On The Soporodynamics Of Uncomprehending Bodies

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1 Introduction

Sleep is the regular state of natural unconsciousness observed in all mammals and birds. We shall remove the word 'natural' in our idealized analysis.The analysis of uncomprehending bodies results.

2 Abstract

We aim at identifying the soporific[1] response of the specimen during a lecture session, and identify reasons for the high soporific responses.We also aim to reduce these responses. Many restorative theories of sleep have been put forth but none attempts to extract the sleep behaviour in classrooms, possibly because of fear of expulsion. Gowda.D.H[2] came close, by simulating the responses in public meetings,but results are found to be drastically different here , for reasons unclear. L.Prasad Yadav[3] has recently reported phenominal studies on soporific responses in cows, due to the ample availability of specimen, but we shall stick to limited specimen here.

3 The specimen

The test specimen was an average IITian, the species we have greatest access to. Due to the cost of analysis, the specimen was carefully selected by randomized pick with the past attendance record as input, with the help of the *pinoccio* machine, using the Penguin[4] algorithm to select the specimen having the greatest probability to sit in a place for 50 minutes, and not walk out.

The following were ensured to make sure the species-specific characteristics were preserved:

1.) The specimen was fed accurately confirming to the United World Association of Tar-layer's Gum-boot seller's Rubber Grade III specification. This ensured that the soporific effect was from utter and complete incomprehension, and not from gastronomic satisfaction.

2.) The Hush-Hush method was adopted to secretly set a powerful firewall on the specimen's computer on the day before the class, for the specimen to have a good sleep, and uncorrupted mind.

3.) The specimen was kept away from all contact with members even remotely suspected to be belonging to the opposite sex. It was perceived that exposing the specimen to favorable attractions would be indirectly detrimental to the experiment as it would lead to a disturbed, and thus active, mindset.

4 Test conditions

The test conditions were selected carefully. A normal working day was chosen, the tougher part being choosing the class. The environment in which the test is conducted greatly influences the results. It was decided that the new concept of Holistic education, which involves teaching Engineering students Biology, Advanced Organic Chemistry, Freudian Mob Psychology, Analysis of Mongolian Sloth community interrelationships and other such fine and agreeable topics, was the best test environment to conduct the analysis. Accordingly, the biology class was selected, which was at a convenient time of the day, and it was made sure that the professor was strict enough that neither could the student sleep with his hands as support, nor did Theta (defined below) reach 90^0 for more than 5 seconds.(The converse leads to a trivial case of no interest, as mentioned later)

5 Test Variables

F- frequency of the lecturer' tone, A- net amplitude received by the ear, t - time,
D_S-Degree of soporificity(soporific response, -1 to 1), P_s – Percentage of time the lecturer has his back towards the class, Theta- Instantaneous angle between the specimen's head and the vertical.

The degree of soporificity is obtained by scaling down the values of d(theta)/dt from -1 to 1. An assumption is made here that the soporific response D_s depends only on d(theta)/dt.
We define a new variable depending on the frequency and amplitude called IEF(Incomprehension enhancement factor),

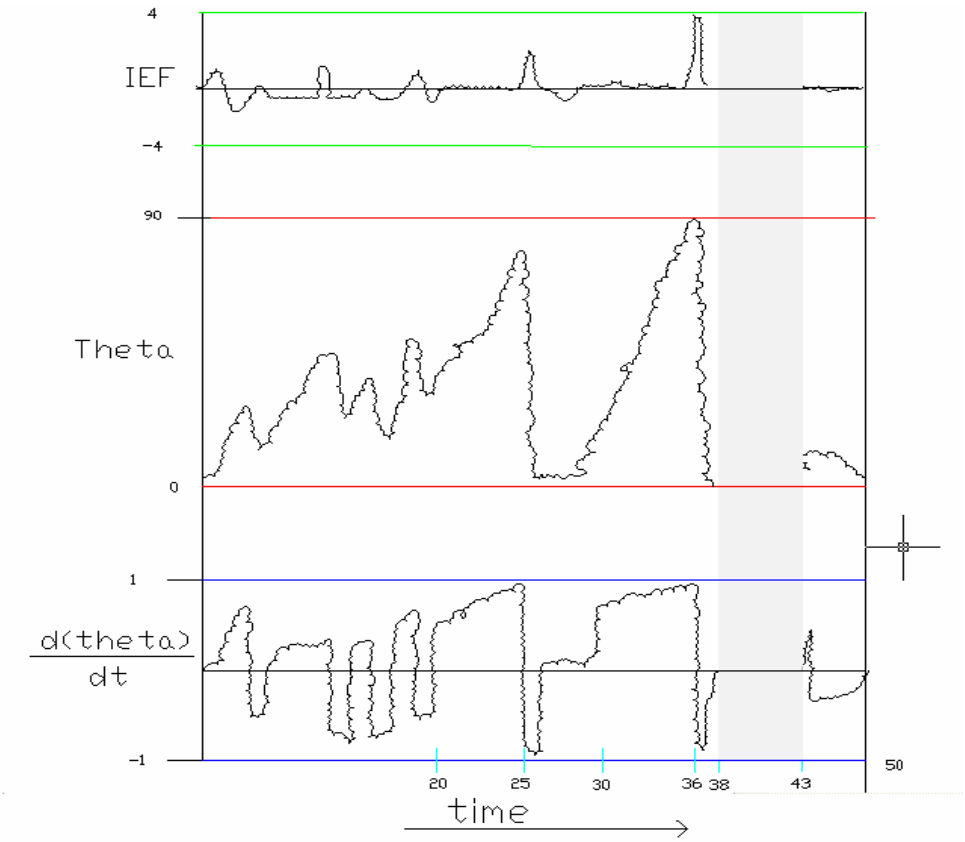
IEF = 0.5(Frequency/mean frequency + Amplitude/Mean amplitude).
This essentially gives us the deviation of the lecturer's tone from the average.

