EVOLUTIONARY QUIRKS, YAMA – NIYAMA & THE HUMAN BRAIN

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Many problems facing the average individual are not their own personal problems at all, but rather difficulties common to each and every member of the human race. In the long evolutionary unfoldment from the first form of life – the virus – 3.5 billion years ago, through the fishes (375 million years ago), the amphibians (345 million) the reptiles (300 million) right up to the mammals (60 million years) the accumulated conditioned responses of various life forms to environmental challenges have produced organisms which adapted and lived, or failed to adapt, and died. The Highest Truth, the Greatest Success of the reptilian and animal kingdoms, is Survival. The “fit” live. The unfit die!

Forty thousand (or 100 thousand) years ago, a great evolutionary event occurred. A mysterious force penetrated the dull, conditioned stimulus – response, pain – pleasure planes of existence – and Manas – or Consciousness – manifested on the earth plane. A New Creature – a Being with the power to think, to reason beyond its genetic inheritance – rose above animal – reptilian instincts. He / She was called “Man” or “Human” – literally a “Being” which possesses “Manas” or Consciousness. The force of that powerful evolutionary leap propelled the four – legged animal onto two legs and prompted the growth of a new brain structure – the neo-cortex and the pre-frontal lobes of the brain. Or, was it the other way around? Did the new brain structure develop, enabling the New Being to manifest Consciousness? Which came first? The chicken or the egg?

Whatever the cause – effect sequence, this New Creature rose out of the conditioning of millions of years of fish – amphibian – reptilian – mammalian experiences. All these ancient instincts are still present in his brain structure. These old instincts and conditioned responses enable his heart to beat automatically, his breath to move in and out of his lungs systematically 21,600 times per day. These old sections of his brain enable him to digest his food and eliminate it; to seek out a mate and procreate, to nurture his off-spring and defend his family; to play and frolic in sheer exuberance of the life force. These old remnants of a past long gone are still present in the New Being’s “Old Brain” – the brain stem, the limbic system, the reptilian and mammalian complexes. But it is here that a “snag” has developed – an “evolutionary lag” so to speak. These “old structures” prompt “ancient responses” to “modern challenges” often totally out of proportion to the current situation. The old mammalian emotions produce adrenalin surges which stimulate “flight – flight” responses to life and death challenges and appropriate physiological manifestations – the emptying of bowels, bladder, sweaty palms and feet, rapid breath and heart beats. This physiological change was useful when being pursued by a sabre-tooth tiger but becomes extremely useless and even harmful when it is triggered by the fact that one’s colleague at the office has gotten a promotion one expected for oneself or when someone else snatches a much – needed train reservation or “sex”, “organizational power struggles, and of course, politics. The need to “prove oneself the best,” the “top dog” which is so essential for success in any competitive activity can be traced right back to the “Old Brain” and the organism’s primordial instinct to be “The Most Fit” so that it will win the “Sexual Sweepstakes” and ensure that its genes will be passed to the next generation. The only difference between the behaviour of humans and animals in these matters is that the drives become more abstract, more subtle and various types of social restraints evolved by the culture keep them in check.

The New Being, “The Man”, the “Human” who walks upright on the earth, also now possesses consciousness, a beam of light in the dark world of instinctual reptilian – animal existence. That “Light” enables the “New Being” to remember the past, to learn new lessons above and beyond the walls of conditioned response, to forge new responses to old environmental challenges. “Manas” or
Consciousness can perceive beauty, can wonder at this mysterious world, can create tools and shape its own environment. This “New Being” can dominate and exploit lower life forms. Consciousness opened a huge window to the universe. Man could now look at the sky and see the stars and the great heavens. He could ponder his own fate and wonder at the mysteries of life and death. He now had the power of abstraction and was freed of the prison of sensory information alone.

This New Creature’s brain weighed 1.5 kilos. It contained all the evolutionary lessons of nearly 400 million years of unfolding, from the fishes to the mammals in its structure. That brain could be divided into two classifications – the “Old Brain” which contained in function and structure – the impulses and instincts of the reptilian and mammalian creatures - and “The New Brain” the Cerebral Cortex, the Pre-Frontal Lobes – which made it possible for consciousness – awareness – thinking – reasoning – analysis – discrimination – to manifest.

