

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

## About the Author

Dr. Sohan Raj Tater (b.1947) is presently Pro-Vice Chancellor of Singhania University, Pacheri Bari (Jhunjhunu), Rajasthan. Earlier, he served in Public Health Engineering Department, Government of Rajasthan, for 30 years, and took voluntary retirement from the post of Superintending Engineer. Also, he is Honourary Advisor to Jain Vishva Bharati University, Ladnun.

A well-known scholar of Jainism, Dr. Tater has to his credit a good number of research papers published in national and international journals of repute. Also, he has participated in various seminars and conferences in India and abroad.

# The Jaina Doctrine of Karma and the Science of Genetics

Dr. Sohan Raj Tater

Edited by  
Dr. Narayan Lal Kachhara

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DEDICATED

To

Ganadhipati Shri Tulsi

Motivational force behind

My devotion in Jain Philosophy and Jain Religion

and to

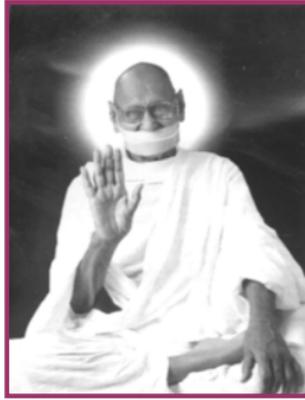
Acharya Shri Mahaprajna

Inspirational force behind my research work

in Jainism and Science.

# Blessing

|| Arham ||



Dr Sohan Raj Tater is a learned and right faithd votary. He has got an unending thirst of knowledge in his mind. The research made by him is the means of quenching his thirst of knowledge.

*Karmavāda* is the most important principle of Jaina Philosophy. It gives elaborate explanation of life and life's regulating disciplines of each and every creature of the universe. The principle of gene is also entering in the same category. *The comparative study of Karma and Genes is really worthy of quotation.*

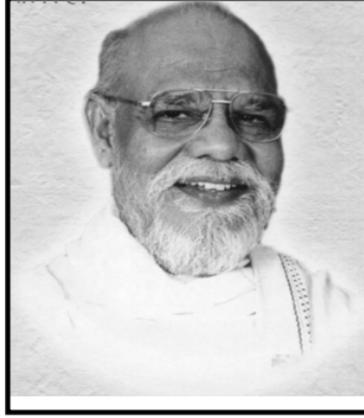
*Acharya Mahaprajna*

*Asind (Raj.)*

*5th March, 2008*

# Blessing

|| *Yogya Dharma Labh* ||



I bless and congratulate Dr Sohan Raj Tater for his research work on the subject "**The Jaina Doctrine of Karma and the Science of Genetics.**" I hope that this book containing comparative study of *karma* and genes will prove most useful for research scholars of the globe. I thank Dr Tater for adoration of right knowledge.

*Acharya Padmasagarsuri*

*Padru (Raj.)*

*14th March, 2008*

## Blessing and Congratulation



By virtue of his hard work and unrelenting search for wisdom, Dr. Sohan Raj Tater came up with an astonishing research work, '**The Jaina Doctrine of Karma and the Science of the Genetics**', which is a great achievement in the direction of unifying science and religion. It would serve as a torchbearer in the realm of both spirituality and science. His research work will carve a niche for him not only in the academic world but also in the world society. Here is an extract from his research work, which would showcase the vitality and validity of his work.

"I have tried my level best to compare *karma* with different genes situated on DNA of a chromosome taking in consideration the characteristic of both *karma* and genes. I arrived at the conclusion that karmas are cause and genes are their effect (fruits). Karmas direct, instruct and motivate genes to function and mutate accordingly during their rise. Karma is a component of subtle body i.e. *karma śarīra* and gene is a component of gross body. I propose that *karmas* possibly play their role in gross body of living organism with the help of genes. I have tried my level best to bring spirituality nearer to science."

Dr. Sohan Raj Tater has done great good to humanity in general by having taken up a research, which blends the great

doctrines of Jainology with the recent scientific developments. I hope that his research findings will play a vital role in imparting the important knowledge to all and sundry.

*Acharya Kanaknandi*

*Sagvada (Rajasthan)*

*28th November, 2007*



अर्चना दत्ता (मुखोपाध्याय)  
विशेष कार्याधिकारी (जन सम्पर्क)

*Archana Datta (Mukhopadhyay)*  
*Officer on Special Duty (Public Relations)*

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3<sup>rd</sup> April, 2008

Dear Dr. Tater,

Thank you for your letter dated January 26, 2008.

The President of India, Smt. Pratibha Devisingh Patil sends her best wishes for the success of your book.

With regards,

Yours sincerely,

(Archana Datta)

Dr. Sohan Raj Tater,  
Advisor,  
Jain Vishva Bharati University,  
Ladnun - 341 306,  
RAJASTHAN.



CHIEF MINISTER  
RAJASTHAN  
26 APR 2008



### MESSAGE

I am glad to know that Dr. Sohan Raj Tater has done work on the subject "The Jaina Doctrine of Karma and the Science of Genetics." He is going to publish book of the same, comparative study of Karma and Genes will prove useful for human masses of globe as a whole in solving their day-to-day problems.

I wish him all success for his academic work. He should come forward to bring spirituality nearer to science with his further academic work for the benefit of mandind.

I wish the publication all success and hope that it will be useful for philosophers as well as for scientists too.

(Vasundhara Raje)

# Key to Transliteration

## Vowels and Diphthongs

अ	a	उ	u	ए	e
आ	ā	ऊ	ū	ऐ	ai
इ	i	ऋ	ṛ	ओ	o
ई	ī	ॠ	ṝ	औ	ô
		ऌ	ḷ	औ	au

## Consonants

Gutturals		Palatals		Cerebrals		Dentals	
क	ka	च	ca	ट	ṭa	त	ta
ख	kha	छ	cha	ठ	ṭha	थ	tha
ग	ga	ज	ja	ड	ḍa	द	da
घ	gha	झ	jha	ड़	ṛa	ध	dha
ङ	ṅa	ञ	ña	ढ	ḍha	न	na
				ढ़	ṛha		
				ण	ṇa		

Labials		Semivowels		Sibilants		Aspirate	
प	pa	य	ya	श	śa	ह	ha
फ	pha	र	ra	ष	ṣa		
ब	ba	ल	la	स	sa		
भ	bha	व	va				
म	ma						

## Conjunct Characters

क्ष	kṣa	ज्ञ	jña	and others similarly
-----	-----	-----	-----	----------------------

<b>Anusvāra</b>	<b>Anunāsika</b>	<b>Visarga</b>	<b>Avagraha</b>
ं	ṁ	ः	ḥ
	ँ	ँ	ँ
	ं	ं	ं
			(apostrophe)

## Foreword

The history of investigating truth is very old. Historical and pre-historical metaphysicians, philosophers and modern scientists have incessantly made an effort to know the universal laws of nature. In the East, the philosophy and science were not thought to be as altogether unrelated. In the West, they remained hostile and polarized. Surprisingly, the modern physicists and biologists have opened up new frontiers of unprecedented human progress to help philosophers to solve their problems. One of the problems is of *karma* vis-a-vis genetic engineering.

The author of this book Dr Sohan Raj Tater, who is Mechanical Engineer by profession and a scholar of Jainism, has brought forward in his research work the comparative studies on *genes* and *karma*. This is perfectly a new attempt in this field. The studies on *genes* are comparatively new and the construction code of genes is yet to be cracked down. On the other hand, there is enormous literature available on *karma* in Jainism. The author has, therefore, dealt with genetic engineering and *karmic* concept of Jainism separately in the first two parts and later on compared them. He has succeeded in accomplishing certain linkages between *karma* and *genes*.

According to biological sciences, gene is a part of chromosome (made up of DNA) and is made of chemical proteins. The word 'chromosome' is made up of two Greek words—*chromo* (colour) and *soma* (body). Biologists have established that the coded information is carried from generation to generation by the *genes*. A group of *genes* forming chromosomes determines the inherited properties. These chromosomes are the vehicles through which the hereditary qualities migrate from older to the new generation at the time of fertilization.

According to Jainism, the principle of *karma*, called *karmavāda*, is the backbone of the entire Jain Philosophy. *Karmas* are the blue-print of one's past deeds on which the edifice of present can be constructed and the future course can be charted. *Karmas* carry impressions from one birth to the next. Here we find the interesting part of *karma* i.e. the effect of *karma* can be changed by the change of environment. *Karmas* can be reined in and altered by the right conduct and efforts. *Genes* also undergo a slow change depending upon the climate, environment, nourishment, health, etc. The biologists are very near to alter the *genes* chemically to obtain desirable characteristics and attributes of an organism. In some cases, they have been successful to eliminate, in embryos, certain genes, which are carrying the codes of different diseases.

Medical practitioners have only recently being able to answer an age-old enigma—the human behaviour is acquired by birth or can be moulded by oneself? Initially, Aristotle and Plato and later on John Locke and David Hume argued that psychology was built up on experiences, while biologists like Jean Jacks, Russo and Kent believed that human psychology, as written in the genes, was unalterable. Freud stated that the human personality and behaviour were a total sum of parents, dreams, laughter and sexual activities. France Boise gave the similar statement "fate and surroundings are responsible factors." In the field of Jainism, Acharya Mahaprajna feels a dire need of confluence between the *karma* philosophy and the human psychology. A correlation between the two can open the flood-gates of exploration of new capabilities and strength a human mind can possess.

The author, Dr Tater, has significantly contributed to this idea of Acharya Mahaprajna by presenting this book. It contains comparative study on *karma* and genes. Genes not only bear the genetic traits of their parents but also represent the *karma* performed by the individual. With this research work, Dr. Tater has proposed that *karmas* are the cause and genes are their effect

(fruits). *Karmas* direct, instruct, motivate genetic codes and *genes* to function and mutate accordingly. His labour will be fruitful if the readers will continue to explore the behaviour of *karma* and genes which are parts of spirituality and science. Such studies will certainly fill in the gap between spirituality and science, which is the need of the time.

*Emeritus Prof. Dr M.R. Gelra*  
*Founder Vice Chancellor, JVBI, Ladnun*



## Foreword

The diversity in nature, particularly biodiversity, has always intrigued the human mind. We see and appreciate diverse living creatures on earth but do not exactly know the reason for their existence. Many philosophers and thinkers the world over, and India in particular, made this diversity the subject of their deep enquiry and found explanations. The inner power of enquiry provided deep insight into the subtle world which was found to regulate the events in the outer (physical) world. Our sensual perceptions reach only the outer surface that is temporary and transient, the real substance within is permanent and transcendental. This permanent substance, the soul, is the source of power of every living creature. The discovery of soul may be regarded as the biggest discovery the humankind has ever made.

One Indian school of thought believed that the soul of an organism is a part of a universal soul, i.e, the Creator. The soul has individual identity in the embodied state but once liberated it unites with its source, the Creator. There is another school of thought, which believes that every soul is independent and is responsible for the fruits of his actions. A cause and effect law operates in every soul and no interference of any outsider, howsoever powerful, is possible. *Lord Mahāvīra* belonged to the second school and he called this law of soul as the doctrine of *karma*. In order that the soul experiences the effect of a cause, a record of the event making the cause is essential. The record keeping is made possible through a subtle *karman* body. This body made of *kārmaṇa vargaṇā* always remains attached to the soul like a faithful companion. It keep record of all actions and thoughts of the soul performed in different bodily existences. There is no way to access this information from outside, the soul is the sole and only manipulator.

The information in the *kārmaṇa* body is stored in the form of *karma* which obscure the soul. All transactions with the outside world are made through the *kārmaṇa* body. The soul, in a way, is imprisoned and controlled by *karma*. Thus a record centre of power comes in existence. This, however, should not be concerned to mean that the soul has lost its power. The soul is powerful enough and may exercise its power at appropriate moments breaking the barriers of *karma*. Normally, the soul remains under the influence of *karma*, loses its identity and enjoys the fruits of its actions. But when awareness of identity is aroused, the soul expresses its power and crushing the *karma* strives for its free existence.

The *karma* inhibits the natural attributes of the soul. The pure soul has infinite knowledge, infinite power of perception, infinite bliss and infinite energy. All those powers are bound by limits in an impure embodied soul. In other words, the limited abilities of an organism are due to the presence of *karma*. The consciousness, a property of the soul, is also obscured by *karma*. Only a limited consciousness is expressed in the embodied soul. As *karmas* reduce, greater part of consciousness is expressed and the abilities of the soul increase. The intelligence, perception, happiness, power of action and judgement and other attributes are dependent on *karma*. There is an inbuilt mechanism by which *karmas* operate and exercise their influence on the physical body.

The scientific investigations are limited to the physical body. The body is made up of cells, the smallest living unit of an organism. The discovery of DNA and genes in the nucleus of the cell made in the last century is a landmark in human history. The structure of DNA and the constituent genes represent a world in itself. The DNA molecule has parts known as chromosomes and each chromosome has thousands of genes, the basic physical and functional units of heredity. *Genes* are specific sequences of bases that encode instructions on how to make proteins. The genome is an organism's complete set of DNA. The human genome has about

3 billion base pairs and about 30,000-35,000 active *genes*. *Genes* comprise only about 2 per cent of the human genome, the remainder consists of non-coding regions, whose functions may include providing chromosomal structural integrity and regulating where, when and in what quantity proteins are made. The genetic code has been compared to a blueprint specifying the design of an organism. In fact, the genetic code specifies not only the design of an organism but also provides the mechanisms needed to "read" the code and manufacture the components of the organisms as well as specifying the procedures needed for the life processes of the finished organism.

Studies in behavioural genetics have shown that both genetics and environmental factors influence the normal and deviant behaviour of human beings. Only a few decades ago, psychologists believed that characteristics of human behaviour were almost entirely the result of environmental influences. These characteristics are now known to be genetically influenced, in many cases to a substantial degree. Intelligence and memory, novelty seeking and activity level, spirituality, and shyness and sociability all show some degree of genetic influence.

We, thus, have two kinds of determinants of body processes and behaviour of organisms, the *karma* and the *genes*. The obvious question is; What is the relation between these two seemingly diverse systems performing similar functions? A comparative study of *karma* and *genes* can throw much light on this important aspect of life. The author of this book, Dr Sohan Raj Tater, has embarked upon this important task and has presented valuable information on both the doctrine of *karma* and genetic science. In the first part of the book, he introduces the doctrine of *karma* as known to Jain philosophy. He dwelves upon the concept of *karma* in various Indian philosophies in the first chapter. He then describes the concept of life in Jaina philosophy in the second chapter. He goes on to describe the classification, bondage, fruition and annihilation of *karma* in the next four chapters. This provides a

fairly good coverage of the doctrine of *karma* and the readers are furnished the essential details of the doctrine which finds elaborate descriptions in Jaina canons.

The second part of the book presents the developments in genetic science in brief but in a systematic manner. The science of heredity and genes is first introduced. The next chapter deals with the cell, the smallest unit of life. The information about DNA, RNA, and gene mutation is provided in the next two chapters. The important aspects of genetic engineering are covered in the following chapters. In the third part of the book, Dr Tater makes a comparative study of *karma* and genes and brings out the important fact that *karmas* are the cause and genes are their effects. This is a very significant inference of the study. The genes and the environmental factors are known to regulate and control the anatomical, physiological, biological and behavioural aspects of organism and *karma* control the genes. This finding has important repercussions both for Jain philosophy and science.

The life is not just an assemblage of atoms and molecules, its existence is much deeper. Atoms and molecules do have some ability to organize themselves, such as formation of a crystal like structure, but they fail to produce any intelligent structure useful to life. Scientists have so far not succeeded in synthesizing a cell in the laboratory. A cell is an intelligent structure and cannot be formed without the assistance of consciousness, which is the source of intelligence. The study of life shall be incomplete without understanding the role of *kārmaṇa* body and luminous body.

Is there any scientific evidence of the existence of subtle bodies? Scientists have found emission of a weak light, called bio photons, in all living organisms. The bio-photons, originating from a coherent electro-magnetic field, regulate and control the whole bio-chemistry and biology of life. Many significant correlations between the features of bio-photons and number of fundamental biological processes, such as cell divisions, death, and major shifts in metabolism have been found. Biological processes may be

integrated by the endogenous bio-electro- magnetic field that has a primary organizational and informational role. Scientists are not sure of the origin of the coherent electromagnetic field in living organisms. According to the Jain philosophy, the organizational and informational role is played by the *kārmaṇa* body. This indicates a possible connection between the coherent electromagnetic field and the *kārmaṇa* body. This may prove to be a big lead for science to enter the realms of subtle bodies. A comparative study of genetic science and bio-photons may force the scientists to search for the source of intelligence. However, the science has a long way to go before it gets closer to consciousness and this journey in the subtle world may find help in Jaina philosophy.

Jaina philosophy does not provide details of nature like science but offers a conceptually strong background of both the living and non-living world. A dialogue between Jaina philosophy and science is expected to seek new heights in the quest of human mind. The publication of this book on comparative study of the doctrine of *karma* and genetic science is a right step in this direction.

*Prof. (Dr) Narayan Lal Kachhara*  
*Rtd. Prof., Salford University, Britain and Adan University,*  
*Yemen*  
*Secretary, Dharma Darshan Seva Sansthan, Udaipur (Raj.)*



## Preface

The term *karma* is derived from the root 'kri *karane*' by adding the suffix 'manin' to the root and the common meanings of the term are—action, worth doing, implementation, duty, act, profession, tendency, etc. So whatever is done falls under the category of *karma*. The term *karma* stands for two different meanings viz.: action and the subtle aggregates of the *karmic* matter. All types of movements, whether physical or mental, are known as actions. Apart from it, in Jaina Philosophy, the term '*karma*' denotes the subtle aggregates of the *karmic* matter which are attracted and assimilated by the soul.

Philosophy is dominated by religions in India. This is the reason why all the theistic religions here have acknowledged the existence of the power called *karma* or something equivalent to it which affects, covers and blunts the natural powers, attributes and purity of the soul. Different philosophies talk of it by different names, for example, *Vedānta* Philosophical system calls it deception, i.e. ignorance. *Sāṅkhya* thought calls it *prakṛti* (the nature) or *sanskāra*. Yoga Philosophy uses the word "*karma aśaya*" or *kleśa* etc. words for it. The term '*adr̥ṣṭa*' (unseen) and *sanskāra* used in *Nyāya* school of thought also represent the same. The Buddhists call *karma* as '*vāsanā*' (predispositions) and '*avijñapti*' (non-knowledge). '*Dharmā-dharma*' (the term used in *Vaiśeṣika* Philosophy) is also equivalent to the word *karma* used in Jaina Philosophy.

The '*pāśa* (snare/fetter) employed in *śaiva* school of philosophy is also synonymous to the word '*karma*' as used in Jaina Philosophy. The '*apūrvā*' (singular/unique) of the *Mīmāṃsā* school of Philosophy is also used to denote the same concept. Fate, meritorious action, sin, etc. are numerous words that are commonly used in philosophical scriptures. In Jaina canonical literature, along with the word *karma*, the terms such as '*karmaphala*', *karmaraja*, etc. are also used.

The law which regulates the action of *karma* is based on the principle of "cause and effect." The saying "as you sow so shall you

reap" presents the whole doctrine in a nut-shell. Every action, whether mental, vocal or physical, is a sowing of the 'seed,' or in the technical language of the Jaina Philosophy, the engendering of *karma*. In the act of sowing, the seed or engendering the *karma*, the soul has the choice of acting or retaining from action, but once the seed is sown or *karma* engendered, its freedom is replaced by an inevitable liability to bear its consequences. This is what constitutes the bondage of soul. *Karma*, therefore, is a kind of force, which compels the soul to bear the consequences of its right or wrong actions, and this force originates in the very action itself, which is performed by the soul and at the very moment of its performance.

It is the time to examine whether there is any similar thing 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 ( $100 \times 10^{12}$ ) cells. There are about 1,00,000 genes in one cell (active gene 35 to 40,000 remaining inactive). Each cell has 23 pairs of chromosomes. Each chromosome has 1-2 thousand genes. Genes can be seen only through a 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. The DNA has four basic building blocks A, T, C and G (adenine, thymine, cytosine and guanine). With the 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 spacers in between A, T, C and G when used in combination. One cell, if it is written in molecular words, 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 1000 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 a non molecule becomes a molecule—if so how? Guru Vasiṣṭha said, "In every atom there are worlds in worlds."

Genetic programme decides the characteristics of the body of every living being (*nāma karma*). So does *karma śarīra*. Genes affect aging process (*āyusya karma*). So does *karma śarīra*. Genes link family history (*gotra karma*). So does *karma śarīra*. Genes produce various diseases by mutation process (*vedanīya karma*). So does *karma Śarīra*. Non-stop chemicals and proteins produced by DNA distort our knowledge (*jñānāvāraṇīya karma*), perception (*darśanāvāraṇīya karma*), emotions (*mohanīya karma*) and energy level (*antarāya karma*). So does *karma śarīra*. Remember *kārmaṇa* particles are much finer than the genes.

Genetic science says, "We are what we are because of our genes." Our *Tīrthankaras* have said from the very beginning that "we are what we are because of our *karmas*." We all have body. The body is consisted of systems, the systems are consisted of organs, the organs are consisted of tissues, the tissues are consisted of cells, the cells are consisted of genes. The 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 someday will find, that there is consciousness (soul) and *karma śarīra* behind genes. 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 organism. Answer for this question can be searched in *genes* which determine the life cycle and inheritance of all living beings. The human body starts behaving according to the vibrations coming from *karma śarīra*. *Ācārya Mahāprajña* writes, "The genes not only bears the genetic traits of their parents, but these also represent the *karmas* performed by individual."

All schools of Indian Philosophy which believe in the soul also give prime importance to the Doctrine of *Karma*. All Indian

Philosophies consider *karma* as an assimilated substance with soul, which affects every activity of mundane soul. Jaina *ācāryas* have written much about the Doctrine of *Karma* in their scriptures. Similarly, geneticists have written much about the science of genetics. Yet there is no work, written on the lines of modern research, dealing with the comparison of *karma* and *genes*. That is why, I selected the subject of my research work as "The Jaina Doctrine of *Karma* and the Science of Genetics." The present work is a humble attempt to cover up the *lecuna*.

I don't lay claim either to perfection or to originality. I could only pick up a few pebbles from the vast ocean of Jaina scriptures, Jaina *karma granthas* and from the books of the science of genetics and explore the scattered theme of my research work from the original sources to arrange it into a systematic whole. I am presenting the Jaina Doctrine of *Karma* explored by ancient Jaina thinkers and the science of genetics described profoundly by geneticists, as faithfully as I can, before the world of scholars, who are the best judges of the degree of success achieved in this effort and whose satisfaction will be my best reward. I dedicate my work to those noble and lofty causes for which all right-thinking men of all times and nations have striven.

## Acknowledgements

I have great feeling for those dignities who motivated, guided and blessed me during my research journey, which cannot be expressed in words. Even then, I feel my moral duty to pay gratitude to those honourable persons and scholars who co-operated with me in completing this research work in a proper way and with in the stipulated time period.

I place on record my sincerest gratitude to the builder of my fate, His Holiness Acharyashri Mahapragya, Yuvacharyashri Mahashraman, honourable Sadhvipramukha and chief Niyojika Sadhvi Vishrutvibha, only with whose blessings I could succeed in this research work. I am grateful to Munishri Mahendrakumar, who inspired me time to time to do research work on this particular subject.

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*Dr Sohan Raj Tater*

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## Part I

# The Jaina Doctrine of *Karma*



# 1

## The Science of *Karma*

### 1.1 What is *karma*?

The term *karma* is derived from the root 'kri *karāṇe*' by adding the suffix '*manin*' to the root and the common meanings of the term are—action, worth doing, implementation, duty, act, profession, tendency, etc. So whatever is done falls under the category of *karma*.<sup>1</sup> The term *karma* stands for two different meanings viz.; action and the subtle aggregates of the karmic matter. All types of movements, whether physical or mental, are known as actions. Apart from it, in Jaina Philosophy, the term '*karma*' denotes the subtle aggregates of the karmic matter which are attracted and assimilated by the soul.

Philosophy is dominated by religions in India. This is the reason why all the theistic religions here have acknowledged the existence of the power called *karma* or something equivalent to it which affects, covers and blunts the natural powers, attributes and purity of the soul. Different philosophies talk of it by different names, e.g. *Vedānta* Philosophical system calls it deception, i.e. ignorance<sup>2</sup>. Yoga Philosophy uses the words '*karma āśaya*' or '*kleśa*', etc. for it<sup>3</sup>.

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1 Sanskr̥ta-Hindi dictionary, V.C. Apte, p. 253.

2 *Brahma Sūtra* with the Commentary of Śanker 2.1.14) *Sāṅkhya* thought calls it *prakṛti* (the nature) or *Sanskār* [(a) *Sāṅkhyakāritā* (b) *Sāṅkhya tattva kaumudī*

3 *Yoga Darśana* with *Commentary of Vyāsa* (1.5, 2.12, 2.13, 2.3).

The term '*adr̥ṣṭa*' (unseen) and '*sanskāra*' used in *Nyāya* school of thought also represent the same. The Buddhists call *karma* as '*vāsanā*' (predispositions) and '*avijñapti*' (non-knowledge).<sup>4</sup> '*Dharma-dharma*' (the term used in *Vaiśeṣika* Philosophy) is also equivalent to the word *karma* used in Jaina Philosophy.<sup>5</sup> The term '*pāśa*' (snare/fetter) employed in *Śaiva* School of Philosophy is also synonymous to the word '*karma*' as used in Jaina Philosophy. The word *apūrvā* (singular/unique) of the *Mīmāṃsā* School of Philosophy is also used to denote the same concept.<sup>6</sup>

Fate, meritorious action, sin, etc. are numerous words that are commonly used in philosophical scriptures. In Jaina canonical literature, along with the word '*karma*' the terms such as '*karmaphala*,' '*karmarāja*,' etc. are also used<sup>7</sup>

Many schools of Philosophy merely make a mention of *karma* while many others go deep discussing its various aspects. According to *Nyāya* school of Philosophy, *karma* (*adr̥ṣṭa*) is an attribute of the soul. Good as well as bad actions leave an impression on the soul, and that is *adr̥ṣṭa*. It lingers with the soul till it bears its results. Its results are brought forth through God.<sup>8</sup> The Buddhists acknowledge the predispositions or impressions (*Vāsanā*) of the soul as *karma*. *Vāsanā* becomes the cause of pleasure and pain as per cause and effect relationship.

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4 *Abhidharma kośa* section 4.

5 *Nyāyamañjarī* p. 472.

6 (a) *Mīmāṃsā Sūtra* Śabar's commentary 2.1.5, (b) *Śāstra dīpikā* 2.1.5, p. 80.

7 (a) *Śāstra Vārtā Samucchaya*, 107: *Adṛṣṭam karmasamskārah punyāpunye śubhāśbhau dharmādharma tathā pasah paryāyāstasya kirtitāh,*

(b) *Daśvaṅṅalīyam* 4.2: *Tathā Ghuṅṅae Kammarayam* 10, Ibid, 7.57 sa *niddhuṅṅe dhutamalaṅ pūre kaṁda*

8 *Nyāyasūtra* 4/1: *Īśvara karṇan puruṣakarmā—phalasya darśanāt.*

## 1.2 Theory of *karma* in Indian philosophies

The theory of *karma* in different Indian philosophies is described below:

### 1.2.1 DOCTRINE OF KARMA IN VEDIC PHILOSOPHY

In the early Vedic period, *yajña* (sacrificial fire) and deity were accorded a high status. When *karma* replaced deity in significance, the supporters of *yajña* assimilated *karma* theory and *yajña* was accorded the status of a deity and believed that *yajña* itself is *karma* and bears all results. In the age of logic and philosophy, this tradition was named as *Mimāṃsaka* Philosophy. But in the Vedic tradition, along with the development of *yajña karma*, deliberation on deity also developed. In the Brahmaṇa period, single God *Prajāpati* replaced the multiple deities of ancients as the God of Gods. *Prajāpati* created a room for *karma* theory in their tradition, and they also assimilated *Prajāpati* and the *karma* theory in their own fashion. They believe that all the creatures do face the consequences of their *karmas* but it is the God of Gods (*devādhideva*) who determines the results. *Īvara* (*devādhideva*) determines the results according to their *karmas* and not at his will. The Vedic Philosophies, which accept this theory, are *Nyāya Vaiśeṣika Vedānta* and the later theistic *saṅkhya* Philosophy.<sup>9</sup>

*Karma* has been classified into three groups in Vedic Philosophy:

- a) Accumulated (*sañcita*)
  - b) Fate (*Prārabdha*)
  - c) Present actions (*Kriyamāṇa*)
- (a) **Accumulated *karma***—This is the total accumulation of *karmas* of all the past births, the result of which cannot be faced yet.

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9 *Karma ki Hindu Avdharṇa*—Dr. Ravindranatha Misra, Kala Prakasana, Varanasi, first edition, 1996.

- (b) **Fate karma**—Fate is that *karma* which was the most prominent and forceful of the accumulated *karmas* before the present life came into existence and which has been so designed that the present life is determined through it.
- (c) **Present action karma**—Whatever *karmas* the man accumulates throughout present life is called *Kriyamāṇa* (present actions). The next birth is basically determined and ascertained by the most forceful (or according to some, the most primary) *karma* out of the total of accumulated and *kriyamāṇa karmas*.<sup>10</sup>

### 1.2.2 KARMA THEORY IN UPANIṢADS

*Upaniṣads* give a detailed description of the various singularities of this world in place of *karma*. This kind of contemplation is generally missing in the earlier Vedic literature.

- (i) **Theory of time**—Time is discussed in *Śvetāśvatara Upaniṣads*.<sup>11</sup> It is stated that the only reason behind all the social factors, individual differences, pleasure, pain and activities of man is time.
- (ii) **Theory of nature**—Theory of nature is discussed in *Upaniṣads*.<sup>12</sup> Whatever happens, or is going to happen, is based on the nature of the thing itself. The nature cannot be defied.
- (iii) **The theory of free will**—There is no particular reason behind the events taking place in the world, their occurrence is merely a chance. This theory puts emphasis on chance and propounds causeless reason theory. The *Nyāya* theorists mentioned that existence comes into being like the sharpness of a weapon without any causal or non-causal reasons.<sup>13</sup>

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10 *Dharma śāstra ka itihāsa*, part-V, p. 370—Bhārata Ratna Dr. Panduraṅga Vamana Kaṇṇe

11 *Śve. Upan.* 1.2.

12 *Ibid*, 1.2.

13 *Nyāya Sūtra* 4.1.22.

- (iv) **Fatalism**—Occurrence of events is predetermined and they occur in the same order and way. No one can alter them. That which is to be, would be as it is. This theory too is given for the first time in *Śvetśvatara Upaniṣads* but the theory is not given due consideration either here or in any other *Upaniṣads*.
- (v) **The elements theory**—According to this theory, the four elements, namely, earth, fire, air and water, are the basic factors behind this universe; all the materials, living and non-living things, are the outcome of the various combinations of the four elements.
- (vi) **Naturalism**—According to naturalism, the nature, endowed with three attributes, is the only reason behind the growth of the universe and pleasure, pain and bondage of humans.
- (vii) **The theory of Gods**—This theory propounds that God is the Creator and Sustainer of this universe. Whatever takes place in the universe is according to will.

Jaina and Buddhist canonical literatures are highly critical of all these views. This critical thought forms the basis of a well-established theory of *karma*. According to Dr. Nathmal Tantiya, 'it seems that the theory of *karma* has come up in protest to various nature-oriented theories and beliefs.'<sup>14</sup>

### 1.2.3 THE MEANING OF KARMA IN NYĀYA VAIŚEṢIKA PHILOSOPHY

In *Nyāya Vaiśeṣika* Philosophy, the term *karma* is used in the sense of movement, as the movement in the hand through the association and efforts of the spirit.<sup>15</sup> That which is a substance, dependent on the substance, devoid of any attribute and free

14 *Studies in Jaina Philosophy* by Dr. N.M. Tantiya, p. 220.

15 *Vaiśeṣikadarśana* 5.1.1.150: *Ātma sanyoga prayatna bhuyān haste karma.*

from any causality in association and dissociation is *karma*.<sup>16</sup> In *Nyāya Siddhānta Mukṭāvali*, *karma* has been differentiated into four types:

- i. *Utkṣepaṇa* (projection)
- ii. *Ākucana* (contraction)
- iii. *Prasāraṇa* (expansion)
- iv. *Gamana* (movement).<sup>17</sup>

#### 1.2.4 INTERPRETATION OF KARMA IN GĪTĀ

In the words of Tilaka, the term *karmas* used in the *Gītā* not only in the narrow sense of *yajña karma*, *yāga karma* (sacrifice) and *smārta karmas*.<sup>18</sup> All the physical and mental acts, whatever man does, are *karmas* according to *Bhagavad Gītā*.<sup>19</sup> There are signs of the theory of time, nature, naturalism, God and deities in *Gītā*. Veda Vyāsa, the author of *Gītā*, accepts all these theories as and when required. He assigns the status of casual factor from times to time, then to nature, then to disposition and sometimes to *Puruṣa* or God.<sup>20</sup>

Three types of *karmas* are mentioned in *Gītā*:

- (1) *Karma*(Action)
  - (2) *Vikarma* (Bad-action)
  - (3) *Akarma* (Non-action)
- (1) ***Karma*(Action)**—All the good and auspicious actions performed with the desire of good results are *karmas*.

16 Ibid, 1.117: *Eka draṅya guṇan sanyoga vibhagevanpekṣaka karṇamiti karma lakṣṇan karma.*

17 *Nyāya Siddhānta Mukṭāvali*: 6—*utkṣepaṇan tatoavaṣepaṇamakuncanan tathā prasaraṇan ca gamanan karmavyetani panca ca.*

18 *Rites enjoined by the smṛts, Gītā rahasya*, p. 56-56.

19 *Gītā* 5-8-11.

20 *Ibid*, 8/23, 5/14, 9/8, 18/61.

- (2) **Vikarma (Bad-action)**—All the bad/inauspicious actions that are performed to fulfill mere lust are called bad actions. In addition to this, actions done with the desire of fruits and with malice are called *Vikarmas* too. According to *Gītā*, the penance one undergoes with stupid stubbornness, with physical, vocal and mental pain and with a desire to harm others, is called a malignant penance.<sup>21</sup> Generally, physical, mental and vocal violence, falsehood, stealing, etc. are considered to be *Vikarma*.
- (3) **Akarma (Non-action)**—The actions performed with detachment, with a sense of duty, are termed as *akarma* (non-action). *Gītā* says that the actions performed by man becoming indifferent with God, without arrogance in his present condition, does not produce any other result but salvation, therefore, it is non-*karma*.<sup>22</sup>

Taking *Manusmṛti* as the base, Tilaka describes the following ten kinds of sinful conduct in *Gītārahasya*.<sup>23</sup>

1. Physical—(i) violence, (ii) stealing, (iii) fornication.
2. Vocal—(i) falsehood, (ii) taunting, (iii) harsh words, (iv) improper betting.
3. Mental—(i) wishing to appropriate other's wealth, (ii) malice, (iii) wrong insistence.

The *Gītā* states, "He who is equipoised towards all the creatures both in pleasure and pain is a supreme *yogī*."<sup>24</sup> Veda Vyāsa hints that for salvation, it is essential to get freedom from both auspicious as well as inauspicious *karmas*. *Sṛī Kṛṣṇa* says, "O Arjun! whatever actions you indulge in, whatever you eat, whatever sacrifice you do, whatever charity you do or whatever chanting you perform, entrust

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21 (a) Ibid, 17.19 (b) Ibid, 18.19.

22 Ibid, 3.10.

23 *Manusmṛti* 12/57

24 *Gītā* 6/32.

all the auspicious/inauspicious *karmas* to me, that relinquish any attachment or ownership towards them. Thus, having the feelings of renunciation, you will be free from bondage of *karmas* producing good or bad results and will get me.”<sup>25</sup>

Veda Vyāsa in *Gītā* explains that both auspicious and inauspicious *karmas* are bondage, and for salvation it is essential to rise above them. A wise man relinquishes both good and bad or virtue and sin.<sup>26</sup> Stating the characteristics of a true devotee, he says, “He who has relinquished both good and bad, i.e. who has risen beyond them both, that devotee is dear to me.”<sup>27</sup>

The great philosopher of his time, Dr. Radhakrishnan puts forward the same idea in his introductory essay to *Gītā*. Whether we are bound by good desires or bad desires, we are ultimately bound, what difference does it make whether we are in iron chains or in golden chains? We are, after all, in chains.<sup>28</sup>

Like Jaina Philosophy, *Gītā* also states that when sinful actions are reduced to nothing through virtues then the man is free from dualism of love-hatred and devotes himself to me with a firm determination.<sup>29</sup>

Thus, *Gītā* guides man from bad to good actions and from good to pure or desireless action for a moral spiritual life. The ultimate goal of *Gītā* is to build up a desireless vision of life rising above good and bad.

