmic space constant}$:

N_1 = Number of DNA sequences

N_2 =Half the number of DNA sequences

A typical M_{21} value could be:

$$M_{21} = 2.85 \times 10^9 \times 1.4 \times 10^9 \times 260 \times 10^{-9} \text{ meters} \times \text{cosmic space constant}$$

$$M_{21} = f = 10.374 \times 10^9 \text{ Hz, } t = 0.96 \text{ nano sec.}$$

The frequency is in the microwave frequency range, which falls within the quantum dot beams light emission frequency (Figure 6). The transfer time from DNA to a single sequence is about 1 nanosecond. As per 2011, NASA report, meteorites found on earth was published suggesting that the building blocks of DNA formed extra terrestrially in outer space. It is reported that Adenine has an unexpectedly variable range of ionization energies along its reaction pathways which suggested that understanding experimental data on how Adenine survives exposure to UV light is much more complicated than the existing available data; these findings will have definite implications for experimental spectroscopic measurements of heterocyclic compounds. Based on above theories and observations the following modified DNA non-

base pair model (Kumar *et al.*, 2013) is suggested in this paper.

6. DNA single sequence model

A quantum dot application study of the individual DNA molecules (Crutset *al.*, 2005) shows that direct observation of a single DNA molecule is possible in the absence of DNA staining agent which can open up new possibilities in the fundamental study of DNA–protein interactions. They demonstrated that under carefully selected conditions, the position and orientation of individual DNA molecules

(non Watson – Crick sequences) can be inferred with good efficiency from the QD fluorescence signals alone. Based on the theory and observations, an imaginary DNA sequencing expression is given. The possible sequencing from 0 to 80 years (0 years indicate the development of the fetus right from the time of zygote formation) are taken into consideration. The genome sequence information is to be collected from 0 to 30 at the rate from 30 years onwards till death, the DNA sequence information is to be recorded. The modified (Kumar *et al.*, 2013) DNA single molecule model is given in Table 2.

Table 2. Modified (Kumar *et al.*, 2013) DNA single sequence model.

Sl. No.	Age	A typical DNA sequence	Observations (Expected)
1.	0 years	Starting from a single DNA resonance with mothers DNA sequence	Frequency matching between outside an individual DNA with inside mothers DNA sequence
2.	10 years	CGATGACGAA	Based on Isomorphic theory of Combinatory mathematics, the infinite characteristic a single DNA gets into a finite set of DNA sequence molecules. It may be seen that some molecular structures are getting replicated during the growth. This we understand by conceptualizing every replication as a behavioral pattern, formed along with the physically identified molecule. This is undetected but observed in the form of the behavioural response.
3	20 years	ATAACGTCT	
4	30 years	AAATGCAATA	
5	40 years	AAACGT	
6	50 years	AAAGTC	
7	60 years	TAAAAA	
8	70 years	AAAA	
9	80 ears	A-A (non Watson – Crick sequence)	

*indicates the mechanism of frequency resonance interactions are to be studied in depth using Quantum physics concept of light particle neutrino – neutrino interactions. It may be noted that the reduction in the DNA sequence to a single sequence of non-Watson – Crick type maybe attributed to a possible entropy decrease in motor cortex of the brain (Chang, 2013).

7. Quantum Dots and Consciousness

Consciousness is all about thought, attitude and behaviour from psychology for a more than half a century, but consciousness is back and unlikely to go away again. So where does the future lie? Nano technology in Neuroscience is developing fast. Artificial intelligence and neural modeling are increasing our understanding of the brain. Improvements in brain scanning provide ever more detail of the neural correlates to consciousness. But is this all just working on the easy problems? Or will the really hard problem remain to haunt us forever?

A theoretical detection of cognitive behaviour of mind is attempted with individual DNA and with that of DNA sequence. It is possible to detect cognitive behaviour of mind with quantum dots that bind to sequences of DNA which are associated with the individual DNA molecules exhibiting cognitive behaviour.

If quantum dots are stimulated with light, they emit their unique bar codes, or

labels, making the critical, consciousness associated DNA sequences visible. The diversity of quantum dots will allow scientists to create many unique labels, which can identify numerous regions of DNA simultaneously. This will be important in the detection of consciousness, which results from the accumulation of many different changes within a cell.

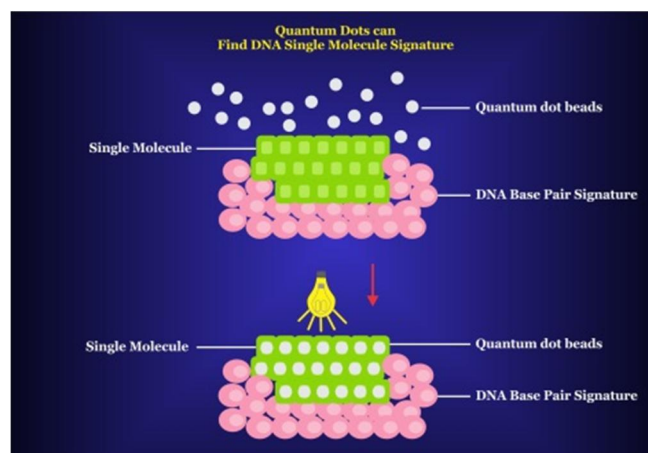


Figure 6. Theoretical quantum dots can find DNA single signature amongst DNA signatures.



It is possible to measure thought but requires a proper scientific theory. In other words, we can define consciousness as a finest and minutest form of the brain (Chandrasekhar, 2013) in the language of relativistic quantum particle physics, it is could be termed at different quantum levels. The consciousness is associated with the energy centres (in Sanskrit language it is called as chakras). Each chakra is an energy singular point) in the physical body and predominantly at the brain level (Chaitanya, 2010). It is consciousness which is a dominant factor because of its singularity nature than the finite qualities of the brain.

Every aspect of the work we do and every movement of the body, leading to a thought based action or attitude leading to a well thought out behaviour and ultimately the personality. The action based thought leaves such an impression on the neurological complicated brain stuff what I am just at this moment is the effect of the sum total of all impressions on the mind. Each man's behaviour is determined by the sum total of these impressions. Whenever action and reaction takes place try to be aware of the thought process. If one is constantly watchful, one can take of the unnecessary burden of unwanted thought passes through the brain. Being conscious of the surroundings, it helps to drop all unwanted thoughts. Nothing should happen without your knowledge. Not even a single thought should go by without being aware of it. Closely observe the mind and its different moods. As one consciously observes, one can clearly see what is happening within one self. If one is watchful when anger arises, it cannot escape without one's knowledge. But observation alone is not sufficient. We have to

analyse the root cause of a particular mood such as anger.

8. Conclusion

Consciousness is a unit circle with an essential line of singularity quantum dot signatures of DNA sequence. In the final stages of consciousness, it's only the latent accumulated thoughts in the form of DNA's single sequence prevails. From birth to death all the physical and mental characteristics could be explained through DNA theorem. All the consciousness explanations coincide with Jung's remarks that something within me has been touched. A straight line gradient has formed, and I must write." Such was the origin of "Late Thoughts," in which he voiced his deep and perhaps his most far-reaching convictions. In quantum language, it is the Bosons that prevail over Fermions. In the language of Mathematics, it is the major arc of the circle that prevails over the minor arc. This theorem has multiple applications in tackling the social and health issues. This DNA single sequence model will open up the new frontiers of further research in DNA – protein biochemical reactions and hope to establish the validity of DNA theorem.

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