

Anxiety Disorders

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Abstract. In this paper, we show how the chemistry of stress build up in the body can lead to anxiety and other illnesses. Anxiety is at the heart of many other mental illnesses and disorders.

Key words: anxiety, OCD, schizophrenia, bipolar, PTSD, chronic fatigue, phobias, hypochondria, maslow's hierarchy, stress, cortisol, testosterone, sense, smell, taste.

Introduction

We have noticed that those with Obsessive-Compulsive and Anxiety Disorders do not have children, nor are they married (Carter, 2019: 12-18; Criscuolo et al., 2017: 145-149; Cusack, 2017a: 89-90;). None exercise. We theorize that it is caused by a lack of release of sexual tension and or a lack of physical exercise. Not having children may be partly the psychological cause too. In this brief paper, we consider the release of testosterone, present in both men and women that may lead to anxiety (Cusack, 2017b: 15-17; Cusack, 2017c: 001-002; Cusack, 2017d: 121-122). We will consider how anxiety plays a key role in a variety of mental health problems. Stress release is paramount in healing from anxiety.

Material and Methods

We will do a desktop analysis using AT Math and Astrotheology Physics to see how they apply to Anxiety Disorders and more broadly, to mental illness in general. It is assumed that the reader is familiar with AT Math and Astrotheology by now as laid out in previous papers (Cusack, 2018a: 11-12; Cusack, 2018b: 380-381; Diamond, 1985: 43-49).

The hormone involved in the sexual drive is testosterone. It has a molecular mass of 288.42 gm/mol.

Mass is equal to the ln function. It crosses the x axis $t=1$ and goes until $t=\pi$. This is AT Math.

$$\begin{aligned} M &= \ln t \\ 288.42 &= \ln t \\ t &= 1.816 \end{aligned}$$

Golden Mean Parabola:

The GMP is paramount in AT Math. It is the parabola that results in the equation $x=1/(x-1)$; where the fraction equals the multiple. When this is multiplied out, we get:

$$\begin{aligned} t^2 - t - 1 &= E \\ E &= 4818 \\ 1/t &= E = 207.5 \\ E &= 1366 - 207.5 = 115.9 \\ E^2 + E - 2 &= 502 = 1/2 = t \text{ min} \end{aligned}$$

From Astrotheology Physics, we have the familiar function equals the derivative:

This implies $SE=SE'$

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

$$E=5; t=3$$

Force is modelled by sine t ; Momentum is modeled by cosine. They are equal at $t=45$ degrees or $\pi/4$ rads . This is the solution to the knowing the position, velocity, and acceleration all at once.

$$\sin 45=\cos 45$$

In the Fig. 1 below, the sine curve represents stress causing anxiety and the cosine represents relaxation or sexual tension release.

This is the maximum point where $\sin +\cos =\sqrt{2}$. The green line is $(\sin +\cos)$

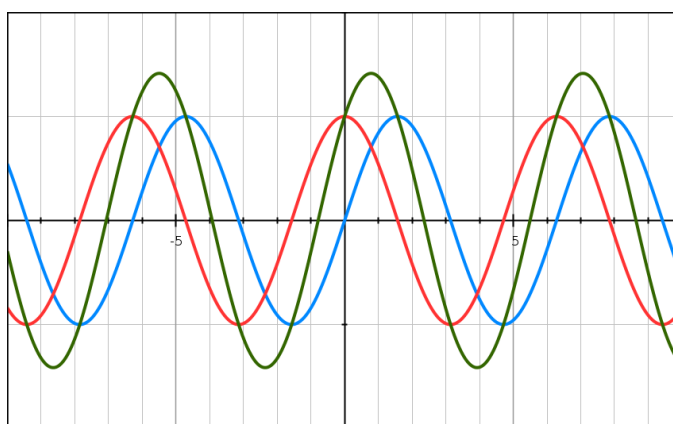


Fig. 1. Sin and cos; Sin +cos

Euler's Identity:

$$\sin^2 t +\cos^2 t=1$$

$$\sin^2(45) +\cos^2(45)=1$$

Universe meets mind equation:

As developed in a previous paper, the universe meets the mind is modelled by a linear equation.

