

## Paths of Consciousness

**Paul T E Cusack**

BScE, DULE, 23 Park Ave., Saint John, NB E2J 1R2, Canada

**Corresponding Authors:** Paul T E Cusack, BScE, DULE, 23 Park Ave., Saint John, NB E2J 1R2, Canada.

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### Abstract

This paper provides a theory on Consciousness. In it we hypothesize that there is a cartesian theatre and it is in the Lateral Geniculate Bodies in the right and left hemispheres where sound and sights pass through the mind. If true, the theory has implications for cartesian materialism. More work -experiments- need to be established to determine if indeed there is a cartesian theatre and is located in the LGB's.

**Keywords:** Consciousness; Lateral Geniculate Body; Cartesian Theatre; Reaction Times; Philosophy of the Mind.

### Introduction

“Human Consciousness is just about the last surviving mystery.” So begins DC Dennett’s book on *Consciousness Explained*. In his work he argues that there is, contrary to philosophy of the mind since the time of Descartes, that there is no “Cartesian Theatre” where consciousness takes place. In this paper, I argue that there is a cartesian theatre, and it is in the Lateral Geniculate Bodies in both the left and right hemispheres. In fact, I hypothesize that consciousness is caused by the mind reflecting upon itself. In other words, the left brain watches the right and vice versa. I try to establish this from simple electrical engineering equations and geometry. From these equations, we see reaction times are as expected by this theory. It is still just a theory. Experiments would need to be set up and conducted to prove that consciousness happens in the center of each hemisphere. We begin our calculations with the sense of hearing. We will go through each of the five senses in turn.