#### 1.2.5 KARMA DEFINED IN EPICS

(a) **Idea of *karma* in *Ramāyaṇa***—Reference to reincarnation in *Ramāyaṇa* represents the general nature of *karma* theory. The theory of reincarnation is discussed in detail in fourth chapter in Vālmīki’s *Ramāyaṇa* with reference to

25 *Ibid*, 9/28.

26 *Ibid*, 2/50.

27 *Gītā* 12/16.

28 *Bhagavad Gītā* (ra), p. 56.

29 *Gītā* 7/28.

reincarnation, compulsorily facing the consequences of one's *karma* is undisputed acknowledged there.<sup>30</sup>

- (b) **Idea of *karma* in *Mahābhārata***—The essence of the philosophy of *karma* in *Mahābhārata* is that the whole life is full of *karmas*. It is clearly acknowledged there that doing evil or righteous deeds, man essentially faces their evil or auspicious consequences in this world.<sup>31</sup> Pleasing fruits of good *karmas* and painful fruits of evil actions is generally doubtlessly established. All kinds of creatures, wise, foolish, valiant and coward have to undergo the evil or auspicious results of the un-availed *karmas* of their previous birth in the present life. One gets the results of only actions done by oneself at various stages of life, no one faces the results of the *karmas* not performed by him.<sup>32</sup> *Mahābhārata* supports this view at several places. It is stated there that one must behave the same way towards others as one desires for oneself.<sup>33</sup>

Under all types of circumstances—relinquishment-charity, joy-pain, love-hatred, etc. one must treat others as his own soul.<sup>34</sup> Only he, who treats others as himself, enjoys the pleasures of paradise.<sup>35</sup> The treatment one finds pleasing to oneself must be given to others. O! Yudhiṣṭhira! this is the distinction between righteousness and unrighteousness.<sup>36</sup> The seer pronounces in *Ṛṣibhāṣita Sūtra*, virtues and sins committed in the previous lives are the root causes of progeny.<sup>37</sup>

30 Val. Ram. 7/15/25: *Kasyacinna hi durbuddeśyandato jāpate matiḥ. Ya dṛṣaṁ kurute karma tadṛṣaṁ phalamasvute.*

31 *Saṁ. Ma. Bha.* 12/8/5/7.

32 *Ibid*, 12/8/492.

33 *Mahābhārata śāntiparva*, 258/21.

34 *Mahābhārata anuśāsana parva*, 113/6-10.

35 *Vah. bha. anu.* p. 113/6-10.

36 Quoted from *subhaṣit sangraha*.

37 *Isibha Sayam Sūtra* 9/2.

## 1.2.6 DOCTRINE OF KARMA IN BUDDHIST PHILOSOPHY

Buddhist thinkers too have used the term '*karma*' in the case of activity. They too call the physical speech and mental activities as *karma*. Although the Buddhist have used the term *karma* for physical, linguistic and mental activities yet consciousness has been accorded primacy there and consciousness is called *karma*. Buddha pronounced, "Monks! Consciousness is *karma*, I state. Man indulges in action (*karma*) physically, linguistically or mentally only through consciousness."<sup>38</sup>

In this context, the meaning of consciousness being *karma* implies that all these acts are possible only if consciousness is associated with them. Consciousness is recognized as *karma* in Buddhist Philosophy, but that does not mean other *karmas* stand cancelled. They acknowledge the relative significance of all the aspects of *karma*. Thus, we find that though the term *karma* has been used in the sense of activity there, the meaning of the term is wide ranging, more than activity, in *karma* theory. The term includes physical, mental and linguistic activity and the effect of these activities left on pure consciousness. Generally, the term *karma* denotes activities, the purpose of activities and their outcome. *Ācārya Narendra Deva* writes, "Mere consciousness (purpose) and action are not the whole of *karma*. We need to take into consideration the resultant consequences of *karma* too."<sup>39</sup>

Buddhism basically accepts two types of *karma*

- i. *Citta karma* (mental actions).
- ii. *Caitaṣika karma* (*karmas* arisen out of acts and speech).

*Karma* in Buddhism are classified in two more ways:

- i. *Akuśala karma* (sinful actions).
- ii. *Kuśala karma* (virtuous actions).

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38 *Anguttara Nikāya*—excerpt from Buddhist Philosophy and other Indian Philosophies, p. 463

39 *Boddha dharma darśana*, p. 249.

(i) *Akuśala karma*—According to Buddhism, on physical, vocal and mental basis, *akuśala* (sinful) *karmas* are of the following ten types :

(a) **Physical sin**—(i) *prāṇatipāta* (violence), (ii) *adattādāna* (stealing), (iii) *kāmeṣu micchasāra* (fornication).

(b) **Vocal sins**—(i) *musavāda* (falsies), (ii) *pisunāvācā* (pishum speech), (iii) *pharusāvācā* (harsh word), (iv) *samphalāpa* (useless bragging).

(c) **Mental sins**—(i) *abhijjā* (greed), (ii) *vyapāda* (mental violence or malice), (iii) *micchādītṭhi* (false perception).<sup>40</sup>

(ii) **Kuśala karma (Virtuous deeds)**—It is stated in *sariyukta Nikāya* that he who donates food, drinks, clothes, bed and sitting objects in charity enjoys virtues as if streams of virtues falling to him from all sides. The following acts are stated to be *caitaṣika* (virtuous) in *Abhidhammatha sangraha*:

1. Devotion
2. Awareness
3. Shame towards sin
4. Fear of sins
5. Relinquishment
6. Friendliness
7. Equipoise
8. Purity of mind
9. Cheerfulness in body
10. Lightness of body
11. Sweetness of mind
12. Sweetness of body
13. Lightness of mind
14. Simplicity of mind
15. Simplicity of body.<sup>41</sup>

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40 *Bodddha Darśana and Anya Bhārtīya Darśana*, part I, p. 480.

### 1.2.7 DOCTRINE OF KARMA IN WESTERN SCHOOLS OF PHILOSOPHY

Numerous western thinkers consider it essential to rise above good and bad for fullness of moral life. Bradley believes that morality leads us beyond good and bad.<sup>42</sup> The dualism of good and bad rules in moral life but that dualism must come to an end in the state of self-fullness. Therefore, for complete realization we will have to rise above morality (good and bad). Bradley agrees that righteousness (spiritualism) is above morality. According to him, morality ends in spiritualism, where individual establishes harmony with God rising above the dualism of good and bad. Bradley says that in the end, we reach such spot where all processes come to an end although the best action starts from here. Here our morality blossoms in the extreme and merge in God and we experience immortal love all around with all contradictions to an end.<sup>43</sup>

What Bradley differentiated between is morality and spirituality, and the same is differentiated by Indian Philosophies between practical morality and spiritual morality. Practical morality pertains to good and bad. Here the vision of conduct is relative to the society and its objective is public welfare. Spiritual morality pertains to the realm of pure consciousness (detached or renunciatory vision of life) and it is relative to the individual. Its ultimate objective is to lead man from bondage to salvation.

### 1.2.8 KARMA IN PATAÑJALI YOGA DARŚAN

When traces (*sanskara*) of afflictions get accumulated in the mind, they produce desired *karma*. There is no action possible without the passion of love and pleasure (*rajoguṇa*). When the passion of love and pleasure associates with virtues (*satoguṇa*), there arises the tendency of knowledge, righteousness, renunciation and spiritual

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41 *Abhidhammatya Sangraha*, p. 19-20.

42 *Ethical studies*, p. 314.

43 *Ibid*, p. 342.

grace. When the passion of love and pleasure associates with malignant qualities (*tamoguna*), there arises the tendency towards contrary acts like ignorance, lack of righteousness, attachment and lack of gracefulness. These two types of *karma* are called auspicious-inauspicious, sin-virtue or lustrous-dark.

The consequences of such actions that are routed in five afflictions are to be faced in both the births, present and future.<sup>44</sup> These are in two forms:

1. afflictive (malignant dominant) and
2. non-afflictive (virtue dominant).

The great sages and *yogis*, who have uprooted afflictions through desireless, non-attachment practices, reduced their *karmas* to mere duties, do not have to face their consequences. Desired *karmas* arise only when the traces (*sanskāras*) of afflictions are rooted in the subtle mind. According to Yoga *darśana*, these *karmas* result into birth, life, pleasure, pain, etc., since both virtuous as well as sinful actions bring their results.<sup>45</sup>

### 1.2.9 JAINA DOCTRINE OF KARMA

The Jaina doctrine of *karma* seems to have developed against a number of other doctrines about creation. Some regarded time (*kāla*) as the determinant factor of creation. Every event occurs in time and hence is determined by time, other believed nature (*svabhāva*) as the determining factor of creation. Things are determined by their own inherent nature. There is nothing, inside or outside, over and above nature that determines the course of events. This leads to the doctrine of determinism (*niyati-vāda*). There were others who believed in the fortuitous and accidental nature of occurrences of events. There were other doctrines as well.<sup>46</sup> The believers in *karma* or unseen potency (*adr̥ṣṭa*), the after-effect of a good or bad action,

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44 Pātañjala Yogadarśan 2.12: Kleśamūla karmaśayo dr̥ṣṭā dr̥ṣṭajanma Vedaniyah.

45 Ibid, halādapatitāpaphalāḥ puṇyāpuṇyahetutvāt

46 Vide SV up I.2, SVS, II, p. 52-64.

regarded these theories as inspired by materialistic tendencies and therefore rejected them as untenable. The Jaina philosophers accorded proper place to these doctrines as testified by our experience, while installing *karma* in the supreme position. *Karma* is the ultimate determinant of the course of events. Even time, nature and *niyati* are determined by *karma* and that is no such thing as fortuitism. These factors, in so far as they are given to experience, are only the expressions of the working of the supreme law of *karma*.<sup>47</sup> *Karma* is the fundamental factor responsible for the relation between spirit and non-spirit, that is, the world order. *Karma* is a process where an action (*karma*) produces its reaction (*phala*).

In the words of the *Yuvācārya Mahāprajña* (present *ācārya*), spiritualism cannot be explained without the theory of *karma*. Therefore, it is a great theory. It is essential for the man who wishes to feel the inner essence of spiritualism to dive deep into the unfathomable depths of the theory.<sup>48</sup> Generally, activities are called *karma*. Activities are of three types:

- i. Physical,
- ii. Mental and
- iii. Vocal.

In classical terminology, they are called 'yoga.' But in the Jaina tradition, this activity-oriented meaning of *karma* is only a partial explanation of the term '*karma*.' In this theory, the intention or end of an activity is also given due thought. *Ācārya (Devendrasūri)* defines *karma* as 'the intention for activity of the creature'.<sup>49</sup> The prominent Jaina scholar *Pandita Sukhalālaji* says that whatever is done by a creature owing to ignorance, passion, reasons, it is called *karma*.<sup>50</sup> Thus, he includes both the

47 Cf. stp III 53; sus. II, 79-81.

48 *Karmavāda—Yuvācārya (present Ācārya) Mahāprajña*.

49 *Karma vipāka karma granth first; 1*.

50 *Darśana aur cintana, p. 225*.

activities as well as the intention behind that activity into the fold of *karma*. There are two aspects of Jaina thought :

- i. attachment—hatred, passions feelings.
- ii. karmic matter (*karma pudgala*).

By karmic matter is meant those molecules which are attracted and glued to the spirit owing to a particular action of the spirit, associated with the spirit to form the karmic body (*karma śarīra*) and on the maturity of a particular time, producing some specific experiences in the form of their results, dissociate from the spirit. These are called matter *karmas*. In brief, the concept of *karma* in Jaina Philosophy is concerned with the molecules that affect and blunt the power of the spirit. As the creature engages in any type of mental, speech or bodily acts, *karma*-oriented matter atoms rush towards him from all sides.

Through the attachment and hatred-oriented activities of the soul, infinite subtle fine particles existing in the space rush magnetically to it and get associated to the soul and they are called *karmas*.<sup>51</sup> According to Jaina *lakṣaṇāvālī* "like boxes full of collyrium powder, full of gross and subtle particles, ordained particles liable to be converted into *karmas* in the world, associating and binding the creature according to their acts, the particles those obscure knowledge and perception (veil of knowledge and perception and forming pleasure-pain, auspicious-inauspicious, age-name, higher-lower status and energy obscuring etc.) are called *karmas*."<sup>52</sup>

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51 (a) *Pramātma prakāśa* 1.62: *Viśaya kasāyahiṃ raṃgiyahan je aṇuyā laggaṃti. Jīva paesahaṃ mohiyahaṃ jīṇa kammaṃ bhaṇṇaṃti.*

(b) *Jaina siddhānta dīpika*, 4.1, Ācārya Tulasī, *Atmanah sadasatpravāṛtyā kṛṣṭāstapṛāyogyā pudgalāḥ karma*

52 *Jaina lakṣaṇāvālī* II, p. 319 *karma prakṛti, curṇi* 1, p. 2, *Aṃjana cuṇṇapuṇṇa samuggagotva suhamthūlādi aṇegaviha poggalā kamma-pariṇamaṇajogā bandhamāṇa jīva pariṇāma paccaeṇa baddhā ṇāṇā dīladdhigātiṇo sukhadukkha suhāsuhāunāmucāṇi yogāyantarāya poggalā kammaṃ ti buccati.*

*Jīvas* (spirit/soul) are conscious formless beings. The subtle filth glued to it is called *karma*. *Karmas* are inert material atoms. The atoms of *karma* are called *karmadala* (atom groups). The atoms of *karma* get glued to the soul owing to its adhesiveness caused by attachment and hatred and activities of association. The *karma* atoms are glued to the soul from time immemorial. If some of them get dissociated from the soul, the new ones get glued. Thus, this activity goes on constantly.<sup>53</sup> The soul acquires the property to attract *karma Vargaṇā* because of false belief, vowlessness, negligence, passions and activities and that is *karma*. *Karma Vargaṇā* is a kind of subtle dust which can be perceived only by an omniscient individual.

The matter atoms, getting attracted through attribute and non-attribute feature and getting attached to the soul veil its real form, deform it, such matter atoms gathered by the soul are called *karmas*. A well-known scholar of Jainism, *Paṇḍita Sukhalālaji* opines—'although there is some details in the theory of *karma* in the Vedic and Buddhist literature, it is so little that there exists no significant and prominent literature. On the contrary, thoughts on *karma* theory in Jaina Philosophy is subtle, well organized and very wide ranging.'<sup>54</sup>

Professor *Mālavaṇiyājī*, another prominent Jaina scholar, also writes, "Present day scholars agree that in the *pre-Upaniṣadika vedika* literature there is no deep thinking on *karma* or *adrṣṭa*. And that '*karma* is the cause' such a theory is the unanimous opinion of the *Upaniṣads* also cannot be stated.<sup>55</sup> In Jaina Philosophy, *karma* is accepted as a mass of matter atoms, *karma* is directly related to the soul and the body. *Karma* is a concrete matter, which gets bound to the soul. The cause of the action of the soul is *karma*.<sup>56</sup>

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53 *Jīva-ajīva—Ācārya Mahāprajña*, 12<sup>th</sup> edition, 1998, Jaina Viśva Bhārati, Ladnun.

54 *Darśana aura cintana*, *Paṇḍita Sukhalālaji*, p. 219.

55 *Ātma Mīmāṃsā*, *Paṇḍita Dalasukha Malavaṇiyā* p. 80.

56 *Jaina dharmadarśana*, p. 445-455.

*Pañḍita Sukhalāla*ji says, "The action that is performed by the soul under the influence of false belief etc., reasons is called *karma*." He has included both, the cause as well as the action of *jīva* under *karma*.<sup>57</sup> In *Jaina Siddhānt Dīpikā*, *Ācārya Tulasī* defines *karma* as "the subtle particles which are attracted by the tendencies of soul and which are fit to be transformed as *karma pudgala* are called *karma*."<sup>58</sup>

### 1.3 Metaphysical base of theory of *karma*

Metaphysical base of theory of *karma* is described as under—

#### 1.3.1 CHARACTERISTICS OF THE SOUL

To understand the doctrine of *karma*, we must first know about the soul and its characteristics. The soul is different from body. It is the soul which is providing vitality and knowledge required to make the body functional. Some people don't believe in the existence of soul. They must be asked the question as to why a deadbody which has all the physical parts and component does not function. The answer is because the soul has left the body. It is the soul which experiences pleasure and pain, receives signals from outside world through the sense organs, thinks and takes decisions and provides vitality and knowledge for functioning of a machine as complex as the body. The life is in the body because of the soul.

According to Jaina Philosophy, the soul is one of the six realities that constitute this universe. The other important reality is the physical matter, both subtle and the aggregate. The Jainas declared energy also as matter (*pudgala*)—more than two and half thousand years back. Science came to the same conclusion only in the twentieth century.<sup>59</sup>

A reality of substance has three properties—

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57 *Darśana aura cintana*, p. 225.

58 *Jaina Siddhānta Dīpikā* 4-1.

59 *The Jaina doctrine of karma*—by Dr. N.L. Kachārā, p. 3.

- (1) It undergoes transformation and changes its form. Each form is called a *paryāya*.
- (2) It has the property to destructions, i.e. one form is destroyed and other originates.
- (3) In the process of transformation and destruction, the intrinsic nature of the reality is preserved, i.e. its basic characteristic is permanent and is not altered. Such properties are easily evident in physical matter. For example, when a substance changes its form from solid to liquid and to gas, the chemical composition does not change.

So is the case with soul. The soul leaves one body on death and enters another body according to some well defined rules. Here 'death' only implies that the soul leaves the present body, but the soul does not die. The soul is immortal and only changes its form when it enters from one body to another. In this process, *karma* of soul is carried forward to the next body and the soul leaves a life in accordance with this *karma*. The *karmas* are the impressions of the actions performed by the soul.

The soul, according to Jainas, has the following characteristics:

- i. It is beginningless and endless. Its origin cannot be known. It is immortal and cannot be destroyed by any means whatsoever, not even by a hydrogen bomb.
- ii. It occupies body like oil in a seed i.e., why do people confuse body with the soul? Indeed they are different.
- iii. The soul contracts or expands according to the size of the body. In this process of contraction and expansion, the number of space points called *pradeśas* of soul remains unchanged.
- iv. The soul is a non-physical entity, it is known only through its ability of knowing. The soul is the knower. All the knowledge that exists in the world today is due to the soul's power of knowing. For example, the discovery

- of law of relativity by Einstein was because of the power of knowing of his soul.
- v. The soul is the basis of knowledge, perception, bliss and power experienced by a living organism.
  - vi. The soul is a source of innumerable kinds of power. The main powers are the power of knowledge, power of vitality or potential and power of determination.
  - vii. The invisible soul is known by its ability of knowing. The soul is also known by functions of body like laughter, dancing, pleasure and pain, speech, movement, etc. Without the soul these functions cannot be performed by the body.
  - viii. The fine subtle matter, known as *karma vargaṇās* (variform), attracted by the soul from the surroundings, is converted in *karma*.
  - ix. The thoughts and actions of a person leave impressions on the soul. The impressions are recorded on the *karma vargaṇās* attracted by the soul. These *karma vargaṇās* constitute a material body known as *karma śarīra* or *karma* body. This *karma* body containing the impressions accompany the soul when it transcends from one body to other.
  - x. The soul and *karma* body are always held together. The question as to who came first in existence is meaningless like the question of egg and hen.
  - xi. The soul is a non-physical entity but behaves somewhat like a physical body so long as the material *karma* body is attached to it. On liberation, the *karma* body is dissociated and separated and the soul comes in its pure form.
  - xii. All souls are alike except for the *karma* body which differs. This means that every soul is at a different stage of development.

Full development means liberation or emancipation of the soul. The souls are of two kinds:

- i. The mundane soul (*jīva*), and
- ii. The liberated soul.

The mundane soul has *karma* body attached to it and takes rebirth. The liberated soul has no *karma* body and does not take rebirth, it is free from the cycle of birth and death. So, by soul, we shall mean the mundane soul (*jīva*).

In the absolute sense, the soul has only one characteristic, *cetanā* or consciousness. The levels of development of consciousness of soul are different and so each individual in the world is different from other. The genetics says DNA of any two living beings of the universe never resembles, so each individual in the world is different from other from the angle of genetics.

Consciousness is the exclusive property of the soul and is not found in any other substance. The liberated souls have the infinite power of knowledge and perception. Each liberated soul is omniscient, omnipotent and experiences infinite bliss. A liberated soul is perfect and independent and is not dependent on any other agency for any thing. The Jainas don't believe God as the creator of universe, in fact, each liberated soul is a God or *parmātmā*.<sup>60</sup>

Consciousness sentient or the conscious substance is called soul.<sup>61</sup> Such souls are infinite.<sup>62</sup> They exist independently.<sup>63</sup> They are not part of any other spirit or any supreme spirit. Every soul has infinite consciousness. They can know infinite universes. All spirits are same regarding consciousness but all don't have similar development of consciousness.<sup>64</sup> The cause of difference of

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60 Ibid, p. 5.

61 *Uttarajjhayāni* 28, 10-11, Jaina Viśva Bharati, Ladnun.

62 *Dasweāliyaṃ* 4.3, Jaina Viśva Bharati, Ladnun.

63 Ibid, 4.3.

64 *Thāṇaṃ* 2, Jaina Viśva Bhārāti, Ladnun.

development of individual soul is due to his *karma*.<sup>65</sup> Spirit itself is the doer of *karma*, when the spirit enjoys its own pure consciousness it is in tune with its pure nature. While it indulges in other emotions it is the doer of the actions.<sup>66</sup> Spirit indulges in good as well as bad actions and as a result *karmic* matter enters into the spirit spaces and gets attached there. Thus, spirit is the doer of the actions. That means, it is the Creator of its joy and sorrow. It is mentioned in *Uttarādhyayana Sūtra*, "spirit itself is *Vaitarani* river and it itself is the *kūṭa śālmali* tree. Spirit itself is the desire fulfilling cow, *kāmadhenu*, and the *Nandana* forest. Spirit is that creates as well as does not create sorrow and happiness."<sup>67</sup> The reason behind this is that it is the spirit that indulges either in righteousness or in evil, its *karmas* are binding according to its deeds. It is these *karmas* that result into good or bad consequences. Spirit is free in earning good or bad *karma*. Therefore, it is stated, *Bandhappamokkho Tujjha ajjhatheva*, bondage or salvation depends upon the spirit itself.

### 1.3.2 CHARACTERISTIC OF MATTER (PUDGALA)

That which associates and dissociates, such complementary-corporeal inert matter is termed as matter or 'atom'<sup>68</sup>. That which associates and dissociates through joining and separation is called atom. Atom is a relational term for matter or whatever is swallowed or taken in by spirit in the form of body, food, sense, perceptions or sense objects, etc. is called atom.<sup>69</sup> Worldly spirit takes upon matter, body, senses, etc. in every birth.<sup>70</sup> That which possesses the quality of dissociation and completion is atom.<sup>71</sup>

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65 *Bhagavati* 7.8, Jaina Viśva Bharati, Ladnun.

66 *Ātma Siddhi Śāstra*, *Śrīmad Rājacandrajī*, Bhagwānā Mahavīra Hospital, Siwana.

67 *Uttarādhyayana* 20.36-37, Jaina Viśva Bharati, Ladnun.

68 *Jainendra Siddhānta Kośa*, part-III, 67.

69 *Rajavārtika* 5.1.24, 26, 434-12

70 *Abhayadevasāri*—*Purnād galnāccha wapurādīnāmīti pudgalāḥ*.

71 *Niyamsārā*, *Ta. Vṛti* 9: *galanapūraṇa svabhāva samāthaḥ pudgalāḥ*.

(a) **Atom with regards to attribute**—It is mentioned in *Tattvārtha* that atoms are attributed with touch, taste, smell and colour.<sup>72</sup>

Atoms are of two kinds—

(i) Atom,

(ii) Group of atoms.

Atoms are endowed with 30 attributes—

**Touch**—cold, hot, sticky, dry, rough, smooth, light, heavy.

**Taste**—acidic, sweet, bitter, sour and pungent.

**Smell**—fragrance and stench.

**Colour**—black, blue, red, yellow and white.

Although shapers like parabolic, circular, square, etc. are found in atoms but these are not its attributes.<sup>73</sup> The subtle molecule, though being partless and indivisible contains the four attributes—colour, smell, taste and touch and infinite modes.<sup>74</sup> One molecule attributes with one colour, one smell, one taste and two senses of touch (one pair out of cold-hot, dry-adhesive etc.). One atom having differentiation in colour, smell, taste and touch from one colour, smell, taste and touch is perfectly admissible in Jaina Philosophy. A mono attribute atom can stay minimum for one time and maximum countless time in one condition.<sup>75</sup> This rule stands true for all the atoms from double attribute atoms to infinite attribute atoms. Later on there are changes in them. This colour related rule applies to smell, taste and touch as well.

(b) **Form of atom (matter)**—In Jaina tradition, impenetrable, indivisible, imperceptible and indivisible trace of matter is called atom or molecule.<sup>76</sup> A student of modern science may have doubts regarding the attributes of the atom because

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72 *Tattvārtha Sūtra* 5.23.

73 *Bhagavatī* 25.33, Jaina Viśva Bhārāti, Ladnun.

74 *Thaṇaṃ*, 4.135 : *cauvihe poggal pariṇāme paṇṇatte te jahā. Vaṇṇa pariṇāme, gandha pariṇāme, rasa pariṇāme, phāsa pariṇāme.*

75 *Bhagavatī* 5.172, Jaina Viśva Bhārāti, Ladnun.

76 *Ibid*, 5.154.



The stickiness and dryness are the important qualities of the touch for binding two or more atoms together. There are infinite levels (degrees) of stickiness and dryness:

- i. For atoms of similar touch quality (stickiness or dryness) to bond, there should be at least a difference of two levels in their stickiness and dryness.
- ii. For atoms of opposite touch quality (one with stickiness and an other with dryness), they should have similar level (at least two) of touch quality or a difference of two. The quality level should be even (2, 4, 6 etc.) The atoms with odd levels (1, 3, 5 etc.) do not join with each other.
- iii. Therefore, there are infinite number of individual atoms that don't join with others. The group of such atoms is known as first *vargaṇā*.
- iv. Similarly, there are infinite numbers of two atoms joined (such groups are called second *vargaṇā*), infinite numbers of three atoms joined (called third *vargaṇā*) and so on going upto the group of infinite atoms joined.
- v. Now we come to a great group called *Mahāvargaṇā*. In the first *Mahāvargaṇā*, there are infinite number of first, second, third *vargaṇās* upto infinite *Vargaṇās*. In second *Mahāvargaṇā*, the first group has one more atom joined than the last group of the first *Mahāvargaṇā* (the first row of this *Mahāvargaṇā* has infinite number of such groups) and the last group has more infinite atoms joined than the last group of first *Mahāvargaṇā* (the last row of this *Mahāvargaṇā* has infinite number of such groups). Similarly, third, fourth and upto sixteenth *Mahāvargaṇā* are there in the universe. The number of atoms are more and the size is finer in the second *Mahāvargaṇā* than in the first *Mahāvargaṇā* and onwards.
- vi. The *Mahāvargaṇā* with odd number has no use to the living beings. The body of human beings and *Tiryāṅca* (other than

humane, hellish and heavenly beings) called *Audārika śarira*, is made from second *Mahāvargaṇā*. The body of hellish and heavenly beings called *vaikriya śarira* is made from fourth *Mahāvargaṇā*. Similarly, *āhāraka śarīra* (special holy body—only very knowledgeable monks can have capacity to develop), *Taijasa śarīra* (body of vital energy), *anāpāna* (respiratory system), *bhāṣā* (speech), *Manaḥ* (mind) and *kārmaṇa śarira* are made from sixth, eighth, tenth, twelfth, fourteenth and sixteenth *Mahāvargaṇā* respectively. All non-liberated living beings have *Taijasa śarīra* and *Kārmaṇ śarīra* in addition to their gross body.

- vii. The universe is full of *karma* particles. On the tip of a needle, there are infinite number of *karma* particles. The modern religious saints have exposed the fine *karmas* in terms of four touch energy particles spread all over the surrounding in the universe. All types of activities produce vibrations in the living being which attract the *karmic* particles producing a psycho-physical force called *karma*. Thus, *karma* is psycho-physical fine force. Many scholars suggest that the karmic force contributes some energy to slow down or hasten the physical and psychical processes in our body and brain. This results in reducing or maximizing the glandular secretions, hence any material or mental state taken in the body may be causing karmic inputs of course, *karmas* are finer than these secretions or genes of the body system. The *karmas*, thus, form one of the finer bodies of our system.<sup>79</sup> We shall now revert to the question, how the *karmas* are formed and bounded with the soul. Let us assume that a soul has a *karma* body attached to it. The past impressions on the *karma* give rise to *kaṣāya* or passions. The passions are desires carrying feelings of love and hate or attachment and aversion. There

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<sup>79</sup> *Jaina-karmology*—by Dr. N.L. Jaina, Pārśvanātha Vidyāpīṭha, Vārāṇasi, p. 74, first edition, 1998.

are four main types of passions—anger, pride, illusion or deceit and greed. Based on the degree the passions can further be classified. These passions introduce impurities like aberration in the soul. The abilities of the pure soul in the form of infinite knowledge, perception etc. are diminished when passions are assimilated with it. Thus a mundane soul has limited knowledge, perception, vitality and pleasure. The property of a pure soul is said to be obscured by *karma*. A *karma* is known by the particular property it obscures. For example, the knowledge of the soul is obscured by knowledge obscuring *karma*. More is the coverage and less is the power of knowing of an individual and vice-versa.

A living being is engaged in actions all the times. The actions can be performed by the body, speech or some combinations of these agencies. These actions are accompanying passions-induced vibrations in the soul. The nature of vibration depends on the type of action and the magnitude of vibration depends on the degree of passion. Two things happen due to vibrations in the soul. First, the *karma* body vibrates on account of the principle of resonance, second the vibrating soul attracts *karma vargaṇās* from the surroundings. The *karma vargaṇās* are kind of subtle matter particles with four touch assumed to be present all over the cosmos. The *karma vargaṇās* are aggregates of atoms but still are invisible to eyes. An atom called *paramāṇu*, according to Jainas, is the smallest indivisible, indestructible particle of matter. There is only one kind of *paramāṇu* in the universe and all other material atoms and particles are aggregates of large number of *paramāṇus*. For example, the atoms of various elements known to science are aggregates of Jaina *paramāṇus*. The Jainas believe that the *paramāṇu* has not yet been discovered by science.

The *karma vargaṇās* bonding with the soul become part of *karma* body and are called *karma*. This *karma* is a group of specific *vargaṇās* having four touch only that carries the impression of a particular action and which form a part of the *karma* body. How

long do these *karmas* remain in the *karma* body? Each *karma* has a life and after that it separates out from the *karma* body. The shedding of *karma* from the *karma* body is known as *nirjarā*.

#### 1.3.4 THE PRINCIPLE OF CAUSE AND EFFECT OF KARMA

The law which regulates the action of *karma* is based upon the principle of cause and effect, so that the saying "As you sow, so you reap" presents the whole doctrine in a nutshell. Every action whether mental or physical is a sowing of the "seed" or in the technical language of the Hindu Philosophy the engendering of *karma*. In the act of sowing the seed or engendering the *karma*, the soul has the choice of acting or retaining from action, but once the seed is sown or *karma* engendered, its freedom is replaced by an inevitable liability to bear its consequences. This is what constitutes the bondage of the soul. *Karma*, therefore, is a kind of force which compels the soul to bear the consequences of its right and wrong actions, and this force originates in the very action itself which is performed by the soul and at the very moment of its performance.<sup>80</sup>

The term *karma* means actions by the living being either mental, vocal or physical. If there is no activity, there is no life. Many actions are deluding, selfish or with attachment, while many are otherwise. The *karma* theory promotes the *Gītā* sermon of non-attachment, non-delusion, non-selfishness and desirelessness for the happy worldly life. It promotes self elevation along with public elevation, morally and physically.

In general, the *karma* theory aims at individual's spiritual upliftment. It is just unfortunate that this spiritualism has taken us too far to become self centred, egoistic and selfish. The individualism or spiritualism became an isolated system. The isolationism has its good and bad effect for the society. It is interconnected and interrelated system with environment and other entities each effecting one another. Thus, the scope of *karma* theory

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80 *The key of knowledge* by C.R. Jaina, p. 876-77.

has gone very wide to include group *karmas*, national or international *karmas*. This has improved the utility of *karma* theory for spreading universal brotherhood and increasing the overall happiness in the world. It has a potency of making the world more peaceful as well as physically progressive.<sup>81</sup>

### 1.3.5 INTERACTION OF SOUL AND KARMA

Jains have gone in extraordinary depth to describe the theory of *karma*. The involvement of the soul with *karma* has no beginning. The soul of a *sansāri* has always been impure, just as a gold in gold mine. As gold cannot be purified until it goes through the refinement process, the soul cannot be purified until it goes through proper purification process of achieving perception, perfect knowledge and perfect conduct. As long as the soul is impure, it will continue the cycle of birth and death (the cycle of transmigration— *sansāra*). The impurities are called *karmas*. There is a continuous interaction between soul and *karma*. It is very likely that most souls will have endless journey through the cycle of four destinies—*deva* (heavenly beings), *manuṣya* (human beings), *nāraki* (hell beings) and *tiryāṅca* (animal, plants and all other living beings). *Karma śarīra* is made of *karma* particles, *karma* particles are *pudgalas* (non-living or *ajīva*), like *ātma pudgala* is one of the six basic substances (*dravyas*). *Karma śarīra* is the subtle body. It cannot be seen by the most magnificent microscope or any similar instrument. Obviously, atoms of *Karmaśarīra* are the subtlest of all.

### 1.3.6 KARMA ŚARĪRA

Jaina *karma* subject is '*dvandvātmaka*.' One meaning of *dvanda* is duality. It is duality of light and darkness, purity and impurity, detachment and attachment, alertness and carelessness, awareness and ignorance, and insight and outwardness. Another meaning of '*dvanda*' is *yuddha* (battle). This is to be the subject of battle between

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81 *Jaina-karmology* by Dr. N.L. Jaina, Pārśvanātha Vidyāpīṭha, Vārāṅasi, first edition, 1998.

*jīva* and *ajīva*, battle between *ātmā* and *karma*. The duality will be over when *ātmā* wins the *yuddha*. All we have to do is to disassociate *ātmā* from *karma*. In fact, our final and only object is to disassociate *ātmā* from *karma* and to realize our own *ātmā*'s qualities.

We have seen that some students do very well in the class while others struggle. Some earn money easily while others do not. There is nothing but suffering in some people's life while others enjoy their lives. Questions may arise in our mind that how some live longer while others die at younger age. Why there is such a contrast in the life? What are the root causes behind these and how that can be overcome? These all happen due to our *karma* (*Kārmaṇa śarīra*).

### 1.3.7 ROLE OF KARMA ŚARĪRA

We (*sansāri*), living beings, are constituted of two *dravyas*, *jīva* and *ajīva*. *Ātmā* is formless and invisible, and it is everywhere in our body. In *sansāri* (worldly-non liberated) *jīvas*, *cetanā* (quality of *ātmā*, consciousness) is associated by *karma* particles everywhere in our body. Also, *karma* particles are everywhere in the space. As long as they are not associated with *cetanā* (quality of *ātmā*-consciousness), they are ineffective. Our activities—"like and dislike" (attachment and aversion) work as a magnet and attract *karma* particles. When they associate with our soul, they are called *karma*. *Karma* and soul have been associated since time immemorial. Every moment we are adding *karma* continuously due to our activities of attachment and aversion. Often we have partial separation, meaning disassociation of some *karma* through austerities (*tapas*). *Karma śarīra* is the hindrance (obstacle) that does not allow us to realize the true qualities of soul, does not let us become what we should be by our own nature, does not let us become *paramātmā* from *ātmā*. *Kevalis* (*siddhas*) do not have any association with *karman śarīra*, we all want to achieve this state.

The relation between the spirit and non-spirit is responsible for the worldly existence. Apart from the gross body, there is a subtle body which serves as a link between spirit and non-spirit.

The soul, with the Jains, undergoes a change every moment although never losing its density. The soul has a number of potencies and each moment of its existence is an integration of these potencies. The nature of *karmic* body at any moment is determined by this integrated existence of the soul. The soul is pure and perfect in its intrinsic nature. It is only due to its relation with *karma* that the soul comes to have passions (*kaṣāya*). And the relation being beginningless, the problem which of the two—the passions and the *karma*—come first does not arise.<sup>82</sup>

In *pañcāstikāya*, referring to the long ago linkage between soul and *karmic* matter as "soul-*karmic* matter cycle." It is mentioned that, "the mundane soul which is bound in the cycle of birth and death, has the effect of love and hatred. These effects attract new *karma*. *Karma* leads to birth in various states. Birth produces a body, a body possesses senses, senses enjoy their subjects, interest in subjects gives rise to love and hatred. Thus, with emotions of mundane soul arise *karmic pudgalas*, with *karmic pudgala* arise emotions. This flow is beginningless and infinite with reference to non-awakened soul and beginningless and finite with reference to awakened soul.<sup>83</sup> The conclusion is that when other philosophical systems call action and *sanskāra* of soul as *karma*, Jaina Philosophy calls the concrete *karmic* matter attached to the soul as *karma* caused by love and hatred, emotions of the soul.

