

Perception of Space & Dementia

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Abstract

This paper is mainly a mathematical paper on how human perception of space is altered from the normal brain to the dementia brain. The results of all the calculations are summarized in Table 1. We see that there are 7 layers of consciousness in normal humans. The Dementia patient slowly loses it layers of consciousness yet the mind continues to function at a rudimentary, unconscious way.

Keywords: Space; AT Math; Energy; time; Mass; Dementia; Brain.

Introduction

In this paper, we consider the mathematics behind what humans call three-dimensional space. We begin by considering the normal brain; then we shift to the abnormal (Dementia) brain. The paper results are summarized in Table 1 where we see the results compiled from the mathematical analysis above. We begin with the normal brain.

1. Normal Brain

$t=\sqrt{3}$ =eigen vector

Universal Signal= $1/\sqrt{3}=E$

$s=Et \sin \theta$

$(1/\sqrt{3})(\sqrt{3}) \sin 60^\circ$

$s=\sin 60^\circ$

Timing signal = $1/\sqrt{3}$

$1/\sqrt{3}=10$ msec

$1/\sqrt{3} \times 20\text{msec}=115.47=1/\sin 60^\circ=E$

$s=Et \sin \theta$

$s/\sin 60^\circ=Et$

$s=t=1$

$1/\sin 60^\circ=E(1)$

$E=1/\sin 60^\circ$

$E=t/\sin 60^\circ$

$\sin 60^\circ \times E=t=s$

$s=E t \sin 60$

$s=E \sin 60^\circ (1)$

$= (1/\sin 60^\circ)\sin 60^\circ (1)$

=1

$s=1$

The window of Consciousness runs from $t=1-\pi$ from AT Math.

$E=1/1=1; E=1/\pi$

=1; 0.3183

$s_1=Et \sin \theta$

$= (1)(\sqrt{3}) \sin \theta$

$=114.77=\sqrt{3} \sin \theta$

$\theta=6.626 =h =\text{Planck's Constant.}$

$\theta=724$

$s_2=Et \sin \theta$

$114.77=(1/\pi)(\sqrt{3}\sqrt{3}) \sin \theta$

$\theta=208$

$\theta=0.2095$

$\Delta\theta=724-208= 514.4= \text{Energy of the window.}$

$TE=M(1592)$

$514.4=M(1592)$

$M=323$

$M=\text{Ln } t$

$M=1/209$

$t=1.381$

$E=724$

$Cf \theta$

$v=d/t$

$1/7=125/t$

$$t=7(125) \\ =875$$

$$E=114.28 \\ =8/7=tv=d$$

2. Planck's Constant

$$h=E \times \text{freq}$$

$$h=Et$$

$$6.626=\sin \theta=Et$$

$$6.626=724t$$

$$t=915$$

$$s=E t \sin \theta \\ (724 (915)6.626 \\ =4389 \\ =1/2278 \\ 1/228$$

$$s=t$$

$$t^2-t-1=E$$

$$4389^2-4389-1=926$$

$$E=(1-\ln t)^7 \\ =(1-\ln 0.4389)^7 \\ =67.0 \\ =1/149 \sim 1/G$$

For the mind:

$$y=y' \\ y^2/2=y=G$$

$$y^2=2G \\ t=115.41=1/\sin 60^\circ=E$$

$$E=(1-\ln t)^7 \\ E^{1/7}=1-\ln t$$

$$1-E^{1/7}=\ln t$$

$$e^{1-E^{1/7}}=t$$

$$s/(4/3) \cdot e^V=t$$

Aside:

$$s=E t \sin \theta \\ =(0.00925)(-0.614) \sin 60^\circ \\ =0.00495 \\ =4.95 \text{ msec} \sim 5 \text{ msec}$$

$$5/413 \cdot 1.15356=t$$

$$t=4.282 \text{ delay}$$

$$x2 \text{ (Up and down)}=0.856=R$$

$$V=iR$$

$$=105(i)(0.856) \\ i=1.226$$

$$t^2=i$$

$$t=11.07 \text{ Delay (10-20 msec)}$$

$$t=d/v=125/(1/7)=0.825$$

$$0.825^2-0.825-1=-1.4437$$

$$-1.4437=(1-\ln t)^7$$

$$t=102$$

$$t=\sqrt{3} \quad L=\ln t+c^3 \\ =\ln \sqrt{3}+27 \\ =2.754 \\ 2.755/251.5=0.0095=1/91.3 \\ E=(1-\ln t)^7 \\ =(1-\sqrt{3})^7 \\ =985$$

