

CONCLUSION

The Jaina Doctrine of *Karma* and the Science of Genetics

The Jaina metaphysics propounds the Theory of six substances (*dravyas*) out of which the *jīva* i.e. soul and the 'pudgala' i.e. matter are the two dynamic entities of the real world. Both of these are capable of influencing each other, though they are possessed of opposite characteristics—consciousness and materiality. It is for this peculiar quality of both of them that they constitute the fundamental forces in producing the phenomena of the living organisms. The different types of material aggregates in the form of gross matter are responsible for the constitution of the gross body (*audārika śarīra*) and the subtle matter is responsible for the constitution of astral body (*taijasa śarīra*) and karmic body (*karma śarīra*) are used by the soul. The beginningless combination of soul and matter is responsible for the transmigration of the soul from one order of existence to the other. The whole process of spiritual practice, is essentially nothing but to bring about an end to the otherwise perennial combination of soul and matter, particularly, the karmic particles which are the fundamental cause of new bondage of matter with soul.

The Doctrine of karma is found propounded even in Philosophies other than Jainism. But the non-Jaina concept is almost altogether of different nature **because non of them conceives karma as constituting a very fine kind of matter aggregates.** It is only the Jaina philosophy which describes in a very elaborate way the nature and the function of karma on the basis of chemistry of bondage of karma. The Jaina Doctrine of karma is not a naive acceptance of the idea that "as one sows so one reaps". It is in fact, is a complicated, scientific and most logical explanation of the phenomena of the world of living organisms. It explains the forces of nature, time, universal laws, self exertion and the karma—all contributing relatively and cumulatively to the occurrence of an event. It makes a bold statement that neglecting any one of these five *samvāyas* would fail to explain properly any phenomena connecting with the living world.

Every person's life span is determined, according to the majority of Indian thinkers, by the cumulative potencies of karma performed in the previous birth. The instinctive behavior of the living being also owes its origin to the past life. It is believed that the whole behavioral mechanism is in accordance with the species in which a soul takes birth. Suppose a soul is born as a cat. In this case the predispositions and instincts store in the past by that soul in its previous life of a cat come up and start functioning and process continues till the end of that life. The intervening temporal or spatial gap between the past life and the present one is no obstacle, because the past experiences remain stored up in the karma *śarīra* and become effective at the proper time, even as the past impressions can give rise to the memory of a past event in the present.

We are basically made up of cells. Each cell has a nucleus and cytoplasm. Nucleus has chromosomes. Each chromosome has many genes. Genes are made up of DNA molecules. Our vital activities are governed by the genes. No two persons are similar in their genetic constitution. We work differently because of our difference in genetic constitution. The activities of genes are governed by the environment. It is the environment which modifies the expression of genes of the individual therefore if a "bad" individual is put up in "good" environment, his bad activities (*pāpa karma*) will be reduced to some extent and vice-versa. So the role of environment is equally important for the "*pāpa karma*" and "*punya karma*" activities of the individuals.

It is not known how karma *śarīra* with the help of the soul builds up the body and directs the various functions of the physical organs including the brain and the nervous system of a living being. **Answer of this question can be searched in genes that determine the life cycle and inheritance of all living beings.** It is the time to examine whether there are any similar things like karma researched by the modern science. The recent developments in the field of genetics may shed some light that the science is getting closer to something like karma. A human body has 100 trillion (100×10^{12}) cells. There are about 1,00,000 genes (35000 to 40000 active and remaining inactive) in one cell. Each cell has 23 pairs of chromosomes. Each chromosome has 1-2 thousand active genes. Genes can be seen only by very