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82 *Studies in Jaina Philosophy*—By Nathmal Tantiya, publisher P.V. Research Institute, Vārāṇasī, first edition.

83 *Pañcāstikāya* 29.30.

## 2

Life in the Science of *Karma*

Living organism depends on an 'organization' that regulates all its action. What exactly is 'living'? In other words, what is the difference between 'animate' and inanimate? According to Jaina Philosophy, animation is caused by the unity of a non-physical (or non-material) entity called soul or spirit with a material body. That is, there is a subtle spiritual self associates with the gross physical body during the life; death is the separation of two. Until emancipated, the soul is always enveloped by *karma* (as *karma śarīra*). Thus, on death, what is separated from the physical body is soul-cum-*karma śarīra*. It is the *karma* that is responsible for the 'organization' of the physical body. The role of the non-material soul is somewhat akin to a catalyst. An organism 'lives' its duration of its life-span which is determined by one of the eight main categories of *karma* viz. *āyusya karma*.<sup>1</sup>

### 2.1 Characteristics of living substance

All living substances have to a greater or lesser extent the specific properties as follows—

1. Shape<sup>2</sup>
2. Size.<sup>3</sup>

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1 *Neuro-science and karma*—by Jethālāla S. Zaverī and Muni Mahendrakumar, second edition, 1994, published by JVBI, Ladnun, p. 11.

2 *Pañṇovaṇā samthananaidaracchalen* 983-989, p. 241, *Gommatasāra (Jīvakāṇḍa* 201).

3. Metabolism.<sup>4</sup>
4. Movement.<sup>5</sup>
5. Irritability.<sup>6</sup>
6. Growth.<sup>7</sup>
7. Reproduction.<sup>8</sup>
8. Adaptation.<sup>9</sup>

The above list of their properties seems to be specific and definite but the line between the living and the non-living, according to modern biology, is tenuous as "non-living objects may show one or more of these properties but not all of them."<sup>10</sup>

Many of the phenomena of life that appear to be so mysterious, as discovered by the Jain *ācāryas*, such as *ucchavāsa* (respiration), *saññā* (instinct), *bhāṣā* (speech), *kaṣāya* (passion), *indriyas* (senses), *leśyā* (condition of soul or psychic condition), *vedanā* (feeling), etc. of the living substances, have proved to be understandable by invoking a unique life force, while other aspects of life can be explained by physical and chemical principles in the light of biology.

### 2.1.1 SURVIVAL OF ORGANISM

One of the fundamental characteristics common to all living beings without exception is the desire of survival. Every organism achieves

3 *Uttarādhayayana Sūtra* 36-70, *Gommatasāra (Jivakanda, V. 177, V. 183, Bhagavatī Sūtra* 19.3, B52-53, 25.1.717.

4 *Sutrakṛatāṅga, Srutaskandha II, Adhyayan 3, Bhagavatī Sūtra* 1.7.161-62, 7-3, 275-76.

5 *Ācaraṅga Sūtra* book-I 9.1.14, *Bhagavatī Sūtra* 25.4.789

6 *Bhagavatī Sūtra* 3.9.170, 2.4.99, *Pañṇavaṇā Sūtra, Indriyapadama* 15.

7 *Sūtrakṛatāṅga Srutaskandha II, Adhyayana 3, Sūtra* 55-62, *Tandula Veyāliya III, 2, 3, 4, 5, 6.*

8 *Jīvabhiyāgama Sūtra* 3.1.96, 1-33, *Mulācāra II, 12.43, 44, 45, Tattavārtha Sūtra* 2.32.

9 *Bhagavatī Sūtra* 7.3.275, *Tarkāvahāsyadīpikā* 28, V. 49.

10 *Biology, p. 17, J.B.-3.*

it with efficiency. The apparatus, which is perfectly adopted for this purpose, is supplied by *nama karma* and *āyusya karma* which provide suitable reference standards or *sarijñās* (unlearned instincts) for every category of organism. In humans, the pattern of nerve cells of the hypothalamus of the brain is the physical embodiments of fundamental standards. The pattern of human actions is set originally during embryonic development under the control of DNA which in itself is partly inherited and partly karmic.

Their reference standards are the primal drives or the unlearned instincts. Throughout life, they generate wants and desires, influence hunger and satiety, longings and satisfactions, love and hate, revulsions and fears. Of course, these are not the only or even the main influences and one does not follow only the hypothalamus. In human life, the standards include many further subtleties derived from learning and culture. In all cultures, the most primitive to the most sophisticated, people are continually to face situations where they must choose what to do. What to say, what to ask for, what to buy, what to give and so on. Of course, their choices depend upon all sorts of individual needs and cultural influences. Thousands of other equally powerful influences, not necessarily instinctual but learned, interact with the primal drives. They may reinforce countermand a primal drives, for example a non-vegetarian would be delighted when served with, say, a well cooked lobster dinner. On the other hand, a born vegetarian would find the very sight so repulsive that he may throw up. In neither case is the lobster responsible for the result but learned emotional feelings. But all of these are subordinate to a fundamental method of acting that is embodied in the programmes of the brain.<sup>11</sup>

### 2.1.2 THE FABRIC OF LIFE

As defined, biology is the science of living substances (*jīvadravayas*). The field of Jaina biology differentiates the living from non-living by

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11 Neuroscience and karma, p. 14-15.

using the word *jīvasttikāya* (organism)<sup>12</sup> to refer any living things, plants or animals, just as modern biology does, so it is relatively easy to see that a man,<sup>13</sup> a Sala tree,<sup>14</sup> a creeper<sup>15</sup> and an earth worm<sup>16</sup> are living, where as a piece of matter (*pudgala*), e.g. wood, stones, etc. are not.<sup>17</sup> Some materialists maintain the view that elements are non-conscious (*acetana*). Consciousness is not the character of an element or the result of elements, while soul is the name of that reality (*tattva*) with consciousness (soul) related as character of result.<sup>18</sup> According to modern biology, "protoplasm is the actual living material of all plants and animals." This is not a single substance but varies considerably from organism to organism, among the various parts of a single animal or plant and from one time to another with a single organ or part of animals or plants. There are many kinds of protoplasts, but they share certain fundamental physical and chemical characteristics.<sup>19</sup> The protoplasm of the human body and of all plants and animals exists in discrete portions known as cells. These are microscopic units of structure of the body, each of them is an independent, functional unit, and the processes of the body are the sum of the co-ordinated functions of its cells. These cellular units vary considerably in size, shape and function. Some of the smallest animals have bodies made of single cell, others, such as a man or an oak tree are made of countless billions of cells fitted together.<sup>20</sup>

According to modern biology, "The structural and functional unit of both plants and animals is the cell, the simplest bit of living matter that can exist independently." The cell itself has specific

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12 *Bhagavatī Sūtra* 20.2.665.

13 *Ibid*, 33.1.884, *Uttarādhyayana Sūtra* 155, *Tattoārtha Sūtra II*, 24.

14 *Ibid*, 22.1.692.

15 *Ibid*, 23.4.693.

16 *Tattoārtha Sūtra II*, 24.

17 *Bhagāvatī Sūtra* 2.10.118.

18 *Sūtravārtā Samuccya*, *Haribhadrasūri* Ist stabaka V. 31.

19 *Biology*, Viller. A, p. 16.

20 *Ibid*, p. 16.

organization, for each type of cell has a characteristic size and shape, it has a plasma membrane which separates the living substance from the surrounding, and it contains a nucleus, a specialized part of the cell separated from the rest by a nuclear membrane. The nucleus plays a major role in controlling and regulating the activities of the cell. The bodies of the higher animals and plants are organized in series of increasingly complex levels. Cells are organized into tissues, tissues into organs and organs into organ system.<sup>21</sup>

### 2.1.3 PROTOPLASM—LIVING MATERIAL

The major types of organic substances found in protoplasm are carbohydrates, proteins, lipids, nucleic acids and steroids.<sup>22</sup> Some of these are required for the structural integrity of the cell, others to supply energy for its functioning and still others are of prime importance in regulating metabolism within the cell.<sup>23</sup>

Carbohydrates and fats (lipids) have only a small role in the structure of protoplasm but are important as sources of fuel. Carbohydrates are readily available fuel but fats are more permanently stored supply of energy. Nucleic acids have a primary role in storing and transmitting information, proteins are structural and functional constituents of protoplasm, but may serve as fuel after de-animation. The body can convert each of these substances into others to some extent, protoplasm into a colloidal system, with protein molecules and water forming the two phases, and many of the properties of protoplasm—muscle contraction, amoeboid motion, and so on, depend on the rapid change from sol (liquid condition) to gel (solid or semi solid) state and back.<sup>24</sup>

### 2.1.4 LIFE AND ENVIRONMENT

The ability of a plant or animal to adapt to its environment is the characteristic which enables it to survive the exigencies of a

<sup>21</sup> *Ibid*, p. 17.

<sup>22</sup> *Ibid*, p. 25-26.

<sup>23</sup> *Ibid*, p. 25-26.

<sup>24</sup> *Ibid*, p. 33.

changing world. Each particular species of plant or animal can become adopted by seeking out an environment to which it is suited to make it better fitted to its present surroundings. According to modern biology, "it is obvious that a single plant or animal cannot adopt to all the conceivable kinds of environment, hence there will be certain areas where it cannot survive or some areas where it can."

Many factors may limit the distinction of a species such as habitat, earth, water, air, light, temperature, food, predators, competitors, parasites, etc.

The analysis of the types of plants<sup>25</sup> and animals,<sup>26</sup> etc., as recorded in *Jaina Āgams*, shows the types of plants such as trees, shrubs, herbs, creepers, grasses, etc. distributed over different regions of India where they could grow and adopt to their suitable environment to survive the exigencies of a changing world. The classification of animals by Jainācāryas into *sthalacara* (terrestrial), *Jalacara* (aquatic) and *Khecara* (aerial) beings etc.<sup>27</sup> throws light upon their habitat and ecology where they could grow and adopt and make themselves better fitted in their survival.

The study of the life of beings was made by the Jainācāryas in relation to environment. So climatic conditions have been described by them under the term '*ṛtu*'.<sup>28</sup> It has been sub-divided into *varṣa* (rainy season = *śaravanadi* or *asayujadiḥ*), *śarada* (*margaśirṣadhiḥ* = autumn), *hemanta* (*maghadhiḥ* = winter), *vasanta* (*caitradiḥ* = spring) and *grīṣma* (*jyēṣṭhadhiḥ* = summer).<sup>29</sup>

The study of life in relation to environment probably began from the *vedic* period<sup>30</sup> and climatic conditions were similarly

25 *Uttarādhyayana Sūtra* 36, vv 94-104, *Pañṇavaṇā Sūtra* 5, *Sūtra* 35-54, p. 16-27.

26 *Ibid*, 36, vv 126-155, *Ibid*, 2.

27 *Bhagavati* 7.5.287, *Uttarādhyayan Sūtra* 36.171, *Jīvābhigama Sūtra* 1.34.

28 *Ibid*, 7.3.275, 9.33.383.

29 *Ibid*, 9.33.383.

30 *Ṛgaveda*, 9.6; *Atharvaveda*, VIII 9.1.15, XIII 1.18.

treated under the same term '*ṛtu*' (season) which was first sub-divided into three seasons:

- (i) *Vasanta* (spring)
- (ii) *Grīṣma* (summer)
- (iii) *Śarada* (autumn).<sup>31</sup>

*ṛtu* has also been sub-divided into five seasons :

- i. *Vasanta*
- ii. *Grīṣma*
- iii. *Varṣa*
- iv. *Śarada*
- v. *Hemanta Śīśira*<sup>32</sup>

Sometimes it is sub-divided into six by separating *Hemanta* and *Śīśira*.

## 2.2 Birth of life in Jainism

According to Jaina Philosophy, life comes into being through the following three ways—

- i. Sexual reproduction or birth,
- ii. *Sammūrcchana* birth,
- iii. *Upapāda* birth.

'**Sexual reproduction**' takes place through male and female mating. The birth of *Jīva* takes place by automatically gathering life giving and supporting atoms together from the surrounding atmosphere is called '*sammūrcchana*' birth. Creatures with single sense organ to non-substantive five sense organs of animals and some of the substantive five sense organs of animals and men too are born through '*sammūrcchana*' birth. In this type of birth the favourable combination of matter atoms acts as a genus and here birth takes place without male and female mating. '*Upapada*' birth is restricted only to hell and heavenly creatures. Life through '*sammūrcchana*' process does not materialize in the absence of

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31 *Ibid*, 9.6; *Ibid*, VIII, 9.1.15, XIII, 1.18.

32 *Atharvaveda* VIII 9.15.

favourable conditions. We have to remember that origin of soul is impossible. Soul is eternal but origin of various life forms is possible. Some of the scientists believe that life didn't originate on the earth, rather life or various life forms originate here while the seed of life (the spirit or soul) perhaps comes from any distant planet or star.

Now, the question arises—"How did various different species of animals and plants come into existence from the primal single creature or being?" This too may be grasped in the light of biology. There are two points here. The first point is that in the everchanging atmosphere, different genres constantly came into existence under varying temperature, pressure and with the presence of various material atomic dusts. Whenever there came into being a new genus fit for the birth, a new species of creature took shape. Thus, in the ever changing atmosphere of the earth new species of creatures took birth and ever new genres went on growing. According to Jainism, genres are cold, hot covered, and uncovered and various other forms.

Human sperms are single sensed creatures. When male sperm meets the female egg inside the female uterus both get fused and fertilization takes place. In this process, the sperm and the egg lose their existence and form a new cell. Human embryo takes shape from this cell and the embryo is born inside the female womb growing up gradually. This new cell established in the female womb at a favourable temperature and pressure is the genus of man. The source of origin that is formed in the female womb is fit for a human being to be born. Thus, it is clear that through the fusion of two single cells (sperm and egg) takes shape a new cell, through which is born a multicelled creature ie, man. It means to say that there may have been fusion of two single celled creatures in the changing atmosphere long ago, and then there may have taken shape such a cell containing the source of origin of a multi-cellular creature (possessing two or three sense organs) and then may have come into existence new

forms of creatures. It is always possible and this theory is in no way contradictory to the Jaina principles.

Through the process of a single cell prototypical creature evolving into multiple species creatures we must understand that some primordial creatures (single celled) went on losing their existence through fusion and forming new genus in the new atmosphere through which came into existence new species of creatures. In fact, creatures with two sense organs from one sense organ or creatures with three sense organs from two sense organs did not evolve rather, some creatures with single sense organ prepared the genes for creatures with two sense organs losing their own existence.

If Darwin propounded the theory of 'natural selection,' Jainism fixed the number of genuses. According to the theory of natural selection, only those creatures could have survived who possessed the potential to adopt themselves to the changing conditions and atmosphere. While Jainism says the number of genus determines the number of species to be born to whom environment favours. Excluding this, birth of any species is not possible. Total quantity of genuses is 84 lakhs and out of these genuses 197.5 species can take birth. By this it is clear that Jaina theory of *karma* agrees origin of life of organism on the earth and their successive development theories of genetics. It is only needed to understand Jaina Theory of *karma* in a systematic scientific way.<sup>33</sup>

### 2.2.1 CONCEPTION

The incredible sequence of events that occur before birth resulting in the formation of a perfect human being is one of the most amazing parts of the human story. Fertilization is union of the ovum with the sperm which takes place in mother's womb. In humans, a mature visible ovum is surrounded by a barrier (tough membrane). An estimated 35 million sperms are needed to break a large enough hole in the barrier for a single sperm to enter the ovum. As soon as this is accomplished, the ovum fuses with the

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33 *What is life*—by Dr. Anilkumar Jain, p. 23.

sperm and prevents the entry of additional sperms. Now the male pronucleus with 23 chromosomes units with its counterpart—the female pronucleus—and the full complement of 46 chromosomes align themselves in 23 pairs in fertilized ovum. *The single cell is now ready to receive soul.* Precisely at the instant, a transmigrating soul, which is a conscious substance enveloped in micro body *Kārmaṇa Śarīra*—arise in the womb (from its previous life) and animates the fertilized ovum, which becomes its physical body through a stage by stage biological processes.

A new human being has been conceived. The new human is thus, endowed with—

- i. The genetic code contained in 23 chromosomes from the mother.
- ii. The code conceived in *Kārmaṇa Śarīra* appended to his soul from his previous life/lives. All these continue to interact and integrate into various programmes which would control the life of the new human. It's existence and development is totally dependent on *karmic* and hereditary instructions. Those for remaining alive come from DNA and *Āyusa karma*.<sup>34</sup> A body's existence and growth are partly dependent on hereditary programmed instructions contained in his DNA and partly on the instructions from the fruition of the body making (*nāma*) *karma*. Organ building, joints building, structure building and such other functions of remaining alive and growth would be the outcome of the joint action of the DNA and various sub-species of the body making (*nāma*) *karma*.<sup>35</sup>

According to *vedic* religion, the act of placing semen into the womb of woman by man in a righteous manner is called conception.<sup>36</sup> Similarly, when the menstrual secretion of woman

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34 *Neuroscience and karma*, p. 19.

35 *Ibid*, p. 20.

36 *Hindu dharmakośa*, p. 288.

enters her cocoon like womb getting fertilized by man's semen, there occurs conception.<sup>37</sup> Conception has been acknowledged as the very first ceremony among 53 activities in *digambara* scriptures.<sup>38</sup> Regarding the condition of the soul when it enters the womb here Gautama, disciple of Lord Mahāvīra, asked Lord Mahāvīra, "Is the soul endowed with sense organs at the time of its entry into the womb or is it devoid of sense organs?" The Lord answered, "It is endowed with sense organs as well as devoid of them." The Lord explained the reason that at the time of conception the soul is devoid of physical sense organs but it is endowed with subtle object sense organs.<sup>39</sup>

Physical organs cannot take shape without the intake of food. Similarly, answering a question about body the Lord said that body is not *audārika* (gross), *vaikriya* (defective) and *āhāra* (food consuming) but it is *taijasa* (brilliant) and *kārmaṇa* (based on *karmas*).<sup>40</sup> Nowhere else such a subtle and theoretical analysis of the soul located in the womb is available. In this connection, the discoveries and experiments of the modern anatomists are very significant. Male sperm and female egg fused together form a single cell that possesses all the hereditary characteristics. The personality of the foetus depends upon this cell. The hair colour, eyes, skin, height or shortness, obesity or slimness, foolishness or sharp intellect, age, constitution of body parts, etc. of the foetus, all are inherent in this cell. Thus, according to scientists that first moment is highly significant.<sup>41</sup>

37 Taṇḍulvaicārika prakīrṇaka-11.

38 *Mahāpurāṇa* 38.51-68.

39 Bhagavatī 1.340-341: *Goyamā! siya saī diye vakkamai. Siya aṇim diye vakkamai* (340) *Goyamā! Divvindiyaṇipaduccha aṇidiye vakkamai. Bhāvindiyaṇipaduccha saine vakkamai. Se teṇaṭṭheṇa Goyamā evanvaccai-siya sanidiye vakkamai. Siya aṇindie vakkamai* (341).

40 *Bhagavatī* 1.342-43.

41 Mind alive, p. 37.

According to the spiritual people, *Tirthankaras*, “The soul enters into this cell at that very first moment along with its *taijas-kārmaṇa* bodies following its *karmas* of the previous birth, and then it is called a living embryo. Birth starts at this very instant. The life of the soul too starts at this instant. Soul is eternal and immortal, therefore, it does not take birth.”

### 2.2.2 KINDS OF CONCEPTIONS

Conception results into four kinds of foetus—female, male, neuter and a solid mass of flesh.<sup>42</sup> Excess of semen produces male, excess of female secretion produces female, both being equal results into neuter and if the female secretion freezes due to defective humours it results into a mass of flesh.<sup>43</sup> *Manusmṛti*,<sup>44</sup> *Caraka Sanhitā*,<sup>45</sup> *Aṣṭāṅga Hṛdaya*<sup>46</sup> and *Suśruta Samhitā* confirm this opinion. *Manusmṛti* gives one more reason for this that if an ovulating woman has intercourse on even nights she gives birth to a male child while if she conceives on odd nights she produces a female child. Explaining it more scientifically *Bhoja* says that during even nights the quality of menstrual secretion is less while on odd nights its quality is more and therefore, the said results.<sup>47</sup>

In the book *Bahula Vaicārika Prakīrnaka*, this topic is discussed focusing on the situation of the embryo too. The embryo situated in the right side of the womb grows into a male child, the one situated in the left side grows to be a female child while the embryo situated in the middle of the uterus grows to be an

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42 *Thānaṇi* 4.642, J.V.B. Ladnun.

43 *Tandula Vaicārika Prakīrnaka* 22-23.

44 *Manu*, 3.49.

45 *Caraka Sanhita*, 2.11.

46 *Aṣṭāṅga Hṛdaya*, 1.5-6.

47 *Suśruta*, 3.10, p. 21.

eunuch.<sup>48</sup> The same is discussed in detail in *Suśruta*.<sup>49</sup> Some western scholars also have maintained that there exists such substances in the right ovary of woman that possesses the power to produce a male child while the left ovary produces a female child.<sup>50</sup>

Modern scientists explain that birth of a male or female child is determined by sperm cell. XY chromosomes determine the male sex while XX chromosomes are responsible for female sex. Egg cell contains XX chromosome whereas sperm cell has XY chromosomes. When the X chromosome from mother and Y chromosome from father fuse together, a boy is born, whereas if both of them contribute only X chromosomes, a girl child is born.<sup>51</sup> If at the time of conception, the male breaths from right nostrils and the female breaths from left nostril, a male child is born.<sup>52</sup> According to Japanese scientists, a pregnant lady can convert her foetus into either male or female through her will power. If from the time of conceiving till two months, she suggests herself repeatedly before going to sleep that "I will give birth to a son" she may bear a son. He claims nearly 200 women have given birth to male children in this way.<sup>53</sup> Similarly, a western scientist conducted experiments on lower animals ascertaining sex of the young ones and concluded that a rich diet results into female sex while a poor diet produces male sex. He believes the same will prove successful for women too.<sup>54</sup>

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48 *Tandula Vaicārika Prakīrṇaka* 16.

49 *Suśruta*, 3.32, p. 27.

50 *Hindi Śabda Sāgara*, 1244.

51 *Mind alive*, p. 37.

52 *Śiva Svarodaya*.

53 *Homeopathic family treatment*, p. 996.

54 *The assent of man*, p. 114-115.

In the opinion of the well known philosopher, Aristotle, if at the time of conception, there blows a northerly wind, the embryo grows to be a male child. There are numerous such beliefs but many of them are not logical enough, therefore, they are not discussed here.

### 2.2.3 BIRTH PROCESS

There are three kinds of births—

- (a) *Sammūrcchana*,
  - (b) Conception and
  - (c) *Upapāda*.
- (a) ***Sammūrcchana***—The birth of those creatures whose place of birth is not fixed and who don't conceive is called 'sammūrcchana.' Upto four sensed organed creatures are born through *sammūrcchana*. Many five sense organed men born at places like excreta, urine and mucous etc. Fourteen different places of men and animals are also born as '*sammūrcchana*'
- (b) **Conception**—The birth that takes place through male semen and female menstrual secretion is called conception. Egg-bearing, yolk-bearing and foetus-bearing five sense organed creatures are born through conception.
- (c) ***Upapāda***—The birth of those creatures whose birth place is fixed is called *upapāda*. Gods and hellish creatures are born as *upapāda*. A narrow necked pot for the hellish creatures and sleeping beds for Gods are the fixed birth places.

Creatures take birth in both conscious and unconscious bodies. All the activities going on through the physical body of

creatures take place through the association of the power of both soul and material particles.<sup>55</sup>

#### 2.2.4 EIGHTY-FOUR LAKH VAGINAS

Vaginas (sources of origin of creatures) are eighty-four lakh in number<sup>56</sup> and there are one crore ninety seven lakh and fifty thousand (1,97,50,000) genuses of them. There are found many genuses in one vagina. For instance, dung is just one single vagina which contain many genuses like *kṛti*, fowler, scorpion etc. Following are the list of 84 lakh vaginas:

S. No.	Place	Vagina	Genus
01.	The earth body	7 Lakh	12 Lakh
02.	The water body	7 Lakh	7 Lakh
03.	The fire body	7 Lakh	7 Lakh
04.	The air body	7 Lakh	7 Lakh
05.	Flora	24 Lakh	28 Lakh
06.	Two sense organed	2 Lakh	7 Lakh
07.	Three sense organed	2 Lakh	8 Lakh
08.	Four sense organed	2 Lakh	9 Lakh
09.	Five sense organed	4 Lakh	Water creatures 12.5 Lakh, aerial creatures 10 Lakh, terrestrial creatures 10 Lakh, crawling reptiles 9 Lakh, armed reptiles 9 Lakh
10.	Men	14 Lakh	12 Lac
11.	Hellish creatures	4 Lakh	25 Lakh
12.	Gods	4 Lakh	25 Lakh
	Total	84 Lakh	197.5 Lakh

55 *Jaina darśana: manana mīmāṃsā*, Muni Nathmal (Ācārya Mahāprajña), Ādarśa sāhitya saṅgha prakāśana, Churu, third edition, 1977.

56 *Samavāo* 84.14: *cāurāsī janippa muhasaya sahasā paṇṇattā*.

### 2.3 JAINA VIEW OF PARYĀPTI AND PRĀṆA

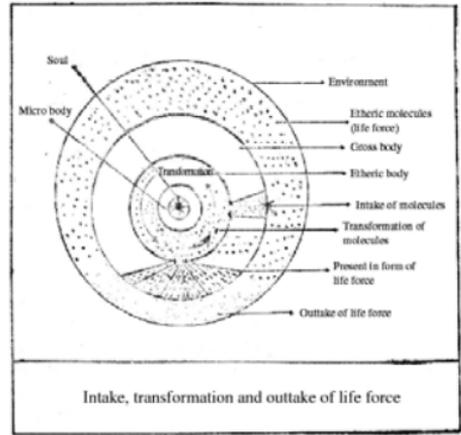
Jaina *paryāpti* and *prāṇa* appear to be the actual living material of all plants and animals like protoplasm in modern biology. Jaina *paryāpti* and *prāṇa*, the two unique forces, not explainable in terms of physics and chemistry, are associated with and control life. The

concept of these forces may be called vitalism which contains the view that living and non-living systems are basically different and they obey different laws. Many of the phenomena of life that appear to be so mysterious in Jaina biology may be explained by physical and chemical principles. So it is reasonable to suppose that *paryāpti* and *prāṇa*, the two mysterious aspects of life, come near to the idea of protoplasm because of its unique functions in the organism.<sup>57</sup>

#### 2.3.1 PRĀṆA (LIVING MATERIAL OR LIFE FORCE)

It is stated that there are ten types of *prāṇa* (living material or life force).<sup>58</sup>

- a. Five *indriyaprāṇas* (life force of five senses)
- b. *Ucchvāsa prāṇa* (life force of respiration)
- c. *Āyusya prāṇa* (life force of length of life)
- d. *Manobala prāṇa* (life force of mind)
- e. *Vacanabala prāṇa* (life force of speech)
- f. *Kāyabala* (life force of body).

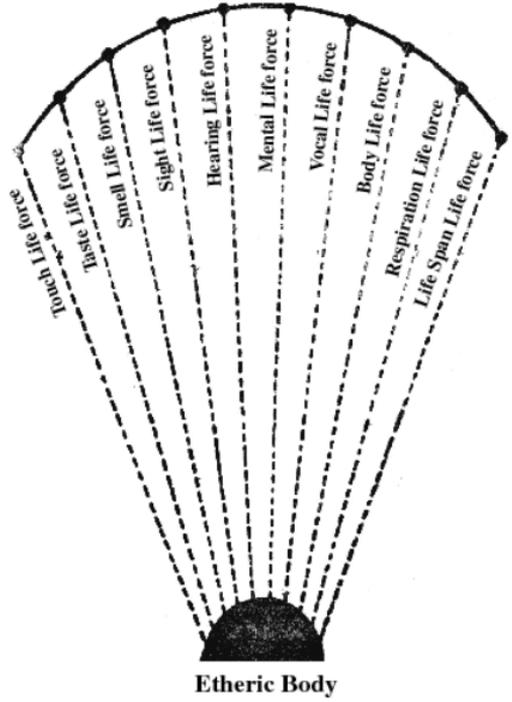


<sup>57</sup> *Jaina Biology*—by Dr. J.C. Sikdar, publisher—Śānti Commercial Centre, Ahmedabad, 1st edition, p. 15.

<sup>58</sup> *Jivavicāra*, v.v. 42.

Actually speaking, these ten *prāṇas* are almost contained in six *paryāptis* as follow:

- (i) *Āhāraparyāpti-Āyusya prāṇa*
- (ii) *Indriyaparyāpti*—contains five *indriyaprāṇas*.
- (iii) *Anapānaparyāpti*—*ucchvāsaprāṇa*.
- (iv) *Sarīraparyāpti*—*kāyāprāṇa*.
- (v) *Bhāṣāparyāpti*—*vākaprāṇa*.
- (vi) *Manahaparyāpti*—*manahaprāṇa*.



Thus, it is found that most of the *paryāptis* and *prāṇas* have common names. So the question is, whether there is any difference between them? *Gommatasāra* explains the difference in the way that any *paryāpti* is the attainment of the capacity of developing body, mind, speech and five senses while *prāṇa* is the activity of those functionaries.

**It is further explained that—**

- (i) One sensed being—has four *prāṇas* or *balas* (life forces) viz. sense of touch, respiration, length of life and body.
- (ii) Two sensed beings—have six *prāṇas* viz. senses of touch and taste, respiration, length of life, body and speech.
- (iii) Three sensed beings—have seven *prāṇas* viz. senses of touch, taste and smell, respiration, length of life, body and speech.

- (iv) Four sensed beings—have eight *prāṇas* viz. senses of touch, taste, smell and sight, respiration, length of life, body and speech.
- (v) *Asamjñī pañcendriya jīva* (five sensed being having no physical mind but psychical mind)—have nine *prāṇas* viz. senses of touch, taste, smell, sight and hearing, respiration, length of life, body and speech.
- (vi) *Samjñī pañcendriya jīva* five sensed beings having physical mind and psychical mind viz. senses of touch, taste, smell, sight and hearing, respiration, length of life, body, speech and mind.<sup>59</sup>

### 2.3.2 PRĀṆA (VITALITIES) AND PARYĀPTI (SUFFICIENCIES)

All the activities like food intake, thinking, prattling, etc. are performed with the help of *prāṇa* (vital breath) and *paryāpties* (sufficiencies). For example, man makes effort to speak and that is thought to be vital energy. Following that effort the power that gathers atoms convertible into speech is called speech-sufficiency. Food sufficiency and life vitality, mind sufficiency and mind vitality, body sufficiency and body vitality, speech vitality and speech sufficiency are all mutually related. This brings us to the conclusion that all the activities performed by creatures through their physical bodies are possible only through the association of both spiritual and physical power.

### 2.3.3 RESPIRATION AND ENERGY RELATION

All the phenomena of life growth, movement, irritability reproduction and others require the expenditure of energy (*vīrya*)<sup>60</sup> by the cells of organism. Living cells must have chemical energy. According to modern biology, "All the living cells obtain biologically useful energy, primarily enzymic reactions in which

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59 Ibid, v.v. 42-43.

60 *Tarkārāhāsyā Dīpikā*, Ṭīka on v. 9, p. 159.

electrons flow from one energy level to another.”<sup>61</sup> The Jainācāryas state that vital force (*pariyāpti*) by which organisms inhale the particles of suitable respiratory air, i.e. oxygen (*ucchvāsamarhamadya dalam*) transforms it and exhales (as carbon-di-oxide) is called *ucchvāsaparyāpti*.<sup>62</sup>

Now the question arises, what is the necessity of *pariyāpti* in respiration, when body and respiration are brought about by *dehaucchvāsanāma karmas* (body respiration producing *karma*)? The reply is that the transformation of matters received by the soul as body is brought about by *Śarīra Nāmakarma* (body-producing *karma*), while the completion of the started *aṅga* (body) is brought about by *pariyāpti* (vital force).<sup>63</sup> This difference of *sarīranāma karma* from *pariyāpti* (performance) *karma* is due to the difference of *Sādhyā* (performance).<sup>64</sup> Thus, *Ucchvāṣa-labdhi* (faculty of energy of respiration, i.e. *prāṇa*) is brought about by *sarīranāma karma* (body producing *karma*) and its *vyāparnam* (manifestation or actually) takes place due to *ucchvāsa pariyāpti* (the vital force of respiration).<sup>65</sup>

Even there being the faculty (*labdhi* = energy = *prāṇa*) of respiration born of *ucchvāsanāmakarma*, there should be *ucchvāsa pariyāpti* to make it manifested (i.e. bring it into actuality).<sup>66</sup> As for example, there being *Śakti*--capacity to cast the arrow, one does not become soldier, without the capacity of drawing the bow to make it a success. This subtle reference to respiration and energy

61 *Biology*, p. 62.

62 *Lokaprakāśa*, part-I, 3<sup>rd</sup> sarga, v. 22, *Nayatvatvaprakaraṇam* comm. on v. 6, p. 12-16.

63 *Navtatva prakaraṇa* comm., v. 6, p. 12-16.

64 *Lokaprakāśa*, part-I, 3<sup>rd</sup> sarga, v. 25.

65 *Jaina darśana: manana mīmāṃsā*, Muni Nathmal (Ācārya Mahāprajña), *Ādarśa sāhitya saṅgha prakāśana*, Churu, third edition, 1977.

66 *Ibid*, v. 26.

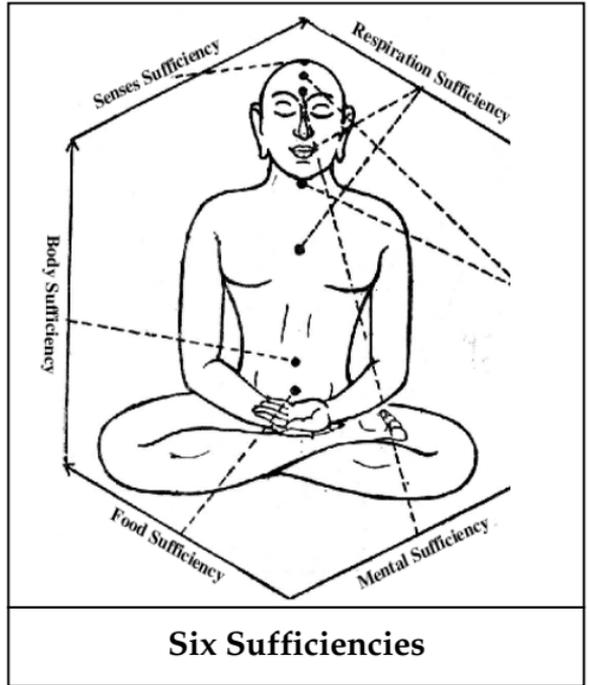
suggests that "for most the organisms oxygen is the ultimate electron acceptor, oxygen reacts with the electron and hydrogen ions to form a molecule of water, electrons are removed from a molecule of some food-stuff and transferred (by the action of specific enzyme) to some primary acceptor."<sup>67</sup>

### 2.3.4 SIX TYPES OF PARYAPTIS

Jaina biology states that the fabric of life of all the plants and animals is *pariyāpti* (*śakti* = vital force)<sup>68</sup> or *prāṇa* (life force) in another way. That is why, *pariyāpti* appears to be the actual living material of all plants and animals. There are six kinds of *pariyāptis*<sup>69</sup> viz.

#### (i) *Āhāra pariyāpti*

—Vital force by which a living being takes, digests, absorbs and transforms molecules of food particles into waste products (*khala*) and *rasa* chymolecules of nutrients or energy.<sup>70</sup>



<sup>67</sup> *Ibid*, v. 28.

<sup>68</sup> *Biology*, p. 62.

<sup>69</sup> *Pajjati* = *pariyāpti*, *Navatatva prakaraṇa*, v. 6; *Dharmavijaya*, p. 12; *Gommatasāra Jivakāṇḍa* v.v. 118-119; *Lokaprakaśa*, *Vinayaovijaya*, part-I, 3<sup>rd</sup> sarga, v.v. 15ff.

