

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/331620267>

The Multiple Ways of Constructing the Overmind

Article in *Indian Journal of Public Health Research and Development* · February 2019

DOI: 10.5958/0976-5506.2019.00293.6

CITATIONS

0

READS

45

6 authors, including:



Sugumar S N
Vels University

38 PUBLICATIONS 1 CITATION

[SEE PROFILE](#)



Dr. Chandrachud Sivaramakrishanan
VELS INSTITUTE OF SCIENCE TECHNOLOGY AND ADVANCED STUDIES

88 PUBLICATIONS 32 CITATIONS

[SEE PROFILE](#)



Telu Suvarna
Vels University

8 PUBLICATIONS 0 CITATIONS

[SEE PROFILE](#)

Some of the authors of this publication are also working on these related projects:



Foreign Direct Investment [View project](#)



Initiation of women entrepreneurship in seleted industries [View project](#)

The Multiple Ways of Constructing the Over-Mind

Rajarethinam Emmanuel¹, S.N. Sugumar², S. Chandra Chud³, Chithirai Rajan⁴,
Ramesh Kumar⁵, Telu Suvarna⁶

¹*Asst. Professor, Vels Institute of Science, Technology and Advanced Studies (VISTAS), Pallavaram, Chennai,*

²*Professor and HoD, Economics Department, VISTAS, ³Professor, VISTAS, ⁴Asst. Professor, VISTAS*

ABSTRACT

The priorities and focus given by our current neural set-up might help us to win the short-run; but in the context of the overall evolution, the self-centric focus looks absolutely meaningless. As per science and a genuine introspective analysis, the human system is made of nothing other than fundamental particles and the fundamental sensations. In the long run, therefore, one can only identify either with the interconnected cosmic processes or with the conscious energy that appears to direct it towards more valuable and sustainable structures. To control and direct our current levels of self-talk in accordance with the long-term objectives, one needs to develop the over-mind, after the module of many other control systems that have already developed in nature.

Keywords: Teleological Motive, Voluntary and involuntary Memory, Synapse, Plasticity of Brain

BACKGROUND

Despite the fast-track changes in the standards of life, we still need to walk up to the food, extend our hand to push it up to the mouth or to drive away the fly that might come on the way. There's nothing uniquely different in the manner in which the nervous and the muscular systems function in both animals and human beings for executing such actions.

That which sets us apart is probably something else. It's just the fact that human beings engage in the construction of statements even as they carry out these utterly mundane activities. Simplistic though it might sound, this facility in itself is a huge development over the previous brain structures. Language function may be seen as the additional layer built over the unconscious mental control of the body such as the reflex movements and the involuntary muscular excitements and inhibitions¹.

The conscious process was developed through attention and is regulated through the recruitment of dopamine in the pre-frontal cortex. However attention isn't entirely unique to the humans. The only tweak is that we have used the very same brain structure enabling us to pay attention as a convenient tool to build the semantic memory.

The art of language brought with it a whole lot of blessings and burdens as well. Undoubtedly, the type of self-talk we experience at present helps us to deal with much more complex situations than what the other animals can cope with. But it also fills us with endless anxiety and fear fueled by the prior expectations of the worst possible scenarios. Essentially, we are so absorbed in the meaningfulness made available through neural conditioning that we end up as puppets rather than thinkers.

By utilizing the same facility of attention modulated and supported by dopamine one can also elevate the current neural system to a still higher level of meaningfulness. The strategy may be seen as the reciprocal methodology. It is this human possibility and in some extra-ordinary individuals a skill already initiated that we would define as the over-mind.

Corresponding Author:

Rajarethinam Emmanuel,
Asst. Prof. of Economics, VISTAS, Pallavaram,
Chennai – 600119.

E-mail: rethinae@gmail.com, (M) 09445342547

Sri Aurobindo² introduced the term, to mark the penultimate stage of the possible growth of mind, prior to the arrival of the supermind. Over-mind³, for Aurobindo, is an intuitive way of finding the unity between the subject and the object. Laudable though it is, this way of description hardly delves into the fundamental elements that have built the macroscopic entities called the subject or the object, at least not in line with the findings of science, including cognitive neuroscience. And for this reason we wouldn't implicate the doctrine of Sri Aurobindo here. We would merely borrow the term for a different purpose.