$$Y=E; x=t$$

$$Y=0.0516t+0.948=1$$

$$1-0.948=0.0516t$$

$$t=1 \text{ (Fig. 2)}$$

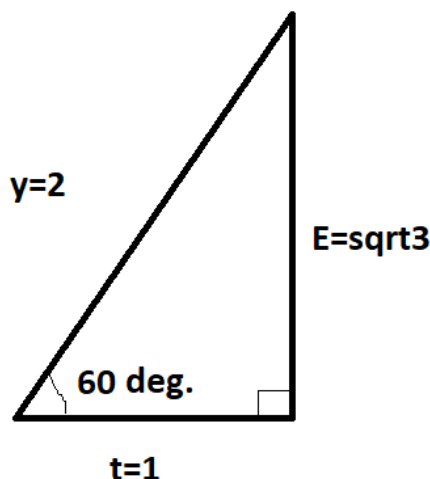


Fig. 2. 30-60-90 Triangle

The sin of 60 degrees is an important critical point in AT Math. So too is the 30-60-90 triangle.

Now, we move into the consciousness of the human mind. In previous papers, we've derived a formula for the energy involved in consciousness. Normally it is to the power 7; but for the hippocampus, it is to the power of 3.

$$E=(1-\ln t)^3$$

Note: This is to the power 3 instead of 7 for the Hippocampus which has only three layers of nerve cells- not 7.

$$(\sqrt{3})^{1/3}=(1-\ln t)$$

$$1.2=1-\ln t \text{ (olfactory receptor cells density}=12 \text{ M}/10\text{cm}^2=1.2 \text{ for humans)}$$

$$0.2=\ln t$$

$$t=e^{0.2}=7.389$$

$$\text{GMP: } 37.2$$

$$0.268=\text{SF}=\text{Superforce}$$

The limbic system, or the emotional brain, is deep in the centre of the brain and is more predated the development of the cortex. The sense of smell is hard wired into the limbic system. The limbic system is involved in the fight or flight response, mating, and finding food. The limbic system is privy to all the sensory information coming into the brain. It makes sense that the sense of smell is tied to the limbic system at sqrt3. This is when time=1, and y=2 (SE=SE').

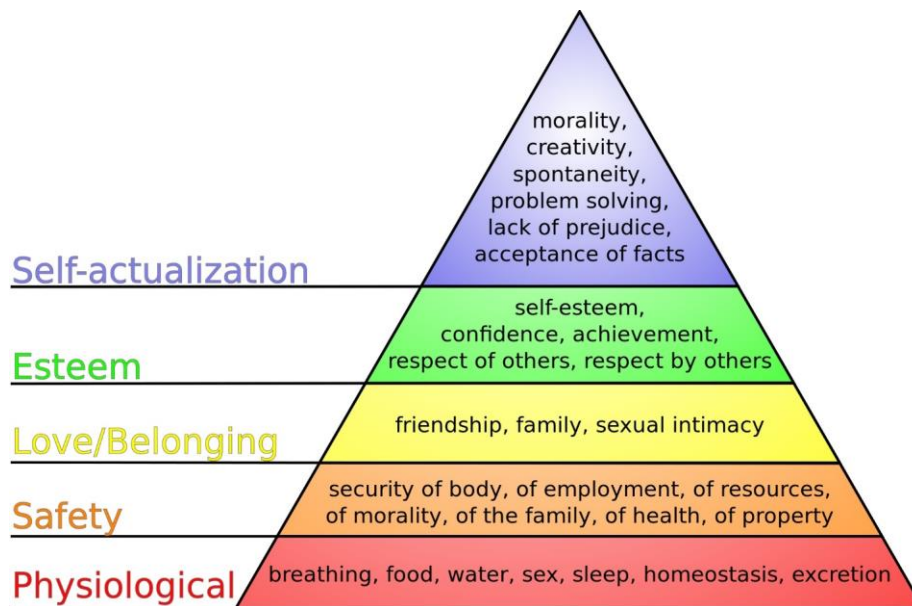


Fig. 3. Maslow's Hierarchy of Needs

The limbic system is involved with the bottom three of Maslow's Hierarchy of Needs -survival of the species (Fig. 3).