<sup>70</sup> *Navatatva prakaraṇa*, v. 6, *Āhāra-Śarīra indriya, pajjati anāpanā bhās- amane/caupañca-chappiya, igavigala asanni-sanninam*" and also

- (ii) *Śarīra paryāpti* —Vital force by which chyle or molecules of nutrients are utilized by beings for the release of energy, the building of blood, tissue, fat, bone, marrow, semen, etc.<sup>71</sup>
- (iii) *Indriya paryāpti*—Vital force by which molecules of nutrients or chyles suitable for building senses are taken in and provided to the proper place, so that the beings can have perceptual knowledge of desired sense-objects by the same organs.<sup>72</sup>
- (iv) *Ucchvāsa paryāpti*—Vital force by which particles of respiration are taken in, oxidized for energy and left out as carbon-di-oxide and water.<sup>73</sup>
- (v) *Bhāṣā paryāpti* —Vital force by which beings having taken proper particles of speech and emit them as speech.<sup>74</sup>
- (vi) *Manaḥa paryāpti* —Vital force by which beings take particles (or ducts) of mind, transform them by the mental process and give vent to them as the mental force, i.e. thought.<sup>75</sup> It appears that this *paryāpti* (vital force) is not a single substance but varies considerably from organism to organism (i.e., one sensed to five sensed beings) among the various parts of a single animal or plant, and from one time to another the gaining of the capacities starts simultaneously, but the completion of each of them is

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*Lokaprakāśa Vinayavijaya pt. I, 3<sup>rd</sup> sarga vv. 15ff; Gommatasāra Jivakāṇḍa 119.*

71 *Taraisāhāra paryaptiryayādāya nijocitam nayct/prṥthakkha/arasatven aharam parinatim nayet/ Lokaprakāśa 1.3.17.*

72 *Lokaprakāśa, p. 65, part I, 3<sup>rd</sup> sarga.*

73 *Ibid, p. 65-66.*

74 *Yayocchvasarhama daya dalan prinamarya ca/*

*Tattayalambya muncet so accvasaparyaptirecyahe (22), Lokaprakāśa, p. 66.*

75 *Bhasarhan dalamadaya gistvan nitvava lambya ca/yaya mananaśaktah tyajet prāṇi bhāsāparyāptiritpasau (29), Lokaprakāśa, p. 67.*

effected gradually within the period of one *antarmuhūrta*, which increases in the case of each succeeding one. Yet their total period does not exceed one *antarmuhūrta*<sup>76</sup> within a single organ or part of an animal or plant. There are six *paryāptis*, but they share certain fundamental physical and chemical characteristics.<sup>77</sup>

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76 Gommatasāra Jīvakāṇḍa 120.

77 *Ibid*, 121.

## 3

## Classification of *Karma*

Each soul (*jīva*) possesses innumerable qualities. In its purest natural state, each soul is exactly like another and is endured with eight qualities:

- (i) *Kevala jñāna (omniscience)*—pure and perfect knowledge, the faculty of instantly cognizing, by direct experience, the content of the whole universe which contains all reality and nothing but reality, without any contradiction or discrepancy.
- (ii) *Kevala darśana*—pure and perfect intuition (*darśana*)—the faculty of instantly apprehending, by direct experience, the whole of real existence, without separation of contents, as a system with total internal consistency and structure but without reference to anything beyond.
- (iii) *Ātmika sukha*—self generated blissfulness which transcends pleasure/pain and joy/grief and which has no reference to anything outside the self.
- (iv) *Kṣayika samyaktva*—possessions of complete truth.
- (v) *Atala avagahana*—eternal unchanging existence—freedom from transmigration.
- (vi) *Amūrtva*—total formlessness.
- (vii) *Agurulaghutva*—total purity with other pure souls.
- (viii) *Ananta vīrya*—unfiltered and unrestricted spiritual energy.<sup>1</sup>

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1 Kg I, 3b sq., II 120 b, p. 265, Lp. X, 145 et., seq., Gandhi 13 et. seq., Tattv. VIII, set. seq.

The soul in its pure state possesses a number of above characteristic attributes which are obscured and distorted in the defiled state of bondage. The resultant state is bondage (*bandha*).<sup>2</sup> Even as a lamp by its temperature draws up the oil with its wick and, after drawing up, converts the oil into its body (viz. glow), exactly so does a soul-lamp, with the attributes of attachment and the like, attracts the material aggregates by the wick of its activities and after attracting transforms into *karma*.<sup>3</sup>

### 3.1 MAIN TYPES (*MŪLA PRAKṚTI*) OF KARMA IN JAINISM

All living organisms, with their souls defiled by *karma*, have piecemeal and fragmented knowledge, intuition and energy, possesses perverted faith and embodied existence, experience joy and grief and a limited life span and are, therefore, subject to cycles of birth and death. *Karma* infects and defiles all worldly organisms and veils, vitiates or obstructs the above mentioned eight qualities of a pure soul and keeps it away from its supreme state of existence. Accordingly there are eight primary, main (*mūla prakṛti*) types of *karma*:

- (i) *Jñānāvarṇa karma*—knowledge obscuring *karma*—obscures the pure and perfect knowledge.
- (ii) *Darsanāvarṇa karma*—intuition obscuring *karma*—obscures the pure and perfect intuition.
- (iii) *Vedanīya karma*—feeling producing *karma*—holds up the self generated bliss and produces pleasures and pain, joy and grief in worldly life.
- (iv) *Mohanīya karma*—deluding *karma*—produces delusion, meta physical and ethical.
  - a) Prevents the innate ability of belief in truth.
  - b) Destroys equanimity of conduct.

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2 *Tattoārtha Sūtra* VIII, 2-3.

3 *Tattoārtha Sūtra Bhāṣya Ṭikā*, part-I, p. 343.

- (v) *Āyusya karma*—life span determining *karma*—determines the biological species as well as the duration of life-span.
- (vi) *Nāma karma*—body making *karma*—embodies the bodyless soul and determines the diversities and individual traits.
- (vii) *Gotra karma*—status determining *karma*—determines the status and family conditions.
- (viii) *Antarāya karma*—abstracts/suppresses the spiritual energy.<sup>4</sup>



Fig. 17: Eight main *karmas*

### 3.1.1 GHĀTI AND AGHĀTI KARMA

It is obvious that *karma* obscures, obstructs, cripples and distorts the innate characteristic qualities of the pure soul. But all the

<sup>4</sup> Kṛ I, 3b sq, II 120 b, p. 265, LP. x, 145 et., seq. Gandhi 13 et., seq., *Tattv.* VIII, set. seq.

eight main species described above do not possess the same degree of potency of defilement.

The eight species are thus divided into two groups:

(1) *ghāti karma*—destroying *karma*.

(2) *aghāti karma*—non-destroying *karma*.

(1) **Ghāti karma**—This group of *karma* cripples and distorts the innate qualities of the soul. The *ghāti karmas* are:

(i) knowledge obscuring *karma*.

(ii) intuition obscuring *karma*.

(iii) deluding *karma*.

(iv) energy obstructing *karma*.

*Ghāti karmas* are further divided into :

(a) *serva ghāti*—fully destroying.

(b) *deśa ghāti*—partially destroying.<sup>5</sup>

(a) **Serva Ghāti**—

(i) There are five categories of knowledge and, hence, there are five corresponding sub-types of knowledge obscuring *karmas* that veil them. For example—*kevalajñāna* (omniscience) is an innate quality of a pure soul which remains completely obscured by one of them named *kevalajñānāvarṇa*.

(ii) *Kevaladarśana* (infinite intuition) remains completely obscured by the one sub-type named *darśanāvarṇa*. Five types of sleeps (*nidrā*, *nidrā- nidrā*, *pracalā*, *pracalā- pracalā* and *satyānaddhi*) producing *karma* are also sub-species of this main type which obscures the intuition power.

(iii) The deluding *karma* are primarily divided into two types :

(a) delusion of truth.

(b) delusion of conduct.

Predilection for and faith in truth (*samyaktva*), which is the omniscience, the innate characteristic of soul, is destroyed by *sarva ghāti* truth—deluding *karma* (*mithyātva*). Delusion of truth (*mithyātva*) is the root cause of all the evils, and the worldly state of existence of soul and whatever miseries there were in the career of a soul are ultimately due to it. Otherwise, in its true sense, it has no beginning and, therefore, is eternal. Its beginninglessness of the existence cannot be questioned because it is an ultimate fact. It is also the primary cause of the new bondage of *karma*. Until and unless its potency is destroyed or at least subsided sufficiently, the soul is unable to transcend the cycles of rebirth and continues its worldly state. The strong types of passions (anger, ego, deceit and greed) (*anantānubandhi, apratyākhyānī, pratyākhyānī*), (total of twelve) also fully cover their object. Thus, there are twenty sub-types which have obscuring completely. They obscure their respective objects completely. But this does not mean that there is absolute lack of predilection for truth or the capacity to cognize it. If that were the case, the soul would lose its soulness and become a non-soul. Even as the densest and darkest cloud cannot completely obfuscate the sun, exactly so, the *karma* cannot obscure the total ability of knowledge of the truth.

(b) *Deśa ghāti*—Partially obscuring (*deśa ghāti*) sub species are twenty five, viz., the remaining four knowledge covering the three sub-types of intuition—covering four mildest type of passions, nine types of quasi-passions :

1. joy-laughter (*hāsya*)
2. sorrow (*Śoka*)
3. sensuous pleasure (*rati*)
4. ennui in self discipline (*arati*)
5. fear (*bhaya*)
6. disgust (*jugupsā*)

7. to (9) sexual desire of male (*puruṣa-veda*) female and eunuch respectively, (*strī-veda*) (*napunsaka-veda*) and all the five sub-types of the obstruction (*antarāya*) *karma*.

(c) **Aghāti Karma**—*Aghāti karmas* do not obscure any fundamental quality of the soul, but force the soul to continue its worldly existence and prevents emancipation. Four *aghāti karmas* are:

- i. feeling producing.
- ii. body making.
- iii. status determining.
- iv. life span determining.

Thus, the remaining 120-20 *serva-ghati-25 deśa ghāti* = 75 *karmas uttarprakṛtis* do not effect the quality of soul and called *Aghāti karmas*.

### 3.1.2 AUSPICIOUS AND INAUSPICIOUS KARMA

The four *Aghāti karmas* are classified as under :

- (a) auspicious types (*puṇya*)
- (b) inauspicious types (*pāpa*).

Those types whose fruition leads to enjoyment or pleasure and other blessings of worldly life are auspicious while those whose fruition leads to various types of sufferings and miseries are inauspicious. Whether a *karma* will be auspicious or inauspicious depends upon the nature of activities at the time of their bondage which may be moral/virtuous or immoral/sinful. Auspicious and inauspicious *karmas* are categorized as under:

- (a) **auspicious karma**—*Sātā vedanīya*, high status, celestial and human life, and some sub types of *nāma karma* are auspicious *karmas*.
- (b) **inauspicious karma**—*Asātā vedanīya*, low status, hellish, sub-animal life and some sub types of *nāma karma* are inauspicious *karmas*.

### 3.1.3 DRAVYA KARMA AND BHĀVA KARMA

The Jaina tradition distinguishes two aspects:

- (i) **Dravya karma:** It's physical aspect that compiles the particles of *karma* (*karma-pudgala*) by accruing into the soul and polluting it.
- (ii) **Bhāva karma:** It is psychic aspects of *karma*. Primarily, it is the mental state or event arising out of the activity of mind, body and speech. They are like the mental traces, long after the conscious states experienced vanishing. The physical and psychic *karmas* are mutually related to each other as effect and cause.<sup>6</sup>

*Bhāva karma* is immediate to *jīva*, while *dravya karma* belongs to the body. The five classes of *karmic* conditions are mentioned on account of rise (*udaya*), suppression (*upaśama*), annihilation (*Kṣaya*), suppression and annihilation (*kṣyopaśama*) and psychological effect (*pariṇāma*). The soul has five conditions of thought and existence.<sup>7</sup>

In the usual course of things, *karma* takes effects and produces results. The soul is said to be in *audayika* state, *karma* may be prevented from its operation for sometime. In this state, it is still present like fire covered by ashes. The soul is in the *aupaśamika* state. When *karma* is annihilated, it is in a *kṣāyika* state. The fourth state is the mixed state. The last unconditioned, state leads to *mokṣa*.

### 3.2 SUB GROUPS (158 UTTARPRAKṚTI) OF EIGHT MAIN KARMAS

There are eight main *karmas* which have total 158 *uttarprakṛti* as follow:

- |                               |              |
|-------------------------------|--------------|
| (1) <i>Jñānāvarṇa karma</i>   | 5 sub groups |
| (2) <i>Darśanāvarṇa karma</i> | 9 sub groups |

6 *Aṣṭasahasri*, N.S. press, Bombay, 1915, p. 51.

7 *Pañcāstikayasāra*-62.

(3) <i>Vedanīya karma</i>	2 sub groups
(4) <i>Mohanīya karma</i>	28 sub groups
(5) <i>Āyusya karma</i>	4 sub groups
(6) <i>Nāma karma</i>	103 sub groups
(7) <i>Gotra karma</i>	2 sub groups
(8) <i>Antarāya karma</i>	5 sub groups
<hr/>	
<b>158 sub groups</b>	
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### 3.2.1 JÑĀNĀVARṆA KARMA (5 SUB GROUPS)

*Jñānāvarṇa* means the *karma* particles which obscure knowledge. Because of its causes one cannot know an object in a special manner. There are five sub groups of it. They are:

- (i) *Mati Jñānāvarṇa*.
  - (ii) *Srutajñānāvarṇa*.
  - (iii) *Avadhijñānāvarṇa*.
  - (iv) *Manahparyavajñānāvarṇa*
  - (v) *Kevalajñānāvarṇa*.
- (i) ***Mati Jñānāvarṇa***—This *karma* obscures the knowledge acquired by senses and intellect (mind).
  - (ii) ***Srutajñānāvarṇa***—Obscures the knowledge acquired by words, signs, writing, gestures, etc.
  - (iii) ***Avadhijñānāvarṇa***—Obscures the transcendental knowledge of material things obtained by the soul, without the help of mind or senses (extra sensory perception).
  - (iv) ***Manahparyavajñānāvarṇa***—Obscures the transcendental knowledge of the mental states (thoughts, telepathic knowledge) of other human beings and its modifications (*paryāya*) in this universe in past, present and future (obscures the omniscience inherent in the soul).
  - (v) ***Kevalajñānāvarṇa*** —Obscures the overall knowledge, that is the absolute perfect knowledge of soul.<sup>8</sup>

### 3.2.2 DARŚANĀVARṆA KARMA (9 SUB GROUPS)

The word *darśana* has two meanings in Jainism. One meaning is doctrine, philosophical system, the right view, the true faith. The other meaning is ordinary (indistinct) knowledge about an object (undifferentiated cognition). Here *darśana* has the second meaning. *Darśanāvarṇa* means the blockage of ordinary knowledge. They are:

- (i) *Cakṣu darśanāvarṇa karma.*
- (ii) *Acakṣu darśanāvarṇa karma.*
- (iii) *Avadhi darśanāvarṇa karma.*
- (iv) *Kevala darśanāvarṇa karma.*
- (v) *Nidrā*
- (vi) *Nidrā-nidra*
- (vii) *Pracalā*
- (viii) *Pracalā-pracalā*
- (ix) *Satyānaddhi.*<sup>9</sup>
- (i) *Cakṣu* (eyes) *darśanāvarṇa karma*—It obscures over vision of eyes.
- (ii) *Acakṣu darśanāvarṇa karma* (the non eye *darśanāvarṇa karma*)—Obscures ordinary knowledge of the other senses (except eyes) and the mind.
- (iii) *Avadhi darśanāvarṇa karma*—Due to this *karma*, the power to see without the help of senses and mind would be impaired.
- (iv) *Kevala darśanāvarṇa karma*—Because of this *karma*, the power to see everything would be impaired.
- (v) *Nidra karma*—It causes slight sleep from which one is easily awakened.
- (vi) *Nidrā-nidra karma*—It causes sleep from which one is awakened with great difficulty.

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9 *Jaina karmology*—by Dr. N.L. Jain, p. 91, *Parśvanātha Vidyapīṭha, Vārānasī.*

- (vii) *Pracalā karma*—It causes the sleep while sitting or standing.<sup>10</sup>
- (viii) *Pracalā-pracalā karma*—It causes sleep, but during sleep one walks.
- (ix) *Satyānaddhi karma*—This *karma* causes the sleep during which one carries out an action which would be sometimes impossible during day time and may not remember what one has done during this sleep. The first four *darśanāvārṇa karmas* do not allow the power of *darśana* or understanding or perception. All the five types of *nidras* completely destroy the power of understanding.<sup>11</sup>

### 3.2.3 VEDANĪYA KARMA (2 SUB GROUPS)

*Vedaniya karma* are classified into two categories:

- (i) *Sātā Vedanīya karma*,.
- (ii) *Asātā Vedanīya karma*.
- (i) ***Sātā Vedanīya karma*** —This *karma* causes happiness in the body of living organism.
- (ii) ***Asātā Vedanīya karma*** —This *karma* causes unhappiness in the body of living organism.<sup>12</sup>

### 3.2.4 MOHANĪYA KARMA (28 SUB GROUPS)

This *karma* obstructs true faith and right conduct. It keeps us deeply involved in the worldly affairs. This *karma* is called king of all *karmas*. If we can overcome this *karma* then the salvation (*mokṣa*) is within our reach. There are 28 sub-divisions of *mohanīya karma*. There are two main groups:

- I. *Darśana mohanīya*—3 sub groups.
- II. *Cāritra mohanīya* —25 sub groups.<sup>13</sup>

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10 Cf. *Deśi-kosa* VI; 6.

11 *Karma grantha I, 22b, "Tattoārthasūtra Bhāṣya Tīkā," Part-II, p. 134-35.*

12 *Prajñāpanā pada 23, U2, S 293, Utrādhyaṇa A 33, Gatha 7, Tattvārtha Sūtra A8, S-9.*

I. *Darśana mohanīya karma*—Here the meaning of *darśana* is true faith. At the time of its bondage, this *karma* is single but at the time of realization, it becomes diversified into three forms namely:

(i) *Mithyātva mohanīya karma*.

(ii) *Miśra mohanīya karma*.

(iii) *Samyaktva mohanīya karma*.

(i) *Mithyātva mohanīya karma (false belief)*—Because of this *karma* soul loses his faith in *tatvas* (basic elements of Jainism) expounded by the omniscient ones and develop a taste for false doctrine.

(ii) *Miśra mohanīya karma*—This *karma* makes a man indifferent to false as well as true doctrine.

(iii) *Samyaktva mohanīya karma*—Due to this *karma* faith in the true doctrine becomes sound but breaches may occur.<sup>14</sup>

II. *Cāritra mohanīya karma*—This *karma* has 25 sub groups as follows:

(i) *Kaṣāya mohanīya karma*—16 sub groups.

(ii) *No kaṣāya mohanīya karma* —9 sub groups.

*Kaṣāya* = *kaṣāya* means *sansāra* and *āya* means gaining. So *kaṣāya* keep us in *sansāra* (worldly life).

Four main *kaṣāyas* are as follows:

(i) Anger (*krodha*)

(ii) Pride (*māna*)

(iii) Deceit (*māyā*)

(iv) Greed (*lobha*)<sup>15</sup>

These four *kaṣāyas* are grouped into two:

13 *Prajñāpana karmabandha pada 23, U. 2, Uttarādhyayana A-33, G. 8.*

14 *Karmagrantha I, 35a, 113a, Prajñāpanā karmabandha pada 23, s. 2, Uttarādhyayana A-33, G. 9.*

15 *Yoga darśana II.*

(a) Attachment—deceit and greed *kaṣāya*.

(b) Hatred—anger and pride *kaṣāya*.

Each of these four *kaṣāyas* are further sub grouped into four divisions. They are:

(i) *Anantānubandhī*

(ii) *Apratyākhyānī*

(iii) *Pratyākhyānī*

(iv) *Sañjvalana*.

Therefore, we have  $4 \times 4 = 16$  *kaṣāyas*<sup>16</sup>

S.	<i>Kaṣāya</i>	<i>Anantānubandhī</i>	<i>Apratyākhyānī</i>	<i>Pratyākhyānī</i>	<i>Sañjvalana</i>
01.	Anger ( <i>krodha</i> )	line in rock	line in earth	line in sand	line in water
02.	Pride ( <i>māna</i> )	stone pillar	bone	Piece of wood	cane
03.	Deceit ( <i>māyā</i> )	Bamboo root	horn of arm	urine of cow	chiselling of wood
04.	Greed ( <i>lobha</i> )	fast colour	grease	mud	water colour

**No *kaṣāya* (9 sub groups)**—No *kaṣāyas* are those which provoke *kaṣāyas*. They are:

- i. Laughter (*hāsya*)
- ii. Sorrow (*śoka*)
- iii. Pleasure (being pleased with what one likes) (*rati*)
- iv. Displeasure (being displeased with what one dislikes) (*arati*)
- v. Fear (fearing one's own decisions) (*bhaya*)
- vi. Contempt (*jugupsā*)
- vii. Desiring the company of woman (*puruṣaveda*)

16 *Tattvārtha Rajavārtika of Akalanka 8.9, Karma Grantha I, p. 34-35, Viśeṣyavaśkabhāṣya gatha, 1227.*

viii. Desiring union with man (*strīveda*)

ix. Desiring company of both man and woman (*Napunṣakaveda*).<sup>17</sup>

### 3.2.5 ĀYUṢYA KARMA (4 SUB GROUPS)

This *karma* decides how long one *jīva* would live in next life :

- (i) *Narakāyu*—decides the span of life in the hell.
- (ii) *Tiryāñcāyu*—decides the span of life in the realm of animals, birds and plants etc.
- (iii) *Manuṣyāyu*—decides the span of life in the human state.
- (iv) *Devāyu*—decides the span of life for the heavenly beings.

The *jīvas* of *naraka*, *devagati* and *Tīrthaṅkaras* etc. live until their span is over and their life is not shortened. While the life-span of plants, birds, animals and most human beings may be shorten for some reason<sup>18</sup> or another.

### 3.2.6 Nāma Karma (103 sub groups)

*Nāma karma* has 103 sub divisions as follows:

- a. 14 sub divisions which are called 'collective *karmas*' (*Piṇḍa prakṛti nāma karma*), the collective stuff of the various *karmas*.
- b. 8 sub divisions which are called *pratyeka prakṛti karmas*.
- c. 10 sub divisions is a collection called *trasa daśaka*.
- d. 10 sub divisions which is a collection called "*sthāvara daśaka*."

This gives only 42 sub divisions.

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17 *Tattvārtha Sutra, Bhāṣya Ṭikā, Part II, p. 141, Prajñāpannā karmabandha, p. 23, U. 2.*

18 *Tattvārtha Rajavārtika of Akalanka, 8.10.*

But the first 14 sub divisions are further divided into a total of 75 sub groups called 75 *piṇḍa prakṛti nāma karmas*.<sup>19</sup>

**Group one—Four *gati nāma karmas* (destiny):**

- (i) *Devagati nāma karma*—This *karma* brings the living being into the state of existence, known as *deva* state. It is a pleasurable state in a fine subtle body, perhaps comparable to the Christian conception of heaven. It is a state in which pleasure preponderates over pain, there is some pain but mostly pleasure.
- (ii) *Naraka gati nāma karma*—This *karma* brings the living being into the *naraka* state where there is no pleasure at all but pain all the time, perhaps comparable to the Christian hell. But it is not everlasting. It comes to an end.
- (iii) *Manuṣya gati nāma karma*—This *karma* brings the living being into the human state, or ordinary human life.
- (iv) *Tiryāṅca gati nāma karma*—This *karma* brings the living being into the animal state. Animals like insect, fish, bird, vegetable or mineral life (*Tiryāṅca*).

**Group Two—*Jāti nāma karma* (classes of beings):<sup>20</sup>**

- (i) *Ekendriya nāma karma*—Due to this *karma*, the living being has only one sense—the sense of touch.
- (ii) *Dviendriya nāma karma*—Due to this *karma*, the living being has only two senses—the sense of touch and taste.
- (iii) *Triendriya nāma karma*—Due to this *karma*, the living being has only three senses—the sense of touch, taste and smell.

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19 *Tattovārtha Rajavārtika of Akalanka 8.11, Sthānaṅga 2/4/105 Ṭika.*

20 *Samvāyaṅga sthān 42.*

- (iv) *Caturendriya nāma karma*—Due to this *karma*, the living being has only four senses—the sense of touch, taste, smell and sight.
- (v) *Pañcendriya nāma karma*—Due to this *karma*, the living being has all five senses—the sense of touch, taste, smell, sight and hearing.<sup>21</sup>

**Group three—*Śarīra nāma karma* (bodies):**

- (i) *Audarika śarīra nāma karma*—Due to this *karma*, the living being has an ordinary physical body, that we actually see. This body is created out of gross *pudgals*. The human beings and *tiryāṅca* have this body.
- (ii) *Vaikriya śarīra nāma karma* —Due to this *karma*, the living being has a subtle body which is changeable, it can be large and small, have one shape and then another. Both the heavenly and hellish beings have this type of body.
- (iii) *Āhāraka śarīra nāma karma* —Great *munis*, who have mastered the 14 *pūrvas* can develop this body. They use this body to visit to a nearby *Tīrthaṅkara* to clear their doubts. The size of body they create is of one hand.
- (iv) *Taijasa śarīra nāma karma* —This *karma* gives a body which consumes food.
- (v) *Kārmaṇa śarīra nāma karma* —This *karma* gives a body which is made up of eight main *karmas* (*mūla prakṛti*) with 158 sub groups all put together. It is changing every moment.<sup>22</sup>

Of these bodies, we, human beings, have *audarika śarīra*, *taijasa śarīra* and *kārmaṇa śarīra*. We may or may not have the subtle *vaikriya* body while only the very spiritually advance *munis* have the *āharaka* body.

21 *Prajñāpannā* U2, p. 23, s 289.

22 *Tattovārtha sūtra* II, 39.

**Group Four—three *Upāṅga nāma karma* (main and secondary parts of body):**

- (i) *Audarika upāṅga nāma karma*—Due to this *karma*, the limbs and organs of the physical body are formed. Internal and external organs arms, legs, ears, lungs, etc. are also formed.
- (ii) *Vaikriya upāṅga nāma karma* —Organs like limbs and organs of the subtle or *vaikriya* body.
- (iii) *Āhāraḥ upāṅga nāma karma* —Produces the limbs of the *āharaka* body. The *Taijasa* and the *kārmaṇa* bodies do not have limbs or organs.

**Group Five: *Bandhana nāma karma* (binding of new body particles to old ones):**

- (i) *Audārika bandhana nāma karma*—This *karma* binds the different parts of the gross body together.
- (ii) *Vaikriya bandhana nāma karma*—This *karma* binds the different parts of the subtle body together.
- (iii) *Āharaka bandhana nāma karma*—This *karma* binds the different parts of the *āharaka* body together.
- (iv) *Taijasa bandhana nāma karma*—This *karma* binds the different parts of the *taijasa* body together.
- (v) *Kārmaṇa bandhana nāma karma*—This *karma* binds the different parts of *Kārmaṇa* body together.
- (vi) *Audārika-taijasa bandhana nāma karma*—This *karma* binds the different parts of *audārika* and *taijasa* bodies together.
- (vii) *Audārika-Kārmaṇa bandhana nāma karma*—This *karma* binds the different parts of *audārika* and *kārmaṇa* bodies together.
- (viii) *Vaikriya taijasa bandhana nāma karma*—This *karma* binds the different parts of *vaikriya* and *taijasa* bodies together.

- (ix) *Vaikriya Kārmaṇa bandhana nāma karma* —This *karma* binds the different parts of *vaikriya* and *kārmaṇa* bodies together.
- (x) *Āharaka taijasa bandhana nāma karma* —This binds the different parts of *āharaka* and *taijasa* bodies together.
- (xi) *Āhāraka bandhana nāma karma* —This *karma* binds the different parts of *āharaka* and *kārmaṇa* bodies together.
- (xii) *Audārika-taijasa kārmaṇa bandhana nāma karma*— This *karma* binds the different parts of *audārika*, *taijasa* and *kārmaṇa* bodies together.
- (xiii) *Vaikriya-taijasa- kārmaṇa bandhana nāma karma* This *karma* binds the different parts of *vaikriya*, *taijasa* and *kārmaṇa* bodies together.
- (xiv) *Āharaka-taijasa-kārmaṇa bandhana nāma karma* — This *karma* binds the different parts of *āharaka*, *taijasa* and *kārmaṇa* bodies together.
- (xv) *Taijasa- Kārmaṇa bandhana nāma karmas* —This *karma* binds the different parts of *taijasa* and *kārmaṇa* bodies together.

**Group Six—Five saṅghatana nāma karma (organizing particles of various body parts):**

This *karma* organizes the various organs like teeth in their proper places, with *pudgalas* that can form body in a definite proportion and in a particular organization for the following five bodies:-

- (i) *Audārika saṅghatana nāma karma.*
- (ii) *Vaikriya saṅghatana nāma karma.*
- (iii) *Āharaka saṅghatana nāma karma.*
- (iv) *Taijasa saṅghatana nāma karma.*
- (v) *Kārmaṇa saṅghatana nāma karma.*

**Group Seven—Six sanhanana nāma karma (firmness of joints):**

This *karma* gives joints to the body.

- (i) *Vajra ṛṣabha sanhanana nāma karma* —This *karma* gives the strongest joint. The ends of the bones are hooked into each other, there is a sort of bolt or pin through the hook, and the whole joint is covered with an envelop of tissues. *Vajra* means pin.
- (ii) *Ṛṣabha nārāca sanhana nāma karma* —The joint is the same as above S.no. (i) except there is no *vajra* (pin). This is given by this *karma*.
- (iii) *Nārāca sanhanana nāma karma*—This *karma* gives the joint same as above S.no. (ii) except only the envelop of tissues is omitted. Only the hook remains.
- (iv) *Ardha nārāca sanhanana nāma karma* —This *karma* gives the joint in which bones' one end is hooked into each other, and pinned, with no envelop. While at the other end, the bone is simply straight and pinned.
- (v) *Kilikā sanhanana nāma karma* —This *karma* gives the bones straight at each end nailed. No hook and no envelop exist.
- (vi) *Sevarta sanhanana nāma karma* —This *karma* gives a joint where the bones simply touch, or are in sockets. Most of our joints are like this, it is the weakest and worst form of joints.<sup>23</sup>

The teaching is that *mokṣa* can only be achieved by those who have *ṛṣabhanārāca sanhanana nāma karma* kind of joint. This does not mean that we should not pursue the goal to attain *mokṣa*. If we do everything properly in this life then we can get the right body and joints in the next life.

#### **Group 8—*Sansthāna nāma karma* (stature determining):**

- (i) *Samacaturaśra Sansthāna nāma karma* —(*aśra* means angle) Because of this *karma* entire body is symmetrical.

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23 *Ibid*, IX, 27.

- (ii) *Nyagrodhaparimaṇḍal Sansthāna nāma karma* —Because of this *karma* the upper part (above the navel) of the body is symmetrical and the lower part is not symmetrical.
- (iii) *Sadi Sansthāna nāma karma* —Because of this *karma*, the lower part of body is symmetrical, but the upper part is not symmetrical.
- (iv) *Kubja Saṅsthāna nāma karma* —The trunk is deformed because of this *karma*, while the legs, arms, face, neck etc. are symmetrical. For example, humpback.
- (v) *Vāmana Sansthāna nāma karma* —Because of this *karma*, arms and legs are defective, while the trunk is straight. For example—dwarf.
- (vi) *Huṅḍa Sansthāna nāma karma* —Because of this *karma*, everything is non-symmetrical. The bodies of animals, fishes, birds, and insects come under this class. The human form is considered as symmetrical form.<sup>24</sup>

All living beings which take birth in the womb of mother may have any one kind of these bodies from above S.no. (i) to (v) and those living beings who do not take birth in the mother's womb can have only the *huṅḍa* body (*samūrccana* birth) above S.no. (vi).

### Group 9—Five *Varṇa nāma karma*:

Because of this *karma* the body of living being is:-

- i. Black in colour.
- ii. Blue in colour.
- iii. Yellow in colour.
- iv. Red in colour.
- v. White (fair) in colour.

Of the above colours, the black and blue are inferior (though in respect of things other than the colour the person may be superior) and the yellow, red and white are superior colours. It

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24 Hemacandra, *Yogaśāstra* IV, 124(12b).

does not mean that a person is inferior or superior in one particular colour, then he/she is therefore superior in all. A white man may be a thief or a murderer and a black man may be virtuous and spiritually advanced.

**Group 10—Two Gandha nāma akarma (odours):**

- (i) *Surabhi gandha nāma karma*—This *karma* makes the general odour of the body pleasant.
- (ii) *Durabhi gandha nāma karma*—This *karma* makes the general odour of the body unpleasant.

**Group 11—Five Rasa nāma karma (Tastes):**

- (i) *Tikta rasa nāma karma*—This *karma* gives the body hot-pepper like taste.
- (ii) *Kaṭu rasa nāma karma*—This *karma* gives the body bitter taste.
- (iii) *Kaṣāya rasa nāma karma*—This *karma* gives the body astringent taste.
- (iv) *Amla rasa nāma karma*—This *karma* gives the body sour taste.
- (v) *Madhura rasa nāma karma*—This *karma* gives the body sweet taste.

**Group 12—Sparśa nāma karma (touch):**

- (i) *Guru sparśa nāma karma* —This *karma* makes the body feel heavy.
- (ii) *Laghu sparśa nāma karma* —This *karma* makes the body feel light.
- (iii) *Mṛdu sparśa nāma karma* —This *karma* makes the body feel smooth.
- (iv) *Karkaśa sparśa nāma karma* —This *karma* makes the body feel rough.

- (v) *Śīta sparśa nāma karma* —This *karma* makes the body feel cold.
- (vi) *Uṣṇa sparśa nāma karma* —This *karma* makes the body feel warm.
- (vii) *Snigdha sparśa nāma karma* —This *karma* makes the body feel oily.
- (viii) *Rukṣa sparśa nāma karma* —This *karma* makes the body feel dry.

**Group 13—*Anupūrvi nāma karma* (direction to next destination):**

- (i) *Deva anupūrvi nāma karma* —This *karma* decides the direction of living being, after his/her death, towards the place of the *devas*. There must be some force which causes the person at the time of death to travel in the right direction to reach his/her next destination, whether to any planet or elsewhere, and this *karma* does that.
- (ii) *Naraka anupūrvi nāma karma* —This *karma* determines the direction of living being at death towards the place of *narakas*.
- (iii) *Manuṣya anupūrvi nāma karma* —This *karma* determines the right direction of travel at death for the entry to go to the place of the human beings.
- (iv) *Tiryanca anupūrvi nāma karma* —This *karma* determines the direction of the living being at death towards the place of animals, birds, insects, plants, etc.

**Group 14—Two *Vihāyogati nāma karma* (*Gatis*) :**

- (i) *Praśasta vihāyogati nāma karma* —This *karma* makes the living being move in a pleasant manner.
- (ii) *Apraśasta vihāyogati nāma karma* —This *karma* makes living being move in unpleasant manner.

This completes the first batch of 14 groups of "collective personality" or *pinḍa prakṛti nāma karma*.

Now follow three more batches namely—

- i. Eight *pratyeka prakṛti nāma karma*.
- ii. Ten *trasa daśaka*.
- iii. Ten *sthāvāra daśaka*.

**Group 15—Eight *Pratyeka prakṛti nāma karma*:**

- (i) *Agurulaghu nāma karma*—Due to this *karma*, the body is neither heavy nor light. It acquires *agurulaghutā*.
- (ii) *Upghāta nāma karma*—Due to this *karma*, we get organs that cause trouble to us. For example, a small tongue, a small tongue beneath the tongue, ugly teeth, teeth over teeth and the sixth finger, etc.
- (iii) *Praghāta nāma karma*—Due to this *karma*, the *jīva* gets such an appearance that others feel impressed by the luster of his face.
- (iv) *Śwācchwāsa nāma karma* —Due to this *karma*, we acquire the power of inhaling and exhaling.
- (v) *Ātapa nāma karma* —Due to this *karma*, the *jīva* gets such a body that though it is cold, it gives heat and light to other like the sun.
- (vi) *Udyoṭha nāma karma* —Due to this *karma*, the soul acquires a body which gives out a cool, gleaming light like—moonlight.
- (vii) *Nirmāṇa nāma karma* —This *karma* produces organs in the body in their proper places like a carpenter.
- (viii) *Tīrthankara nāma karma* or *jina nāma karma* —Due to this *karma*, the soul is decorated with the eight kinds of greatness and in that state she/he will get an opportunity for establishing and disseminating the *dharmaśāsana*.<sup>25</sup>

**Group 16—Ten *trasa* (moving) *daśaka*:**

On account of its emergence, the *jīva* attains the following:

- (i) *Trasa nāma karma*—This *karma* gives a body that can move away from the sun, etc. and can voluntarily move about.
- (ii) *Bādara nāma karma*—This *karma* gives a body that can be seen.
- (iii) *Parīyapta nāma karma*—Because of this *karma*, one gets the power of reaching upto one's proper limits.
- (iv) *Sthira nāma karma*—By this *karma*, *jīva* gets fixed and firm organs like head, bones, teeth, etc.
- (v) *Pratyeka nāma karma*—By this *karma* each *jīva* gets a separate body.
- (vi) *Śubha nāma karma*—This gives auspicious organs above the navel.
- (vii) *Sobhajña nāma karma*—Because of this *karma*, the soul is liked by others even without helping others.
- (viii) *Sasvara nāma karma*—By this *karma* one gets a sweet voice.
- (ix) *Adeya nāma karma*—Because of this *karma*, the words of a soul, though not fire and showy, are understood by others.
- (x) *Yaśa nāma karma*—Because of this *karma*, the soul gets the adoration from others.<sup>26</sup>

**Group 17—Ten *Sthāvara* (unmoving) *daśaka*:**

On account of its emergence, the *jīva* attains the following:

- (i) *Sthāvara nāma karma* —When a body cannot move about, it may be the result of *sthāvara nāma karma*.
- (ii) *Sūkṣma nāma karma*—This *karma* gives a subtle body that cannot be seen even if many bodies put together.

