Stratification was inevitable with the development of society. This stratification was initially implemented through mutual decision of the community. Later on this privilege was taken over by more intelligent and powerful groups of the society.

Science and religion are two powerful instrument of social growth. In ultimate analysis both has to depend upon an imaginative situation to explain their existence. Matters ultimately end in a wave and particles created by the wave or vice versa.

'***Dharma***' albeit religion ultimately have to depend upon an imaginary soul or *Atma*. This is a form to deny the reality of death. For ultimate submission one has to take recourse of a power. One may call it Nature or God; whichever serves their purpose.

One has to conclude after deep introspection that Science and Dharma; and RELIGION are complimentary semantics of the Society. Their final goal is same.

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Light Signal on the head of a mouse: New Area of Research

The still young field of research on optogenetic waits for astonishing results. So called switch controlled protein would be built up in the nerve cells. These act upon light impulse and change the attitude, food instinct and the sleep of the animals. Now the researchers hope to discover therapies for trauma experiences, epilepsy or depression of human being.

Neuroscientists can fulfil the dream of many psychotherapists. They can relieve the mouse continuously of the bad memories. The researchers of Japan and USA converted negative experiences to positivity through the light impulse. To this they have taken over the distinctive nerve cells in the brain of the animal. The mice immediately change their attitude. They search for the place suddenly at which they had received electric shocks but avoided the part of the cage in which they could enjoy with their female counterparts beforehand.

The results of the Japanese Rikeninstitute and the Massachusetts Institute of Technology in the USA made a further progress on the way to understanding of mouse brain. The researchers worldwide work on that. They influence the attitude of the animals through directed switch on and off on brain cells with light. This makes the mice do unusual things. They plunge into high risks because they do not have any more fear. They develop a pronounced search attitude. The researchers influenced to this the aggression attitude of the animals, the food instinct, the sleep and also social behaviour.

This promising field of research area is termed optogenetic. It uses new type of circuit breaker controlled protein in the nerve cells which act upon the light of the surrounding. The method for this artificial strike has been established for many years. With the help of a virus which transmits cold related diseases, the researchers introduce a gene in the nerve cells which retains the code for the switch controlled protein. The cell begins with that the production and adds the protein in cell wall.

With the light of a definite colour the switch then opens an ion channel through which the loaded particles flow: that solves the electrical impulse with which the neurons understand in the brain. The neuroscientists therefore are able to influence the activities of the nerve cells. The switch controlled protein is very sensitive. For their activation the light reaches to penetrate in the head through the scalp of a shaved mouse. The results from the animal investigation awaken the fantasy for the new therapy with the human beings. Light could do away with traumatic memory, prevent epilepsy or cure depression.

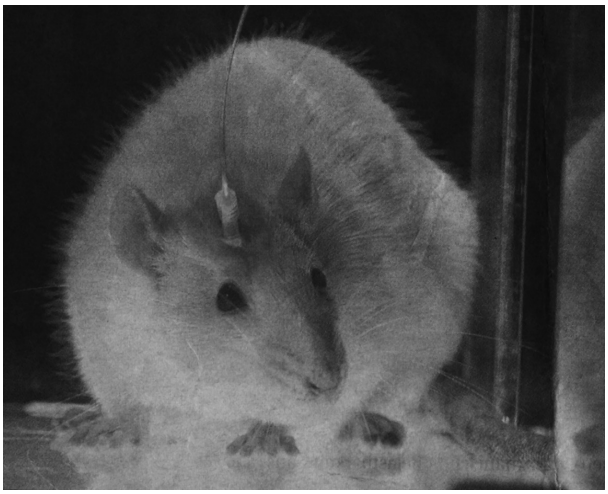
It is not the intention of the researcher to manipulate the human thought. Peter Hegemann of the Humboldt University, Berlin visions a light therapy in distant future. The research work is still at the beginning opines the biophysicist.

It goes around the basic research with mouse brain which is possessed with 75 million nerve cells, only 1% of the neurons of a human being and in spite of that it is a great puzzle. The nematode has only 302 brain cells and we have not even then understood how these work.

With zebra fish the scientist at the Max Planck Institute could identify a group of 15 nerve cells with optogenetic which direct the movement of the tailfins. The researchers investigate to solve an old question of neurobiology: is the brain built up on modular basis or works decentralized. In modular system every region has a definite assignment. In the decentralized variant the brain would function as a network and the nerve cells would be bound in differing processes.

Hegemann is not a neuroscientist in spite of that one may designate him as one of the fathers of new research area. That was at the end of the year 1990s not to turn one's eyes from. Hegemann investigated at that time green algae for which none was rightly interested. With that he discovered Canal Rhodopsine, a distinct protein which opens the light controlled ion canals. Hegemann clarified the potential of molecules, investigated the genetic code for its production found out the structure and got its behaviour simulated with computer.

Every step required more researches on the plan. As in 2005 the US neurologist Kerl Deisseroth for the first time passed the canal-Rhodopsine through in the nerve cells and with light those are acted upon and the breakthrough was done. Since then optogenetic has acquired many facets. The researchers have completed the code of the switch key for a further key. He treats that only definite type of brain cells are built up by the light switch. Others ignore that. So several research groups were successful to address definitely those nerve cells which produce lucky hormones. When the researchers switch on the light, the mice experience good feeling. Therefore the brain gets precisely simulated rather than through other methods.



- Light circuit breaker makes the mouse fertile
- The scientists of Bonn research centre Caesar now optogenetically control the movement of the sperms of the mouse. With that they can directly take hold of the fertility of these mice.
- The researchers passed through a light activated enzyme for the synthesis of carrier materials in mouse sperms in which enzymes from nature are deficient. The sperm cells are therefore immovable as a consequence the mice are unfertile.
- But after simulation with blue light the sperms produce the carrier materials. They begin to swim and can rather fertilize the egg cells.
- The Caesar researchers together with the biophysicists of the Humboldt University, Berlin, Peter Hegemann succeeded in controlling the fertilization through optogenetic.

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