sensitive microscope. DNA molecule is in the nucleus of every cell. It never leaves the nucleus of the cell. DNA is surrounded by organic molecules. DNA has four basic building blocks A, T, C and G (adenine, thymine, cytosine and guanine). **With these four basic blocks each DNA can produce 3 billion bases (genetic codes).** DNA can produce so many different proteins. RNA (ribonucleic acid) is a copy of DNA. RNA is an active knowledge. Shall we call DNA a silent intelligence? DNA invents new chemicals itself. There are spaces in between A, T, C and G when used in combinations. One cell if it is written in molecular words, it will fill up about thousand volumes each equal to the size of Webster's dictionary. **Are not we approaching micro subtleness when we try to understand about genes and DNA?** For example, there are 280 million molecules in each red cell. A molecule of hemoglobin has over 10,000 atoms. **Our system is so organized that the chemicals produced in a cell move from one point to another in an extremely organized way and their aim is very precise. Who is behind all these? One can conclude that a non molecule becomes a molecule—if so, how? Guru Vaśiṣṭha said, "In every atom, there are worlds in world".**

Genetic program decides characteristics of the body of every living being (*nāma karma*). So does *karma śarīra*. Genes link family history (*gotra karma*). So does *karma śarīra*. Non stop chemicals and proteins produced by DNA distort our knowledge (*jñānāvarṇīya karma*). Perception (*darśanāvarṇīya karma*) , emotions (*mohanīya karma*) and energy level (*antarāya karma*). So all does *karma śarīra*. Remember karma particles are much finer than the genes.

The modern science has a long way to go in finding many answers about genes :

- (a) How do genes operate?
- (b) Detailed functions of all tiny parts (genes)?
- (c) What cause aging process?
- (d) Do not know what most of the genetic codes means?
- (e) Can genetic codes be corrected?
- (f) If so, how can we correct? and more.

Scientists are searching answer of above questions by external experiments. This approach can be called primitive. **The carrier of genes i.e. our soul is the best laboratory.** They need to add elements like positive thinking, positive emotions, austerities, forgiveness, humility, straight forwardness, contenment etc.

Genetic science says "we are what because of our genes". They still don't know about most of genes. Our *Tīrthankaras* have said since very beginning that "we are what we are because of our karmas". We all have body. The body consists of systems, the systems consists of organs, the organs consists of tissues, the tissues consists of cells, the cells consists of genes. The genetic science knows this far. What is beyond genes? Is there an emptiness? Where are the thoughts (non-molecule) and reactions generated? The answer, the genetic science one day will find, will be that there is consciousness (soul) and karma *śārīra* behind genes.

Now the science of genetics has reached only upto genes. Gene is one of the component units of this gross *śārīra*, on the other hand, karma is one of the components of our subtle body. Inside this gross body (*sthūla śārīra*) lies astral body (*taijas śārīra*). The more subtle body is the karma body. It is the most subtle. At every limb of this most subtle body i.e. *karma śārīra*, is written the account of our self-exertion, our virtues and vices, our limitations, our specialities and our reactions. **The human body starts behaving according to the vibrations coming from *karma śārīra*. Ācārya Mahāprajña writes, "the genes not only bear the genetic traits of their parents, but these also represent the karmas performed by the individual.**

In the nucleus of cells and the existing chromosomes and the genes there on (which are formed by meeting of genetic codes) control the various activities of the organism (*jīva*) and on these genes and genetic codes, the karma waves exercise its definite control and regulate the life. **There is an interesting fact here, that all big or small subtle living organisms including plants i.e. all living beings of world contain the same genetic codes.** Thus right from *amibā* to man the life deciding fundamental genetic codes are the same. So the theory of rebirth gets force from this principle of

same genetic codes. Perhaps the karmic particles controlling the genetic codes regulate them for next birth/modes and give them such a serial system, that the soul migrate in search of further body, having left its own body. According to the karma reward, genetic codes and fate, soul reaches such a body to develop it. This can be interpreted that *karma śarīra* of that nature is formed which can easily fit in such created genetic codes which with the soul begins a new life in the new body. Again, having met with the genetic codes of a living being—a cow, a lion, an insect, a bird or any form of creature can be created.