Boundary conditions - D_s =0 at t=0 and t=50; Theta < 90^0

6 Test

The test was conducted by setting up Ghanti labs' ultrasensitive cameras, 3 in number, at the back, side and top of the classroom, precariously placed, taking the corresponding projections, and corresponding Theta at a time t was found using the Infocrap[5] software, making use of the Laden[6] projection rules. Thus theta(t) was found, and d(theta)/dt, the time derivative was evaluated.

Corresponding graphs were plotted for the parameters theta, D_s , and IEF versus time.The test was repeated selecting different specimen and a different subject each time.



7 Test results

1) Some trivial cases are observed like Theta(t, F, A, P_c)=0, if the professor was from any of the demonizing departments, or Theta(t, F, A, P_c)=90 if the professor was not in the class .

2) Theta and d(theta)/dt do not follow a strict mathematical relationship with time. This is to be expected as there are a multitude of distractions involved which cannot easily be idealized. They resemble the Cuppa waves, though mathematically unproved.

3) The graph of D_s versus t indicates that the soporific response is the maximum, or D_s attains a high value close to 1 when IEF remains at a constant value for a finite amount of time. This inturn meant that the response is maximum when the lecturer is the most monotonous.

4) The main problems came from the discontinuities. The causes for them ranging from the occasional sneeze to the uncontrollable flatulence, or an objectionable foreign body passing by the class .
At t=25, a Teaching Assistant, self-appointed Imposer of Moral Justice, rudely woke up our specimen, and made it clear to him that he would not be given the opportunity to record his presence in the annals of Attendance for the august class. This caused great consternation in the specimen, and the cuppa waves became chaotic, reducing the soporific response. This we believe was due to visions of inflicting terrible physical harm upon that particular Imposer of Moral Justice, which were mentally stimulating, and thus anti-soporific.
The experiment also had a 'K.V-C.B null section' which is the shaded region in the graph(from t=38 to t=43) due to the low tolerance of the professor resulting a drastic discontinuity in F and A, and in the specimen having to go out forcibly and wash his face.

5) Keeping aside all other factors, $D_s = k^* P_s$,where k is the proportionality constant.

6) Based on the obtained average moduli D_s values, and interviewing the specimen after the hour, this soporification can be split into 3 categories:

A) D_s from 0 to 0.25 - Lullaby state. The specimen knows what's going on in the class, but is unable to respond because he is in a state of partial sleep.

B) D_s from 0.25 to 0.66 - K.V state. The specimen is in a state similar to hallucinated sleep,

cannot respond unless shaken up or a shout near his ear.

C) D_s from 0.66 to 0.99 – C.B state. The specimen is in wonderland. He will not be disturbed at any cost. Only a vigorous shake can perhaps wake him up.

8 Conclusions

Thus we realize that for potential engineers, the factor D_s should clearly be reduced as much as possible, and for this, changes that can be made are, professors with a non-zero dF/dt, ¸non zero dA/dt and P_s <20% only should be recruited, classrooms should be isolated, silence should be maintained in the class for avoiding discontinuities, and wash basins can be provided in the classrooms for avoiding the 'K.V-C.B null section'.

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