Science has accomplished the immense task of finding the real connections in the stunning cosmic evolution even up to the point of the workings of the brain and has implicitly shown to each individual how they are nothing other than a speck of mechanistic and biological streak in the overall evolutionary forward march. It's high time, therefore, that we reassess the kind of inner talk spontaneously put forward by our neural conditioning. We are in need of re-working the human connectome, taking advantage of the fundamental plasticity of brain. One could call this the conscientious project of constructing the over-mind, which again implies nothing other than a possible new direction of attention, towards some specific objectives.

If attention is all that was required to build complex mental behavior and the language system, a renewed attention to reassess the entire module of self-talk is certainly possible. One can bring about an additional control system right in the midst of the outpouring of our mind similar to the growth of the master control genes and the DNA-binding proteins⁴. It is such deliberate attempt to build a new control system that we have defined as the over-mind.

MATERIALS AND METHOD

The Nobel laureate, Sir Charles Sherrington (1857-1952), would be our critical reference, for more than one reason. Sherrington was the first to show to the world that "muscle excitation was inversely proportional to the inhibition of an opposing group of muscles"⁵. The remarkable discovery was termed the 'reciprocal innervation'⁶. The objective of this article is also nearly similar, although on a purely conscious plane. As neuroscience has come up with all the evidence to show that our current level of self-talk is the excitation

of a carefully selected and continually reinforced neural pathways, guided especially by the self-interests of the individual, it just calls for invoking a renewed scheme of attention paid in terms of reciprocal application to fit the self-talk in the context of the overall workings of the entire cosmic system. The moment I recognize that whatever I considered as myself has fallen into one of the many types of the cosmic formulae – in this case, minute sensations building up a huge mental construct as it similarly occurs in billions and billions of other individuals – there's no ground on which the traditional 'self' can stand any longer, except, of course, the ground of the universe itself. It is this kind of reciprocal deflection of attention, turning an utterly limited concentration to its genuine extensions of all kinds, we would be dealing with here.

In addition, Sherrington has explored the concept of the teleological motive of Nature in The Gifford Lecture⁵ series. This is an exceptional work for no other Western scientist of the post-modern era has given us a bold and straightforward approach to the divine starting right from the system of Nature. However, the arguments given here might be still wanting, as eminently pointed out in the review given by William Ellis⁷.

The reason again is not far to seek. Sherrington couldn't move out of the dualistic conception of Descartes, expounded three centuries earlier. Rather than analytically splitting down reasoning and willing back to the minute sensations and the language system built on a specific group of sensations, Sherrington attributed such activities to the soul⁸. This would be unacceptable to any credible scientific methodology, for the current evidence clearly shows that the whole of nature including our mental judgments are made of atomic parts, such as electrons and protons in our neural system or the memory of sensations caused by them.

The argument of the Teleological Drive – traditionally known as the Divine – can only arise as an analogical one after the module of the mental skills experienced by us, although ours is just an evolutionary set-up. We can also raise the irresolvable question of how the totally varying types such as electrons and sensations finally managed to instruct and influence each other. How the whole lot of minute sensations convert into meaningful summary statements about the entire universe. The Divine motive that has gone ahead and achieved all its works stands out loud and clear, not

only from the fundamental intentional set-ups of nature but more especially from the unnatural links such as electric conduction and the meaningful association of sensations. And it comes out equally impressive when we reflect on the highly inexplicable Big Bang in which all known laws are expected to collapse. Sherrington, for one, hadn't gone into such acid test arguments.

The crucial data preserved through the historical events of world religions powerfully suggesting the presence of something more fundamental to the universe is an extra boost to any positive conclusion we would make in this direction. The reciprocal control of meaning that we wish to develop as the over-mind stands only to be enriched by clarifying the concept and the material available through religions as well.