This “New Being” is literally “half animal – half man”, a creature struggling towards the Light, but chained to the past by the fetters of old primordial instincts and drives. This conflict between the “devil” and the “God” within is the saga of all evolutionary struggles, it is the “core story” of all the world’s great myths. In Hindu parlance, it is the eternal conflict between the demons – Asuras – Rakshasas – those who “hate the light” and the Devas, the Suras, the Daityas, the “lovers of light.” The Asuras wallow in the darkness of animal – reptilian desires, passions and instincts. The Suras revel in the light of consciousness and all the refinement which it assures – the arts, moral and ethical living, nobility of conduct, dignity of bearing, ideals, self-sacrifice and magnanimity. This struggle – mirrored in all great world religions, all great art, all the great human myths – is the struggle of every human to rise out of his primordial past and dwell in his true God Like Nature.

This inherent human problem – “the beast’s attempt to become the beauty” – is part of the Great Universal Scheme to unfold the individual soul – the Jiva – leading it to its ultimate destination – Union with the Universal – the Paramatma. This is the great dramatic saga of the transformation of the “individual personality” into the Universality.

This evolutionary saga of each Jiva is systematically analyzed in the Garuda Purana, said to be authored by Maharishi Veda Vyasa who reported that the teachings were taught to Rammaharshana, who in turn taught Kashyapa, who taught it to Garuda. This Purana states that the long evolutionary journey of the Jiva (individual soul) to union with Paramatma (Universal Soul) takes 84,00,000 incarnations. That is, each Jiva must experience 84,00,000 different physical forms before it achieves its final evolutionary state, Moksha, freedom from flesh – this final transcendence, Kaivalya, Yoga or Union of the Jiva with Paramatma.

According to the Garuda Purana, 21, 00,000 “births” must take place in each of four categories.
1. The Jiva must be born 21, 00,000 times in forms born of seeds (plants) – Udbhija.
2. The Jiva must be born 21, 00,000 times in forms born of sweat – Svedaja.
3. The Jiva must be born 21, 00,000 times in forms born from eggs – Andaja (birds, reptiles, fish)
4. The Jiva must be born 21, 00,000 times in forms born of womb (mammals) – Jarayuja

All these experiences in different kinds of living creatures produce more and more elaborate “brain structures”, as the brain accumulates forms and functions, becoming more subtle, more complex, more sophisticated with each succeeding incarnation, until finally, the physical structure is capable of manifesting Consciousness (Manas) in the human being.

But, when the Jiva reaches the level of “mankind”, the human manifestation, the Jiva must face several hurdles, several inherent problems, several obstacles. This is a kind of “evolutionary lag”, in which Consciousness is impeded in its upwards flow almost as though the Divine is testing the ability of the organism to withstand the shock of Cosmic Consciousness. The great Maharishi Patanjali in his Yoga Sutra has very succinctly dealt with these “evolutionary problems.” Patanjali has called these “hurdles” as “Kleshas”, “hindrances” or “obstacles” on the spiritual path and has listed them as five in number.

According to Maharishi Patanjali these Pancha Kleshas are:
1. Avidya – ignorance or the inability to perceive the real nature of things; submersion in the blindness of animal instincts and passions
2. Asmita – egoism, false identification with the perishable body, the sense of “I – ness,” “Me-ness” and “Mine – ness;” the sense of individuality which gives rise to the need to dominate and destroy others (eat or be eaten). 
3. Raga – attraction the animal’s drive to pursue pleasure;
4. Dwesha, the animal’s desire to avoid pain (aversion);
5. Abinivesha (clinging to life; the instinct for self preservation, the survival instinct).
How brilliantly the ancient sage 2,500 years ago analyzed the essential human conundrum, the quintessence of the human enigma, the essential “Knot of Human Bondage” – a creature torn between its bestial urges, and the calls of its Divine Nature. These “Kleshas” are sometimes translated most correctly as “Knots of the Heart.” One could even term them “Knots of the Soul – Spirit.” Patanjali considered the Kleshas as the root cause of all human suffering – conflict, problems and difficulties.