- (iii) *Aparyāpta nāma karma*—Because of this *karma*, one does not get the power of reaching upto one's proper limits.
- (iv) *Sādhāraṇa nāma karma*—By this *karma*, countless *jīvas* share one body.
- (v) *Asthīra nāma karma*—By this *karma*, *jīva* gets unstable or moving organs like tongue.
- (vi) *Aśubha nāma karma*—This *karma* gives inauspicious organs below the navel.
- (vii) *Durbhājña nāma karma*—Because of this *karma*, the *jīva* is disliked by others though he/she may help others.
- (viii) *Dusvara nāma karma* —By this *karma*, one gets a sour voice.
- (ix) *Anādeya nāma karma* —By this *karma*, the words of a *jīva* are not understood by others.
- (x) *Apayaśa nāma karma* —Because of this *karma*, the *jīva* does not get adortion from others.<sup>27</sup>

### 3.2.7 GOTRA KARMA (2 SUB GROUPS)

This *karma* is classified into two groups as follows:

- (i) *Uccagotra*—Due to this *karma*, the soul attains wealth, honourable treatment, honour, etc. and is born in high family.
- (ii) *Nīcagotra*—By this *karma*, soul does not get much wealth, honourable treatment, honour, etc. and is born in lower family.<sup>28</sup>

### 3.2.8 ANTARĀYA KARMA (5 SUB GROUPS)

This *karma* is further divided into five groups:

- (i) *Dānāntarāya karma*—This *karma* obstructs rendering benevolence (charity).

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<sup>27</sup> *Ibid*, 9/12.

<sup>28</sup> *Tattoārtha Sūtra Bhāṣya*, VIII, 13.

- (ii) *Lābhāntarāya karma*—This *karma* obstructs attaining profit.
- (iii) *Bhogāntarāya karma*—This *karma* obstructs enjoying things like food which can be enjoyed once.
- (iv) *Upbhogāntarāya karma*—This *karma* obstructs enjoying things like dress, house which can be enjoyed several times.
- (v) *Vīryāntarāya karma*—This *karma* obstructs the emergence of spiritual energy.

The above mentioned *karmas*, S.no. 1, 2, 4 and 8, affect the true nature of the soul and that is why they are called *Ghāti karma*, while S.no. 3, 5, 6, 7 do not affect the true nature of the soul but affect the body in which the soul abodes. So, they are called *Aghāti karmas*.<sup>29</sup>

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29 Thāṇaṅ 2/4/105 *Ṭikā, karma prakṛti Abhayacand Siddhānta cakravṛti*—publisher Bharatīya Jñānapīṭha, Vārāṇasī.

## 4

Bondage of *Karma*

There has to be a cause for the inequality we notice in this material world (*sansāra*). We are unable to justify inequality based on external reasons. There has to be something internal which justify the worldly inequality.

Jainism is based on two basic substances:

- i. *Ātmā* (soul),
- ii. *Karma*.

Nine *tatvas* (fundamentals) of Jainism are based on *ātma* and *karma*. To succeed in our crusade to free our souls, we must know all about *karma* and soul and their interrelationship.

It is a duality of light and darkness, purity and impurity, detachment and attachment, alertness and carelessness, awareness and ignorance, and inside and outwardness. For worldly soul like us, it is a battle between soul and *karma*. All we have to do is to disassociate soul from *karma*. In fact, our final and only object is to disassociate soul from *karma* and to realize our own (soul's) qualities. The *karma* theory of Jaina Philosophy is unique, rational, scientific and complex. In its true conceptual form, it is unique to Jainism. It supports the features of the Jaina religion, which distinguish it from other religions of the world viz. the concept of independence of each individual soul and the teaching that self endeavour is the means to achieve such independence. It is scientific in the sense that it conforms to the basic premises of science. *Karma* rewards or punishes us for our past deeds.

The material *karma* gives rise to the feelings and emotions (abstract *karma*) in the worldly souls, which, in turn, cause the influx (*āśrava*) and bondage (*bandha*) of fresh material *karmas*. Thus the relationship between the material and abstract *karma* can be described as one between the plant and seed. It should be remarked that soul is entirely different from matter. Thus the transformation in a worldly soul (abstract *karma*) occurs because of the intrinsic attributes of soul while the transformations (flux, bondage etc.) of material *karma* take place according to intrinsic attributes of matter. The emotional states of a living being are caused by *karma* particles and *karma* particles in their turn are caused by the emotional states.<sup>1</sup>

The soul in its pure state possesses a number of characteristic attributes which are obscured and distorted in the defiled state of bondage. This obstruction and distortion find expression in the imperfect existence of the soul. In the state of perfection, the soul has infiniteness of knowledge, intuition, and bliss as well as freedom from delusion, delimited longevity, embodied existence, difference of status and obstruction of energy. The *karmic* matter obscures or obstructs these characteristics of the soul and keeps it away from its supreme state of existence. The soul, under the influence of passions (*kaṣāyas*) and possessed of yoga (that is vibration of body, vocal organ and mind) attracts karmic matter (*karma pudgala*) which then is inseparably mixed up with the soul. The resultant state is bondage (*bandha*).<sup>2</sup>

#### 4.1 Causes of bondage

Following are main five causes for the bondage of *karma*:

*Mithyātva* (false belief)

*Avirati* (vowlessness, non-abstinence)

*Pramāda* (negligence)

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1 *Pañcastikāyasāra* by Acarya Kundakunda—Gatha 60.

2 *Tattvārtha Sūtra* VIII 2-3.

*Kaṣāya* (passions)

*Yogas* (activities)<sup>3</sup>



Fig4.1

#### 4.1.1 MITHYĀTVA (FALSE BELIEF)

False belief or delusion—*mithyā*—wrong, *tva* = ness, i.e. *mithyātva* = wrongness. It means wrong attitude, wrong taste, innoble activity such as not having a taste for and faith in the *tatva* (basic elements of Jainism) as mentioned by the omniscient ones. This is *mithyātva*. *Mithyātva* also means not having interest and faith in the path of *mokṣa* expounded by *Tīrthanīkaras* but having interest and faith in the so-called path of *mokṣa* expounded by ignorant and unenlightened people. In other words, instead of having faith in true God, true spiritual head and true *dharma*, having faith in false God, false spiritual head and false *dharma* is *mithyātva*.

<sup>3</sup> *Dravya Sangraha* 29.31.

- (i) **Kudeva (false God)**—The false God is he who possesses such demerits as attachment, hatred, desire, anger, miserliness, ridiculing, propensity, fear, ignorance, etc.
- (ii) **Kuguru (false teacher)**—False teacher (*kuguru*) is he who does not practise five great vows (non-violence, truthfulness, non-stealing, celibacy and non-possessiveness) who keeps with him wealth and women, makes others keep them, approves such actions, who uses and touches unboiled water, fire and vegetation, who cooks food, who asks specifically for the food to be cooked for him, and who approves the cooking of food. Such a person is a false spiritual head.
- (iii) **Kudharama (false religion)**—The false *dharma* is that which is devoid of a *samyag darśana* (the right faith), *samyag jñāna* (the right knowledge) and *samyag cāritra* (the right character or conduct), which does not explain the real nature of *jīva* (soul) and *ajīva* (non-living substances) and which deems it right to enjoy sensual pleasure to have passions and to commit sins.

Having faith in such false God, false spiritual head, and false *dharma*, having partiality for them and interest in them, constitute the false belief or *mithyātva*.

**The five kinds of *mithyātva* are as follows<sup>4</sup>—**

- (i) **Ābhigrahika mithyātva (Absolutist or fanatic false faith)**—This state involves one sided attribute, one sided view sticking to a false belief like there is no soul, no *karma* or killing inferior living beings is acceptable. This means having fanatic faith and interest in false *dharma*. Believing fanatically that his/her *dharma* alone is right and does not accept the true *dharma* expounded by the omniscient ones (*Tīrthaṅkaras*). Such persons may not know what is right belief.

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<sup>4</sup> *Karmagrantha* I, 149a.

- (ii) *Ābhiniveśika mithyātva* (**preserve or prejudicial faith**)—This involves intentionally sticking to a wrong belief or not accepting the right belief. For example, monks can have money and women. God will be pleased if I sacrifice certain things. This also includes that one may have attained the right *dharma* but he/she may not believe some of its doctrines and may be partially prejudicial and believe in contrary doctrines.
- (iii) *Sānśayika mithyātva* (**skepticism**)—In this state one becomes doubtful or skeptical about the *dharma* expounded by the omniscient ones. This person just cannot decide what is right and what is wrong.
- (iv) *Anābhigrahika mithyātva* (**Egalitarian—faith in false dharma**)—In this case, one may believe that "this belief is right" and then he/she will change his/her mind that "that belief is right." He may believe that all religions are true even though they are contradicting. He/she has a non-discriminatory attitude. He/she thinks that all religions are equal and acceptable.
- (v) *Anābhogika mithyātva* (**Agnostic, total ignorance, lack of knowledge**)—In this state, one cannot distinguish between the right doctrines and false doctrines and cannot have any knowledge or understanding of them. In this state, he/she does not know that living beings with less than five senses and with five senses but without mind have an equal soul as we have.<sup>5</sup>

*Mithyātva* (false belief) is the greatest enemy of the soul. Because of this *mithyātva*, one has no faith in *tatvas* (basic elements of Jainism), the path of *mokṣa*, *Tirthaṅkaras*, the true spiritual heads and true *dharma*, and such a person will involve in the sinful activities like violence and sensual pleasures. As a

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5 *Karmagrantha* I, 148b, *Pañcasaṅgraha* 365, *Tattvārtha Sūtra* VIII, 1, Gandhi 54, Warren 37.

result, such persons go far away from the true *dharma*. All the sacrifices and austerities carried out through various lives are wasted because of his/her ongoing sinful activities and sensual enjoyments. We should discard *mithyātva* which is the basic cause of our misery, and we should embrace true God, true teacher and true religion (*dharma*). Till *mithyātva* is there all the other four reasons remain simultaneously, it is their agreement.

#### 4.1.2 AVIRATI (VOWLESSNESS—NON-ABSTINENCE)

*Avirati* or vowlessness means not to take any vows, not to commit any sins or certain sins. At present, we may not be committing any sins but it is not *virati* until we take vows not to commit sins. Even though we may not commit sins, the absence of vows is a cause for the bondage of *karma*. Because not taking a vow or having a temptation or desire to commit sin cause the bondage of *karma*. If one does not want to commit a sin, then why should she/he hesitate to take a vow to prevent the bad effect? If we closely examine the proper aspects of the minds and hearts of people who don't take vows, we find that they have a desire or have the door open to create a desire to commit sins. The mind thinks "Though I will not commit this sin, sometimes, by force of circumstances, I may have to commit sins. I may commit such a sin, If I take a vow, I will have to face a serious difficulty. So let it be as it is, let me not take any vow." As long as you don't make a strong determination that in your life there will be no need to commit sins, and do not take a vow not to commit sins the possibility of your committing sins will be there. *Even the desire to commit a sins is a sin*. Sins should be discarded by means of an austere vow.

For instance, though there is no possibility of your committing the sins of hunting, plundering others, eating meat, etc., the bondage of *karma* relating to these sins ends only when you take a vow not to commit them. In an ordinary manner, *Avirati* or the absence of vows is of 12 kinds.

1 to 6—Not to take vows related to the pleasures of the five senses and the mind.

7 to 12—Not to take vows related to the use of earth, water, fire, air and plants (vegetation) and all mobile beings (trasa). In addition included are not taking vows to discard violence, falsehood, stealing, sexual activities, attachment and taking food in the nights. Taking vows for a partial retrainment from these are called *Deśa Virati* (for family persons).

If a serious and solemn vow is taken with three yogas and three *karaṇas* i.e., if a vow is taken by person that he/she will not by mind, speech or body commit these sins that he would not get them committed by others, and would not approve them when others commit them, then it is called *serva virati*. This type of vow is taken by a Jaina monk. But for a family person it is impossible not to approve knowingly or unknowingly when others are committing sins as well as it is difficult to stop the sins of subtle kind. Therefore, the family persons take partial vows which he/she can observe.

When *mithyātva* is conquered fully and *avirati* is there means *pramāda*, *kaṣāya*, *yoga*, etc. are definitely with him. It is their pact. And when *mithyātva* and *avirati* are destroyed fully then *pramāda*, *kaṣāya* and *yoga* will remain with soul. When earlier is there, means all succeeding are present with earlier.<sup>6</sup>

#### 4.1.3 PRAMĀDA (NEGLIGENCE)

*Pramāda* makes the soul to stop taking delight in contemplating on its own form. *Pramāda* is mainly of the following five types:

- (i) Arrogance,
- (ii) Sensual craving,
- (iii) Passions (*kaṣāya*),
- (iv) Sleep, and
- (v) Engaging in gossiping.

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<sup>6</sup> *Karmagrantha I*, 1486, *Pañcasaṅgraha* 365, *Tattoārtha Sūra VIII*, 1.

Following evil activity of mind, body and speech, not caring for true *dharma* and not having enthusiasm for true *dharma* also constitute the *pramāda*—

- (i) Attachment,
- (ii) Hatred,
- (iii) Ignorance,
- (iv) Doubt,
- (v) Illusion, and
- (vi) Forgetfulness.

Even after a person takes all necessary vows and becomes a Jaina monk/nun, he/she may be subjected to *pramāda* time to time. This state is called *pramatta*. If he/she discards the *pramāda* completely, then he/she becomes an *apramatta mahāmuni*. It is more often that a Jaina monk goes forward and backward from *apramatta* state to *pramatta* state.<sup>7</sup>

#### 4.1.4 KAṢĀYAS (PASSIONS)

*Kaṣ* means *sansār* (material world, cycles of birth and death, world of misery) and *āya* means gain. *Kaṣāyas* therefore secure the *sansāra* and keep us miserable. Therefore, they are called *kaṣāyas*—

- (i) Anger (*krodha*),
- (ii) Ego (*māna*),
- (iii) Deceit (*māyā*), and
- (iv) Greed (*lobha*).

**Each of these have four kinds (degrees)—**

- (i) Life long (extremely violent).
- (ii) Non-renunciatory (violent).
- (iii) Partially renunciatory (violence of middle level).
- (iv) Flame like (completely renunciatory, mild).

Their *prākṛtika* names are given in the *Āgamas* as follows :

- (i) *Anantānubandhī kaṣāya*,
  - (ii) *Apratyakhyani kaṣāya*,
  - (iii) *Pratyākhyānī kaṣāya*, and
  - (iv) *Sañjvalana kaṣāya*.
- (i) ***Anantānubandhi (life long) Kaṣāya***—This *kaṣāya* binds the soul to endless *sansāra*. This *kaṣāya* usually lasts more than 12 months. It adds bondage to bondage and impels the cycle of life and death to go on endlessly. A person with this type of *kaṣāya* is in *mithyātva*. The intensity of this *kaṣāya* keeps the *jīva* under its impact such that she/he will not have even a rational thought. The *jīva* under the influence of this *kaṣāya* commits sins like violence and other evil actions without fear and any hesitation. Person with this *kaṣāya* does not have faith (or *samyaktva*) in *tatvas* (basic elements of Jainism). Therefore, *anantānubandhī kaṣāya* (anger, ego, deceit and greed) are extremely harmful. First, a person destroys this type of *kaṣāya* and, thus develops faith in *tatvas* (basic elements of Jainism). When the *anantānubandhī kaṣāya* arises, it destroys the right faith.<sup>8</sup>
- (ii) ***Apratyākhyānī (non-renunciatory) kaṣāyas***—This *kaṣāya* lasts at least 4 months upto 12 months. A person under the influence of this *kaṣāya* has the right belief but has not yet taken any vows to minimize sinful and unnecessary activities. By taking partial vows, he/she overcomes this *kaṣāya*.<sup>9</sup>
- (iii) ***Pratyākhyānī (partially renunciatory) kaṣāya***— This *kaṣāya* lasts more than 15 days and upto 4 months. A

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8 *Viśeṣāvaśyaka bhāṣya*, *Gāthā* 1227.

9 *Tattoārthasūtra* 9/10 *Bhāṣya*.

person under the influence of this *kaṣāya* has taken partial vows to minimize sinful and unnecessary activities. This stage is for family persons like us.<sup>10</sup>

- (iv) ***Sañjvalana* (flame like, totally renunciatory) *kaṣāya*** — This *kaṣāya* is of subtle kind and lasts less than 15 days. In this stage, an individual takes total vows and becomes a Jaina monk or nun. He/she discards all sinful activities.<sup>11</sup> Three *kaṣāyas* have many forms such as attachments, hatred, enmity (animosity), hostility, arrogance, craftiness, trickery, lust, greed, possessive propensity (partiality), etc. There are nine non-*kaṣāyas* called *quāṣi kaṣāyas*, which function as catalyst to *kaṣāya*. Those are following—

1. Laughing (joking-*hāsyā*),
2. Improper liking (*rati*),
3. Improper disliking (*arati*),
4. Sorrow (*śoka*),
5. Fear (*Bhaya*),<sup>12</sup>
6. Disgust (*jugupsā*),
7. Sexual craving for male (*puruṣa-veda*),
8. Sexual craving for female (*stri-veda*), and
9. Sexual carving for both male and female (*napusanka veda*).<sup>13</sup>

These non-*kaṣāyas* provoke *kaṣāyas*:

- (i) Laughing and joking—Making fun of some one, telling a lie to make others laugh.
- (ii) Improper liking—To like certain things without any regard to truth or falsehood.

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<sup>10</sup> *Ibid.*

<sup>11</sup> *Ibid.*

<sup>12</sup> *Sthānāṅga* 7/549.

<sup>13</sup> *Prajñāpanā*, *Karmagrantha* Pad 23, U-2.

- (iii) Improper disliking—To dislike certain things without any regard to truth or falsehood.
- (iv) Sorrow—This is an obstacle to right conduct. This leads to wrong action and to accusing someone else.
- (v) Fear—An obstacle to right action. Most of our wrong actions are the result of our fear.
- (vi) Disgust—Obstruction to knowledge and right action. Not liking certain things, without proper thinking.
- (vii) and (ix) Desire to have sex with male, female and both.
- (viii) These nine are known as non-*kaṣāyas* (subsidiary non-*kaṣāyas*). *Kaṣāyas* generate and intensify the *kaṣāyas* and vice versa. The non-*kaṣāyas* are considered as a part of *kaṣāyas*.<sup>14</sup> Thus total *kaṣāyas* are twenty-five.

#### 4.1.5 YOGA (ACTIVITIES)

The activities of mind (*manas*), speech (*vacana*) and body (*kāyā*) of the *jīva* are called yoga. If these activities are noble, the soul gathers auspicious *karma* (*puṇya*) and if they are innoble (dishonourable) the soul gathers inauspicious *karmas* (*pāpa*).

**(I) Manoyoga (Yoga of mind)**—There are four types of *manoyoga*:

- i. *Satya manoyoga*,
  - ii. *Asatya manoyoga*,
  - iii. *Satyāsatya manoyoga*, and
  - iv. *Vyavahāra manoyoga*.
- (i) ***Satya manoyoga***—It is the thinking of truth, thinking of an object or its condition as it is in itself. For instance, the thinking "*mokṣa* can be attained only by knowledge accompanied with *cāritra*."

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14 Uttarādhyayana sūtra Adhyayan 33, Gāthā 11.

- (ii) *Asatya manoyoga*—This means thinking of falsehood (thinking of a thing of its condition in a way that is totally opposite to or different from what is in itself). For example, thinking like "activities and austerities are unnecessary for attaining *mokṣa*."
- (iii) *Satyāsatya manoyoga*—It is a mixed thinking. It involves both partial truth and partial falsehood. For example, thinking like "knowledge itself is enough to attain *mokṣa*."
- (iv) *Vyavahāra manoyoga*—In this kind of thinking, there is neither truth nor falsehood. It is thinking about some practical affair of life such as saying to some person concerned "you must get up early in the morning."<sup>15</sup>

(II) *Vacanayoga (Yoga of speech)*—*Vacanayoga* (activity of speech) has four forms like *manoyoga* (activity of mind) as follows:

- (i) *Satyavacanayoga*—Like speaking the truth about an object *satyavacanayoga*.
- (ii) *Astyavacanayoga*—Telling lies is *asatyavacanayoga*.
- (iii) *Satyāsatya vacanayoga*—Something which is partially true and partially untrue is *satyāsatyavacanayoga*.
- (iv) *Vyavahāravacanayoga*—It is utterances like "You go, you come, etc."<sup>16</sup>

(III) *Kāyayoga (Yoga of body)*—There are total seven types of *kāyayoga* as follow—

- (i) *Audārika śarīra*,
- (ii) *Vaikriya śarīra*,
- (iii) *Āhāraka śarīra*,
- (iv) *Taijasa śarīra with kārmaṇa śarīra*,

15 *Sthānāṅga Sūtra Ṭika*, Banaras 1880, p. 26a.

16 *Karmagrantha I*, 85b.

(v) *Kārmaṇa śarīra, taijasa śarīra with audarika śarīra,*

(vi) *Kārmaṇa, taijasa with vaikriya śarīra, and*

(vii) *Kārmaṇa, taijasa with āhāraka śarīra.*

Human beings (*manuṣya*) and the beings of the realm of animals, birds, insects, plants, etc. (*tiryāṅca*) have the *Audārika śarīra*. Heavenly beings and the inhabitants of hell have the *vaikriya* type of body. The *Mahāmunis* (great Jaina saints) who have mastered the *śāstras* (*pūrvas*) can develop a body that can visit a nearby *Tīrthankara* to get a clarification for their doubts. This type of body is called *āhāraka śarīra*. We all *sansārī* have *taijasa* (body of vital energy) *śarīra* and *kārmaṇa śarīra*. These two bodies stay with us until we achieve the salvation (*mokṣa*).<sup>17</sup>

Thus, we have activity of *audārika śarīra, vaikriya śarīra, āhāraka śarīra* and *kārmaṇa śarīra*. We don't have independent activities of *taijasa śarīra*. Now the first three bodies can have combined activities with *kārmaṇa* and *taijasa śarīra*. Thus, we have a total of 7 *kāyayogas*. Thus, we have a total of 15 yogas of mind, speech and body. Of them there are two kinds namely, the auspicious ones—the true *dharma*, are auspicious vocal, mental and physical activities. All other activities are inauspicious. We attain *puṇya* (merit) by means of auspicious yoga and *pāpa* (sin) by means of inauspicious yoga.

This makes the causes for the bondage of *karma* 57 in numbers—5 *mithyātva*, 12 *avirati*, 25 *kaṣāya* and 15 *yogas*. The types of *pramāda* are not included since the *pramāda* is due to other four causes.<sup>18</sup>

#### 4.1.6 DESIRES

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17 *Karma Prakṛti* 3a, *Pañcasangraha* 4, 17, 32.

18 *Karmagrantha* I, 148b, *pañcāstikāya* 365, *Tattovārtha Sūtra*VIII, 1 Gandhi 54, Warren 37.

The root cause of binding *karma* is desire. Desire is the source of human happiness as well as misery. It can be said that the bondage of *karma* is really the bondage of desire. The desire of possessions, acquisition and enjoyment knows no bounds. It can be ended only by achieving its opposition, a state of complete desirelessness in which there is no trace of attachment to anything whatsoever (*vītarāga*). The moment the self thinks of enjoyment, its action body (*kārmaṇa śarīra*) attracts minute and subtle particles according to the nature of enjoyment. No outside agencies are involved in this process, the self by its own force receives and retains those karmic particles. This process results in transmigration. Prominent Scholar. S. N. Das Gupta is right when he says—*Karma* only comes as a connecting link between desire and rebirth.<sup>19</sup>

The processes are prescribed in *pañcāstikāya* in the following words—“Penetration by matter is due to activity (*yoga*) and activity arises from mind, body and speech. Bondage of soul is due to thought activity and that thought is accompanied by desire, passions, inflammation and infatuation (or intoxication).”<sup>20</sup> The rise of *karma*, its causes and consequences are discussed in many Jaina texts. According to *Tattvārtha Sūtra*, the self because of its association with passions attracts *karmic* particles which are fit to turn into *karmas*. This is known as bondage.<sup>21</sup> A commentator of *Tattvārtha Sūtra* has illustrated the association of the self with *karmic* matter in the following manner—“Even as a lamp by its temperature draws up the oil with its wick and, after drawing up, converts the oil into its body (*viz.* glow), exactly so does a soul-lamp, with the attributes of

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19 *A History of Indian Philosophy*—by S.N. Das Gupta, volume-I, p. 56.

20 *Pañcāstikāya* 148, J.L. Jaini outline of Jainism, p. 93.

21 *Tattvārtha Sūtra*, VIII.2.

attachment and material aggregates by the wick of its activities and, after attracting, transform them into *karma*.”<sup>22</sup>

#### 4.1.7 EIGHTEEN SINS

- (a) **Misuse of *prāṇa***—The *jīva* possesses 10 life forces (*prāṇa*)—power of five sense organs, power of the body, speech and mind, life force pertaining to life span, and the power of respiration. Because of the misuse of these 10 life forces (*prāṇa*), the *jīva* is bound by *karma*. This misuse causes *āsrava* (influx or *karma*).
- (b) **Cause of influx—Eighteen sources of sins**—Following eighteen sources of sins also causes the influx of *karma* (*āśarva*)—
- i. Violence
  - ii. Falsehood
  - iii. Stealing
  - iv. Sexual activity
  - v. Possessiveness
  - vi. Anger
  - vii. Ego
  - viii. Deceit
  - ix. Greed
  - x. Attachment
  - xi. Hatred, quarrel
  - xii. False accusations
  - xiii. Divulging some one's secrets
  - xiv. Back biting
  - xv. Delight

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22 *Tattvārtha Sūtra Bhāṣya* Ṭikā, part-I, p. 343.

- xvi. Excitement
- xvii. Calumny
- xviii. Uttering deceptive falsehood and false belief

#### 4.1.8 Thirty-nine activities

In *Tattvārtha Sūtra* (6-7), Ācārya Umāswatī states that “The nature and intensity (*tīvra-manda*) of desire through internal or external character of activity (*jñāta-ajñāta*), dependence of the act involving living and non-living substances (*adhikaraṇa*) and one's own position and power (*vīrya*) determine the kind of *karma* and the amount of *karmic* flux.”

There are 39 different kinds of activities that lead to the influx and bonding of *karma* particles as follows—

- (1) Five senses (touch, smell, taste, sight and hearing),
- (2) Activities involving violence (*hiṃsā*),
- (3) Untruth (*asatya*),
- (4) Activities involving four passions (anger, pride, deceit and greed),
- (5) Stealing (*asteya*),
- (6) Unchastity (*abrahmacarya*),
- (7) Possessiveness (*parigraha*),
- (8) Mental pain to oneself or others (*prāṇipāta kiryā*),
- (9) Rational activities (*samyaktva*),
- (10) Irrational activities (*mithyātva*),
- (11) Experimentation (*prayoga kiryā*), and
- (12) Infatuated desire to see a pleasant or unpleasant object (*darśana kiryā*).

Activities of worldly souls have also been classified in the following manner:

There are three phases of each activity—

- (i) Determination (*Sankalpa*) (*Sarambha*),
- (ii) Preparation (*Samārambha*) and
- (iii) Commencement (*Ārambha*).

Each one of these may involve the activity of mind, speech and body, giving nine variations. A person who can do the act himself/herself, gets it done by others or can just give the approval for the act. Thus we get  $9 \times 3 = 27$  types of activities. These 27 types multiplied by four different passions (*kaṣāyas*) (anger, pride, deceit and greed) yield 108 different shades of activities.

#### 4.1.9 CAUSE OF BONDAGE OF FOUR GATIS

Jainism recognizes four states of existence (*gatis*)—

- (i) Celestial state of existence (*devagati*),
- (ii) Human state of existence (*manuṣya gati*),
- (iii) Animal state of existence (*tiryāñca gati*), and
- (iv) Hell (infernal) state of existence (*naraka gati*).



Fig. 4.2: Four gatis

Jaina thinkers firmly believe that every individual has to bear the consequences of his own *karmas* in this life or another life. The good deeds have good results and take the *jīva* to celestial and human states of existence. The evil deeds have their evil effects and take the soul to animal and hellish (infernal) states of existence.

According to Jainism, every state of existence has four causes. The *karma* leading to the enjoyment of divine life (*devagati*) has the following four causes (bondage)—

- (i) Leading ascetic life with affection,
- (ii) Leading ascetic life with pure mind,
- (iii) Practising penance without keeping its consequences,  
and
- (iv) Practising austerities without any aim.

The *karma* leading to human life (*manuṣya gati*) has four causes (bondage)—

- (i) Simplicity of behaviour,
- (ii) Humble character,
- (iii) Compassion, and
- (iv) Want of envy

The *karma* leading to animal life (*tiryanka gati*) has four causes (bondage)—

- (i) To deceive others,
- (ii) To deceive others vigorously,
- (iii) Speaking falsehood, and
- (iv) Playing fraud.

The *karma* leading to hell (infernial) (*naraka gati*) has four causes (bondage)—

- (i) Possessing of immense wealth,
- (ii) Indulging in violent deeds,
- (iii) Killing the living beings possessing five sense-organs,  
and
- (iv) Eating flesh.<sup>23</sup>

## 4.2 Components of bondage process

Binding of *karma vargaṇā* with the soul is called *dravya karma*. Attachment—aversion (*rāga-dveṣa*) oriented results of soul are called *bhāva karma*.

Our activities are physical, vocal and mental. Some are good and some are bad. Bad ones are—

- (i) **Physical**—Like killing, hunting, crushing, etc.
- (ii) **Vocal**—Abusive or harsh words, gossiping.
- (iii) **Mental**—Like thinking bad about someone, etc.

Good ones are just opposite to bad ones. We do these three activities in three different ways—

- (i) We do activities ourselves.
- (ii) We ask someone else to do for us.
- (iii) We encourage someone else who is doing them.

By multiplying the above three Yogas and three *Karaṇas* we can perform activities in nine ways.

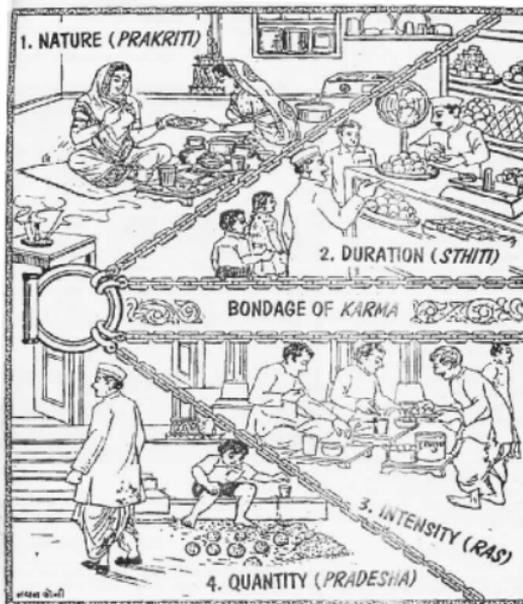


Fig 4.3: Factor of bondage

At the time of bondage of *karma* four factors are decided:

- (i) **Prakṛti (nature)**—What kind the nature of *karmas* will be? What characteristic of the soul will it obstruct?
- (ii) **Pradeśa (quantity)**—How many *karma* particles will be involved?
- (iii) **Sthiti (duration)**—How long will these *karmas* stay with the soul?
- (iv) **Anubhāga (intensity)**—How intense will be the results of those *karmas*?<sup>24</sup>

These are the four components involved in bondage process. The nature and quantity of *karma* depend on the intensity of physical, vocal and mental activities (yoga), while the duration and intensity of *karma* depend on the intensity of desires, i.e. *kaṣāya* behind these activities.

#### 4.2.1 PRAKṚTI (NATURE)

There are eight different types of main *karmas*. Depending upon our activities of mind, speech and body, we will accumulate one or more of these eight main *karmas*. Normally, we (*sansārī jīva*) accumulate seven (eight once in a life time) main types of *karmas* at every moment.

#### 4.2.2 PRADEŚA (QUANTITY)

When the physical intensity of our activities is slight then we accumulate smaller number of *kārmaṇa* particles, but if the physical intensity is strong then we accumulate large number of *kārmaṇa* particles to the soul. *Kārmaṇa* particles have two odours, five colours, five tastes and only four touches (cold, warm, sticky and dry) instead of eight touches that the physical body has. The soul accumulates the *karma* in quantity of eight main types differ from each other as follows—

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24 *Karma Grantha* 3.2.

- (a) Age determining (*Āyusya karma*) receives the smallest quantity.
- (b) Body making (*Nāma karma*) and status determining (*Gotra karma*) receive equal quantity but more than S.no.a.
- (c) Knowledge obscuring (*Jñānāvarṇa karma*), perception obscuring (*Darśanāvarṇa karma*) and obstructive (*Antarāya karma*); all the three receive equal but more quantity than S.no. b, but less than remaining *karmas*.
- (d) Deluding (*Mohanīya karma*) receives more quantity than S.no. c and less than S.no. e.
- (e) Feeling producing (*Vedanīya karma*) receives the largest quantity.<sup>25</sup>

This is also called a quantity of *karmic* particles associated with soul due to vibration or activity (yoga). This universe is filled with *karmic* particles and every self attracts those particles which are within its range, like the fire that catches only those inflammable particles which are within its reach. The quantity of the *karmic* particles varies according to the passionate activity of the self. If the vibrations are strong, more molecules of *karmic* matter are attached to the self, while low vibrations attract less *karmic* particles. Thus every part of the self attracts *karmic* particles through the vibrations of yoga and *kaṣāya*. This process leads to the generation of eight types of *karmas*.

#### 4.2.3 *STHITI* (DURATION)

How long the *karma* will stay associated with the soul is determined by the quality of our passions at the time of our activities. If our desire for the activity is mild then the duration of bondage would be of a shorter time. If our desire is stronger then the duration of bondage would be of a longer time. The minimum time may be of a fraction of time to *Antaramuhūrta*

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25 Kṛg II, 68b seq., ps 584 Seq., Tattva, VIII, 25.

(less than 48 minutes) and a maximum time could be of innumerable years (70 *krodā-krodi sāgropama*). The duration of each type of *karma* differs according to its nature and fruition. The Jaina texts distinguish three lengths of the period of duration:

- (a) of minimum duration.
- (b) of intermediate duration.
- (c) of maximum duration.

The duration of intermediate category of each action varies according to its intensity and gravity. The minimum and maximum duration of eight main types of *karmas* may be formulated in the following table—

**Table 4.1**

S.No.	Nature of <i>Karma</i>	Duration		Maximum Duration
		Minimum	Abādhākala	
01.	Knowledge obscuring ( <i>Jñānāvarṇa</i> )	<i>Antaramuhūrta</i>	3000 years	30 <i>Karodā-karodī Sāgropama</i>
02.	Intuition obscuring ( <i>darśanāvarṇa</i> )	<i>Antaramuhūrta</i>	3000 years	30 <i>Karodā-karodī Sāgropama</i>
03.	Feeling producing ( <i>vedanīya</i> )	12 <i>Antaramuhūrta</i>	300 years	30 <i>Karodā-karodī Sāgropama</i>
04.	Deluding ( <i>mohanīya</i> )	<i>Antaramuhūrta</i>	7000 years	70 <i>Karodā-karodī Sāgropama</i>
05.	Age determining ( <i>ayusya</i> )	256 <i>Avatika</i>	None	33 <i>Sāgaropama</i>
06.	Body making ( <i>nāma</i> )	8 <i>Antaramuhūrta</i>	2000 years	20 <i>karodā-karodī Sāgaropama</i>
07.	Status determining ( <i>gotra</i> )	8 <i>Antaramuhūrta</i>	2000 years	20 <i>karodā-karodī Sāgaropama</i>
08.	Obstructive ( <i>antarāya</i> )	<i>Antaramuhūrta</i>	3000 years	30 <i>karodā-karodī Sāgaropama</i>

Here *abādhakala* is the maximum waiting time before realization. The word *antaramuhūrata* denotes a period of time from one to 48

minutes, *krodā-karodī* means one crore multiplied by one crore. The word *sāgropama* stands for an immeasurable period of time.<sup>26</sup>

#### 4.2.4 ANUBHĀGA (INTENSITY)

How intense would be the result of *karmas* at the time of maturity is decided by the severity of our passions (desires) at the time of our activities. If our passions (desires) are slight then it would cause slight effect and if our passions are severe then it would cause severe results.

Now when the *karmas* get attached to the soul, they may be attached very loose or very tight. They are four types—

- (a) Loose (*sprusta* or *śīthila*),
- (b) Tight (*baddha* or *gāḍha*),
- (c) Tighter (*nidhata*), and
- (d) Tighest (*nikācita*).