THE REASSESSMENT OF SELF-TALK

Nature has consistently built one beautiful structure over the other. The manner it does so is a spell-binding story, with each step getting even more intriguing than the previous one – far more brilliant than any human machine that we have managed to build so far. The habitual workings of our mind is just the top-most achievement of nature until now. And it's seriously doubted if anything more complex and brilliant than this could be produced through any other lineage of cosmic evolution. But that doesn't imply the human mind can't be developed further. The reason why we couldn't take it to a higher level of operation until now has to do with our failure to see the continuity of all developments. It isn't a bad idea therefore to list out the significant milestones of cosmic evolution before describing how mind itself can be oriented towards yet another jump-start.

The rapid developments of the very first second of the universe have been theoretically described. From utter fluidity and the highest energy state possible, things got progressively cooler and more expansive, leaving the very first configurations called nuclei and atoms⁹. It took 240,000 years for hydrogen and traces of lithium to be formed and about 240 million years for the first generation of stars to set fire. The medium sized third generation stars such as the sun came into picture 9 billion years later and it took another one and a half billion years for the early forms of cells to appear.

If the self-replicating cell is something unique in all of cosmic configurations, its existence and operation is just unthinkable without the essential prior stages

through which the universe had expanded earlier. The planet earth that turned itself into the fitting abode for the arrival of the cell, is held in its rotational movement within the cosmic balance of galaxies and solar systems. It's obvious therefore that more complex realities have been continuously built within the bedrock of the previous arrangements. Nothing new can ever arise except in and through the laws prevailing earlier.

In the context of the evolution of life, the manner in which the central nervous system finally emerged provides an equally breath-taking story. From the nerve nets¹⁰ and ganglion serving specific functions of the body in lower species, the complex system of cerebellum, the hemi-spheres of cortical lobes and the deep brain parts such as thalamus, hypothalamus, hippocampus and amygdala were gradually put in place. The frontal lobes that enable the executive actions are the latest addendums to this magnificent structure.

While the diffuse nervous system and even the non-human central nervous system were meant only for the co-ordination of the body movements, the control of visceral fluids, detection of food, partner and alarm signals, human beings managed to carve out specific regions in cortices and other brain-parts to produce a new type of memory. It is thanks to the extra-ordinary invention of language and the parallel support system that developed in the brain due to its fundamental plasticity, human beings could go ahead with acquiring knowledge about the whole of universe and converting all of it in verbal notation.

The conscious realm appears to have developed based on the pain and rewards that surrounds the individual. The way to get over this highly concentrated drama is simply by learning all the neural set-ups that favor this specific module and by observing the kind of thoughts and emotions that spontaneously spring up at different moments of life. The closer one captures through the power of attention, the programmed modules of self-talk put forward by the neural system, the more prepared we would be to challenge it and to take it forward to a new scale. The age-old practice of imagining an exclusive entity called 'self' or attributing the self-talk to something as mysterious as the soul would begin to thin out under the power of science combined with an introspective analysis.

The Reciprocal Control

This is not to imply that the over-mind is something entirely new to be developed. The extent of inhibitory processes already at work in our pre-frontal cortices has enabled us to choose the most appropriate action, word and behavior, suppressing a whole lot of other possibilities. The over-mind in this sense is already at work in us. What we are suggesting here is that this role could be further refined towards some specific objectives.

It's only after perfecting hundreds of involuntary muscular controls, one particular section of the sensual data relating either to the sound or the picture of alphabets has catapulted us to a world-wide-web of thoughts, emotions and values. To enjoy the chillness of a bath, one may have to shut down the automatic thought processes that side-track us from the immediate pleasure. Such wisdom was rightly advocated in Buddhist traditions more than two millennia earlier. Attending to just one split second is a brilliant way of avoiding the mega story spun by the mind.

But we also have the freedom to reflect over the beauty of inter-connectedness starting all the way from the early stages of cosmic evolution. The moment we know that the self we had relied on is a construct of nature taking no more than bits and pieces of particles making up the DNA of our cells and bits and pieces of sensations including the language-sensations, the question of the teleological motive in all of universe is bound to haunt our attention.

