**TERM PAPER**

The CCC 501 aka Scientific Epistemology and Consciousness had been a fruitful experience. A plethora of topics were discussed and debated upon. The topics were diverse in nature., ranging from Physics, Chemistry and Biology to Language, Music and Philosophy. Often Science was seen from the viewpoint of a philosopher, which was the intriguing part of the discussions.

I believe, the aim of the course was to imbibe in the students, the versatility that is required from an intellectual. Some bamboozling facts and empirical phenomena presented in the classes have sure broadened the term *Consciousness*

This term paper contains three topics from amongst the many discussed in the group presentations.

**Artificial Intelligence**

The topic was introduced by the classic definition enunciated by Turing: “intelligence is something that can pass the Turing Test”.

Technically, the test determines that from among the two participants A and B , which one is Human and which one is Machine. Turing considered the question that “can machines think?”. The first breakthrough in the field of Artificial Intelligence was in 1966, when Joseph Weizenbaum devised a program which appeared to pass the Turing Test.The program was called ELIZA later a similar program named PARRY was developed .

Artificial intelligence , as the name suggests means intelligence exhibited by machines and software. AI is a wide field and has a variety of goals viz problem solving, reasoning, deduction , learning etc. The central engineering goal of AI is the design and synthesis of useful , intelligent artefacts. We actually want to build agents that act intelligently

In the present day scenario , AI has found application in many areas (courtesy ground breaking research and development) , few examples would be predictive modelling , Natural Language Processing , stock trading etc.

Some discussion was done regarding the very popular “Roboethics”- a short expression for ethics of robotics. It is often use in the sense that how humans implement artificial intelligence. But “Roboethics” as a science or philosophical topics has not made much impact culturally. It still is a part of popular fiction and cinema. Thus it should not be used as a parameter for constructing artificially intelligent beings and research

Artificial Intelligence and Consciousness

AI aims to mimic human consciousness and thinking. Machines are designed in such a way such that they stimulate human consciousness or cognitive processes correlated with consciousness. I particularly now believe human consciousness can be replicated by applying AI algorithms. The cloning currently may not be to a very high accuracy but it will definitely be highly accurate in the future. This precisely has been a trend in AI research. The things unimaginable now become realistic in the future.

An interesting question which was raised in class was “Can AI stimulate consciousness?”

Artificial intelligence has progressed slower than what was expected of it. Yes it has solved the game of checkers but it is far from stimulating consciousness. Human brain is still too complex for the computer scientists to model exactly. Neural Networks (an integral part of AI) is an effort towards generating human thinking bots.

**Synesthesia**

Synesthesia is a rare neurological condition in which two or more senses entwine. One having synaesthesia can confuse people by saying sentences like – “ the letter A is brown” or “the number 8 is orange”.

Synesthesia can involve any number of senses . Most common ones being coloured letters and numbers. One can see letters and numbers in brilliant hues . Synesthesia has grudgingly come to be accepted by leading scientists as a an actual phenomenon with neurological basis. It generally is developed in the childhood , among the children who are first time introduced to abstract concepts.

Synesthesia and Consciousness

I do believe that synesthesia influences consciousness. Synesthete have a very different view of consciousness. They have weird senses surrounding them, green may cause pain while red can be very peaceful. Synesthesia could be used as a model problem for scientific study of consciousness. Synesthesia offers a very novel perspective on society and surroundings.

Having a different sense of environment does make one’s consciousness different from others. Synesthesia adds one more dimension/perception to our senses .We began to notice things in a different way

One particularly good question which was raised in class was “can synesthesia help an individual?”. Well actually yes . Artists have been known to express their synesthetic idea into art forms. Synesthesia is actually like a bonus sense, which someone would not like to lose. It facilitates some unique traits among individuals like reflexes related to counting and solving complex coloured matrices.

**Anosognosia**

This was the topic our Group Presented.

Anosognosia in ancient Greek means “without disease knowledge”. Person suffering from this disability is unaware of the presence of some other anomaly in his body. The term was coined by Joseph Babinski in 1914. It results from physiological damage to brain structure typically in the right pre-frontal and Parietal Lobes.

Anosognosia is a condition not a disease. It may result in a very helpless condition for the sufferer and even for the people around him. He may be having his whole left side paralysed but would vehemently deny having any such condition not because he is unwilling to accept the disease but is rather unable to register that . This might sometimes delay the diagnosis of a disease. There are various degrees of Anosognosia from being slightly unaware to being completely unaware.

One of the very important questions when talking about Anosognosia is “Denial vs. Anosognosia”. In denial a person is completely unwilling to understand that he is sick while is Anosognosia he is unable to register that. Thus denial and Anosognosia though directly affecting consciousness are two different things.

Anosognosia and Consciousness

Anosognosia inhibits one’s consciousness. He is no longer conscious of his body ailments what can be worse than that. Senses are stimulus to our consciousness. Anosognosia dampens those senses.

Analysing Anosognosia is a difficult task. Patients show different degree of consciousness/awareness in different domains (e.g. memory , reasoning and social awareness) Anosognosia, lack of awareness or loss of insight, is used interchangeably to describe the impaired judgment of Alzheimer’s subjects concerning their own cognition, mood, behaviour, or daily activities.

An interesting thread was created on Anosognosia “If someone is suffering from Anosognosia, would he be able to draw a map?”

The idea behind this thread was, a person suffering from Anosognosia having his left side paralysed, would he be able to make out the stimuli on his right and draw a map effectively.

Having no sense on one side of the physique does make a difference, a lot of uncoordinated stuff may arise. A person feels nothing on his right. A map requires a lot of precision and accuracy which a partially paralyzed person may lack.

**CONCLUSION**

The three topics that have been discussed above have a common impact on our consciousness. They in some way or the other impair it. For instance a synesthete has a bonus sense which helps him to associate different colours with perception. On the same lines a person having Anosognosia is not completely aware of his bodily ailments. This can be taken as an example of impaired consciousness.

Another common trait which I noticed was relating the cause of these situations.

Both Synesthesia and Anosognosia can result from an external agent like injury to the brain. AI bot is a by-product of research which is again an intervention from outside sources.

To conclude the term paper I would say that these anomalous conditions help in developing a better understanding of the term consciousness. We get to appreciate our own understanding of the surroundings and environment and at the same time we are in awe with what a person can achieve with his heightened consciousness. For instance an autistic savant like Jedediah Buxton or a synesthete like Jimi Hendrix are epitomes of enhanced consciousness