Sex is a basic need that often times goes unsatisfied leading to anxiety.

Chronic Fatigue Syndrome may be caused by an incessant response to stress. Perhaps it is related to Post Traumatic Stress Disorder. The stress leads to phobias and hypochondria. Therefore, the key is stress and relaxation, which are modelled by the sine and cosine curves.

Peter has anxiety, hypochondria, and phobias from unemployment, bullying and physical and mental injuries. John has Anxiety because of trouble with the law. Mary has Anxiety over bereavement. Geordie has OCS and anxiety because of bullying. Brian has OCD because he is a perfectionist. Ben has PTSD from witnessing a dead body. There is an exterior reason for their mental illnesses (Fig. 4).

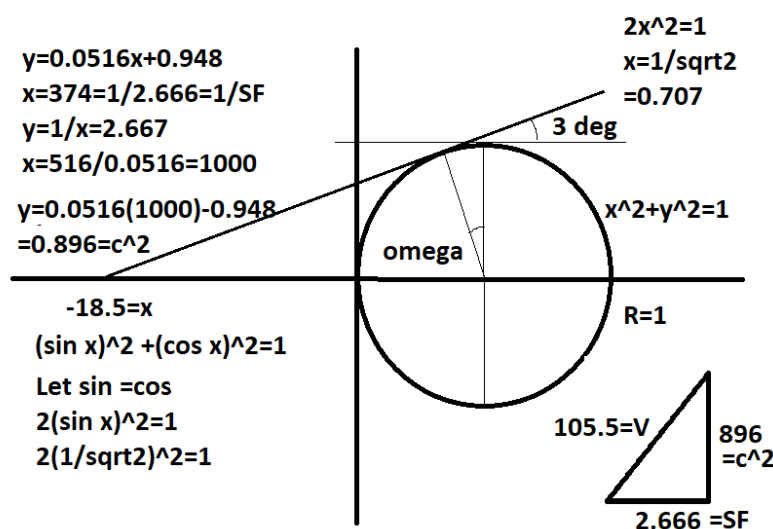


Fig. 4 Universe meets mind equation

$3^\circ=0.05235$ rads

$$0.05235/2\pi=0.083333=1/12 \text{ of a cycle}$$

$$\alpha=\omega^2R$$

$$=(1/12)(1)$$

$$=1/144=0.693\sim\text{Ln } 2$$

$$F=Ma$$

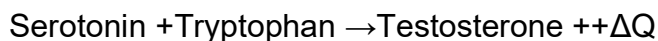
$$2.667=M(0.693)$$

$$M=384$$

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

$$384=\text{Ln } t$$

$$t=1468=1/681$$



$$176.21+204.23=288.47+\Delta Q$$

$$\Delta q=91.97\sim 92$$

$$92 \times 6.023=554$$

$$e^{0.554}=1.7228\sim\sqrt{3}$$

$$S=\Delta Q/T$$

$$=91.97/(273.15+37)=296.5\sim 297\sim c$$

$$91.97 \times (3.14159)=288.93\sim \text{Testosterone amu (Atomic Mass Units)}$$

Sine = cosine

Immunity and contagion are subject to the two-pole solution. We evoke AT Math to solve the problem.

Immunity = Contagion

$$\cos \theta = \sin \theta$$

$$Mv=1/t$$

$$\text{Ln } t(1/\sqrt{2})=1/t$$

$$(1/\sqrt{2})\text{Ln } t=1/t$$

$$(1/\sqrt{2})y=y'$$

$$\sqrt{2}y=y'$$

$$\int \sqrt{2}y = \int y$$

$$(\sqrt{2})y^2/2=y$$

$$1/\sqrt{2} \quad xy=1$$

$$y=\sqrt{2}$$

$$\sin \theta + \cos \theta$$

$$=\sin 45 + \cos 45 =$$

$$=(1/\sqrt{2})+(1/\sqrt{2})$$

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

$$E=\sqrt{2} = \text{max of sin + cos}$$

$E=\sqrt{2}$ is the combination of sine and cosine. This is where the function equals the derivative.

We have experience with a variety of mental illnesses. Some we have suffered myself; others in people we knew. Fig. 6 illustrates how they may be interrelated. At the heart of them all is stress.