$$s=E t \sin \theta=(985)(\sqrt{3}) \sin 60^\circ \\ =14473.5$$

$$s=t$$

$$E=(1-\ln (4/3))^7 \\ =0.09302 \\ =932$$

$$s=E t \sin \theta \\ =(931)(\sqrt{3}) \sin 60^\circ \\ =1396 \sim 14$$

3. Abnormal Brain

$$V=iR \\ =(4/3)(0.85) \text{ increasing resistance in Alzheimer's patients.} \\ =113.333$$

$$\Delta V=0.8333=1/12$$

$$E=(1+\ln t)^7 \\ 1/12=(1-\ln t)^7 \\ t=1.4244=\sqrt{2}$$

$$v=d/t \\ 12.5/\sqrt{2}=8.838$$

$$1/v=113.73$$

$$1.1373/105=935=1/106.9 \sim 1/V^+$$

$$\Delta t=945-935=10$$

$$t=(1-\ln 10)^7=251.5=\text{Period T}$$

$$945/7=1.350 \times 2 \text{ (down and back)}=270=10c^3$$

$$L=[\ln t+c^3]\chi$$

$$\ln [(945)+27]\chi$$

$$\chi=0.00588 \\ =5.88 \text{ msec}=t$$

$$E=(1-\ln t)^7$$

$$0=(1-\text{Ln } t)$$

$$t=2.71828=e^1$$

$$E=1/t=e^{-1}$$

$$i=t^2$$

$$=e^2$$

$$=7.389$$

$$V=iR$$

$$=105=7.389R$$

$$R=\sqrt{2}=t \quad R=t$$

$$R=\sqrt{2}/7$$

$$=202 \text{ per layer of consciousness in the Multiple Draft model of the brain.}$$

$$\sqrt{2}/14=2886$$

$$L=\text{Ln } t + c^3$$

$$=\text{Ln } (202)+27$$

$$=27.202$$

$$L=2\chi=27.202$$

$$\chi=136.01$$

$$E=136e^{-202}$$

$$=111.12=1/9=M$$

$$E=M$$

$$\Delta t=\Delta R=0.8-\sqrt{2}$$

$$=-0.614\sim-0.618 \text{ root of the Golden Mean.}$$

$$t^2=i$$

$$R=s=t$$

$$R=\sqrt{2}$$

$$V=iR$$

$$=t^3$$

$$=(\sqrt{3})^3$$

$$=28.28$$

$$E=(1-\text{Ln } t)^7$$

$$=(1-\text{Ln } \sqrt{2})^7$$

$$=0.0508\sim 50 \text{ msec}$$

$$s=Et \sin \theta$$

$$=(0.0508)(\sqrt{2}\sqrt{2})\sin 60^\circ$$

$$=6.228\sim 623=1/1605\sim 1/e- \text{ Coulombs.}$$

$$t^2-t-1=E$$

$$(-0.614)^2-(-0.614)-1=0.009\sim 0$$

$$s=t=R$$

$$V=iR$$

$$=t^2R$$

$$=t^3$$

$$=(-0.614)$$

$$=-2.3147$$

$$1/V=1/E=t=432.01$$

$$E=(1-\text{Ln } t)^7$$

$$=[1-\text{Ln } (-0.614)]^7$$

$$=0.00925$$

$$\sim 0$$

$$s=|E||t| \sin \theta$$

$$=(0.00925)(-0.614) \sin \theta$$

$$=492$$

$$(4/3)/492=271\sim e^1$$

$$\text{Ln } 0.271=150=1/G$$

$$\sqrt{2}/7=202=1/495$$

$$8/7=114.28=1/875$$

$$\Delta R=202-114.28$$

$$=0.8772$$

$$=1/114$$

$$V=iR=105=t^2(1/114)$$

$$t=1.09407$$

4. Abnormal vs. Normal

$$s=Et \sin \theta$$

$$(1/12)(\sqrt{2})\sin 60^\circ$$

$$=102$$

$$S_{\text{norm.}}=0.866$$

$$102/0.866=117.85=\text{Mass}$$

$$=17.85\%$$

$$FV=PV (1+i)^N$$

$$102=0.866(1+17.85\%)^N$$

$$N=1=t$$

$$E=(1-\text{Ln } t)^7$$

$$0=(1-\text{Ln } t)$$

$$t=2.718=e^1$$

$$(4/3)/492=2.718=e^1$$

$$\Delta S=S_{\text{Abnorm.}}/S_{\text{norm.}}=102/14473.5=0.7047\sim 1/\sqrt{2}=1/R=1/t=E=1/s$$