$$v_s = 343 \text{ m/sec}$$

$$V = d/t$$

$$(114.3 + 60.6)/t$$

$$t = 174.9/343 = 50/99 \sim 51$$

$$v_L = 2.99792458$$

$$v_L = d/t$$

$$2.9979 = d/50/99$$

$$d = 152.8$$

$$v_L = 2.999 = (152.8 + 60.2)/t$$

$$t = 14.04$$

$$\Delta t = 50/99 - 14.04$$

$$= 0.3695$$

$$= 1/2.706 \sim 1/e^{-1}$$

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

$$E_{\text{ear}} = 7 + 70 + 125 = 265 \text{ mm}$$

$$E_{\text{ear}} = 60/6 + 114.3 = 174.9 \sim 175 = 1 \text{ rad}$$

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

$$E = V = 105 = (1 - \ln t)^7$$

$$105^{(1/7)} = 1 - \ln t$$

$$1.994 = 1 - \ln t$$

$$\ln t = 944$$

$$t = 257$$

$$V = d/t$$

$$0.010 = d/257$$

$$d = 2.57$$

$$d/10 \text{ msec} = 0.257$$

$$t = KE = 1/2 M v^2$$

$$257 = 1/2(4)(1/2)$$

$$1285 = v^2$$

$$v = 113.4$$

$$V = iR$$

$$113.4 = 4/3R$$

$$R = 0.85$$

$$V = d/t$$

$$1.13 = d/0.01$$

$$d = 0.01134$$

$$v = d/t$$

$$3 = d/\sqrt{3} = 519.6 \text{ Cf. } 514 = 2(2.57)$$

$$P = i^2 R$$

$$E_{\text{xt}} = P = i^2 R$$

$$12.706(14.04) = i^2 R (0.86)$$

$$I = 6.68 \sim G$$

$$P = V \times A$$

$$= (105.7)(66.8)$$

$$= 7006.6 \sim 707 = 1/\sqrt{2}$$

$$P = E \times t$$

$$0.707 = 105.7(t)$$

$$6.68 = t =$$

$$I = t = G$$

$$\text{Mind} = (1 - v/v_L) = 1 - 343/2.9979$$

$$= 113.4$$

$$V = iR$$

$$113.4 = i(0.85)$$

$$I = 1.3333 = 4/3 \text{ True!}$$

Circuit of the Mind

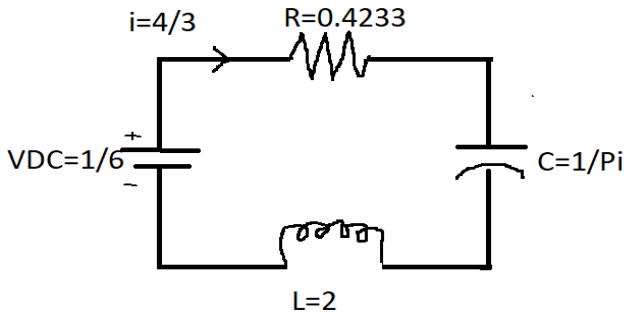


Figure 1: Electrical Circuit of the Mind

$C = 0.3183 = 1/\text{Pi}$  (Hearing)  
 $RT = (0.4233 + 0.318 \cdot 2)$   
 $= 125.84$   
 $V = iR$   
 $= (4/3)(125.84)$   
 $= 167.7 = 1/596 \sim 1/6$   
 $tR = 20 + 200 + 358$   
 $= 57.3 = 1 \text{ rad}$   
 $\text{Freq} = t$   
 $V = iR$   
 $105.7 = i(57.3)$   
 $I = 184.46 = t$   
 $1/t = E$   
 $E = 5421$   
 $P = E \times t = 542 \times 184$   
 $= 1$   
 $P = i^2 R$   
 $I = i^2 (0.856)$   
 $i^2 = 116.8 = M$   
 $i = 108.084$   
 $M = \text{Ln } t$   
 $116.8 = \text{Ln } t$   
 $t = 481$   
 $P = E \times t$   
 $= (105)(481) = 508$

$R = 0.4233 + 1 - 2$   
 $= 57.67 \sim 1 \text{ rad}$   
 $V = iR$   
 $5444 = i(5767)$   
 $I = 943.99 = 944 = t \text{ Cf } 945$   
 $tR = 20 + 200 + 358$   
 $= 57.3 = 1 \text{ rad}$   
 $\text{Freq} = t$   
 $V = iR$   
 $105.7 = i(57.5)$   
 $I = 184.46 = t$   
 $1/t = E$   
 $E = 54.21 \sim 54$

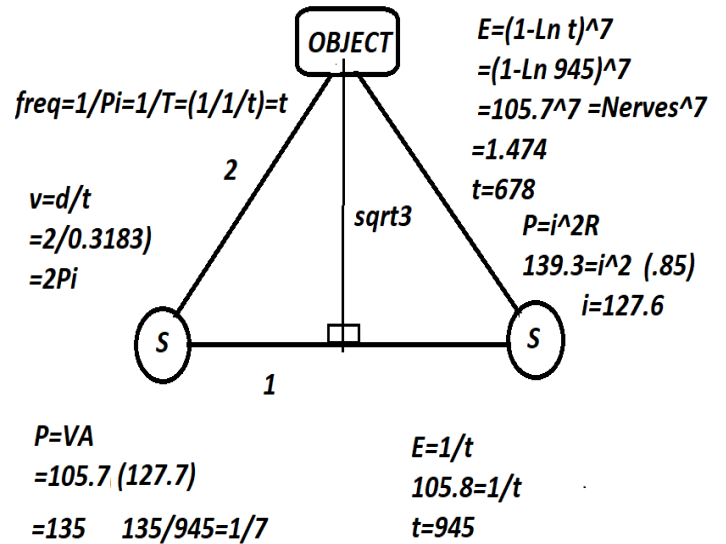


Figure 3: The equilateral triangle and two observers viewing the same object at equidistance.

$V = 2\text{Pi}$   
 $\text{Freq} = 1/\text{Pi}$   
 $E = 1.5.7^7$   
 $t = 678$   
 $P = 135$   
 $P/t = E \quad t = 945$   
 $t = KE = 1/2 M v^2$   
 $4 = 1/2(4) v^2$   
 $V^2 = 2$   
 $V = \text{sqrt}2$   
 $125 + 125 = 250 = \text{Period } T = 1/t$   
 $t = 4$  (Touch)  
 $V = d/t$   
 $\text{Sqrt}2 = d/4$   
 $4 \text{ sqrt}2 = d$   
 $d = 565$   
 $P = 176.77 = 180 \text{ deg.} = \text{Pi rads}$   
 $t = KE = 1/2 \rho v^2$   
 $= 1/2(4/\text{Pi})91/\text{sqrt}2^2$