When the animal rises up onto two legs and the skull expands forwards, when the pre-frontal lobes develop and consciousness is able to find a suitable instrument through which to manifest, an entirely new element – enters into the evolutionary scheme of things. The New Creature can utilize this consciousness to accelerate its own evolution into a higher form of being. It is no longer a prisoner of past conditioning. It has broken free from the inexorable chain of cause – effect (Karma). It now has the potentiality for freedom. It can now make aware choices in its responses to environmental stimuli and challenges. It is no longer a Pasu (an animal or literally, one who is bound by a Pasa, a noose – the noose being the nervous system and brain totally conditioned by stimulus – response actions based on pleasure and pain). It is then that “Yoga” or “The Unitive Impulse” may be embraced and one may literally “lift oneself by one’s own boot straps” or in the words of Lord Krishna in the Bhagavad Gita, “Lift the self by the Self.”

The “New Creature” may now evolve itself consciously by cutting asunder, the “Knots of the Heart”, the Kleshas, as enumerated by Patanjali.

Avidya or Ignorance may be destroyed by conscious seeking for higher and higher levels of Truth. One must free oneself of blind animal passions, and consciously strive towards nobility of living. Asmita or Ego must be transcended by realizing that “the sense of I-ness is an illusion”, that in Reality, there is only Oneness. When personality fades away, Universality emerges. Raga – the lure of pleasure must be seen for the false mistress that it is and the horror of pain Dwesha must also be seen as an imposter, unworthy of fear. The human rises above these eternal dualities and heeds the cautionary advice of the Katha Upanishad – “Do not mistake the pleasant for the good.” Finally, one must “root out” the animal desire to “survive at all costs” by realizing that one is “not the body” but in actuality, one’s true being is the Universal Spirit which can never die.

How marvelously Patanjali has analyzed the root problems of the human condition.

Interestingly enough, a modern psychologist – philosopher, Ken Keyes in his book ROAD MAP TO LIFE LONG HAPPINESS has come to similar conclusions using different terms and taking another route.

Ken Keyes argues that in the long course of evolution, the “Old Brain” and the “New Brain” developed over vastly different periods of time. Thus, he postulates, there is an essential “lack of communication” between the “old” (reptilian - mammalian) brain and the “new” (conscious, neo-cortex) parts of the brain. This is because the “old brain” developed over the course of 60 to 375 million years and hence is “powerful”, well-set in its ways. Its habitual responses to environmental survival challenges are strong and automatic – “kill or be killed.” Whereas, the “New Brain” the human consciousness is only 40 to 100 thousand years old, and hence “the new boy on the block.” This lack of communication between the two brains has produced what Ken Keyes calls the “Five Quirks” which he postulates cause most of the problems one faces in life.

Ken Keyes analyses these quirks as follows.

1. The “Object Quirk” – the animal brain sees objects only in a very vague, hazy, general sense and not in a specific sense. It views objects and classifies them as to how they may fulfill its needs or in what way they may threaten its safety. Thus, it confuses different people and things. It sees everything generally as friend or foe, provider of food or as a sexual possibility. It does not need to see any object with specific characteristics. For example, it does not choose a mate on personal charm or elevated character but simply as a means to gratify sex drive. Other objects – other creatures – are important only as means to satisfy basic needs.

2. The Time Quirk – Keyes says the “Old Brain” has no time sense. It does not perceive past or future. It lives only in the present moment. It “eats or is eaten.” There is no sense of tomorrow or yesterday. Everything is immediate, now, urgent. Every experience is in “The Eternal Now.”

3. Unsafe Stranger Quirk – The “Old Brain” views all strangers with suspicion. The “unknown stranger” is a possible threat to survival or a competitor for resources. Any creature “different” from oneself and one’s species is a potential threat.

4. Unchanging Entity Quirk – To the “Old Brain” incapable of perceiving subtleties, everything remains the same – a tree is always a tree. It does not perceive the various changes, which all things pass through. It sees all things as “unchanging.” The perception of the subtleties of change are not necessary for survival.

5. Done with the past Quirk – The “Old Brain” pathetically clings to the past, and cannot let go of the past. It is the reflex of the animal brain to turn its back on all past achievements, and view itself as a novel creation, a new boy on the block. Patanjali recognizes this “Bootstraps Impulse” as a root cause of all human suffering.

How marvelously Patanjali and Ken Keyes has analyzed the root problems of the human condition.
5. **Adaptable Memory Quirk** – The animal does not need memory. The only memory necessary is what enables it to survive. Hence, what it remembers can be “adjusted” to whatever best helps it to survive. There is no objective truth. The only “Truth” to the animal brain is “survival of the fittest.”

