



BEHAVIORAL BASIS OF 1947 PARTITION: "NON-OBJECTIVE MIRROR NEURONS OF THE MIND"

Psychology

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KEYWORDS

The number of chambers in the heart is 4. So is the number of hands Lord Vishnu has. In his upper right hand, he has a continually rotating discus which symbolizes change and dynamism. Just like the main aim of the superior vena cava and inferior vena cava draining deoxygenated blood into the "right atrium" is to change it into oxygenated blood. In his lower right hand, Lord Vishnu holds a mace which changes disorder into order symbolizing the right ventricle which pumps deoxygenated blood into the pulmonary capillaries to change it into oxygenated blood. In his upper left hand Lord Vishnu holds a conch which symbolizes communication which is in congruence with the left atrium whose main aim is to allow blood to communicate with the tissue to supply oxygen to them. In his lower left hand is a lotus which means a pure reward because lotus is always a symbol of purity for being indifferent to the muddy water where it grows. This is similar to the left ventricle pumping completely pure and oxygenated blood to the aorta. And just like the heart maintains the rhythmicity of blood flow, Lord Vishnu is believed to maintain the rhythmic cycles of time by taking varied avatars (incarnations) in accordance with the need of time. This shows that people are somehow subconsciously aware of their internal physiology even if nobody has taught them about it because the choice of symbolism in Hindu mythology clearly reveals the natural tendency of the mind to first make a reference to one's own inherited physiology as a reflex to find ideologies that answer the unanswered questions. I hereby propose that the first choice of intangible cognitive processes of the mind is the symbolic behavioral messages of apparently objective physiological processes. I hereby propose that Mr. Haeckel's Biogenetic law or theory of recapitulation {ontogeny repeats phylogeny} {1} is not only true for the body but also for the mind {2}. In relatively recent past, one of the most extensively researched topics was that of the "mirror neurons" found in premotor cortex, supplementary motor area, primary somatosensory cortex and inferior parietal complex. {3, 4}. I put forth a possibility of certain mirror neurons inherited with the mind too as source of energy of the consciousness to grasp the moral sense encoded in our physiology and somehow transporting this information it to higher centers of the brain. These "non-objective mirror neurons" just mirror the morality inherited parallel to the physiology connecting anatomical nooks and corners of the body and just mirror some patterns of physiology that actually describe the most apt behavior in certain situations.

I came across this concept of "synergism in our stomach" {5} wherein by methods of neural and hormonal regulation, HCl, pepsinogen and mucus complement each other's functions. HCl is an acid with major function of destroying some bacteria that enter along with food. It also activates pepsinogen into pepsin. And mucus just protects the inner lining of stomach from corrosive actions of HCl and pepsin. This synergism is just like how Lord Shiva (the destroyer) cursed and beheaded the 4th head of Lord Brahma (the creator) to help him be a good creator. So Lord Shiva here is like HCl as he destroys the bad elements and modifies Brahma into a good creator. Just like pepsinogen creates pepsin out of it, Brahma (the creator) creates Brahmanda (the universe) out of him. And Lord Vishnu (the protector) is like mucus with protective functions to maintain the order of the world.

Very well known to us is the fact that the mammalian mitochondrial DNA encodes 13 proteins {6,7}. But is it also the reason why Lord Shiva has always been associated with the number 13 in the Indian civilization? {The famous Trayodashi fasting (Trayodash means 13 in Sanskrit) is always observed in the name of Lord Shiva}. Since the mitochondria is associated with energy production via oxidative phosphorylation, is it a coincidence that Shiva is associated with his wife Shakti (Shakti means energy in Sanskrit)? Is it because

mitochondria is involved in the mechanism of apoptosis {8} (programmed cell death) that Lord Shiva is worshipped as the supreme destroyer? This study does not in anyway propose that ancient Hindu civilization knew about mitochondria long back. This study rather proposes that mythological stories that were an output of human brain's ability to imagine did not coincidentally associate certain numbers and figures with each other. The physiology of the body somehow influences our choice and this is also the reason why religious figures could be so appealing to all of us till date. The main endeavor of this study is to analyze human choices or natural inclination to certain ideas because of some sort of strange physiological influence on the functioning of our mind as well as brain {9}.