The Senses

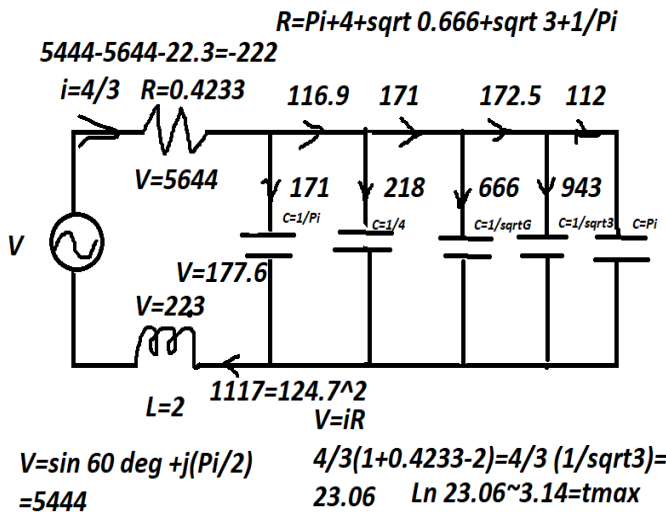
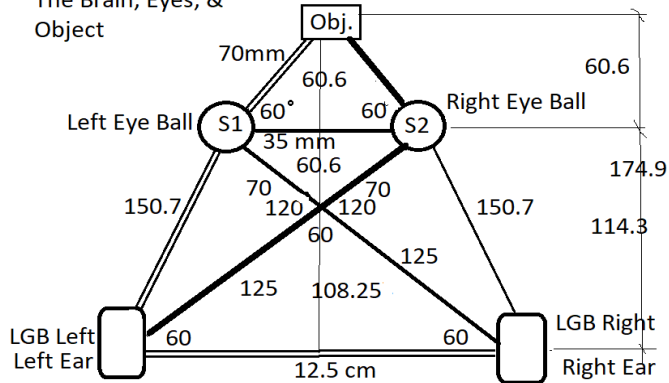


Figure 2: Electrical Circuit of the Mind and Senses.

$t=1/\pi=freq. (Sight)$

The Brain, Eyes, & Object

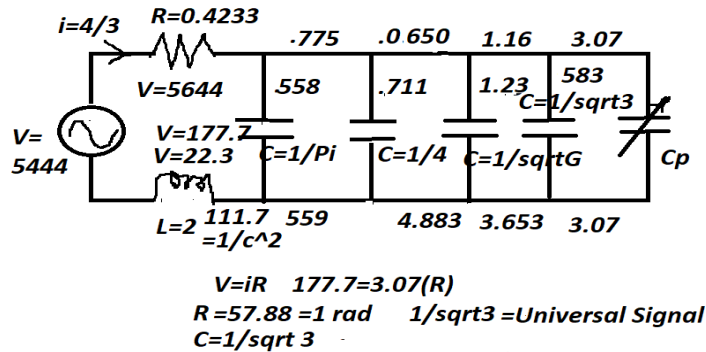


**Figure 4:** Eyeballs; Object and the Lateral Geniculate Body (L & R) showing distance signals must travel for consciousness.

$t=KE=1/2 Mv^2$   
 $=1/2(4)(1/\sqrt{2})^2$   
 $=2.000$   
 $d1=70+70+125=265$  (Heavy Black Line in Figure 2)  
 $d2=70+150.7=220$  (Left eye to LGB Left)  
 $d3=220+125=345$  (path of double line in Figure 2.)  
 $V1=d/t=265/2000=132.5$   
 $V2=d/t=220/2000=110$   
 $V3=345/200=163.5$   
 $V1=132.5 \times t=132.5 (220)=352/5 \sim 353$  Cf. 358 (350-400msec.)