What Keyes is trying to point out, is that the way in which animals and reptiles perceive the world is a much dimmer, less precise, less clear, survival – oriented perception totally geared to survival. This is much less than that available to the conscious mind. The “Old Brain” is fuelled by emotional responses. The basic motivating emotion is fear. The other important drives – sex, survival instinct, herd mentality, dominance, power struggles, nurturing and being nurtured – are all tied to the organism’s basic need to survive at all costs and fear of death or extinction.

For example, the “Object Quirk” manifests in human experience when a person in the past was abused by a red-haired woman and hence, in future, always has a dislike for red-haired women. The “Old Brain” cannot see the possibility that all red-haired women will not abuse it.

The **Time Quirk** manifests itself in human behaviour in this manner: when one experiences unhappiness, one feels one is “always unhappy.” This may cause one to perceive another person as “always angry”, even though the person may only be angry at that moment. Witness how many husband-wife or parent-child quarrels begin with the words… “You always do this…”

The “Unsafe Stranger Quirk” is evidenced in the suspicion that people feel when a foreigner enters their circle, or someone of a different religion a different race, a different culture etc comes into their social circle. There is an instinctual fear, even though that person may be perfectly harmless.

The “Unchanging Entity Quirk” manifests when people cannot see that those around them are constantly changing, that they are not what they were yesterday. A thief may have reformed himself, but others may always perceive him as “a thief.” The husband may have overcome his bad habit, but the wife cannot see him anew. The **Adjustable Memory Quirk** occurs when people deliberately or unconsciously “re-arrange” their memories to support or justify their emotions or desires. For example, a couple who wish to divorce may “adjust their memories’ to “remember” only the “bad times” or the “bad characteristics” of their partners.

Man’s close relations with the animal and reptilian kingdoms has found its way even into common expressions. Reptiles are cold blooded. They do not experience emotions. This is why few people like to have reptiles as pets. Reptiles sense threats from predators and act – fighting or fleeing. They sense a possible prey to dine upon, and attack.. But, they do not feel fear. They do not nurture their young. They re-act only on the level of the survival instinct according to the characteristic responses of their particular species. They do not possess individuality, but rather, exist in a generality. This is why it is often said of a person who has done something particularly cruel – “he / she is cold blooded” or “the murder was committed in cold blood” or “he / she is a snake in the grass.” The reptilian complex – associated with the brain stem, has its own efficiency. It regulates respiration; it digests food; it makes the heart beat. It enables us to react swiftly to real or imagined threats. But, it does not feel. The mammalian brain, younger by several hundred million years to the reptilian, has well developed emotions. Fear, love, hatred, jealousy, rage, are part of its workings. Desires motivate behaviour of mammals; desire to nurture or be nurtured; desire for sex; for power; for domination or submission; desire to protect one’s own territory; the herd instinct with all its emotional power plays are very much mammalian instincts. “Faithful as a dog”; “brave as a lion” (lion-hearted); cunning as a fox; strong as an elephant are common expressions of the character traits of various animals. The fierce protective maternal love of animals is well known, as is the male’s jealousy of anyone who dares encroach his sexual territory. Animals die in battles over territorial dominance. These are all emotions and desires which rage in the animal brain. At that level of evolution, all these drives are necessary to keep the genetic flow moving from one generation of the organism to the next. Survival tactics: Nature’s way of ensuring that “life goes on” by providing an autonomic motivating power.

Animals are prisoners of their genes. They are incarnated into a conditioned, stimulus – response programming and they have no choice, but to follow their instincts.

Man, the New Being, the first “Conscious Organism” has the power of choice. He / she may now act, and choose, rather than re-act. The human has the power to think, to recall past situations and compare them to the present reality. Man has the power of reason which frees him from the instinctive responses to challenge which is the mode of behaviour of the reptilian and mammalian kingdom. But the power of the unconscious emotions and instincts rising from the “Old Brain” in a kind of “evolutionary lag” sometimes overpowers the “Rational Brain” and causes “The New Being” to react in an “irrational manner.” Man as a social, conscious being has lifted himself from the jungle environment with its moment to moment dangers and constant life – and – death challenges. He no longer faces challenges to his very survival on a constant basis. His life is relatively secure on the physical level (barring wars and other unusual circumstance). Yet, his “Old Brain” is hard wired to react as though every threat (physical or psychological) is a life – and – death matter. Hence, even psychological challenges, or innocuous frictions trigger off “Old Brain” extreme responses, especially on the emotional level.
Many old desires and instincts still exist in a subtle level – sexual rivalry, power struggles, territorial conflicts – the only difference being that the “animal in us” now wears a coat and tie and stands on two legs.