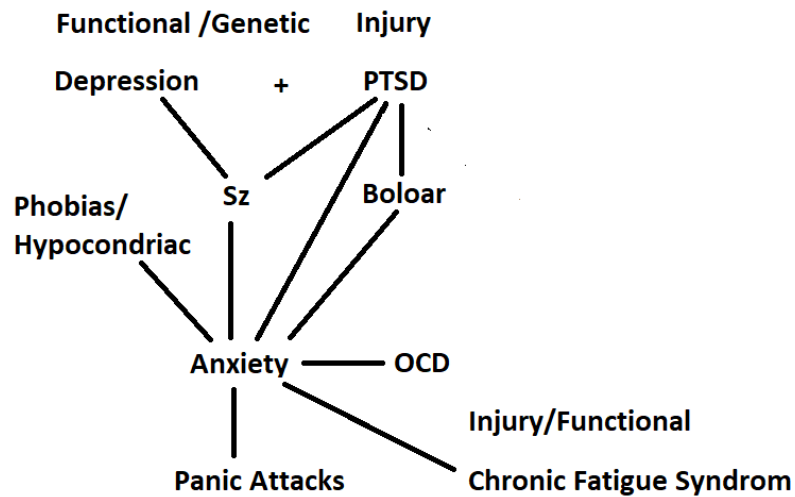
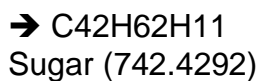
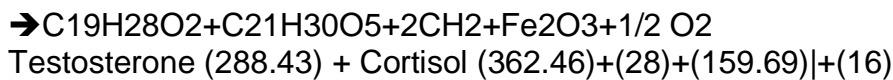
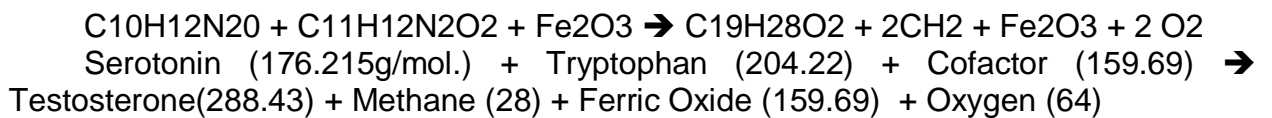


Fig. 6. Functional, Genetic and Injuries to the brain

Results

Our hypothesis is that a lack of sexual hormone release (testosterone) causes the stress hormone Cortisol to increase in the system. Of course, testosterone is made from tryptophan and serotonin. with a cofactor iron. We provide the chemical mole balance below. From Figure 6, we see that anxiety is at the heart of a series of mental disorders from depression, to schizophrenia, Bipolar, OCD , PTSD, Panic Attacks, CFS and phobias. A lack of exercise and sexual release could hypothetically lead to anxiety and a host of other mental issues.

The amygdala, located in the limbic system, is responsible for the sense of fear. Anxiety is the result of a fear. The amygdala is directly connected to the olfactory bulb. Thus, smell has a role to play in anxiety.



$$176.215 + 204.22 + 159.69 = 540.125$$

$$288.43 + 28 + 159.69 + 64 = 540.125$$

$$M = \ln t$$

$$540.125 = \ln t$$

$$t = -1.242$$

$$M = \ln t$$

$$742.4292 = \ln t$$

$$t = 21.01$$

$$1/t = -1.249 \sim -1.25 \Rightarrow GMP$$

Taste and smell are closely linked.
 There are 8 primary odors. $1/8 = -1.25 = E_{min}$
 There are 5 primary tastes. GMP $E=5$; $t=3$
 Taste + Smell energy = $5 + 1.25 = 62.5 \times 2 \text{ pairs} = 1.25$

Hearing:

$E = hu$
 $= 6.626 (20) = 132.5 \times 2 \text{ hemispheres} = 265.04 \times \pi = 0.8333 = 1/12$

Sight

$E = hu$
 $= 6.626 (380 \text{ nm}) = 251.78 \times 2 \text{ hemispheres} = 503.57 = (1/\pi) = 1.602$

Smell = -1.247

Taste = 1.249

Sight 1.602

Sound = 1/12

Touch = 4

$\Sigma = 0.818 \times \sqrt{3} = 14.177 \sim \sqrt{2} = E$

Taste = $\sqrt{G} = \sqrt{0.666} = 0.816 \times \sqrt{3} = \sqrt{2}$

Taste and smell

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

$t^2 - t - 1 = E/2 = \sqrt{2}/2 = 1/\sqrt{2} = 0.707$

The amygdala, located in the limbic system, is responsible for the sense of fear. Anxiety is the result of a fear. The amygdala is directly connected to the olfactory bulb. Thus, smell has a role to play in anxiety (Fig. 7).