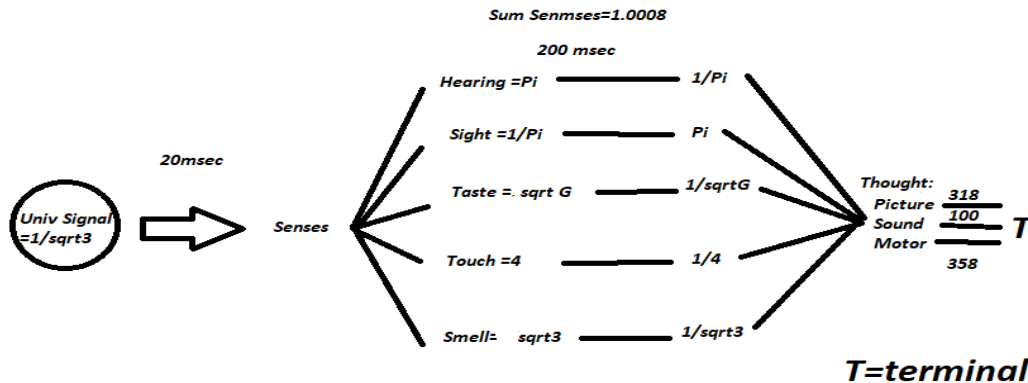
Sight: Longest path from Left Eye to Right LGB.

$V3=165.5$   
 $t=400 \text{ msec}$   
 $V=d/t$   
 $165.5=d/400$   
 $d=66.00$   
 $1/d=151.6$   
**Hearing:**  
 $D4=60/6+114.3$   
 $=174.9 \sim 175$   
 $V=d/t$   
 $343 \text{ m/sec}=174.9/ts$   
 $ts=196.1$  Cf 200  
 $d5=\text{Path of the eyes}=70+150.7=220$   
 $v=d/t$   
 $2.9979=220/t E$   
 $tE=73.4$   
 $\Delta t=ts-tE=196.1-73.4=122.7 \sim 1/815$



**Figure 5:** Electrical circuit showing Brain plasticity R=1

$=1/\sqrt{G} = \text{Taste}$   
 $E=(1-\ln t)^7$   
 $= (1-\ln 1227)^7$   
 $=201.5 \sim 200$   
 $=L$   
 $70/2+70/2+125/2+125/2$  (2 is the length of a 30-60-90 triangle)  
 $=195$   
 $v=d/t$   
 $0.113=195/t$   
 $t=172.5 \sim \sqrt{3}$  (Smell)



**Figure 6:** Reaction times

Table 1	Reaction times			
Number	Function	Time (msec)	Cf.	Page
1	Slow fingertip to brain	500	500	103
2	Speaking a syllable	200	200	“
3	Start-stop Stopwatch	175	175	“
4	Fast Fingertip to brain	20	N/A	“
5	Basic cycle of one neuron	10	11.34	104
6	Delay in consciousness	200	200	122
7	Speech intention + to completion	100+200=300	318	153
8	Onset of stimulation to declared conscious experience	500	500	155
9	First burst of activity after stimulation of sense organ	10-20	20	157
10	Conscious decision lag behind readiness	350-400	370	163
11	Conscious intention to act	300-500	400	164

Dennett [1] writes: “Cartesian materialism is the view that there is one critical finish line or boundary somewhere in the brain.” Pg 107 That boundary line is given by the equation:  $E=(1-Ln t)^7$ . It goes to zero after 7 cycles, thus the power of 7. The location in the brain where the Cartesian theatre resides in in the LGB (Lateral Geniculate Body. Both sight and hearing pass this part of the brain. There is one in the left hemisphere and one in the right. The left watches the right; and the right watches the left. *I Think, therefore I am!* It is the self reflection that gives rise to consciousness which is like a movie picture with sights and sounds.

$SE=SE'$

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

$t=3;-2$

$=c; L$

$E=(1-Ln t)^7$

$= (1-Ln 3)^7$

$= 0.09868^7$

$= 0.00000907$

$t=1/E=1/908=110.027\sim 11.03$

$E=(1-Ln 0.0113)^7$

$= (1-4.482)^7$

$e^{1.5}=4.482=M =Ln t t=1.50=d$

$SE=E-M$

Distance =time.