$$\Delta E=E_{\text{Abnorm.}}/E_{\text{norm.}}=1353/985=137.4$$

$$\Delta t=\Delta t_{\text{abnorm.}}/t_{\text{norm.}}=2.718/\sqrt{3}\sqrt{2}=156.9\sim \pi/2$$

TABLE 1	Normal	Abnormal	Comparison
Signal	$1/\sqrt{3}=0.5773$	2.3147	4 (Sense of Touch)
time	$\sqrt{3}$ (smell)	-0.614	2.82
s	0.866	$623=1/1601$	$719/102=705=1/\sqrt{2}$
Energy	$1/\sin 60=115.47$	113.33	981
Delta V	105	$1/12=0.08333$	$0.11428 \times 765=0.011438$
Window t=1	$\sqrt{3}$ sin $60=150=1/G(\text{taste})$	$270=10c^3$	$180=\text{Pi rads}$
Window t=Pi	6.626	$1/e=368$	$180=\text{Pi (sight)}$
Delta theta	514.4	$60 \text{ deg}=\text{Pi}/3$	$203.5/\text{Pi}/2=129.6$
M	323	945	$2.93 \times 117.8=402=\text{Re}$
t	1.381	$\sqrt{2}$	$977 \times 306=\text{Pi (Hearing)}$
	875	-0.614 (Soul)	$-7.01 \times e=19.03$
i	4/3	2 (Mind)	$0.666=G \times 1/c^2=741$
v	$1/\sqrt{2}=0.707$	8.838	$0.08/7=11428$
T	251	251	1 (Energy/time)
R	0.85	$202 \times 7=\sqrt{2}$	$6.01 \times 126.9=473$
SUM	$23479 \sim \text{Ln Pi}=\text{M (mass)}$	$21.06/7=3=c$ (Mind)	$1332 \text{ Cf } 1333=4/3=s$ (Space)
PRODUCT	$42=\text{TE}$	44.781	1.0962 Cf. 1

For the Abnormal Mind in comparison to the Normal mind, we have the following equations:

$$SE=SE'=Mind=Mind'=t^2-t-1$$

Abnormal Mind

$$t^2-t-1 = (-0.614)^2 - (-0.614) - 1 = 0.009004 = \text{Mass M}$$

Normal Mind t=eigen vector = $\sqrt{3}$

$$t^2-t-1 = (\sqrt{3})^2 - (\sqrt{3}) - 1 = 27=c^3$$

Abnormal -Normal = $1.628 - 0.5775 = 105.1 \text{ mV}$ (Human Nervous Signal)

Civilization of Homospaiens began about 150,000 year ago. This I theorize is when consciousness began. It led to cooking, language, art etc.

$$t^2=i$$

$$i=\sqrt{150,000}=387$$

Normal

$$V=iR$$

$$=387(0.85)$$

$$=329 \text{ Cf. } 323$$

$$=1/304$$

Abnormal

$$V=iR$$

$$105=387(R)$$

$$R=3.686=1/2.713 \sim 1/e$$

As the resistance of the brain dropped, when it reached 0.85, then Consciousness happened since $E=1/7$.

$$R=1/e=e^{-1}=0.85$$

$$-t=234$$

$$E=(1-\text{Ln } t)^7$$

$$=(1-\text{Ln } 234)^7$$

$$=1438$$

$$=1/695 \sim 1/7$$

One layer of consciousness

$$1/7 \times 7=1=E$$

$$t^2-t-1 = 7^2-7-1 = 41$$

$$i=t^2 = 234^2 = 5.475$$

$$V=iR$$

$$41=5.45R$$

$$R=0.748 \sim 0.75=1/s$$

$$M=\text{Ln } t = \text{Ln } 234=5.455$$

$$L=\text{Ln } t + c^3 = 5.455+27 = 324 \text{ Cf. } 323$$

From Table 1:

Sum:

$$\text{Ln } 23.479 \times 21.06=6.67=G$$

Product:

$$\text{TE}=42=M(1592)$$

$$M=264$$

$$\ln 44.781 \times 1.0962 = 416/6.626 = 2\pi$$

$$416 = 125/3 = d/v = t$$

$$FV = PV(1+i)^t = 1/984$$

$$E = (1 - \ln 984)^7 = 1$$

We have space and energy. Now let us obtain time

$$E = (1 - \ln t)^7 \\ = (1 - \ln (4/3))^7 = 931$$

$$s = E t \sin 60^\circ \\ = (931)(\sqrt{3}) \sin 60^\circ \\ = 1396 \sim 14$$

$$s = E t \sin 60^\circ \\ = 4/3 = (1)t(0.866)$$

$$t = 153.9$$

$$1.539 \times h = 153.9 \times 6.626 = 43 = R$$

$$V = iR \\ 106.1 = 2.4673 \\ R = 43$$

$$\Delta t^2 = i$$

$$t = \sqrt{i} = \sqrt{(\pi/2)^2} = 2467$$

$$E = 1353 \text{ Mass of Brain}$$

$$t = \sqrt{2}$$

$$E = (1 - \ln t)^6 \text{ (Note power 6 for Alzheimer's ; not 7)}$$

$$1353 = (1 - \ln t)^6 \\ t = 2862$$

$$s = E t \sin 60^\circ \\ = (1353)(2.862) \cdot 0.866 = 353$$

$$\Delta s = 1396 - 335 \\ = 106.1 = V^+$$

$$t = L + V^+ \\ 2 + 1.061 = 3.06 \\ M \times v = L = \bar{P} = \cos \theta$$

$$1400 \times 1/7 \cdot (416.67) = L = \bar{P} = \cos \theta$$

$$\theta = 2.98 = c$$

$$v = d/t$$

$$1/v = t/d = 7$$

$$M/v \times L = \ln t + c^3$$

$$M = \ln t$$

$$M/v - M + c^3 = L$$

$$7M - M + c^3 = L$$

$$6M + c^3 = L = 2$$

$$M = 416.67$$

$$M = d/v = 125/3$$

$$\text{Now, touch} = 4$$

$$t = KE = 1/2 M v^2 = 1/2 M (1/\sqrt{2})^2 = 1/2 (4) (1/2) = 1$$

$$s = E t \sin 60^\circ \\ = (1)(1) \sin 60^\circ \\ = 0.866 \\ = \sin 60^\circ = t = 1/E$$

$$s = (d/t)^2 = (125/t)^3 = 0.866$$

$$t^3 = 443$$

$$t = 763 \\ E = (1 - \ln t)^7 \\ 1.1547 = (1 - \ln t)^7 \\ t = 102.09 \\ = 102 \\ = S_{ab}$$

$$s = E t \sin \theta \\ 1/\sqrt{2} = (137.4)(\pi/2\pi) \sin \theta$$

$$\theta = 0.00327 = 1/305$$

$$= 1/t = E$$

$$E = 1/\sin \theta$$

$$t = L + V^+ \\ = 2 + 106 = 3.06$$

$$V = iR \\ 105 = (4/3)(R) \\ R = 1/126.9$$

$$1/126.9 / \{0.404 / 2\} = 102.5 \\ = S_{Ab}$$

$$S_{norm} = 1.1477$$

$$102.5 / 11477 \\ = 111.9 \\ = 1/c^2$$

This is the current of the input and output of the black box brain.