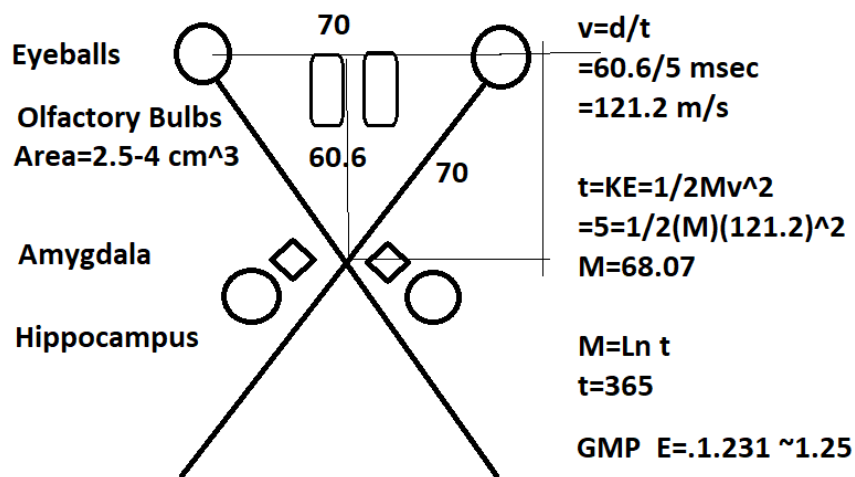


Fig. 7 Olfactory Bulb

Bottom Up - Senses

$V = iR$

$i = t^2$

$105 \text{ mV} = t^2(1)$

$$\begin{aligned}
 t &= 1024 \\
 E &= (1 - \ln t)^7 \\
 &= (1 - \ln 10.247)^7 \\
 &= 369.5 \\
 1/E &= t = 27067 \sim e^1 \\
 E &= e^{-1}
 \end{aligned}$$

Top Down – Memories

$$\begin{aligned}
 SE &= E \cdot M \\
 &= (-1/8) \cdot (1/9) = -1/72 \\
 E &= hu \\
 (-1/7.2) &= 6.626u \\
 u &= -47.7 \\
 1/u &= \text{Period } T = -209.6 \\
 t &= -47.7 \\
 E &= -(1 - \ln 47.7)^7 \\
 &= 1584.7 \sim \text{Moment} \\
 \text{Mom} &= F \times d \\
 F &= 8/3 = 2.666 \\
 Fd &= 2.667d = 0.1585 \\
 d &= 0.594 \sim 6 \\
 E &= 1/t = 1/s \text{ since } t = s \\
 E &= 159 \\
 t &= 1/159 = 6.28 = 1 \text{ cycle}
 \end{aligned}$$

$$\begin{aligned}
 \text{The freq of the human brain} &= 1/\pi \\
 2\pi \times 1/\pi &= 2 \\
 2^2 - 2 - 1 &= E = 1 \\
 E &= t = 1 \\
 y &= 0.0516x + 0.948 \\
 y' &= 0.0516 \\
 y &= y' \\
 0.0516 &= 0.0516x + .948 \\
 x &= 17.32 = 10 \sqrt{3} \alpha \sqrt{3} = t
 \end{aligned}$$

Conclusion

We see that AT Math can be a useful tool in analyzing mental disorders. Familiar constants drop out of the calculations based on the hypothesis presented here. Stress causes a host of mental illnesses and disorders. We see that a build up of stress, including sexual, leads to anxiety driven illnesses. Anxiety is at the heart of many other mental illnesses and disorders. A lack of exercise and sexual release may lead to anxiety driven disorders.

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