$SE'=E=5$

$SE'=2t-1$

$2(5/5)-1$

$=0.6$

$t=116.6=M$

$E=(1-Lnm 1/6)^7$

$=132.2$

$T=KE=1/2 Mv^2$

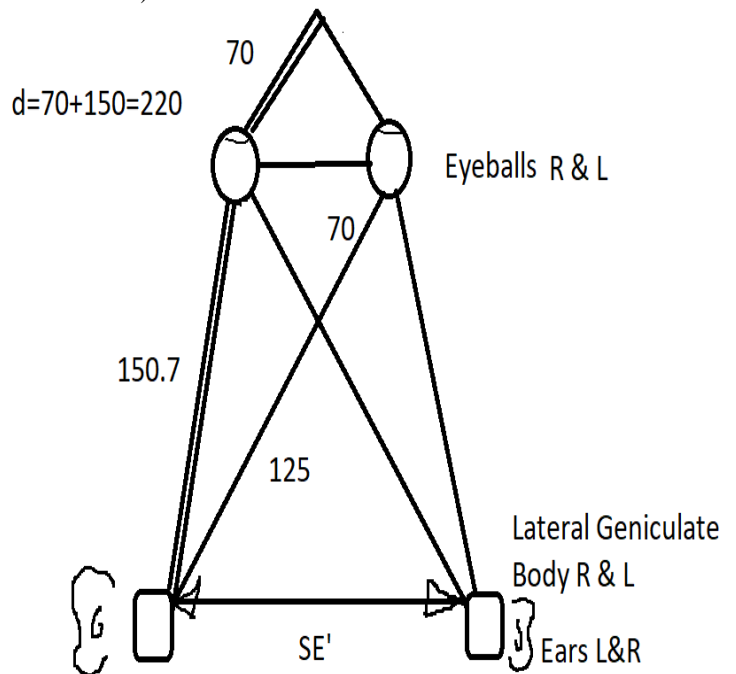
$=1/2(116.6)(1/2)$

$=29.15$

$=1/343=1/vs$

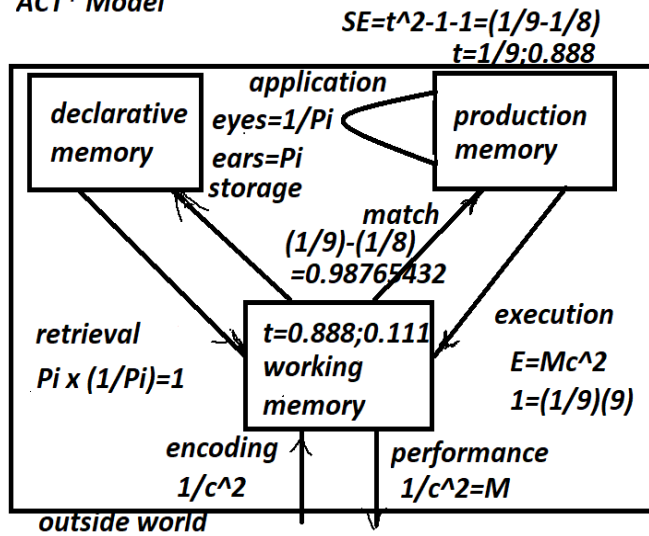
$Mind=(1-vs/vL)$

$=1-343/2.9979)=1/696\sim 1/7$



**Figure 7: Consciousness SE=SE'**

**ACT\* Model**



**Figure 8:** ACT\* Model of the Mind showing input and output ( $1/c^2$ ); working memory; and Self-reflection (application upper right)

Basic Cycle of one neuron  $t=10$  msec. (Table 1)

$E=(1-\text{Ln}(0.010))^7$

$= (1+46.05)^7$

$= 1.738 = \text{sqrt}3$  (Smell) and the Universal Signal.

$P=E \times t$

$= V + x \times t$

$= 105.7(11.027)$

$= 116.6 = M$

The human mind has evolved to coincide with the physical universe.

**Conclusion**

We see that the human mind has a *Cartesian theatre* and it resides in the LGB structure in each hemisphere.

**References**

1. Dennett, DC. *Consciousness Explained*. Back Bay Books. NY. 1991.
2. Diamond, M., *the Human Brain Coloring Book*. Collins USA 1985.