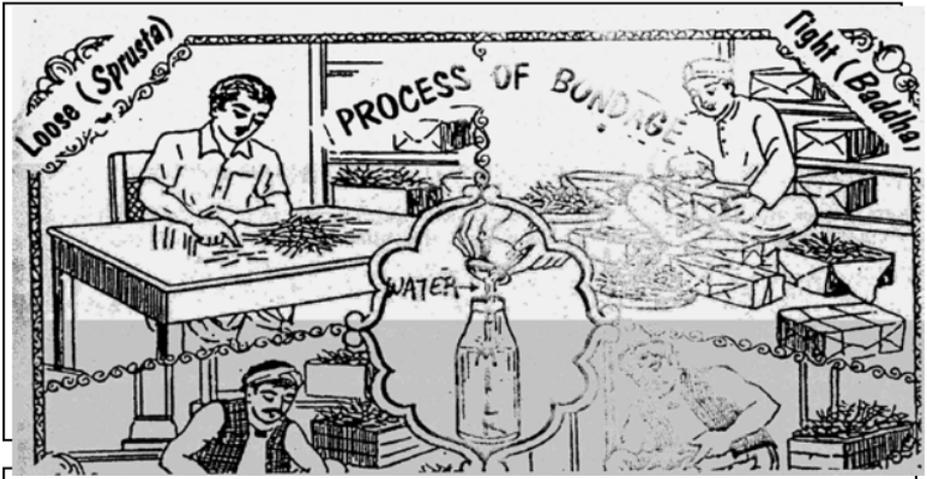


Fig. 4.3: process of bondage

- (a) **Loose (*sprusta* or *Śīthila*)**—In this case, *karmas* are attached to the soul like a loose knot that can easily be shed off.

26 Kg V, 122b et. seq. ps. 513 et. seq. Tattva VIII 15 et. seq. Utt. 33, 21 et. seq. Gandhi 71 et. seq.

- (b) **Tight** (*baddha* or *gāḍha*)—In this case, *karmas* are attached to the soul like a tight knot that can be shed off with some efforts.
- (c) **Tighter** (*nidhata*)—In this case, *karmas* are attached to the soul like a moderate knot that can only be shed off by very strong efforts like *tapaścaryā*.
- (d) **Tighest** (*nikācita*)—In this case, *karmas* are attached to the soul very tightly that they cannot be shed off by any type of efforts except by bearing the results.

There are four main degrees of intensity corresponding to the four *kaṣāyas*—

- (i) *Anantānubandhī kaṣāya*,
- (ii) *Apratyākhyanī kaṣāya*,
- (iii) *Pratyākhyanī kaṣāya*, and
- (iv) *Sañjvalana kaṣāya*.<sup>27</sup>

Duration and intensity of *karma* are determined by passions attracted by the self. The stronger the passions, the greater is the intensity and duration of sinful deeds; similarly, the intensity of fruition and duration of good *karmas* correspond to the strength of passions in the reverse order.

In other words, the duration of the actions of an evil being is longer, the strong effect of evil tendencies weakens the effect of the good ones. On the other hand, greater purity of character and conduct in a being lessens the duration and intensity of evil *karmas* and promotes the wholesome tendencies (*karmaprakṛti*). According to *Gommaṭasāra*, the intensity of fruition of auspicious type of *sātāvedanīya karma*, etc. is the highest due to pure feelings whereas the intensity of the fruition of inauspicious types of *asātāvedanīya*, etc. is the highest due to impure feelings.<sup>28</sup>

27 *Karmagrantha* II, 52b, ps 564.

28 *Gommaṭasāra Karmakāṇḍa*, 163.

(e) **Bondage of karma**—*Iryāpathika* and *Sāmparāyika*—The *karma* is related with the soul, as we have seen, on account of its passions and vibrations. We have also differentiated between the respective functions of the passions and vibrations. There are states of the soul where the passions are totally calmed down or destroyed. This bondage, however, does not last for more than an instant. The influx in this case is technically known as non-effecting (*iryāpathika*), the corresponding bondage also being known by the term *iryāpathika bandha* (non-effecting bondage).<sup>29</sup> Both the influx and bondage, due to activity accompanied with passions, are known as affecting (*sāmparāyika*), also known as *sāmparāyika bandh*. The influx and bondage, as a matter of necessity, require some energy on the part of the soul for their origination. This energy is known as *Vīrya*. The activity (yoga) is nothing but an imperfect expression of this energy.<sup>30</sup>

#### 4.2.5 TEN STATES (PROCESSES) OF KARMA

One of the most fundamental principles of the doctrine of *karma* is that every change in the soul synchronizes with a corresponding change in the state of *karma* and vice-versa. Thus *karmic* matter undergoes various processes due to the changes in the states of soul. We shall briefly describe some of the important processes here.

- (1) **Bandha**—The first process is bondage (*bandha*)—attraction of *karmic* matter from the space and its assimilation by the soul and its division into various type of *karmas*.
- (2) **Sāttā**—The *karma* does not yield fruit as soon as it is bound but remain inactive for sometime, depending upon the duration of *karma* (*sthiti-bandha*). This period of inactivity is

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29 *Tattoārtha sūtra* VI.5 with *Bhāṣya* and *Ṭika*.

30 *The Pañcasāṅgarha*, 721.

called as *abādhākāla* and the *karma* is said to be in the state of *sattā*.

- (3) **Udaya**—After the period of non-production, the *karma* comes into rise (*udaya*) and begins to give its fruits and this continues uninterrupted till the end of the duration (*sthiti-bandha*).
- (4) **Udīraṇā**—Premature fruition of *karma* (*Udīraṇā*) is a process in which *karma* is forced to yield its fruits prematurely by a strong effort of the soul, through a special type of potency (*karaṇa*).
- (5) **Upaśama**—The forced premature fruition of deluding (*mohanīya*) *karma* produces a gap of non-fruition in the otherwise uninterrupted chain of fruition. This is called subsidence (*upaśama*) or temporary non-fruition. The process of subsidence (*upaśama*) occupies a very important place in the soul's struggle for self-realization and emancipation. Out of the eight main species, the deluding (*mohanīya karma*) plays the most important role in perpetuating the worldly existence and even its short subsidence, therefore, gives the soul a glimpse of the truth of the own real nature and illumines its spiritual journey to the final goal. Again, there is the process of destruction cum subsidence (*kṣayopaśama*) of *ghāti karma* wherein some portion of *karma* is subsided, some is destroyed while some is in the process of rise. It is this state of *kṣayopaśama* of the knowledge covering *karma* that permits perpetual cognition (*matijñāna*). The process of ultimate non-fruition is, of course, total demolition (*kṣaya*) which means final and total dissociation of the *karmic* matter from the soul.
- (6) **Saṅkramaṇa**—By the application and manifestation of the process of a particular type of potency, the soul is able to change the nature (*prakṛti*), duration (*sthiti*), intensity (*anubhāga*) and numerical strength (*pradeśa*) of the bonded *karma*. Transformation (*saṅkramaṇa*) is a process whereby

one sub type (*uttarprakṛti*) of a *karma* is transformed into other sub type of the same main species.

- (7) **Udvartana**—The process of increased realization (*udavartana*) are the transformation of the duration (*sthiti*) and intensity of fruition (*anubhāga*) respectively of *karma*.
- (8) **Apavartana**—The process of decreased realization (*apavartana*) are the transformation of duration (*sthiti*) and intensity of fruition (*anubhāga*) respectively of *karma*.
- (9) **Nidhati**—It is that state of *karma* in which *udvartana* and *apavartana* are possible, but *sankramaṇa*, *udīraṇa* and *upaśama* are not possible.
- (10) **Nikācanā**—Finally, there is a state of *karma* which is so irrefrangibly bound with the soul that it is not amenable to any of the above changes. This is the state of *nikācanā* in which all parameters are unalterably fixed and the course of fruition is predetermined from the very time of bondage.

### 4.3 Puṇya and Pāpa

*Puṇya* is wholesome *karma* and *pāpa* is unwholesome *karma*. Their causes of bondage are narrated here.

#### 4.3.1 CAUSE OF BONDAGE OF PUNYA

Wholesome *karma* is *Puṇya*. When one acquires wholesome *karmas*, it is called *Puṇya*. One attains mental comforts because of his *puṇya*. But *puṇya* does not bring the spiritual happiness. One can get the happiness of heaven because of his *puṇya* but not the happiness of *mokṣa*. One attains *mokṣa* by eradicating both *pāpa* and *puṇya*. "Karma is the cause of merit (*puṇya*) and demerit (*pāpa*)". Good thoughts give rise to merit while evil thoughts to demerit. Those who are possessed of subdued passions have clean mental states but those with intense passions will have unclean mental states.

It all depends on the quality of one's inner aspect (*bhāva*). If one's *bhāva* is wholesome, he will earn *puṇya*, and if *bhāva* is

unwholesome, he will acquire *pāpa*. Negative contemplation is *pāpa* and positive contemplation is *puṇya*. Many people praise themselves, and that is wrong. The person who praises himself has an intensive ego, one usually reflects out his own attributes. If he is full of faults, he will notice faults in others. Contrary to this, if one has good qualities, he will notice good qualities even in a devil, one who maintains the feeling of revenge for a long time is the person of intensive passions. Attitude of revenge is like a hard knot that is difficult to unite.

There are following nine aspects that lead to *puṇya*. —

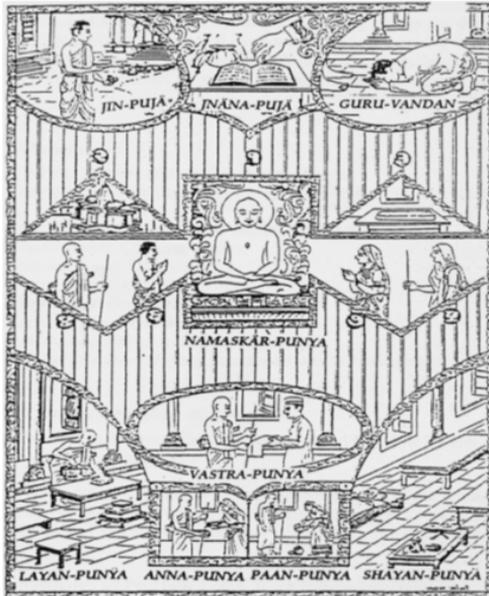


Fig. 4.4: causes of earning *puṇya*

- (1) *Anna-puṇya*—The offering of innocent, non-sentient, pure and vegetarian food to monks and nuns who hold five *mahāvratas*.
- (2) *Pāna-puṇya* —By offering of non-sentient and pure water to monks and nuns.
- (3) *Layana-puṇya* —The offering of shelter to monks and nuns.

- (4) *Śayana-puṇya* — The offering of bed (wooden cot) to monks and nuns.
- (5) *Vastra-puṇya* —The offering of clothes to monks and nuns.
- (6) *Mana-puṇya* —Good thinking for them.
- (7) *Vacana-puṇya* —Speaking good and kind words for them.
- (8) *Kāyāpuṇya* —Doing virtuous and helpful activities for them.
- (9) *Namaskāra-puṇya*—Paying homage to *pañca-parameṣṭhi*.<sup>31</sup>

These are as mentioned above, nine causes mentioned in *Sthānāṅga Sūtra* (a Jaina *āgama*) that result in earning *puṇya*. Five of them, related to the offering of food, water, shelter, bed and clothes to Jaina ascetics (*sanyāsī* who practises self restraints), are acts of *puṇya*. Such offerings are helpful to those who have restored to the spiritual path; good thoughts, good words (speech) and good physical activities are also cause of *puṇya*. Also paying spiritual homage to *pañca-parameṣṭhi* (five supreme entities—*Arihantas*, *Siddhas*, *Ācāryas*, *Upādhyāyas*, and *Sādhus*) is the cause of earning *puṇya*. The term adopted by most *Ācāryas* for offering to right people is *supātra dāna*. Right people include Jaina ascetics as well as the householders who are practising self restraints, and are pursuing the path of liberation, and are in need of help. Some *Ācāryas* interpret that there is no restriction against helping other living beings for the purpose of compassion (*jīva-dayā*, *karuṇā* and *anukampā*) because our *Tīrthaṅkaras* donated for one year to all living beings without being selective.

#### 4.3.2 CAUSE OF BONDAGE OF PĀPA

Unwholesome *karma* is *pāpa*. Goutama Swami asked Lord Mahāvīra, "Bhante! How can one be free from *pāpa*? Lord Mahāvīra replied," There are three ways to get freed from *pāpa*:

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31 *Sthānāṅga Sūtra*.

- (a) Knowledge of previous lives,  
 (b) Knowledge behind the cycle of birth and death, and  
 (c) Knowledge of conscious mind (*citta*) and how to purify it.
- (a) **Knowledge of previous lives**—If one remembers what happened in his previous lives, he will automatically take the path of *punya* and will abandon the path of *pāpa*. If we don't take the knowledge of our previous lives, it is difficult to abandon the wrong path. The person with the knowledge of previous life, understands the mystery behind attaining human life. He understands that it requires a great amount of spiritual efforts to attain human life. He thinks, "I don't want to waste my human life by indulging in wrong activities. I need to choose the right path. Knowledge of previous life is called "*Jāti smaraṇa Jñāna*."
- (b) **Knowledge of mystery behind the cycle of birth and death**—One will become very careful, if he finds out the cause for cycle of birth and death. He is reborn in a good state because of his own good or bad *karma*. He realizes "My *karma* is the reason why I am trapped in the cycle of birth and death." The realization makes one stop undesirable activities and makes him conscious of the importance of human life.
- (c) **Knowledge of conscious mind and how to purify it**—If one figures out why his conscious mind has become impure, and how he can purify it then automatically he begins to free himself from the sinful activities. Unnecessary and sinful activities stain the *citta*, while practising *as per* true religion purifies it.

There are eighteen causes of *pāpa* as follows—

- (1) *Prāṇātipāta* (violence or *himsā*),
- (2) *Mṛsāvāda* (to tell a lie),

- (3) *Adttādāna* (stealing),
- (4) *Maithuna* (unchastity or engaging in sensuous pleasures),
- (5) *Parigraha* (possessiveness or over collection of worldly things),
- (6) *Krodha* (anger),
- (7) *Māna* (ego),
- (8) *Māyā* (deceit),
- (9) *Lobha* (greed),
- (10) *Rāga* (attachment),
- (11) *Dveṣa* (aversion),
- (12) *Kalaha* (dispute or quarrel),
- (13) *Abhyākhyāna* (accusation or incrimination),
- (14) *Paiśūnya* (columny or slandering),
- (15) *Para-parivāda* (criticize some one in his presence),
- (16) *Rati-arati* (not to pursue permanent happiness through self restraint and to pursue temporary happiness),
- (17) *Māyā-mraṣā* (line with the intent of cheating), and
- (18) *Mithyātva śalya* (false faith or trust).

#### 4.4 RELATION WITH BONDAGE AND LEŚYA

One of the important concepts of Jaina doctrine of *karma* is that of *leśyās*. It is difficult to translate this word into English. Though it is generally translated as 'tint' and 'colouration.' The mental, vocal or bodily tendency of a being saturated by passions is called *leśyā*. In the scriptures, six types of *leśyās* are discussed in such a fashion as to give the impression of their being six colours—

- i. Black *leśyās*—Unholy (*aśubha*),
- ii. Blue *leśyās* —Unholy (*aśubha*),
- iii. Grey *leśyās*—Unholy (*aśubha*),

- iv. Red *leśyās* —Holy (*śubha*),
- v. Yellow *leśyās*—Holy (*śubha*), and
- vi. White *leśyās*—Holy (*śubha*).

The unholy *leśyās* produce miserable course of life of a *jīva* and the holy *leśyās* bring happy course of life of a *jīva*.<sup>32</sup> According to Herman Jacobi, the word *leśyās* is derived from *kleśa* which effects the self like the alteration on a crystal by putting coloured things on it.<sup>33</sup> Those activities by which the self is associated with *karma* are called *leśyās*. The relation between *karma* and self is called *leśyās*.<sup>34</sup> It is said that the self is tainted or identified with merit (*puṇya*) and demerit (*pāpa*) and this taint is known as *leśyās*.<sup>35</sup> It arises from yoga i.e. the activities of mind, body and speech, with the application of four passions.<sup>36</sup>

There are two types of *leśyās* —

- (i) *Dravya leśyās* and
- (ii) *Bhāva leśyās*.<sup>37</sup>

- (i) ***Dravya leśyās***—That which is produced by the body (*nāma karma*) is called *dravya leśyās*.<sup>38</sup> The colours of the body through which it is produced by *nāma-karma* is known as *dravya leśyās*.<sup>39</sup> The six *leśyās* having different colours are stated as *dravya leśyās*.

32 *Uttarādhyayana Sūtra* XXXIV, 56-57.

33 *Uttarādhyayana Sūtra* XXXIV, sbe, Vol. XLV, part-II, p. 196 Fn.

34 *Jainendra siddhānta koṣa*, Vol. III, p. 436.

35 *Gommatasāra*, *Jīvakāṇḍa*, 488.

36 *Ibid*, 489.

37 *Sarvārthasiddhi*, II.6.

38 *Rājavārttika* 9, 7, 11, 604.13.

39 *Gommatasāra Jīvakāṇḍa*, 536.

- (ii) *Bhāva leśyās* —The activity of mind, body and speech mixed with passions is called *bhāva leśyās*.<sup>40</sup> The feeling of the self on account of the rise, suppression, mixed suppression and annihilation of *mohanīya karma* is called *bhāva leśyās*.<sup>41</sup>

The nature of *leśyās* is explained in a parable famous in Jainism—six men went to a forest. They saw a mango tree full of fruits. Everyone wanted to eat the mangoes.

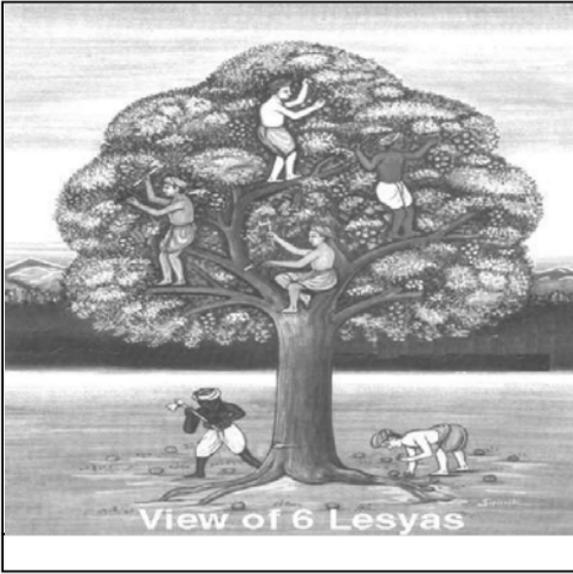


fig: 4.6

- i. The first man proposed to cut down the tree at the roots—result, he has black *leśyās*.
- ii. The second man recommended cutting the trunk of mango tree—result, he has blue *leśyās*.
- iii. The third man advised to cut off only big branches holding mangoes—result, he has grey *leśyās*.

40 *Gommatasāra Jīvakāṇḍa* 480, 895, *Karmagrantha IV.13, Uttarādhyayana Sūtra XXIV, 21-32.*

41 *Jainendra Siddhānta kośa, Vol. III, p. 436.*

- iv. The fourth man wished to cut off small branches having mangoes—result, he has red *leśyās*.
- v. The fifth man wanted to pluck mangoes from the tree—result, he has yellow *leśyās*.
- vi. The sixth man wanted not to give any injury to the tree but desired eating the mangoes fallen on the ground—result, he has white *leśyās*.

In Buddhism too the doctrine of *karma* is associated with the type of colours. There are four colours—

- (i) Black (*aśubha*),
- (ii) White (*śubha*),
- (iii) Black and white (*aśubha* and *śubha*), and
- (iv) Not black not white (not *śubha* not *aśubha*).<sup>42</sup>

The six *leśyās* are the colours of aura of the human body in occult Jainism. The theosophical view of the colours of the aura may be compared—the aura of the saint is ethereal-bluish, like the shimmering blue of pure is white like ice, that of the angry man is red, that of wicked and sinful man is black and so on.<sup>43</sup>

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42 *Dighanikāya* III.20.

43 *Outline of Jainism*—by J.L. Jaini, p. 47

## 5

Fruition of *Karma*

All of us have heard the saying "As you sow, so you reap." Several eastern religions have expressed the same idea in different ways. In any case, this simple saying contains the essence of human wisdom. Basically, it implies a strong "cause and effect" relationship. And it is the same cause and effect relationship on which the scientific and technological world is based. The question is, if the cause and effect relationship is so powerful in the material world we live in, why should it not be just as powerful in the spiritual world? If we accept this logic, the theory of *karma* will be easier to accept because it is nothing but a cause and effect spiritual phenomenon.<sup>1</sup>

According to Jainism, *karmas* are invisible, fine particles of matter. They are not seen by eyes or any most sensitive microscope prevailing all around us just like the air particles. Our soul attracts these *karmas* through activities related to mind, body and speech. This means whenever we get angry, we attract *karmas*, whenever we kill some one, we attract *karmas*, whenever we deceive someone or become greedy, we attract *karmas*. These *karmas* form layers upon layers over our soul and keep us away from realizing our true potentialities.<sup>2</sup> As the theory goes, true nature of soul is pure, crystal clear and full of true knowledge. However, the *karmas* keep the soul away from the truth and make

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1 *Samādhitāntra*, Verse-15, see also verses 16-17, 54-55.

2 *Tattvārtha Sūtra*, V, 37.

it go through the cycles of birth and death. A worldly soul remains under certain conditions, at one moment it gets closer to the truth, the next moment it starts doubting.

### 5.1 Process of Energy during the Rise of *Karma*

The *karmas* that associate (bind) with the soul may not rise to the surface in the same form. In other word, there may change in their:

- (i) Nature (*prakṛti*),
- (ii) Duration (*sthiti*), and
- (iii) Degree of intensity (*rasa-ānubhāga*).<sup>3</sup>

Just as the soul attracts *karmas*, it also does certain other things such as combining them. The activity of the soul in respect of bondage and assimilation/mixing of *karmas* is called *karaṇa* (*Ātmavīryayoga*—energy oriented activities of the soul).

There are eight types of *karaṇas*:

- (i) *Bandhana karaṇa*,
  - (ii) *Saṅkramaṇa karaṇa*,
  - (iii) *Udvartana karaṇa*,
  - (iv) *Apavartana karaṇa*,
  - (v) *Upaśama karaṇa*
  - (vi) *Udīrṇā karaṇa*
  - (vii) *Nidhatti karaṇa*, and
  - (viii) *Nikācanā karaṇa* <sup>4</sup>
- (1) ***Bandhana karaṇa***—This comprises the activities relating to the bondage of *karmas* to the soul.<sup>5</sup>
- (2) ***Saṅkramaṇa Karaṇa*** —It means the activity of combining the *karma* of one sub-type with the other sub-type of the

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3 *Karmagrantha* 1.2.

4 *Karmaprakṛti* with commentaries—Seṭha Devacanda Lālabhai, Jaina Pustakoddhāra fund Series No. 17.

5 *Bandhana Karaṇa*, p. 19 (1).

same *karma*. *Saṅkramaṇa* means a certain number of *karma* is already present and are mixing with the new *karma* and assuming that form. For example, let us say that because of some noble contemplation the *Sātā vedanīya* (happiness causing) is being gathered, some *karma* of already existing *asātā vedanīya karma* (causing sadness) mixed with it. The new *sātā vedanīya karma* (causing happiness), assume the form of *asātā vedanīya karma*. This is called *Saṅkramaṇa* of *asātā vedanīya karma*. On the contrary, when the *asātā vedanīya karma* mixed with them and assume the form of *Asātā*.

- (3) ***Udvartana and Apavartana karaṇa***—*Udvartana* means an increase in the *sthiti* and *rasa* of *karma*, and a decrease in their intensity is called *apavartana*. If the *jīva* is occupied in noble contemplations the *rasa* of existing noble *karmas* increases and reduces the *rasa* of evil ones. The effect of evil contemplations is opposite to this.<sup>6</sup>
- (4) ***Upaśama karaṇa***—*Upaśama* means suppressing (pacifying) the emergence of *mohanīya karma* upto the *antarmuhūrata* (less than 48 minute) by means of noble contemplations of a special kind.
- (5) ***Udīrṇā karaṇa***—In this case the *karmas* are forced to be realized (rise-*udaya*) pre-maturely.
- (6) ***Nidhatti Karaṇa***—The bondage of *karmas* is such that no other *karaṇa* can act upon it except the *Udvartana* and *Apavartana karaṇa*. It becomes unfit for the other *karaṇa* s.
- (7) ***Nikācanā karaṇa***—This makes the *karma* uninfluence all the *karaṇa*. The *karaṇa* like *saṅkramaṇa* cannot act upon them which they are influenced by the *Nikācanā karaṇa*. *Puṇya* (auspicious) *karmas* and *pāpa* (sinful) *karmas* become *nikācita* (inevitable) by strong contemplation either noble or ignoble (evil).

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<sup>6</sup> *Ibid*, p. 19 (2).

From this it becomes evident that *karmas* don't remain in the same form or condition or intensity after getting attached to the soul. But they undergo such changes as *Udvartana* and *Udīrṇā* in *Sthiti* and *Rasa* by spiritual or special effort. If the soul always engages itself in such activities as renunciation, devotion to the words of the *Jina*, benevolence (charity), service to spiritual people, forgiveness, taking vows of refrainment from sins, etc., it surely gathers new noble (*puṇya*) *karma* but later some old evil *karmas* (*pāpa*) become combined with noble (*Puṇya*) *karma*, they attain *apavartana* (decrease) in the evil *rasa* and *udvartana* (increase) in the auspicious *rasa*. In this manner they can change for the better. The opposite of this happens under the impact of noble contemplations. Keeping in view the incomparable benefits that accrue from noble contemplations, we should always keep entertaining noble and sacred contemplations. In the same manner, we should see all times our actions, thoughts and words are noble and exalted.

These processes of energy (*karaṇas*) lead to the corresponding *karmic* process known by the same terms. Every change in the soul synchronizes with the corresponding change in the *karma śarīra* and vice-versa. This is one of the most fundamental principles of the doctrine of *karma*.<sup>7</sup>

## 5.2 *Puṇya* and *pāpa*.

Why are some people in more favourable situations than others? Why are some rich, while others struggle? Why do some suffer from more diseases than others? Why is science unable to explain all these questions? The answer to such disparity lies in the understanding of *puṇya* and *pāpa*. What are *puṇya* and *pāpa*. *Puṇya* is earned when our activities are good while *pāpa* is earned when our activities are bad. When *puṇya* matures (rise of *karma*)

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<sup>7</sup> *Studies in Jaina Philosophy*—by Shri Nathamal Tāntiā, publishers—P.V. Research Institute, Vārāṇasī, first edition, p. 254.

or gives its result (fruition), it brings happiness and comfort, and when *pāpa* matures (rise of *karma*) or gives its result (fruition), it brings nothing but suffering.

Our objective should be not to disturb the comforts of other beings by hurting them in any way, and killing or being in any way instrumental in taking their lives. By providing comfort and security to others, we can gain good *karmas* also known as *puṇya*. *Puṇya* brings forth happiness in this life or our coming lives. On the other hand, if we cause suffering or unhappiness to others then we have committed a sin and we acquire bad *karmas* also known as *pāpa*, such *pāpa* brings forth unhappiness in this or future lives.

Jaina scriptures describe that even though *puṇya* or *pāpa*, on surface, may look as if their only effect is to cause comfort or discomfort, there is more to it.

*Puṇya* is further divided into two categories:

- i. *Puṇyānubandhī Puṇya*, and
- ii. *Pāpānubandhī Puṇya*.

*Pāpa* is sub divided into two categories:

- iii. *Pāpānubandhī Pāpa*, and
- iv. *Puṇyānubandhī Pāpa*.<sup>8</sup>

Brief definitions of the above four are as follows:

- (i) *Puṇyānubandhī Puṇya* — *Puṇya* which we accumulate now will bring us comforts and leads to a life where we will accumulate *puṇya* again.
- (ii) *Pāpānubandhī Puṇya* — *Puṇya* which we accumulate now, also will bring us comforts, and leads to a life where we will accumulate *pāpa* instead of *puṇya*.

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8 *Parmātma-prakāśa* II 63 ed. by A.N. Upadhyaya, p. 36.

- (iii) *Pāpānubandhī Pāpa* — *Pāpa* which we accumulate now will bring us discomforts, and leads to a life where we will accumulate *pāpa* again.
- (iv) *Puṇyānubandhī Pāpa* — *Pāpa* which we accumulate now will bring us discomforts but leads to a life where we will accumulate *puṇya* instead of *pāpa*.

### 5.2.1 PUṆYĀNUBANDHĪ PUṆYA

Long ago, a poor widow had a young son. She had to work hard to maintain herself and her son. Once, there was a day of great festival and the neighbouring families prepared a tasteful pudding of milk and rice called *khīra* in order to celebrate. The neighbourhood kids were enjoying the *khīra* and on seeing this the poor boy went to his mother and asked her to make *khīra* for him too. He did not realize that his mother did not have enough money to buy the milk, rice and sugar for making *khīra*. The mother tried to explain the situation but the boy started crying for the *khīra*.

The mother could not tolerate his crying. So she said, "Do not cry, my boy. I shall cook *khīra* for you." She went to the neighbours and borrowed some milk, sugar and rice and made *khīra*. She served him in an earthen plate and told him to wait until it cooled. She then left to fetch water from the well.

While the *khīra* was cooling, a monk came to the boy's home to ask for alms to get food. The boy felt very happy and invited the monk to his house. He served all his *khīra* to the monk and felt very happy to offer food to the monk. After the monk left, he ate whatever *khīra* was stuck to the plate and the pot. His thoughts did not change. He had offered the *khīra* to the monk willingly, thereby, he earned tremendous or wholesome *karma* or *puṇya*. As a result of this action, in his next life, he was known as *Śālībhadrā* born into a very wealthy family with all luxuries. During this life he realized "what life is all about." He renounced the luxuries of life and

uplifted his soul by becoming a monk of Lord Mahāvīra.<sup>9</sup> This is the fruition of *karma*.

### 5.2.2 PĀPĀNUBANDHĪ PUṆYA

Once there lived a man, who one day offered *laddūs* (sweet balls) to a monk who came to his house for alms. Later, he sat down to eat the leftover ladoos and realized how sweet those *laddūs* were. He felt sorry for giving away such *laddūs*. He left to track down the monk to ask the *laddūs* back. Harboring such thoughts, he sought out to find the monk in order to get the *laddūs* back. By the time he found the monk the ladoos had already been eaten by the monk. He kept regretting for offering *laddūs* to the monk.

As a result of giving alms to monk, he was born as a rich man in his next life, but because he had regrets about his offering he became a miser in this life. He could not use his wealth and lived unhappily. In fact, he lived his life in order to collect more money. For this reason, he died and went to hell.

It should be realized that even though both the boy and man should have been happier because of their offerings, the second one was not. These stories remind us of a very important fact: anytime we offer not only we should offer it happily, but we should never have regret about offering it. Otherwise, the offering turns sour. In retrospect, *puṇya* accumulated in the first example are called *puṇyānubandhī puṇya* and those accumulated in the second example are called *pāpānubandhī puṇya*.<sup>10</sup> This is fruition of *karma*.

### 5.2.3 PĀPĀNUBANDHĪ PĀPA

There lived a butcher in *Magadha* city. He enjoyed his job. One day, King *Sṛenika* decided that there should be no more killing in the city. All killing in the city was stopped but the butcher did

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<sup>9</sup> *Ibid*, p. 38.

<sup>10</sup> *Ibid*, p. 39.

not stop killing. When he was asked why he did not obey king *Ṣṛenika's* command, he said he loved killing and could not stop. King *Ṣṛenika* decided to put him in an almost dry well, so that there would be nobody to kill. To everyone's surprise, the killing did not stop even there. The butcher made animals with wet clay and then pretended to kill them. Since he was enjoying killing so much, he accumulated *pāpa* (bad *karmas*) which gave rise to a situation where he could do nothing other than continuing killing. This is the fruition of *karma*.

#### 5.2.4 PUṆYĀNUBANDHĪ PĀPA.

There was a robber named Rohini during Lord Mahāvīra's time. On his father's death, Rohini promised that he would not go and listen to Lord Mahāvīra. To keep his promise he would help the poor from what he collected from robbery. But one day, things were not favourable for him and when he was on his way to commit a robbery, he learned that Lord Mahāvīra was giving a sermon on his path. He thought of changing his route. But he realized that it would take longer putting him at risk of being caught. He was puzzled because if he went on the first path he would be unable to keep the promise he gave to his father and if he went on second path he might get caught. After some thought, he decided to go on the path where Lord Mahāvīra was preaching, but he also decided that he would cover his ears with hands so that he would be unable to hear. While he was passing the area where lord Mahāvīra was giving a sermon, a thorn pricked into his leg. He decided that he would rather bear the pain than to pick up thorn by his hands. As he walked further the pain became unbearable and he decided to pull the thorn quickly out of his leg. He thought to himself "How much can I hear in a few seconds any way? While pulling the thorn he heard the following words:

"Angels do not walk on the ground, do not cast shadows, and do not blink. Flowers they wear do not wither." He figured that these words would not affect his profession.

Rohiṇi continued on his pursuit of robbery, somehow, he got caught but did not admit any crime. Abhayakumara, the chief minister of king *Sṛenika*, decided to trick Rohini by getting him drunk and creating an environment of being born in heaven. He put Rohiṇi in a bed in a highly decorated palace with a lot of young girls acting as angels. When he woke up, they asked him, "Beloved, what kind of good *karmas* did you accumulate that entitled you to become our master? For a moment, Rohiṇi was confused. He did not know what was going on or whether he really was an angel. Contemplating deeply, he suddenly noticed that all the angels had a shadow, they all walked on the ground, their eyes blinked and their flowers were withering. He realized what was truly going on and recognized that it was a trap. So he went along with them. He said that he was a very nice and righteous person and had helped many people. Since Abhayakumara did not get the confession he was looking for he let Rohiṇi go free. Rohiṇi was amazed at what a few words of Lord Mahāvīra had done for him. After some time he decided to go and listen to the preaching of Lord Mahāvīra. After listening to Lord Mahāvīra's sermon, he renounced his old life and began on the path of spiritual uplift.<sup>11</sup>

From these last two examples, we would not expect either the butcher or Rohiṇi to become spiritually elevated. For the butcher, the expected outcome prevailed because all that was on his mind was killing. Rohiṇi on other hand, defiled the expected outcome because he had more on his mind than just robbing. Rohiṇi did not have a callous heart for he helped the poor and so on, while he was accumulating *pāpa* from robbing he also left a wisdom open through which *punya* could enter. Ultimately, the effect of *punya* led Rohiṇi in the right direction. There is a lesson to be learned here.

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11 *Ibid*, p. 40.

If we have to indulge in bad activities, for whatever reasons, then we should not enjoy them. In fact, we should regret committing such acts and try to do anything good if possible. We must remember that *pāpa* will lead us to more *pāpa*, leaving us no chance to improve and, therefore, we should try, with our fullest efforts, to avoid accumulation of *pāpānubandhī pāpa*. In the other scenario, we have at least some chances for improvement and, therefore, if it is necessary to accumulate *pāpa*, we should try to accumulate *punyaanubandhī pāpa*.

We should now understand that if we want to have happiness and comforts then we should be careful what we do and how we do it.

The following is a list of some activities which can bring comforts to others and can ultimately provide the same for us. They are:

- (1) Offering food to the needy (only vegetarian food).
- (2) Offering clothes to the needy.
- (3) Helping the sick.
- (4) Helping others to acquire knowledge.
- (5) Giving charity (be sure that money is used for a good cause).
- (6) Helping parents, brothers, sisters, grandfathers and others in need.
- (7) Helping animals or organizations that help animals.
- (8) Studying religion and following its precepts in our daily lives.
- (9) Worshipping *Tīrthankaras* like Lord Mahāvīra.