So on the basis of the study of biology it appears that every control on the life of every creature, is exercised by the genes and the genetic codes, the fundamental units which exist in the nucleus of cells. According to Jaina *karma* theory for destiny and body, the deciding factor is the karma. **It is according to the karma the other body is built. Perhaps this karma body possibly controls the activities of the genes.** It is this karma body, which perhaps controls the genes and gives favourable and unfavourable results and decides the forth coming body. If this hypothesis is enlarged and ratified in a laboratory, it will come to the conclusion that man's thoughts and actions attract such atoms around him which further give us happy and tragic results. Telepathy and *Rekī* therapies have given such results. Through these therapies one's thoughts are conveyed to the other man and affect the other man to a great extent.

Research done in this direction will be able to prove this biological hypothesis, a complete theory and people will incline towards good conduct and healthy thoughts. This theory will help us to lead a happy, contented and balanced life and a new happy contented society will come into existence. The structure and function of body of every living being is according to their chromosomes. During life, at every stage, protein of one or other type is required and its formation is only done by some specialized gene. These genes are ever changing and this change is called "mutation", according to mutation, the changes happen in the characteristics of every living organisms.

In this way, all the activities of creature, its destinies, its forms, according to Jaina Doctrine of karma, are decided by karmic particles

(karma) and according to biology, are decided by genes. Every creature gets different type of body according to its bonded karmas. It is only due to the consequences of karmas, one is born with blind eyes, sans intellect, some remains dwarf (short of structure) and other is quite tall, some is born with fair and other with dark complexion, **and these all are done by genes.** Only due to the genes, the structure of the body of creature builds and some certain genes also decide the gender of a living being man, woman and eunuch. **The fate of every living organism is decided by genes only.**

***Karmas* are the cause and *genes* are their effect (fruits). *Karmas* direct, instruct and motivate genetic codes and genes to function and mutate accordingly.** The fundamental compounds of genetic codes—glucose, phosphates and alkalines finally having in alliance with nitrogen, carbon, hydrogen, oxygen etc. make the genetic codes. These elements pervade our environment. **This research work brings forth the possibilities that the invisible *pudgals* (karmic particles) i.e. the karma create the genes. The concept of karma resembles the concept of gene in all its functions.** Rather concept of karma goes one step ahead in the sense that apart from transporting the hereditary influences over the twenty four generations of both the parents, it also takes into account the effect of individual performances in the previous births. Probably further studies in the field of Genetic Engineering may open upon a new era in the field of transmigration of soul striving for ultimate state of liberation.

Jain karma Theory helps us understand the complexities of personality traits of human beings. Jaina approach for modifying human behaviour through the practice of right faith, right knowledge and right conduct is psychological in nature, compared to modern psychological approach through the application of principles of repression, inhibition, redirection and sublimation. Jaina approach is rather an attempt to overhaul the wholeness of an individual. It involves only psychological approach, a sort of non drug therapy. **According to Ācārya Mahāprajña karma is not in all, karma is not an autocratic dominior. The Theory of *Samkramaṇa*, is the theory of mutation of gene.** Jaina karma theory seems to be so sophisticated that it appears to have shown the seed of modern Genetic Engineering. Jaina principle of *Samkramaṇa* (ingression) propounds the

theory that karma *paramāṇu* can be modified through some variations by following the principle of Jaina karma theory. This clearly indicates towards the possibility of changes in the genes in modern times. Jaina karma Theory had thus paved the way for such transformations in human beings, the ideas of which have led to the development of modern Genetic Engineering.

In Jaina terminology *saṁvara* can function as negative eugenics and spiritual penances as positive eugenics. The ethical code of Jainas gives a proper place to eugenics and euphenics. Agency or genetic surgery was not known to the ancients. But meditation very well served the purpose of it. Suppression of the action of undesirable genes was achieved by means of *saṁvara* and the stimulation of the action of desirable genes was achieved by means of cultivation of the cordial virtues like *maitrī* (fellow feeling or friendship), *karuṇā* (compassion), *muditā* (sympathetic joy or freedom from envy) and *upekṣā* (equanimity or freedom from anger). The possibility of improvement of the behavioural pattern was considered feasible by the Jaina *Tīrthankaras* through the processes of the spiritual energy that could effect colossal change in the fruition of the past karmas.