$$1/7 = v = d/t = s/t = 102/t$$

$$t = 7(102) \\ = 714$$

$$E = 14.00 = 7 \times 2 \text{ Down and back.}$$

$$s = E t \sin \theta \\ 1/7 = 14(102) \sin \theta$$

$\theta = \pi/2$
 $s = 1 = t = R$
 $V = iR$
 $105 = (4/3)R$
 $R = 0.7875 = 1/126.9$
 $126.9/\pi = 404 = Re$
 $Re = IF/VF = Mv/Ma = 1/7 / (1/\sqrt{2}) = 202 = Re/2 = Re/L$
 $202/126.9 = 1/2\pi = 1 \text{ rad.}$
 $FV = PV((1+i)^N)$
 $= 0.866(10209)^N$
 $N = \text{sqrt}3 = t = \text{eigen vector}$
 $i = 0.20109$
 $i^7 = 1329.6 \sim 1330 \text{ Internal clock.}$
 $0.020109 \times 7 = 14.07 \sim 14 = 2 \times 7 \text{ Down and back.}$
 $FV = PV (1-i)^N$
 Alzheimer's $i = -2.0109\%$
 $= 0.866(1 - 0.020109)^{13}$
 $= 0.866(965)$
 $= 0.836 = E$
 $t = 1/E = 1.19608$
 $t^2 - t - 1 = E$
 $E = 765$
 $t = 1.306$
 $E = (1 + \ln t)^7$
 $(2.669)^7$
 $= S.F. ^7$
 $= 965 = (1+i)^N$
 $t^2 - t - 1 - 2t - 1$
 $t = 3$
 $v = d/t = 125/3 = 416$
 416 msec is in the range of 300-500 msec reaction time.
 The Soul:
 Consider:
 Let Soul = Mind
 $SE = \text{Soul Energy} = \text{Mind}$
 $t^2 - t - 1 = L = \ln t + c^3$

Derivative:

$2t - 1 = C = 1/t + N$
 $2t - 1/t - 1 + N = C$
 $[2t^2 - 1 - t]/t + N = 2C$
 $2t^2 - 1 - t + N = 2t C$
 $t^2 - 0.5 - 0.5t + N/2 = Ct$
 Let $N = -1$ & $C = 0.5$
 $t^2 - t - 1 = 0 = SE$
 So $SE = SE' = \text{Mind}$

The 7 Layers of Consciousness = 12th / (31/Ln 31) = 7 inductors 133=s

$v = 7 \times 222 = 1555 \times 2 = 31.08$

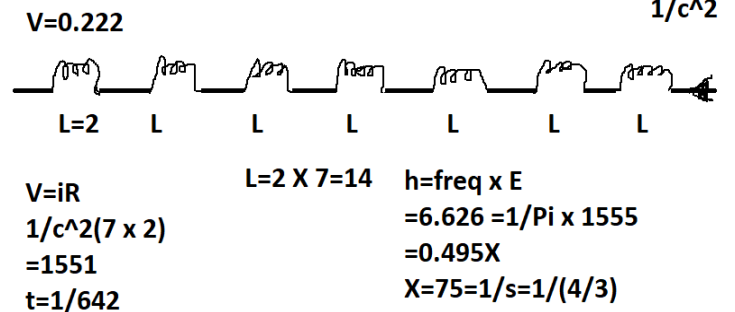


Figure 1 Seven Inductors model the 7 layers of consciousness.

A person with Dementia is gradually losing consciousness. They still have a brain and reaction, although lessening every day, but they lose their consciousness mind.

The nervous system began with a sodium chloride pump. The sodium is a positive ion; the chloride ion is a negative ion. This is the underlying mechanism of how electrical signal travel along a nerve axon.

So the mass of NaCl (Salt) is:

$Na = 23$
 $Cl = 35.4$
 $\Sigma 58.44$

$PE = Mc^2$
 $= 58.44c^2 = 518.7$

$KE = 1/2Mv^2$
 $= 1/2(58.44)(1/\sqrt{2})^2$
 $= 141.6$

$TE = 518.7 + 146.1 = 66.5 \sim G$

$V = iR = 66.5 = i(0.85)$
 $i = 0.788$

$t^2 = i^2$
 $t = 0.8876 \sim 0.888 \Rightarrow \text{working memory..}$

So we've gone from NaCl to a working memory.

$$t^2 - t - 1 = E$$

$$(0.888)^2 - 0.888 - 1 = -10./99 \sim -11$$

$$E = (1 - \ln t)^7$$

$$= 11^{1/7} = (1 - \ln t)$$

$$t = 1335 = \text{Space s}$$

This is how the working memory perceive space. In Alzheimer's patients, they are not cognitive of space. Their memory cells are dying.

3.

Conclusion

We have seen a mathematical comparison of space as perceived by Dementia patients and healthy people.

References

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