### 5.3 Forty–two types of fruits of auspicious *karma*

- (i) *Sātā Vedaniya*
- (ii) *Tīryañcāyu*
- (iii) *Manuṣyāyu*
- (iv) *Devāyu*
- (v) *Devagati nāma karma*

- (vi) *Manuṣya gati nāma karma*
- (vii) *Pañcendriya nāma karma*
- (viii) *Audārika śarīra nāma karma*
- (ix) *Vaikriya śarīra nāma karma*
- (x) *Āhāraka śarīra nāma karma*
- (xi) *Taijasa śarīra nāma karma*
- (xii) *Kārmaṇa śarīra nāma karma*
- (xiii) *Audārika upāṅga nāma karma*
- (xiv) *Vaikriya upāṅga nāma karma*
- (xv) *Āhāraka upāṅga nāma karma*
- (xvi) *Vajra Raṣbha nārāca samhanana nāma karma*
- (xvii) *Samacatarasra Sansthāna nāma karma (asra means angle)*
- (xviii) *Śubha Varṇa nāma karma*
- (xix) *Śubha gandha nāma karma*
- (xx) *Śubha rasa nāma karma*
- (xxi) *Śubha sparśa nāma karma*
- (xxii) *Deva-anupūrō nāma karma*
- (xxiii) *Manuṣya-anupūrō nāma karma*
- (xxiv) *Praśṣata Vihāyogati nāma karma*
- (xxv) *Alaghu nāma karma*
- (xxvi) *Praghāta nāma karma*
- (xxvii) *Avasocchavāsa nāma karma*
- (xxviii) *Ātpa nāma karma*
- (xxix) *Udyoth nāma karma*
- (xxx) *Nirmāṇa nāma karma*
- (xxxi) *Tīrthankara nāma karma or Jina nāma karma*
- (xxxii) *Trasa nāma karma*
- (xxxiii) *Bādara nāma karma*
- (xxxiv) *Paryāpta nāma karma*
- (xxxv) *Pratyeka nāma karma*
- (xxxvi) *Sthira nāma karma*
- (xxxvii) *Śubha nāma karma*
- (xxxviii) *Saubhāgya nāma karma*
- (xxxix) *Susvara nāma karma*

- (xl) *Adeya nāma karma*
- (xli) *Yaśa nāma karma*
- (xlii) *Uccagotra nāma karma*

#### 5.4 Eighty types of fruits of inauspicious *karma*

The following are eighty types of *karmas* which give inauspicious fruits when they rise (*vipāka*) in *jīva* and that is called *bādhakala*:

- (i) *Matijñānāvarṇa karma*
- (ii) *Srutajñānāvarṇa karma*
- (iii) *Avadhijñānāvarṇa karma*
- (iv) *Manahparyāya jñānāvarṇa karma*
- (v) *Kevala jñānavarṇa karma*
- (vi) *Cakṣu (eyes) darśanāvarṇa karma*
- (vii) *Acakṣu darśanāvarṇa karma*
- (viii) *Avadhi darśanāvarṇa karma*
- (ix) *Kevala darśanāvarṇa karma*
- (x) *Nidrā karma*
- (xi) *Nidrā-nidrā karma*
- (xii) *Pracalā Karma*
- (xiii) *Pracalā-pracalā karma*
- (xiv) *Satyanaddhi karma*
- (xv) *Asātā vedanīya karma*
- (xvi) *Mithyātoḥ mohanīya karma*
- (xvii) *Miśra mohanīya karma*
- (xviii) *Samyaktva mohanīya karma*
- (xix) to (xliii) *Cāritra mohanīya*—This has 25 sub groups as follows:

1. sixteen *Kaṣāya mohanīya*.
2. Nine Non-*kaṣāya mohanīya*.

- (i) *Narakāyu karma*
- (ii) *Narakagati nāma karma*
- (iii) *Ekendriya nāma karma*
- (iv) *Dviendriya nāma karma*
- (v) *Triendriya nāma karma*
- (vi) *Caturendriya nāma karma*
- (vii) *Ṛṣabha nārāca sanhanana nāma karma*

- (viii) *Nārāca sanhanana nāma karma*
- (ix) *Ardha-nārāca-sanhanana nāma karma*
- (x) *Kilika sanhanana nāma karma*
- (xi) *Sevārta sanhanana nāma karma*
- (xii) *Samacaturaśra sansthāna nāma karma (Aśra means angle).*
- (xiii) *Nyagrodhaparimaṇḍala sansthāna nāma karma*
- (xiv) *Sadi sansthāna nāma karma*
- (xv) *Kubja sansthāna nāma karma*
- (xvi) *Vāmana sansthāna nāma karma*
- (xvii) *Huṇḍa sansthāna nāma karma*
- (xviii) *Naraka anupūrvī nāma karma*
- (xix) *Tīryañca anupūrvī nāma karma*
- (xx) *Apraśasta Vihāyogati nāma karma*
- (xxi) *Upaghata nāma karma*
- (xxii) *Sthāvāra nāma karma*
- (xxiii) *Sūkṣma nāma karma*
- (xxiv) *Aparyāpta nāma karma*
- (xxv) *Sādhāraṇa nāma karma*
- (xxvi) *Asthira nāma karmarma*
- (xxvii) *Durbhāgya nāma karma*
- (xxviii) *Dusvara nāma karma*
- (xxix) *Anādeya nāma karma*
- (xxx) *Apayaśa nāma karma*
- (xxxi) *Nīcagotra nāma karma*
- (xxxii) *Dānāntarāya karma*
- (xxxiii) *Lābhāntarāya karma*
- (xxxiv) *Bhogāntarāya karma*
- (xxxv) *Upabhogāntarāya karma*
- (xxxvi) *Vīryāntarāya karma*

Thus as mentioned above, one gets the fruits of inauspicious *karma* (*pāpa*) in eighty different ways.<sup>12</sup>

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12 *Karmagrantha* I, 3a II 2b. Wilson 312 et. seq. *Karmagrantha* I, 3b et. seq. II 120b, *Pañcasangraha* 265.

## 6

Eradication of *Karma*

If all the holes of a boat are plugged, no water enters. Similarly, when one stops all the activities leading to *āśrava* like *mithyāttva*, etc., one prevents the influx of *karmas*. The process of stopping the influx is the best device for a living being. *Āśrava* is the problem and *sanvara* is the solution. *Āśrava* is the state of sleepiness and *sanvara* is the state of alertness. *Āśrava* takes *jīva* to a lower level, and the *sanvara* takes the *jīva* to a higher level. *Sanvara* is the right thing to do, it is the right path of spiritual progress.

Every worldly soul happens to be confined (not free). The imprisonment is due to the bondage of *karma* (*bandha*). To be free *jīva* has to eradicate the *karmas* he is bound by. The process of eradicating the *karmas* is called *nirjarā*. The word *nirjarā* means to fall off. It denotes dripping off, destruction, or removal of *karmas* from the soul. Inflow of *karma* is due to *āśrava*, the stoppage of the inflow is due to *sanvara* and the eradication of *karma* is due to *nirjarā*. *Jīva* can shed the *karmas* and purify his soul with the help of austerities.

6.1 *Sanvara*

Literally, *sanvara* means blocking. *Sanvara*, in the theory of *karma*, means blockage or stoppage of the inflow of *karmas* to the soul. It is opposite of *āśrava*, which means inflow of *karmas*. In the discussion of *āśrava* in previous paragraph, we gave the example of boating, which also explains how *sanvara* works. Let us

suppose we went for boating. We were having good time and suddenly noticed water rising on the floor of the boat. We immediately felt that the boat had a hole and if the leak was not fixed the boat would sink. So, the first thing we did was to find the hole and seal it so that water would stop coming in. This stoppage of water coming in is called *sanvara*. A similar situation is that of our soul which is wandering in worldly affairs. We have so many holes (activities) through which *karmas* are flowing in at all the times. We talked about these holes when discussing *āsṛava*, such as *mithyātva* (wrong beliefs), *avirati* (vowlessness), *kaṣāya* (passions), *pramāda* (indolence) and *yoga* (activities). These activities allow *karmas* to become attached to the soul. Once we have realized the effects of such activities, we need to work towards overcoming them so that we can stop new *karmas* coming in before they further sink the soul. *Sanvara* can be described in two types:<sup>1</sup>

1. Physical or objective.
2. Psychic or subjective.

The physical refers to the actual shutting of our activities which leads to stoppage of the inflow of *karmas*. The psychic means consciously striving to stop our passions.

*Sanvara* is of six kinds:

- (i) *Samiti* (careful activity),
- (ii) *Gupti* (restraint of the activity),
- (iii) *Yati dharma* (*dharma* of monks),
- (iv) *Bhāvanās* (mental reflections),
- (v) *Parīśaha* (natural sufferings), and
- (vi) *Cāritra* (conduct).<sup>2</sup>

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1 *Dravya Sangraha*, 34.

2 *Dravya Sangraha*, 35, *Tattoārthasūtra* IX, 5-9, *Puruṣārthasiddhyupāya*, 202-09.

These six types of *sanvaras* will be efficacious and real only if they are carried out with a firm faith in the commands of the Jina. Therefore, *samyaktva* is deeply and intimately connected with *sanvara*. Through *samyaktva*, the *āṣṛava* called *mithyatava*, i.e. wrong belief, is completely blocked and stopped. By means of *samyakcāritra* and *yati-dharma*, the *āṣṛava* called *avirati*, i.e. vowlessness is blocked. By means of *gupti*, *bhāvanās* and *yati-dharma*, the *āṣṛava* called *kaṣāya*, i.e. passions is blocked. By means of *samiti*, *gupti*, *parīsaha*, etc. yoga and *pramāda* are blocked. By means of *cāritra*, the *āṣṛava* called vowlessness, passions, activities together can be blocked.<sup>3</sup>

### 6.1.1 SAMITI (CAREFUL ACTIVITY)

*Samiti* actually means *sam + iti = samiti* or the right use. Examples include having the right objective, spiritual awareness, the proper discipline and spiritual vigilance and caution. In this manner, there are five sub types of *samiti*:

- (i) ***Iryā samiti (careful movements)***—This means to move cautiously and carefully, and looking closely on the ground so that no living being must be injured or killed. A monk observes this more carefully and that is why he does not walk around unnecessarily. He walks on the path which most minimizes violence. Rather than walking on the grass or insects a monk would take an alternate route in order to minimize the violence caused by him, even if the alternate route was longer. A layman should also keep this in mind and should be careful while walking.
- (ii) ***Bhāṣā Samīti (careful speech)***—One should limit or completely avoid speaking anything which may provoke violence, flattery, condemnation, gossip, etc. or use of words that may cause harm to others. One should not inflict pain by using words which are filthy or abusive. One should also limit

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3 *Iryā-bhāṣai-sana-dānanikṣepo-tsargāḥ samitayaḥ*—*Tattvārtha Sūtra* IX5.

or deter uttering unpleasant and thoughtless ideas which are contrary to the principles taught by the Jina scripture that can provoke wrong belief. One's words or speech must be kind and gentle. If anyone has confessed to a monk about his wrong activities or sins, then the monk must not speak about this to others. This *samiti* also reminds us that one must not frighten anyone, or preach a false doctrine.

- (iii) ***Eṣaṇā Samiti (carefulness about taking food)***—Caution must also be paid about all matters relating to food. A monk should go for alms to various houses and should take a small portion of allowable food from each place so that the layman, from whom the food is taken, does not have to be cooked again. Also, a monk should not take any raw vegetable, raw seeds or any food which has been in contact with living beings, including those taken from a burning stove, oven or even a refrigerator. A monk should not go for alms if it is raining and should not accept any food brought for him. There are forty-two faults which a monk must avoid while accepting alms. A layman should also retain from committing a sin in the offering of food to monks. All intoxicated and forbidden food are not to be taken either by monks or laymen.
- (iv) ***Ādāna nikṣepa samiti (carefulness about putting clothes and other things on)***—A monk should take utmost care, before using clothes, to make sure that there are no insects in the folds which may be crushed, hurt or killed. Care must be taken before taking and putting away vessels, books, or sitting down, etc. Similar precautions should also be taken by a layman.
- (v) ***Pariṣṭhāpana Samiti (carefulness about disposal of excreta)***—One should be very careful about how and where one disposes of trash, refuse or excretions so that no harm is done to even the minute insects or bugs. A monk must never keep either food or water overnight, but must rather dispose of them carefully as mentioned above.

### 6.1.2 GUPTI (RESTRAINT OF ACTIVITY) <sup>4</sup>

*Gupti* means restraint. *Samiti* helps us regulate our activities, while *gupti* helps us further restrain or curb activities of mind, speech and body. There are three types of *guptis*:

- (a) ***Mano Gupti* (restraint of the activities of mind)**—One must restrain extreme grief, anger, joy and anxiety (*Asarkalpanaviyogī*). One must restrain oneself from the effects of the love and hate, and pain and pleasure (*samatābhāvinī*). One must be restrained and think steadily, not of external things, but of one's own soul.
- (b) ***Vacana Gupti* (restrain of speech)**—One must restrain speech by observing a vow of silence (*maunavalabhī*) for a certain number of days or by speaking as little as possible and only when absolutely necessary (*vāṅkniyamī*).
- (c) ***Kāya Gupti* (restrain of physical activities)**—One must be careful and should restrain one's physical activities as per rules laid down in the scriptures (*Yathasūtra Ceṣṭāniyamī*).

### 6.1.3 YATI DHARMA (DHARMA OF MONK)

Ten duties of monks:

Monks observe the following great duties to the fullest extent, while householders follow them from a lesser degree to a fullest extent.

- (i) *Kṣamā* (forgiveness),
- (ii) *Mārdava* (politeness) and *Lāghava* (meekness),
- (iii) *Ārjava* (simplicity),
- (iv) *Mukti* (absence of avarice),
- (v) *Tapa* (internal and external austerities),
- (vi) *Samnyama* (controlling senses),
- (vii) *Satya* (avoiding condemnable speech),

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<sup>4</sup> *Samyag-yoga-nigraho guptih—Tattvārtha Sūtra, IX.4.*

- (viii) *Śauca* (mental purity),  
 (ix) *Aparigraha* (non-possesiveness), and  
 (x) *Brahamcarya* (celibacy).<sup>5</sup>

#### 6.1.4 BHĀVANĀS (MENTAL REFLECTIONS)

*Bhāvanās* means contemplation, through which you can motivate your soul to carry out lofty reflections. There are twelve types of *Bhāvanās*:

- (i) *Anitya Bhāvanā*—All external substances including the body are transitory (*anitya*). They are perishable and, therefore, we should not have attachment for them.
- (ii) *Aśaraṇa Bhāvanā*—Human beings are experiencing tremendous agitation. When death occurs and the soul has to leave the body, there is no one who can save a *jīva* who is helpless. Wealth, family, etc. have to be given up at such a time. No worldly things can provide refuge, so why should we depend upon them.
- (iii) *Sansāra Bhāvanā*—In the cycle of *sansāra*, mother can become wife, a wife can become mother and an enemy can become friend, etc. How futile is the *sansāra*? We should not have attachment for it.
- (iv) *Ekatva Bhāvanā*—"I am alone, I was born alone, I will die alone, I am sick alone, I have to suffer alone, I have to experience the *karmas*, which I have earned alone." Therefore, one should be cautious and keep away from the attachment and hatred.
- (v) *Anyatva Bhāvanā*—"This body is transitory and it is different from me. I am the soul which is not perishable, while body is perishable. Even wealth, family, etc. are not mine. They are different from me, therefore, I discard attachment for all these things."

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5 *Uttam kṣamā-mārdavā-rjava-sauca-satya-samyama-tapastyāga-kiñcanya-brahmacaryāni dharmāḥ—Tattvārtha Sūtra, IX.6.*

- (vi) *Aśuci Bhāvanā*—This body is made up of impure substances. It is being nourished by impure substances. I will discard my attachments for this body and engage myself in self-discipline, renunciation and spiritual endeavours.
- (vii) *Āśrava Bhāvanā*—Thinking on inflow of *karmas*. All causes that create the inflow of *karmas* should be discarded.
- (viii) *Sanvara Bhāvanā*—*Sanvara* means blocking of the inflow of *karmas*. One must contemplate on *Samiti*, *Gupti*, *Yati-dharma*, etc. One must carry out these activities and try to reduce or stop the new bondage of *karma*.
- (ix) *Nirjarā Bhāvanā*—*Nirjarā* means to shed whatever *karmas* we have. One must think of the benefits that accrue from each of the 12 kinds of *Tapas* or the austerities which cause *nirjarā*. One must contemplate on these austerities in order to destroy sins.
- (x) *Lokasvabhāva Bhāvanā*—*Lokasvabhāva* means one contemplate on the three *lokas*, i.e. three parts of the universe namely:
- (i) The upper world,
  - (ii) The middle world, and
  - (iii) The lower world and also the whole universe filled with souls and *pudgalas*.
- (xi) *Bodhidurlabha Bhāvanās*—Under it one must contemplate on how difficult it is for the souls that are wandering aimlessly in four stages of existence in the *sansāra* without attaining the *Jina dharma*. There should not be even the slightest negligence in observing the religion propagated by the *Jina*.
- (xii) *Dharma Bhāvanā*—"Oh: *Arihanta Bhagavāna*, the Omniscient, has expounded excellent *śruta dharma* and *cāritra dharma*. I will engage myself in this *dharma*." One should carry out this contemplation again and again.<sup>6</sup>

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6 *Anitya-sāraṇa-sansāraikatva-ntyatva-śucitva-srava-sanvara-nirjarā-lokabodhidulabha dharmasrakyapatva-nucintanam anuprekṣaḥ—Tattvārtha Sūtra IX-7.*

6.1.5 *PARĪṢAHA*<sup>7</sup> (NATURAL SUFFERINGS)

The 22 *Parīśahas* pertain to the enduring of hardship and while doing so remain in a state of serenity and equanimity, so that all *karmas* may be destroyed. These are more prominently followed by monks and nuns. The 22 types are:

- i. **Hunger**—A monk must not accept food which is blemished and prepared with any one with forty-two faults, even if he has to remain hungry.
- ii. **Thirst**—A monk must not take unboiled water, even if he has to remain thirsty.
- iii. **Cold**—Even when it is cold a monk should not wish for heat.
- iv. **Heat**—Even when it is hot a monk should not wish for cold.
- v. **Insect bites**—If a monk is bitten by insect while he is meditating, he should not brush it away or become irritated, but should tolerate it calmly.
- vi. **Clothes**—A monk must accept whatever clothes he may receive.
- vii. A monk must tolerate evil words told to him.
- viii. A monk must tolerate kicking and beating.
- ix. A monk must tolerate diseases.
- x. A monk must sleep on a wooden flat bed or coarse grass.
- xi. A monk must not take a bath.
- xii. A monk must wear torn clothes but should not ask for new clothes.
- xiii. A monk should not experience shame or helplessness while going for alms from door to door.

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<sup>7</sup> *Tattoārtha Sūtra*, IX.9.

- xiv. If a monk does not get alms, then he should not become worried and, on the contrary, should think pleasure having got a chance to perform austerity.
- xv. A monk should not be attracted towards the beauty of woman.
- xvi. A monk should not become disturbed by hardship while meditating in a cemetery.
- xvii. A monk should not become agitated even when there is suffering or grief.
- xviii. A monk should not become proud while being honoured.
- xix. A monk should not become irritated when getting pricked by thorns.
- xx. A monk should not feel sorry for not attaining knowledge even after good efforts.
- xxi. If a monk is ignorant and cannot read, he should not become depressed. He must think of *karmodaya* and must keep his pursuit of knowledge alive.
- xxii. A monk must try to understand the message of Jina and should never doubt about it.<sup>8</sup>

#### 6.1.6 CĀRITRA (CONDUCT)

Implicit faith in truth, which is born either with the help of the preceptor or fostered by a spontaneous intuition of the truth, is the starting point of the path of self-realization. There are various processes of leading oneself from the stage of implicit faith in the truth to the stage of final realization of truth. The processes have a common term for them and that term is yoga. In Jainism, the term *cāritra* (conduct) is the exact equivalent of the general term yoga.

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<sup>8</sup> *Mārgācyavana-nirjarārthan pariśad havyaḥ Parīśahāḥ—Tattvārtha Sūtra IX, 8.*

The term yoga has a chequered history. The word yoga occurs in the earliest sacred literature of Hindus in the *R̥gveda* (about 1500 B.C.E) with the meaning of effecting a connection. Later on in about 700 to 800 B.C.E, the same word is used in the sense of yoking a horse. In still later literature (about 500 or 600 B.C.E), it is found with the meaning of controlling the senses, and the senses themselves are compared with untrolled spirited horses. The word probably represents a very old original from the *Āryan* stock, which can be traced also in the German *joch*, *OE*, *geoc*, Latin *jugum*, Greek *zugon*.<sup>9</sup> In Pāṇini's time, the word yoga had attained its technical meaning, and he distinguished the root "yuj *samādhau*" (yuj in the sense of concentration) from "yujir *yoge*" (yujir in the sense of connecting).<sup>10</sup> Only Acārya Haribhadra (8-9 CE), who defined for the first time in the history of Jaina thought, used the term yoga in the sense of what leads ones to emancipation.<sup>11</sup> This meaning of the term is unanimously accepted in the post-Haribhadra Jaina literature. Of course, the term 'yoga' was used in a general sense of subduing the senses and the mind and the processes of concentration and ecstasy even in the earlier stages of the Jaina thought as well as in the early Buddhist thought. But the term *jhāna* (*dhyāna*) and *samādhi* were more in vogue than the term yoga. It is only in the *Yogasūtra* of *Patañjali* that we find the proper meaning of *dhyāna* in the whole process called yoga for the first time.

## 6.2 Nirjarā

The word is made up of two words i.e. "Nir" and "Jara." *Nir* is prefix while *Jara* means to fall off. Hence, in the Jaina Philosophy means falling of, destruction, or removal of *karmas* from the soul. At the beginning of this chapter, we gave the illustration of

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9 *Dāsa-guptā: Philosophical Essays, Calcutta university, 1941, p. 179.*

10 HIP, Vol. I, p. 226.

11 Cf. *mukkhena jōyanāo jōgo savvo vi dhamma-vāvāro*-Haribhadra's *Yogavinsikā, Kārikā-I.*

boating. Let us go again to that example which also explains how works. Let us suppose, as if we went for boating. We were having a good time and suddenly noticed the water coming on the floor of the boat. We immediately felt that the boat had a hole and if leak was not sealed the boat would sink. So the first thing we did was to find the hole and then sealed it so that more water stopped coming in. Then, we started pouring out the collected water so that the boat would be dry again. This removal of water is called , *karmas* are accumulated in the soul through *āśrava*. These *karmas* cover the attributes of our soul, and the removal or destruction of these *karmas* is called.

The more effective the *nirjarā*, the faster the attributes of the soul will shine. Once all the *karmas* are shed, the soul will get salvation and then it will be able to exhibit all its attributes in full capacity. In fact, as we are constantly accumulating and stopping *karmas*, we are also to some extent shedding *karmas* too. In respect to quantitative shedding, *nirjarā* is grouped into two kinds:

1. *Deśa* (limited) *Nirjarā*,
2. *Sarva* (total) *Nirjarā*.

In *Deśa Nirjarā*, there is limited shedding of *karmas*; this is experienced by all while suffering from adversity or performing austerities, or prayers etc. This shedding is done during all the stages of *guṇasthānakas*.

*Sarva Nirjarā* is the total shedding of *karmas* and occurs right before the soul is liberated. Whenever the soul becomes a *Kevalī*, it has shed off all *ghāti karmas* forever, but still has to shed *aghāti karmas*. The rest of the *aghāti karmas* are shed off forever right before the soul is liberated and achieves salvation. These souls are called *siddhas*.

When *karmas* mature they give rise to their results and once these results are experienced completely the *karmas* are

considered shed off. *Nirjarā* can also be divided into two kinds by the process of shedding *karmas*. They are:

- (1) *Akāma Nirjarā*, and
- (2) *Sakāma Nirjarā*.<sup>12</sup>

When *karmas* mature automatically at their due time they cause suffering accordingly. Thus we have no control on the timing of such suffering and we have not put any special effort or shown special desire or intention to suffer on our side. Once the supposed suffering is over then those *karmas* which caused this suffering are considered shed off. This natural process of maturity and shedding off the *karmas* is called *Akāma Nirjarā*. Example as follows: When someone suffers from hunger not voluntarily or willingly but due to unavailability of the food then those *karmas* which caused these suffering will be shed off passively.

On the other-side, when *karmas* are brought to maturity ahead of their due time by special efforts voluntarily or willingly to give their results then those *karmas* will be shed off sooner than expected. Thus we have a control on this process and this active process to shed off the *karmas* prematurely is called *Sakāma Nirjarā*. Example as follows: When we perform fasting (not eating) voluntarily and willingly even though the food was in abundance then we brought out suffering actively ahead of the time, which in turn will shed off the *karmas* prematurely.

Therefore, in *akāma nirjarā*, condition for shedding off *karmas* is ripe, and *karmas* exhaust themselves after producing their results. When *karmas* lose their bondage in this way, it is called *swatah* (self destruction). In *sakāma nirjarā*, the destruction of *karmas* occurring ahead of their natural time by special efforts, by means of *tapas* (austerity), is called *Upāyanirjarā*, initiated destruction.

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12 *Tattuārtha sūtra* VII, 2.4.

Our life is a live drama consisting of accumulating *karmas* and shedding of *karmas*. This drama never stops until we reach salvation. Depending upon what kind of and with what intensity we commit sinful activities (*pāpā*), *nirjarā* may be easier or harder. In order to simulate the process of *nirjarā*, different examples are given to show how hard it would be to remove dust or stain from an article of clothing.

- i. The easiest one is compared with how easily dust, which becomes stuck to dry clothes, can be removed.
- ii. It becomes a bit harder to remove the dust if the dust is stuck to clothes, which are wet.
- iii. It becomes still harder to remove the dust if the dust is stuck to clothes, which are oily.
- iv. It would be ever harder to remove stain from the clothes of those who work at a gas station.
- v. It would be almost impossible to remove stain when it is from coal-tar.
- vi. There are times when you cannot remove stain and just have to throw the clothes away.

From these examples, you can imagine how simple process or how complicated a process *nirjarā* can be. In some instances, one would have no choice but to bear the results of one's *karmas*. This last kind of *karmas* are called *nikācita karmas*. At this time, it would be wise to remind us that *nirjarā* is done most effectively by humans only, because other destinies have their own limitation. But for humans, the limitations are set by humans only.

The special efforts to destroy *karma* is done through *Tapas* or austerities. Austerity means restrain, which is done willingly by giving away some of the bodily comforts to discipline our minds from passions and pleasures. Austerities are performed at various unique occasions. Austerities may be performed at two levels:

- (a) Physical manner, and
- (b) Psychic manner.

- (a) **Physical Manner:** In the physical manner, the person performs the austerity, but does not have the inner desires to change his or her life and, therefore, it is just a physical act.
- (b) **Psychic Manner:** In the psychic austerity, the person controls his or her inner desires along with performing a physical act. Unless the austerities are performed in psychic manner, they don't produce the much needed results. After all, the whole purpose of austerities is not just to simply make the body suffer, but to change our desires. Once that happens, the person will be on the path to spiritual uplift. Austerity is the part of right conduct.

Austerities are categorized into two groups:<sup>13</sup>

- i. External Austerity, and
- ii. Internal Austerity.

(i) **External Austerity**—External austerities are noticed by others because they have a greater component of physical than psychic manner. This austerity is further divided into six types as follows:

- (i) Fasting completely (*anaśana*),
- (ii) Partial fasting (*uṇodarī*),
- (iii) Limiting the number of items of food (*vṛti saṅkṣepa*),
- (iv) Limiting desired tasty food (*rasa parityāga*),
- (v) Bodily endurance (*kāyakleśa*), and
- (vi) Controlling of the senses (*pratisamlīnata*).

(ii) **Internal Austerity**—Internal austerities are not noticed by others because they have a greater component of psychic

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13 *Anaśanā-vamaudarya-vṛttiparisankhyāna-rasaparityāya-viviktaśayyā-śana-kāyakleśa bāhyan tapaḥ-Tattvārtha sūtra IX-19, Puruṣārthasiddhyupāya, 98.*

than physical manner. Internal austerity is further divided into six types:

- (i) Atonement (*prāyaścita*),
- (ii) Politeness (*vinaya*),
- (iii) Serving others (*vaiyāvavacca*),
- (iv) Giving away (*Vyutsarga*),<sup>14</sup>
- (v) Spiritual study (*svādhyāya*), and
- (vi) Meditation (*dhyāna*).<sup>15</sup>

### 6.2.1 EXTERNAL AUSTERITY

- (i) **Fasting Completely (*Anaśana*)**—*Anaśana* means fasting, renouncing food, water, etc. for a day, for many days or throughout one's life. One day of total fasting is called *upavāsa*. Fasting completely until death is done when life is close to an end. Such fasting is considered very auspicious and is called physical *Anaśana*. *Bhāva Anaśana* refers to the total control of our inner desires for a short or long time. If this austerity is cultivated then only one becomes able to strive for spiritual upliftment.
- (ii) **Partial fasting (*Uṇodarī*)**—*Uṇodari* means eating less than what one's hunger is. The Jaina *dharma* prescribes thirty-two handfuls of food per day and in order to perform this austerity, one may eat a few handfuls less than the prescribed limit. *Bhāva Uṇodarī* means to limit our desires to some extent. It may be more difficult to do this than to control them totally. But with the regular practice one can limit his inner desires.
- (iii) **Limiting the number of items of the food (*Vṛti Saṅkṣepa*)**—In *Vṛti Saṅkṣepa*, we put a limit on the number

14 *Tattvārtha Sūtra* IX 21-26, *Vyākhyāprajñapti* 25.7.802.

15 *Prayaścitta-vinaya-vaiyāvṛtṭya-svādhyāya-vyutsarga-dhyānananyuttarān—Tattvārtha Sūtra* IX, 20) *Puruṣārthasiddhyupāya* 199, *Vyākhyāprajñapti* 25.7.802.

of items we eat during a single sitting or throughout the day. *Bhava Vṛti Saṅkṣepa* means the limit of desires for some part of a day or a whole day. This austerity will help us control our desires so that our mind will keep off from wandering.

- (iv) **Limiting desired tasty food (*Rasa parityāga*)**—*Rasa parityāga* means to renounce tasty foods which one likes very much. It can be done partially or in total for a short time or a prolonged period of time. *Bhāva rasaparityāga* is more difficult to perform than the other austerities because in this the most desired thoughts are limited. An austerity of this nature will help us control our passions even in the most tempting situations.
- (v) **Bodily Endurance (*Kāya kleśa*)**—*Kāyakleśa* means to stand or sit in a particular posture for a long time. This austerity may cause pain, but one should ignore the pain. In *Bhava Kāyakleśa*, one stands firm in controlling passions even if temptations are great.
- (vi) **Controlling of senses (*Pratisamlīnatā*)**—In *pratisamlīnatā*, one controls all types of senses in order to prevent pleasant and unpleasant temptations. In order to perform this austerity, one may stay in isolation for one or more nights. In *bhāva pratisamlīnatā*, one controls oneself from telling distorted truth, or from participating in sensual activities. Thus this austerity helps control passions like anger, pride, deception and greed.

## 6.2.2 INTERNAL AUSTERITY

- (a) **Atonement (*Prāyaścita*)**—In *Prāyaścita*, one asks for forgiveness for the various errors of commission and omission, the faults and sins committed knowingly or unknowingly. This austerity may be performed in the presence of a monk or nun or can be done alone. *Prāyaścita* helps us reflect upon ourselves

in a way that leads to self-correction. Even for a small fault we begin to say *Micchāmi dukkadam*.

- (b) **Humility (Vinaya)**—One must cultivate humbleness towards everyone. This austerity leads to tolerance and sympathy towards others and helps us overcome ego and anger.
- (i) *Jñāna Vinaya*—One should be humble and respectful to those who are superior in knowledge and wisdom.
- (ii) *Darśana Vinaya*—One should be humble and respectful to those who have acquired the true insight of religious principles.
- (iii) *Cāritra Vinaya*—One should be humble and respectful to those who have good morals and follow religious principles.
- (iv) *Māna Vinaya*—One should pay respect and be humble to all saints who help others in their spiritual upliftment.
- (c) **Serving others (Vaiyāvacca)**—*Vaiyāvacca* means serving religious teachers, ascetics, virtuous people, monks, colleagues, and companions devotion. One should especially render services to the sick and weak. Though this austerity seems to be an external activity, it makes a person humble and serves the purpose of overcoming ego and hatred.
- (d) **Giving away (Vyutsarga)**—In *Vyutsarga*, not only one gives away sinful physical activities but also gives away sixteen different inner passions.
- (e) **Spiritual study (Svādhyāya)**—*Svādhyāya* means to study scriptures or can also mean to understand the self. Through the study we try to answer the questions: Who am I? Who should I be? Through *Svādhyāya* we realize that the soul is a pure thing. This will lead us to contemplate on the question: What am I doing in this body? Thus, study will lead us to be a pure soul. This study is divided into five levels:

- i. When one starts reading the scriptures it is called *Vācanā*.
- ii. While reading, some doubts may arise and trying to resolve them is called *Pracchanā*.
- iii. After understanding what is right and contemplating on it is called *Anupreksā*.
- iv. After realizing what is right, one should contemplate on it again and again so one can stay in focus. This repetition is called *Amnāya*.
- v. After learning what self is, one should teach others the same. This is known as *Dharmopadeśa*.

All the above five are external *svādhyāya*, but these will lead us to internal *svādhyāya* about the self. Thus one will acquire right perception and right knowledge, which will lead to right conduct and will open up the path of ultimate liberation.

(f) **Meditation (*Dhyāna*)**—*Dhyāna* means concentration of thoughts. This concentration could arise from intense passions like attachment, lust or animosity or from the search for the truth and from the absolute detachment towards worldly affairs.

*Dhyāna* is divided in four categories:

- i. *Ārtadhyāna*,
- ii. *Raudradhyāna*,
- iii. *Dharmadhyāna*, and
- iv. *Śukladhyāna*.

(i) In *Ārtadhyāna*, a person reflects on the:

- a. loss of dear ones (*Iṣṭa viyoga*).
- b. development of a new relationship with an undesirable.
- c. Physical illness (*Roga cintā*).
- d. Future planning (*Agrasoca* or *Nidānārtha*).

(ii) In *Roudradhyāna*, one is absorbed in taking revenge for the damage or loss caused by others. There are four types:

- a. *Hinsānubandhī*,
- b. *Mṛsānubandhī*,
- c. *Steyānubandhī*, and
- d. *Samrakṣānubandhī*.

Both *Ārta* and *Roudradhyāna* lead to the accumulation of bad *karmas* and, therefore, *Ārta* and *Roudradhyāna* should be avoided.

*Dharmadhyāna* means reflecting on the ways and means towards realization of self.

*Śukladhyāna* means reflecting on the purity of the soul. *Dharmadhyāna* and *Śukladhyāna* lead to the removal of *karmas*. Therefore, for the purpose of *nirjarā* we shall contemplate on *dharmadhyāna* and *śukladhyāna*. If contemplation on *dharmadhyāna* is at the highest level then by achieving *śukladhyāna* one can completely destroy *mohnīya karma*, *Jñānāvārṇīya*, *Darśanāvārṇīya* and *Antrāya karmas* and can become *kevalī*.

### 6.2.3 OTHER AUSTERITIES

There are some other common external austerities. They are:

- (i) ***Navakārsī***—In *Navakārsī*, one has to take food and water forty eight minutes after sunrise. Even the brushing of teeth and rinsing of mouth is done after sunrise in *Navakārsī*.
- (ii) ***Porsī***—*Porsī* means taking food and water three hours after sunrise.
- (iii) ***Sadh-porsī***—*Sadh-porsī* means taking food and water four hours and thirty minutes after sun rise.
- (iv) ***Purimuḍḍha***—*Purimuḍḍha* means taking food and water six hours after sun rise.
- (v) ***Avadhha***—*Avadhha* means taking food and water eight hours after sun rise.

- (vi) *Biyāsana*—It means taking food twice in a day sitting at one place.
- (vii) *Ekāsana*—It means taking food only once in a day.
- (viii) *Āyambila*—It means taking food only once in a day. The food should not have any taste and spices and should be boiled or cooked. Also, one shall not take milk, curd, ghee, oil and green or raw vegetables.
- (ix) *Upavāsa*—In *Upavāsa*, one does not take food for the whole day, i.e. twenty-four hours starting from sunrise to the next sunrise.
- (a) *Tivihāra Upavāsa*: One drinks only boiled water during *upavāsa*.
- (b) *Covihāra Upavāsa*: One does not even drink water during *upavāsa*.
- (x) *Tivihāra*—In *Tivihāra*, after sunset no food or juice is to be taken, but one can take only water until sunrise the next day.
- (xi) *Covihāra*—In it, after sunset no food or water is taken until sunrise the next day.
- (xii) *Tela*—It means *Upavāsa* for three consecutive days.
- (xiii) *Atthā*—It means *Upavāsa* for eight consecutive days.
- (xiv) *Māsakhamaṇa*—It means consecutive *Upavāsa* for one month.
- (xv) *Navapada olī*—During every year for nine days, starting from the 6<sup>th</sup>/7<sup>th</sup> day in the bright fortnight until the full moon day in *Āśvina* and *Caitra* months, one does *Āyambila*. This is repeated for the next four and half years. These *Āyambilas* can also be restricted to only one kind of food grain per day.
- (xvi) **Other austerities are**—*Varṣitapa*, *vardhamāna* and *Viśasthānakatapa*, etc.

In *Ekāsana*, *Biyāsana*, *Āyambila* or *Upavāsa* one takes only boiled water and that too only between sunrise and sunset. It is better if one can do *Covihāra* or *Tivihāra* a day before starting these austerities. If any of the austerities allow food, one shall not

take raw vegetables, underground roots and raw grains while performing such austerities.