The meaningfulness given by the language system supported by neurotransmitters and neuromodulators is defining no more than an utterly limited circle at present. Reflecting on the long chain of evolution that has cleverly brought about the construct of the individual self, you would not only feel one with all physical and chemical designs, it would be impossible thereafter to separate yourself from the essential undercurrents of Nature.

The Indian tradition reached out to these truths in its own inimitable style. As per Mandukya Upanishad¹¹, the wakeful and the dream states are caused by the various organs and limbs exposed to the world, while Atman is identified with that which lies beyond deep-sleep. Something keeps you alive even when you deep-sleep. It brings back to you the right kind of memories the moment you wake up. That ultimate base is Brahman,

as per the inspiring dialogue between Uddalaka and his son Svetaketu in Chandogya Upanishad¹².

The remarkable intuition of the pre-scientific era doesn't mean one can progress much by going to sleep and acting as if the identity with Brahman is already achieved. On the contrary, right in the wakeful state, if you start focusing on the essential fact that chemical designs are the base of each of your thought and that something else ought to have planned even the complex brain structures, there's no other go but to find yourself united with the cause of all causes. Again the Upanishadic wisdom is hard to come by without reflecting on the Buddhist ideal of looking at the utterly limited minute parts that build up the whole or without reflecting on the absolute certainty of mind over matter as demonstrated through Jesus of Nazareth or without wondering over the divine act of dismantling some of the misleading statements of Christianity through the Book of the Holy Quran.

CONCLUSION

The human system is dangling between two extremes. It can only split up into the basal elements from which it evolved or it can unite itself with the topmost conscious energy that appears to have guided from within one beautiful construct after the other. The priorities and focus given by our current neural set-up can only give us a façade of meaning and joy. It stands utterly ill-prepared for any of the long-term objectives or significance. To control and direct it as per the huge knowledge available through science, one needs to develop the over-mind, which is already at work in us through some of the religious teachings, social norms and behavior.

Ethical Clearance : COMPLETED

Source of Funding : Self

Conflict of Interest : Nil

REFERENCES

1. Kandel ER. In Search of Memory. New York: W.W. Norton & Company; 2006
2. Aurobindo. The Life Divine, New York: Greystone Press; 1949, American Edition
3. Sen I. Sri Aurobindo's Theory of Mind [Internet] (cited November 4, 2018) Philosophy East and

- West, 1952: Vol1, No.4. Available from <https://www.jstor.org/stable/1396996>
4. Gene Regulation and Expression [Internet] (cited November 4, 2018). Available from: <https://www.internationalconnectionsacademy.com/content/media/527934-442012-85944-AM-1958216437.pdf>
 5. Wikipedia [Internet] (cited November 4, 2018). Available from https://en.wikipedia.org/wiki/Charles_Scott_Sherrington
 6. Sherrington C. Man: On His Nature, The Gifford Lecture, Edinburgh, Cambridge University Press, 1940.
 7. Sherrington C. Man on His Nature [Internet] (cited November 5, 2018) The Gifford Lectures. Available from <https://www.giffordlectures.org/lectures/man-his-nature>
 8. Ellis W. Discussion: Man on his Nature by Sir Charles Sherrington, Philosophy, (1941), Vol.16, No.62, pp 198-207.
 9. Mastin L. Timeline of the Big Bang [Internet] (cited October 28, 2018) The Physics of the Universe. Available from https://www.physicsoftheuniverse.com/topics_bigbang_timeline.html
 10. Anatomy of Nervous System [Internet] (cited October 28, 2018) Britannica Encyclopedia, Available from <https://www.britannica.com/science/nervous-system/Diffuse-nervous-systems>
 11. Mandukya Upanishad [Internet] (cited November 5, 2018) Available from <https://mast.queensu.ca/~murty/ind6.pdf>
 12. Chondokya Upanishad [Internet] (cited November 6, 2018) Available from swamij.com/upanishad-chandogya.htm