These concepts may be elaborated. At present it is enough to simply point out that often in human relationships and in other situations, the old animal and reptilian autonomic responses and reactions cloud the “human” or conscious perception. The “Old Brain” reacts out of conditioning. It is heavily “loaded” with emotions which are part of the mammalian complex, and hence, “unconscious.” The “New Brain” has the power “to act” after considering the reality of the present situation, and using discrimination, rationality and deliberation to choose consciously its actions in any given circumstances.

This ‘power of choice” is concomitant to “consciousness.” The animal – reptile is not “free” to choose – it is bound by the noose (Pasa) of its conditioned stimulus – response mechanism. If it is threatened, it will flee or fight. These are the only options open to it.

This power to reflect, to see the situation in the present moment freed of all past conditioning, and then to consciously choose the appropriate response is the essence of Yama – Niyama, the Moral and Ethical System on which Ashtanga Yoga is based.

Maharishi Patanjali rightly puts Yama and Niyama as the first of eight steps on the ladder of conscious evolution of Ashtanga Yoga. Without perfection in this aspect of human life, he says, conscious evolution is not possible. He codifies Yama into five basic principles: Ahimsa – nonviolence; Asteya – non-stealing; Satya – Truthfulness; Brahmacharya – control of sexual urge. Aparigraha – non-greed. One can summarize the five Yamas in a succinct manner “Yama” means “restraint”, restraint of the animal – reptilian – “Old Brain instincts” at all levels, both gross and subtle.

Non-harmfulness, non-stealing, control of sexual urge, non-greed and seeing the “truth” or “Reality” without the obscuration of dim animal – based perception strikes at the core root of animal – reptilian instincts and roots them out of the human nature.

Niyama, the second stage of Ashtanga Yoga includes Saucha, cleanliness; Santhosha – Contentment; Tapas – austerities, discipline; Swadhyaya – Self-study Ishwara Pranidhana – Submission to the Cosmic Will or obedience to Cosmic Law. Niyama may be succinctly summarized as practices, which “cultivate the Higher Nature”, the humane nature, the Divine Nature. Niyama or observances Nurture consciousness.

Yama, thus, is restraint of the instincts and impulses rising from the “Old Brain.” Yama is the control of the unconsciousness. Niyama is reinforcing through various practices and observances the higher consciousness, the light, the divine characteristics which will hasten one’s evolution into more advanced states of being. Niyama is the cultivation of consciousness.

Swadhyaya – the Fourth Niyama – Self-Study – is also the process of examining the primordial conditioning of our “Old Brain” and recognizing these ancient impulses in their modern clothing – irrational fears of abandonment, fear of strangers, projection of bad experiences with a particular type of person (say, a blond boy friend) onto all blond men; generalizing all people into categories of whether they can satisfy particular needs (like sex, nurturing, power fulfillments) etc or not. Seeing the world and the people around us as “unchanging”, not viewing them as they actually are. So many emotional problems rise because of this evolutionary lag between the “Old Brain” and the “New Brain.”

Hence, the Yama and Niyama are “no-option Yoga.” We have no choice. If we want to grow, to evolve out of our reptilian – mammalian past into the truly human, Divine Nature, we must restrain the primordial instincts (Yama) and consciously reinforce our Divine Nature (awareness and consciousness) with the observances and practice of Niyama.

The Yama and Niyama are the necessary principles to be studied, reflected upon and adhered to as part of the evolutionary development of the human brain. The restraints and observance purify and refine the brain structure, making it a fit instrument, capable of “tuning into Cosmic Consciousness.” Eventually this “purified brain” will refine itself sufficiently to merge the individuality (Jiva) with the Universality (Paramatma) – the goal of Yoga (Union).

The long evolutionary meandering through the flesh of 8,400,000 incarnations can thus be shortened. One may rise out of the blind bestial passions in the darkness of unconscious ignorance to the radiant Divine Consciousness of a truly Enlightened Being. The long journey is shortened, and the goal, so long distant, becomes a living reality. The dewdrop slips into the shining sea! The “devil” is vanquished by the Deva. The beast becomes the beauty. The old, old story has a happy ending!