Whenever there is Hypoglycemia, patient needs to be given dextrose sugar or any other appropriate sugar source immediately whereas Hyperglycemia may not have any immediate effects in general. {10} This is the reason why Hypoglycemia turns out to be a more urgent complication than Hyperglycemia. Our cardiac output is 300-400% more than necessary to accommodate extra oxygen supply during exercise and other oxygen-demanding activities. There is always a safety factor in neuromuscular junctions wherein amount of transmitter released per nerve impulse is greater than that required to trigger an action potential in the muscle fiber {11}. The lungs can never expire all the air within. They have a residual volume even after forceful expiration to prevent collapse of lungs. All this shows that natural physiology prefers to keep vital prerequisites in stock rather than absorbing them anew when these vitals are exhausted completely. Is this the reason why humans too have a tendency to keep resources in stock rather than buying them afresh when all resources get over?

About 70% of the total blood volume at rest is found as capacitance reservoir in the venous compartment {12}. This shows that body values oxygenation of deoxygenated blood above channelization of oxygenated blood for tissue perfusion. Physiology values drainage of deoxygenated blood over utilization of oxygenated blood. Also, in the ramp mechanism of respiration, duration of expiration (3 seconds) is more than duration of inspiration (2 seconds) {13}. This shows that the body is more concerned with exhaling undesirable gases and particulates than inhaling desirable gases. Is this the reason why we find draining out waste more important than buying new resources?

Due to the phenomenon of vasomotion, there is intermittent contraction of precapillary sphincters, metarterioles and sometimes even small arterioles in our body because of which blood flow in our body is not continuous, it is rather intermittent {8}. Is this also the reason that we find it more efficient to work with small breaks rather than laboring continuously for long hours until the completion of the task? Does our natural physiology in some way communicate with our intangible behavioral mechanisms?

CASE STUDY

All these observations amount to an explanation for the behavioral basis of partition that took place in 1947 between India and Pakistan in relation to evolution of sexual reproduction in terms of the physiology accompanying the process. The first organism believed to portray sexual reproduction was armoured placoderm expected to exist 385 million years ago {14}. They did not make face-to-face contact. They instead made lateral contact via some L-shaped clasper-like structures on males and small bony structures in females. This evolved into the sexual reproduction portrayed by humans who make contact between anterior surfaces for sexual reproduction. This should also be the case in evolution of international relationships. There should first be lateral contact between adjacent borderlines wherein the each nation first

realizes its own strengths and weaknesses and then comparing them with that of the other nation. After analysis should come face-to face conversations and negotiations for mutualism and synergy. This nature of evolution of correspondence is parallel to the evolution of physiology of sexual reproduction. This is how ontogeny repeats phylogeny even in terms of interpretation of this physiology to define the most effective forms of behavior under a given circumstance (international relations in this case). But in the case of partition of 1947, the reverse happened. Hindus and Muslims were forced to make face-to face contact directly by the triggers of colonial rule. Any background of lateral contact was avoided which prevented gradual evolution into stronger anterior contact. This was the reason why Hindu-Muslim tension grew stronger and partition happened. But when we ask most of the refugees of partition, they all have an identity crisis {15} because ontogeny did not repeat phylogeny. It rather deviated to a reverse course to determine an inappropriate violent behavior wherein instead of synergy, partition was the outcome. We know that male and female gametes are differentiated or specialized cells that can proliferate into cells of their own kind. On fertilization, they form zygote which is an undifferentiated or unspecialized cell which can proliferate into cells of all kinds {16}. Individually, two nations are specialized and have limited abilities. On development of common domains of international relations, the union of both the nations forms an unspecialized or undifferentiated complex which has all the abilities together and so there is no specialization. In case of partition of 1947, each nation, instead of gaining, lost a part of its abilities and identity thereby leading to widespread identity crisis.

Clinical and Psychological Applications

The study of these behavioral patterns could unravel the root causes of identity crisis in refugees of partition and therefore help us understand where their cognition or self-awareness lacks for deciding the most apt form of treatment to be rendered.

CONCLUSION

There is some intangible relation between our behavior, our physiology and our evolution from primordial beings via some interpreting agents that I prefer calling "non-objective mirror neurons of the mind". These entities as I propose may have a pivotal role in shaping our subjective interpretation of the ongoing circumstance and adapting to it with the best possible behavioral traits. This can be used to determine the fundamental basis of identity crisis amidst the refugees of 1947 partition.

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