### 6.3 *Caritra*<sup>16</sup>

To achieve *mokṣa*, we need the right knowledge, right faith and right conduct known as three jewels in Jainism. Regarding right conduct, we must achieve control over our inner desires and reach a stage where there is no attachment or hatred. It is not as easy as it sounds, for this one has to form new habits and discard old habits. In order to change our habits, we take vows which help us restrict what we do and eventually live naturally restrained. Although different people take different vows and despite the outer differences in the observance of these vows, the goal of all is to attain right conduct. As we find in the scriptures there are different vows for monks and nuns and for male and female house holders.

When one makes a resolution to restrain willfully from something with full understanding and faith then that resolution becomes a vow. The scriptures have divided these vows into two main groups:

- i. *Mahāvratas* (Major vows or absolute vows), and
- ii. *Anuvratas* (Minor vows or relative vows).

#### 6.3.1 MAHĀVRATAS<sup>17</sup>

In these vows, non-violence, truthfulness, non-stealing, celibacy and non-possessiveness are observed mentally, verbally and physically in total. Each of these three aspects are further observed in three ways: not committing oneself, not asking anyone else to do so, and not encouraging anyone to do so. Those

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16 *Sa gupti-samiti-dharma-nuprekṣā-pariṣahajaya cāritraḥ, Tattvārtha Sūtra, IX.2.*

17 *Tattvārtha Sūtra VIII 3 with Bhaṣya.*

who wish to observe these vows renounce their worldly lives and become monks and nuns or *Aṇaḡārī*.

- (i) *Savvāo Pāṇivāyāo Virmaṇa Vrata* [**Absolute Non-violence vow**]*—*In this vow, non-violence is observed mentally, verbally and physically in total including daily needs.
- (ii) *Savvāo Muṣāvāyāo Virmaṇa Vrata* [**Absolute Truthfulness vow**]*—*In this vow, lying is given up mentally, verbally and physically in total. Only the truth is spoken.
- (iii) *Savvāo Ādinnādānāo Virmaṇa Vrata* [**Absolute Non-stealing vow**]*—*In this vow, stealing is given up mentally, verbally and physically in total. Nothing is taken unless it is offered by the owner and meets the restrictions of the monkhood life.
- (iv) *Savvāo Mehuṇāo Virmaṇa Vrata* [**Absolute Celibacy vow**]*—*Celibacy is observed mentally, verbally and physically in total. Upon taking this vow, one cannot even touch or think about a member of the opposite sex.
- (v) *Savvāo Pariggahāo Virmaṇa Vrata* [**Absolute Non-possessiveness vow**]*—*Greed and material possessions are given up mentally, verbally and physically in total. Only items, which are needed to meet our daily requirement are kept.<sup>18</sup>

### 6.3.2 ANUVRATS<sup>19</sup>

It is difficult for house holders to fully practise the above vows, and so, the vows that householders take have some limitations and are called minor vows. These vows are not as stringent as *Mahāvrats* and people who take these vows are called *Śrāvakas*, *Śrāvikas* or *Āḡārī*.

18 Ibid, 4, *Niyamasāra* 70; *Pravacanasāra* III.40).

19 Ibid, 16 with *Bhāṣya* and *Ṭikā*.

- (i) *Sthūla Pañivāyāo Virmaṇa Vrata* (**limited Non-violence vow**)—Being a householder, one has to carry out house holding and community activities. Thus, it is not possible to totally avoid violence, especially against one sensed living beings. However, one should take the utmost care to observe non-violence.
- (ii) *Sthūla Musāvāyāo Virmaṇa Vrata* (**limited Truthfulness vow**)—One should take the utmost care in not telling lies. In others words one should only speak the truth.
- (iii) *Sthūla Ādinnādānāo Virmaṇa Vrata* (**limited Non-stealing vow**)—One should take the utmost care not to steal or borrow the belonging of others without their permission.
- (iv) *Sthūla Mehuṇāo Virmaṇa Vrata* (**limited Celibacy vow**)—One should be satisfied with his spouse only and should avoid sexual contact with others.
- (v) *Sthūla Pariggahāo Virmaṇa Vrata* (**limited Non-possessiveness vow**)—One's earning for material possessions and greed for collection should be as limited as possible.
- (vi) *Guṇavratas* (**supporting vows**)<sup>20</sup>—The following vows support the above five vows so that they can be carried out more effectively.
- (vii) *Diśā Parimaṇa Vrata* (**Geographic limitation vow**)—Since it is necessary to move to fulfill one's needs, one should limit his desire to perform activities within a needed radius of the area. Therefore, one should set limits within the scope of travel or business etc.<sup>21</sup>
- (viii) *Bhogopabhoga Virmaṇa Vrata* (**consumption and occupation limited vow**)—One should set limits on the consumption of various items despite whether they are

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20 Ibid, 19-31, *Ratnakaraṇḍaśravokācāra*, 66.

21 *Ratnakaraṇḍanravakācāra*, 67.

used once or repeatedly to avoid incoming sins. Also, one should limit oneself to the kind of occupation he selects because some occupations have more exposure to sins than others.

- (ix) **Anarthadaṇḍavirati Vrata (purposeless violence limitation vow)**—We sometimes carry out activities for fun or to tease our friends and foes. However, we should realize that all such activities attract *karmas*. This vow reminds us not to engage in unnecessary *karmas*.
- (x) **Śīkṣā vrata (training vows)**<sup>22</sup>—The above eight vows tell us how we can limit our actions (mental, verbal and physical activities) in order to reduce the inflow of *karmas*. The next four vows train us to stop *karma* from coming in, and to get rid of existing *karmas*.
- (xi) **Sāmāyika Vrata (self control and equanimity vow)**—Since we live a social life, it may not be possible to spend much time in shedding *karmas*, but we should spend at least forty-eight minutes a day in such efforts. During these forty-eight minutes, we give up all familial, social, economical and cultural responsibilities and we control ourselves mentally, verbally, and physically. During this time we should concentrate on religious readings or meditation, which will help in preventing new *karmas* come in as well as help get rid of old *karma*. This 48 minutes will also give us a glimpse as to how easy or difficult it may be to control ourselves. Once we become accustomed in doing this we may extend the self-control time to a period of more than 48 minutes.
- (xii) **Deśāvakaśika Vrata (day-to-day additional limitation vow)**—At the time of waking up, we take this vow in order to put limits on our activities for that day, and thus, *limit*

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22 *Upāsakadaśaṅgasūtra* I.11; *Ratnakaraṇḍaśravakācāra*, 51: *Tattoārtha Sūtra* VIII.21.

*our exposure to accumulating karma.* In this way, we learn to live a more controlled life.

- (xiii) **Poṣadha Vrata (Monkshood exposure vow)**—This vow teaches us how to live like a monk, or a nun, for a day. By taking this vow, we give up all our household, social, economic and cultural responsibilities for a day. We should practise this vow as often as possible. By practising this vow, the inflow of new *karma* is slowed down and existing *karmas* are eradicated. If this vow is easy to observe it may eventually lead to monkshood.
- (xiv) **Atithi Samvibhāga Vrata (selfless offerings to unexpected guests vow)**—This vow teaches us to share. Sharing is more worthwhile when an unexpected, needy person comes to your door and you offer with an open heart. Monks and nuns are the best receptors for this type of sharing. However, while giving you should not have any regret or expectations in your mind. By sharing, you are developing a sense of detachment with the feeling that nothing is mine. Observing this vow will lead to liberation from worldly life.<sup>23</sup>

Our thoughts while taking these vows are also very important. They should be positive and meant to destroy *karmas*.

There are three common obstacles to our vows:

- (i) *Māyā* (Deception),
  - (ii) *Nidāna* (Expectations), and
  - (iii) *Mithyātva* (Wrong beliefs).
- (i) **Māyā (Deception)**—When you take a vow, it should be for the betterment of your soul. Vows should not be taken to show-off or receive praise. Also, those should not be taken to deceive otherwise these will produce inferior results.
- (ii) **Nidāna (Expectations)**—Many of us take vows in order to gain something materialistic in return. Such is not good

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23 *Ratnakaraṇḍasrāvākācāra* 150; *Puruṣārthasiddhyupāya*, 40.

because not only do we use up what we achieve, but we lose the main purpose of performing vows to destroy *karmas*.

- (iii) **Mithyātvā (Wrong beliefs)**—This occurs when one, without belief in liberation, takes the vow that the ultimate pleasure of the body is the prime purpose in this life. We should not forget that austerities are performed to liberate the wandering soul from worldly engrossment. We must understand the values of vows mentally, verbally as well as physically, otherwise these will not bear the proper results.

#### 6.4 Triple Jewels—The pathway to emancipation

The triple jewels—right attitude, right knowledge and right conduct constitute, according to Jainas, the pathway to final emancipation.<sup>24</sup> Right attitude or *samyagdarsāna* is the predilection or love for truth. Every soul has such predilection in some measures. But unless and until it develops into a self-conscious pursuit of truth, it does not help in spiritual progress. It is only at the stage of self-conscious effort for spiritual advancement that this love of truth is called *samyag-darśana*. The soul is conceived as groping in darkness before it acquires this love of truth in an appreciable measure. And it has to undergo a number of processes before the acquisition of this characteristic. There are souls who do never acquire this characteristic and, therefore, are never released from worldly bondage. These souls are called *abhavya* (incapable of salvation). The Jainas do not give any ultimate reason for this endless bondage. After the acquisition of this characteristic, the soul passes through a number of stages of spiritual development, technically known as fourteen *guṇasthānas*. This is a very important doctrine of the Jainas.

Once the soul succeeds in acquiring *samyag-darśana*, it is bound to attain emancipation sooner or later. The nature of *samyag-darśana* and its condition, viz. the purity of soul, we have

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24 *Samyagdarsāna-jñāna-cāritrāṇi mokṣamārgaḥ—Tattvārtha Sūtra—I.I.*

already described on more than one occasion and shall have again an occasion to do so while dealing with the doctrine of *guṇasthāna*. The attainment of right attitude (*samyag-darśana*) is followed by the attainment of right knowledge (*samyag jñāna*) and right conduct (*samyag-cāritra*). The soul acquires more and more power for self concentration (*dhyāna*) along with the increase of its purity and consequent attainment of the corresponding stages of spiritual development.

Right conduct means doing whatever is right, good and proper. It represents the rules of moral discipline, which control good behaviour and constitute the right activities of mind, body and speech. It presupposes the attainment of right knowledge, and right knowledge requires the presence of right faith. Hence, right knowledge and right faith when coupled together make the guidelines for right conduct. The self can follow right conduct only when it is equipped with right faith and right knowledge. So, along with right faith and right knowledge, right conduct is a fundamental factor in the attainment of *mokṣa*. There is a close relation between knowledge and action. The *uttarādhyayana sūtra* states that right faith, knowledge and conduct are interrelated. Through right knowledge one knows the nature of things, through faith one believes in them, through conduct and austerities he attains purity. By means of purity, one achieves emancipation. There is a close relation between knowledge and conduct. Conduct is the final fulfilment of knowledge.<sup>25</sup>

The three jewels of Jainism viz. right faith, right knowledge and right conduct, do not exist in any other substance except the self. One should know that these make the real self and its cause of liberation.<sup>26</sup> From the absolute point of view, conduct is only in self-realization and self-absorption. The *Pravacanasāra* states that conduct is *dharma*; *dharma* lies in equanimity and equanimity means that state of the self, which is devoid of attachment and aversion.<sup>27</sup>

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25 *Uttarādhyayana Sūtra* XXVIII, 30.35-36, *Sūtrakṛtāṅga* I 12.11; *Vīṣeṣāvāśyakabhāṣya*, 3, 1126, 1158.

26 *Samayasāra*, 16; *Dravyasaṅgraha* 40.

27 *Pravacanasāra* I.7.

## Part-II: The Science of Genetics

## 7

## The Science of Genetics

### 7.1 An introduction to the science of genetics

Genetics is called the science of heredity. Genetics may be defined as the study of the way in which genes—the functional units of heritable material, operate and are transmitted from parents to offsprings. Modern genetics also involves study of mechanism of gene action, that is the way in which the genetic material affects physiological reactions within the cell. Heredity and variations, two sides of the same coin, are the subject matter of the science of genetics. Heredity is the sum of all biological processes by which particular characteristics are transmitted from parents to their offsprings. Among organisms, which reproduce sexually, progenies are not exact duplicates of their parents but usually vary in many traits.

In many languages the same words are used for both the inheritance of biological traits and the inheritance of property. Biological and legal inheritance are, however, very different processes. Inherited objects are actually transferred from one owner to another. Inherited traits are not offspring inherit a genetic constitution from their parents. The hereditary endowment, the sum total of the genes that the individual has received from parents, is called the genotype. The genotype must be contrasted to the phenotype, which is the organism's outward appearance: its bodily structure, physiological processes, behaviour, etc. Although the genotype determines the broad limits of features on organism may develop, the features that actually develop, i.e. the phenotype,

depends upon complex interactions between the genes and their environment. Since the environment, both internal and external, of an individual changes continuously, so does the phenotype. Thus the same individual shows different phenotypes in childhood, in adulthood and in old age. The genotypes, on the other hand, does not change during an individual's life time. In conducting genetic studies, it is crucial to discover the degree to which is observable that the phenotype is attributed to the pattern of *genes* in the cells, the genotype and to what extent it arises from environmental influence.

The essence of heredity is the reproduction of carriers of genetic information, the genes. As a result, biological organisms, including human beings, reproduce organisms resembling themselves; children are always recognizable human and have phenotypes similar to those of their parents, on the other hand, since the offspring of sexually reproducing organism receive varying combinations of genetic material from parents, no two offsprings (except for identical twins) exactly have the same genotype. The genetic resulting phenotype is never exactly the same, even among identical twins.<sup>1</sup>

### 7.1.1 GENETICS—CORE SCIENCE OF BIOLOGY

Genetics is often called the core science of biology. Genetics impinges upon almost every kind of study of life. Anthropology, medicine, biochemistry, physiology, psychology, and comparative morphology all have interactions with genetics like so many actual and potential practical applications. The understanding and control of hereditary disorders and the breeding of improved crops and livestock are just two such applications. The genetic code is believed to have arisen naturally as an automatic consequence of natural laws. Perhaps those may be the laws of *karma* theory. The structure of genetic code has the remarkable property of minimizing mutational load and optimizing the speed of evolution.

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<sup>1</sup> *Britanica Encyclopaedia* 2005, deluxe edition.

## 7.1.2 GENETICS—SCIENCE OF POTENTIALS

In a sense, genetics can be called a science of potentials since it deals with the transfer of information from parents to offsprings and between generations. Similarities or resemblances are traced to the information system. Not all variations are inherited but only those caused by genes as well as those caused by the interplay of genes with environment.

## 7.1.3 BASIC CONCEPTS OF GENETICS

The basic concepts of genetics are:

- i. Gene is the unit of inheritance.
- ii. Genes are arranged on chromosomes in a linear order.
- iii. Chromosomes occur in pairs in sets in all cells except germ cells—spermatozoa in male and ova in female.
- iv. Members of different gene pairs and chromosomes segregate to different reproductive cells.
- v. Members of different *gene* pairs assort at random with respect to other gene pairs.
- vi. Genes are units of DNA and are capable of replication. They carry chemically coded message that can be transcribed and translated into proteins.
- vii. Polygene (many genes) control qualitative characters like skin, colour, size, etc.
- viii. Genes in a population establish an equilibrium that continues generation after generation without a change. This can be changed by a mutation (sudden heritable change) or migration, inter-marriages, selection and genetic drift.
- ix. Inheritance patterns are assorted with systems of making like inbreeding i.e. consanguineous marriages (by marriage of close relatives) and out breeding (marriages of non-relatives).

## 7.1.4 THE PHYSICAL BASIS OF HEREDITY

It appears from the study of Jaina Biology that heredity is the tendency of individuals to resemble their progenitors<sup>2</sup> or the tendency like to beget like. That is to say, the individuals resemble their progenitors structurally with some traits. Further it is stated in the *Bhagavatī Sūtra* that the united body of the mother and father in the child lasts as long as its worldly body exists, but it comes to an end with the perish of the physique of the child or last after getting weaker and weaker.<sup>3</sup>

Each new generation of organisms from two sensed to five sensed closely resembles their progenitors as is evidenced by the fact of the classification of animals in Jaina Biology on the basis of the senses and structures<sup>4</sup> and certain distinctive parental characteristics, which appear frequently in successive generations of a given family tree. Although the resemblances between parents and offsprings are close, they are usually not exact. The offsprings of a particular set of parents differ from each other and from their parents in many respects to different degrees due to *karma*.<sup>5</sup> These variations are characteristics of living things.<sup>6</sup> According to biology, some variations are inherited, that is they are caused by segregation of heredity factors amongst the offspring, other variations are not inherited but are due to the effects of the *karma* or of temperature, moisture, food, light or other factors in the environment on the development of the organism<sup>7</sup> as biology explains.

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2 *Taṇḍula Veyālia* 6, p. 10.

3 *Bhagavatī* 1.7.61.

4 *Paṇṇavaṇā Sūtra* 1.56-91.

5 *Ist karmagrantha*, p. 2, *Devendrasūri vircita*.

6 *Biology*, p. 452.

7 *Ibid*, p. 452.

### 7.1.5 THE DEVELOPMENT OF GENETICS

Jaina Biology indicates that parental characters are transmitted through both the sperm and egg.<sup>8</sup> It is suggestive from this fact that inheritance is governed by units (factors) present in the cells of each individual as is evidenced by the embryonic development<sup>9</sup> and the transmission of parental characters or traits. This contention of biology on the development of genetics is implied in the Jaina view when the details of cell division and fertilization are known from the evidences furnished by Jaina Biology.<sup>10</sup> It should be noted in this connection that the growth of each plant or animal is due to cell divisions plus increases in the size of the cells which comprise the organism. The division of cell is an extremely regular process called mitosis<sup>11</sup> in modern biology.

### 7.1.6 HEREDITY AND ENVIRONMENT

It is suggestive from the study of rise of *karma* from the points of view of *dravya* (substance), *kṣetra* (locus), *kāla* (time), *bhava* (life of birth), and *bhāva* (condition)<sup>12</sup> that both physical and mental traits are the result of the interplay of both genetic (from the aspect of *dravya*) and environmental factors (i.e. from the aspects of *kṣetra*, *kāla*, *bhava* and *bhāva*).

According to biology, a few genes, such as those which determine the blood groups, produce their effect regardless of environment. The expression of other genes may be markedly affected by altered environment.<sup>13</sup> The upper limit of a person's mental ability is determined genetically as it indicates in the later

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8 *Bhagavatī Sūtra* 1.7.61, *Taṇḍula Veyāliya* 1,2.6.

9 *Taṇḍula Veyāliya* 1, 2, 6.

10 *Ibid*, 1-2.

11 *Biology*, p. 453.

12 *Viseśāvasyakabhāṣya gāthā* 572, L.D. series, p. 119.

13 *Biology*, p. 506.

stages (*daśās*)<sup>14</sup> of its life but how fully he develops inherited abilities is determined by environmental interferences by his training and experience.<sup>15</sup> It is easy to understand why the offspring of intelligent parents are sometimes less intelligent (*manda*) than either parent because of past *karma*.<sup>16</sup> Biology explains that since the co-ordinate of many pairs of genes is involved in intelligence the fortuitous combination of these which produced the intelligent parents be broken by genic segregation. Conversely, the chance recombination of favourable genes may produce a brilliant child from average parents, but genius are never produced by feeble minded parents.<sup>17</sup>

The inherited gene complex or genetical mould of an organism is called genotype. It is determined by the number type and a management of genes in the originating fertilized egg or seed. The trait actually contributed by the offspring or its outward appearance is called phenotype. The phenotype includes all observable traits whether anatomical, physiological, psychological, mental or whatever. The phenotype of an organism is, therefore, the consequences of the growth—and development of a genotype in a certain environment. In short, the fertilized egg develops into a new organism because of the action of genes and chromosomes it inherits from its parents on the ambient environment.

Every organism has its own characteristic form of metabolism whereby it responds during the course of its development to the components of its external environment such as food, nutrients, water, air, heat, light, etc. in its own peculiar way. Although metabolic patterns are different in different

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14 Taṇḍula veyāliya, p. 16.

15 *Khettan kalan bhāvan bhavam ca sampappappa vbha*, Ga 522, p. 119.

16 First karmagrantha with auto commentary Devendrasūri, p. 2, *Kṣamabhvdaṅ- kakuyormanisijadayoh.....karmanibandhanama*.

17 *Biology*, p. 506.

organisms, the goal of every metabolism is essentially the same, namely, to enable the organisms to assimilate the materials in its environment to become a more or less faithful copy of its parents and other ancestors. That it becomes a faithful copy is due safely to the genes and chromosomes it inherits in the originating bit of parental body. But the qualifying "more or less" is a consequence of the environment in which the initial 'bit' grows. Thus while the genes inherited in the parental bit ensure the recurrence of the forms of metabolism in the progeny, the ambient environment in which the bit grows determines the way the inherited metabolism actually manifests itself. That is why, both heredity and environment go hand in hand in shaping the life of the offspring from cradle to grave.

It is, therefore, obvious that consideration of life without its environmental support is all but meaningless. All life is the outcome of a complicated interaction between heredity and environment. However, even though both the heredity and environment determine the characteristics of the offsprings, different characteristics in the offsprings do differ widely in the degree to which they are dependent on hereditary genes and the prevailing environment. At one extreme, there are traits which wholly depend on the genes the organism carries regardless of the environment so long as it is at all compatible with survival and growth. A case in point is varieties of peas which may either be wrinkled or round, whether a pea which wrinkled or round is purely a gene effect. Likewise, whether a man's blood group is A or B, whether a cow will be horned or hornless and whether a mouse will be gray or white, depends wholly on the genes it carries, no matter what the environment is. On the other hand, there are cases where even individuals having identical genes may develop different qualities in different environments.<sup>18</sup>

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18 *Genetics Today*—by Jagjit Singh, publisher National Book Trust, New Delhi, second edition, 1988, p. 17-22.

### 7.1.7 GENETICS—STUDY OF HEREDITY AND GENES

Genetics is the study of heredity in general and of *genes* in particular. Since prehistoric times, man has recognized the influence of heredity and has applied its principles to the improvement of cultivated crops and domestic animals. A Babylonian tablet more than 6000 years old, for example, shows pedigrees of horses and indicates possible inherited characteristics, other old caving shows cross-pollination of date palm trees. Most of mechanisms of heredity, however, remained a mystery until the 20<sup>th</sup> century when scientifically supported information became available.

Genetics overlaps with many different branches of biology and with many other sciences like chemistry, physics, mathematics, sociology, psychology and medicine. Microbiologists, who study inheritance in micro organisms, are called microbial geneticists, cytologists, who study the genetics of cells, are called cytogenetics. Biology or molecular geneticists investigate the chemical nature of the genes and its method of action. Some physicists have applied their technique to molecular genetics and solved certain problems of human and animal behaviour. Specialists in medical genetics or genetic counselling act on the knowledge that many of men's applications are hereditary.

### 7.1.8 DISCOVERY OF LAWS OF HEREDITY—BY GREGOR MENDEL

Mendel Gregor born; July 22, 1892, Heingendorf, Austria died January 6, 1984; Brunn, Austria Hungary (now Brno, Cyzech Republic original name). Johan Mendel, Austrian botanist and plant experimenter, is the first to lay the mathematical foundation of the science of genetics, that is why it came to be known as mendelism.

Mendel crossed varieties of the garden pea that had maintained under his observation, constant differences in such single alternative characters as tallness and dwarfishness, presence or absence of colour in the blossoms and axils of the leaves, and similar alternative differences in the colour and shape of the seeds, position of the flowers on

the stem and form of the plants. He theorized that the occurrence of the visible alternative characters of the plant, in the constant varieties and in their descendant, is due to the occurrence of paired elementary units of heredity, now known as genes. The novel features of Mendel's interpretation of his data, amply confirmed by subsequent observations on other organisms including man is that these units obey simple statistical laws. The principle of those laws is that in the reproductive cells of the hybrids, half transmit one parental unit and the other half transmit the other. This separation of alternative characters in the reproductive cells, now known as Mendel's first law or the principle of segregation, adequately accounts for the results when single pairs of alternative characters are observed through? Several generations serve reliably as a basis of predication. Mendel showed, moreover, that when several pairs of alternative characters are observed the several pairs of elements enter into all possible combinations in the progeny. In pea varieties, at his disposal, he observed that the seven pairs differentiating characters recombined at random, according to the law or principle of independent assortment, and he worked out the statistical consequences of this principle and confirmed them by experiment.<sup>19</sup>

#### 7.1.9 RELATION OF GENETICS WITH EVOLUTION

Theory of evolution is related to the science of genetics. Theory in biology postulating that the various types of the animals and plants have their origin in other pre-existing types are that the distinguishable differences are due to modifications in successive generations. The theory of evolution is one of the fundamental keystones of modern biological theory.

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<sup>19</sup> *Britanica Encyclopaedia* 2005, deluxe edition.

The 19<sup>th</sup> century English naturalist Charles Darwin argued that organisms come about by evolution and he proved a scientific explanation, essentially correct but incomplete, of how evolution occurs and why organisms have features—such as wings, eyes and kidneys—clearly structured to serve specific functions. Natural selection was the fundamental concept in his explanation. Genetics, a science born in the 20<sup>th</sup> century, reveals in detail how natural selection works and led to the development of the modern theory of evolution. Since the 1960s a related scientific discipline, molecular biology, has advanced enormously knowledge of biological evolution and has made it possible to investigate detailed problems that seemed completely out of reach a few years earlier. For example, how similar the genes of humans and chimpanzees might be (they differ in about for 2% of the units that make up the genes).

The virtually infinite variations on life are the fruit of the evolutionary process. All living creatures are related by descent from common ancestors, humans and other mammals are descended from shrew like creatures that lived more than 150 lakhs years ago and mammals, birds, reptiles, amphibians and fishes share ancestors as aquatic worms that lived 600 lakhs years ago, all plants and animals are derived from bacteria like micro organism that originated more than 3000 lakhs years ago. Biological evolution is a process of descent with modifications. Lineages of organisms change through generations, diversity arises because the fine ages that descent from common ancestors diverge through time.<sup>20</sup>

The diversity of the living world is staggering. More than two lakh existing species of plants and animals have been named and described, many more remain to be discovered from 10 to 30 lakhs according to some estimates. What is impressive is not just the numbers but also the incredible heterogeneity in size, shape and way of life from lowly bacteria, measuring less

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20 *Britanica Encyclopaedia* 2005, deluxe edition.

than 1000<sup>th</sup> of a millimeter in diameter, to the stately squoios of California, rising 300 ft (100 meters) above the ground and weighing several thousand tons, from bacteria living in the hot springs of Yellow Stone national park at temperatures near the boiling point of water to fungi and algae thriving on the ice masses of Antarctica and in saline pools at 9<sup>0</sup>f (-23<sup>0</sup>c) and from the strange and larkspur plants existing on Mount Everest more than 19868 feet above sea level.<sup>21</sup>

## 7.2 Characteristics of genes

Now the characteristics of genes are being studied.

### 7.2.1 What is gene?

Gene is a unit of inheritance, a piece of genetic material that determines the inheritance of a particular characteristic, or group of characteristics. Genes are carried by chromosomes in the cell nucleus and are arranged in a line along each chromosome. Every gene occupies a place or locus on the chromosome. Consequently, the word locus has become loosely interchangeable with the word *gene*.

The genetic material is deoxyribonucleic acid or DNA, a molecule that forms the backbone of the chromosomes. Because DNA in each chromosome is a single, long, thin continuous molecule, the genes must be parts of that molecule and because DNA is a chain of minute sub units known as nucleotide bases, each gene includes many bases. Four different kinds of bases exist in the chain:

1. adenine (A)
2. guanine (G)
3. cytosine (C)
4. thymine (T)

and their sequence in a gene determines its properties.<sup>22</sup>

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21 Britanica Encyclopaedia 2005, deluxe edition.

22 *Basic and molecular Genetics*—by Parihar, student edition, Jodhpur, edition 2004, p. 206.



### 7.2.2:

Chromosome with dot-like thickenings which indicate the position of genes.

## 7.2.2 GENES—SOFTWARE OF HEREDITY

As a result of decades of observations and breeding experiments, we now know that the nuclear material of the cell is organized in the form of minute rod-like structures (see fig. 7.2.2). These minute structures in thin tissue slices can be seen by staining them with certain dyes which they take up more readily than the rest of the cell. It is this property of becoming visible by means of dyes which gave them the name "chromosome" (chroma = colour, soma = body).

Chromosomes in turn are neither homogeneous compositions nor single constituents. They are strings of those particles of heredity we earlier called genes, whose existence had been inferred from numerous breeding experiments, like those

of Mendel. Such experiments had clearly shown that all the heritable characteristics of organisms are transmitted unchanged without "dilution or blending" because they are carried by distinct indivisible particles of heredity that Mendel called factors and which we call genes. Although *genes* have since been found to be actually very complex structures, being ultra-microscopic specks of nucleic acid which can reproduce themselves by copying, they are transmitted from parent to progeny as indivisible units of heredity so that they behave very much like atoms in chemistry. These 'atoms' of heredity, the genes are arranged in a very precise way in the nucleus of the cells of the organism. Literally hundreds or thousands of them are wrapped together linearly in microscopic packets we have called chromosomes. Thus if genes are atoms of heredity, chromosomes are its macro molecules. The study of heredity is, therefore, the study of genes and chromosomes.

As already mentioned, each chromosome carries hundreds or thousands of genes. The human cell, for example, has been estimated to carry at least 40,000 genes, possible twice as many. This number may seem large. But it is not so large when we consider the complexity of development activities that the *genes* have to monitor. For it is the genes that are responsible for all that is inborn and inherited in us. Thus, it is the type of genes we inherit that determines our sex, blood group, vision (whether normal or colour blind), eye and skin colours, metabolic propensities, mental powers and thousand other traits that make up our physical and mental personalities.

Such similarities between parents and progeny as that of eye and skin colour, and blood group are not the kind of stuff that can be packed in genes for onward 'transmission.' What is transmitted is a set of blue print "instructions" that determine broadly the course of development, and growth from conception to birth, then to adulthood senility and death. These instructions are embodied in the genes and chromosomes, in a code we have yet to decipher fully, but in principle it is analogous to the programme tape of a computer which carries the 'instructions' for making it work in the desired way. Chromosomes and genes are thus in a manner of speaking micro miniaturized 'tapes' of heredity, the software of heredity that activates the computer hardware of environment.<sup>23</sup>

### 7.2.3 GENE ACTION

Genetics may be defined as the study of the ways in which genes operate and the way in which they are transmitted from parents to offsprings. Modern genetics involves study or the mechanism of gene action—the way in which the genetic material (de-

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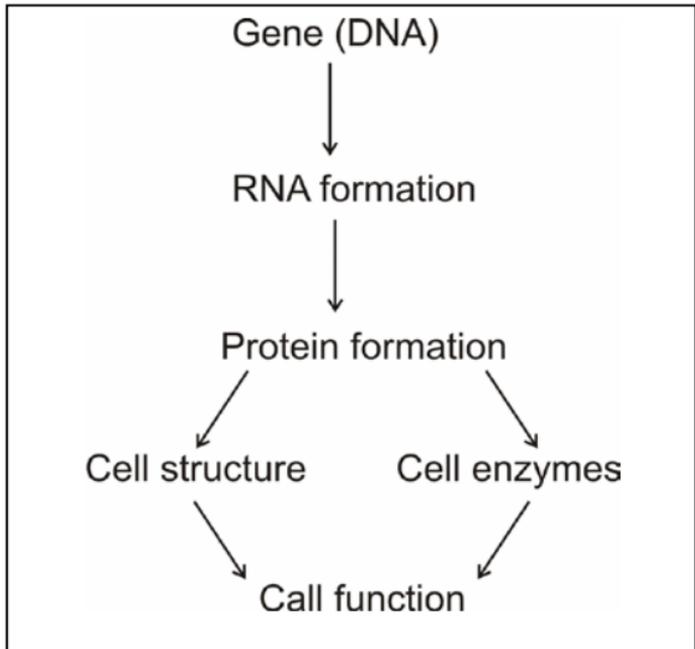
23 *Genetics Today*—by Jagjit Singh, publisher—National Book Trust, New Delhi, second edition, 1988.

oxyribonucleic acid or DNA) affects physiological reactions within the cell. Although genes determine the features, an individual may develop, the features that actually develop depend upon the complex interaction between genes and their environment. Normal green plants, for example, have genes containing the information necessary to synthesize the chlorophyll that gives them their green colour and chlorophyll synthesized in an environment containing light, i.e. the gene, for chlorophyll is expressed. If the plant is placed in a dark environment chlorophyll synthesis stops, i.e. the gene is no longer expressed.<sup>24</sup>

#### 7.2.4 THE ARRANGEMENT OF GENES

In most of the *eukaryotic* organism, each cell may contain more than one DNA molecule and these together are known as chromosomes. The DNA is packaged and each DNA molecule may carry thousands of the genes. Therefore, on each DNA molecule

thousands of genes are found in an apparently random manner. The genes may be grouped into clusters of related genes, while in prokaryotes (bacteria) it is not unusual to have the need to express several genes, which are not the same but are related, in



**Fig. 7.2.4: General schema by which the genes control cell function.**

that the proteins, which are encoded by the genes, are required along a common metabolic pathways.<sup>25</sup> The clusters of genes, which either encodes for the same protein or very similar proteins are called homologous. Their nucleotide sequences are very similar, clusters of similar genes are called multi gene families.

Virtually, every one knows that the genes control heredity from parents to children, but most persons do not realize that same genes control the reproduction of and the day-to-day function of all cells. The genes control cell function by determining what substances will be synthesized within the cell what structure, what enzymes, what chemicals etc. Fig. 7.2.4 illustrates the general scheme of genetic control. Each gene, which is a nucleic acid called de-oxy-ribonucleic acid (DNA) automatically controls the formation of another nucleic acid, ribonucleic acid (RNA) which spreads throughout the cell and controls the formation of a specific protein. Some proteins are structural proteins, which in association with various lipids and carbohydrates, form the structure of various organelles. By far, the majority of the proteins are enzymes that catalyze the different chemical reactions in the cells. For instance, enzymes promote all the oxidative reactions that supply energy to the cell, and they promote the synthesise of various chemicals, such as lipids, glycogen, adenosine tri-phosphate (ATP) and so on.

For the formation of each cellular protein, there is usually only single gene pair in each cell. It is estimated that cells of the human being have over 1.0 lac such gene pairs, which means that as many as 1.0 lac different proteins are formed in different cells, though not all of these in the same cell.

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25 *Genetic Engineering and its Application*—by P. Joshi, second edition, Agrobios (India), Jodhpur.

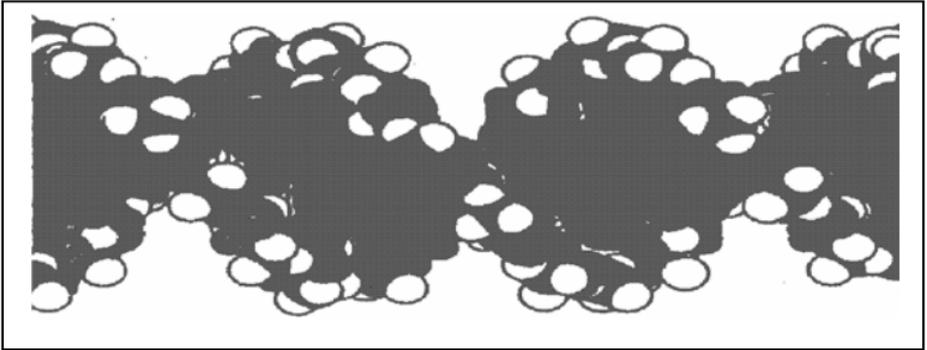


Fig. 7.2.4(a) : The helical, double-stranded structure of the *gene*. The outside strands are composed of phosphoric acid and the sugar deoxyribose. The internal molecules connecting the two strands of the helix are punne and pyrimidine bases; these determine the "code" of the *gene*.

Large number of genes attached end on end are contained in extremely long double stranded, helical molecules of DNA having molecular weights measured in the billions. A very short segment of such a molecule is illustrated in Fig. 7.2.4(a).<sup>26</sup>

#### 7.2.5 GENE—THE CONSTITUENT ELEMENT IN BODY AND PERSONALITY

One of the most significant discoveries in the world is the discovery of the structure of gene. Gene will not only bring a radical change in the medical field but also unravel a lot of mysteries about life which are closely guarded by nature till now. Man has ever been curious to know about himself and his life mysteries, ever since human life took off on the earth. The nature is so mysterious that to fathom the mysteries of its structure is almost impossible. Similarly, human life is also a wonderful mystery, the changes occurring in life have always given challenges to scientists. A team of British scientists led by Dr. Francis Collis, has succeeded in finding answers for some of the

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<sup>26</sup> *Medical Physiology*—by Guyton, published by Prism Books (P) Ltd., eighth edition, 1991, p. 23.

mysteries of human life after extensive research and experiments carried under Human Genome Project.

#### 7.2.6 GENES—THE LIFE MOTIVATOR COMPONENT

We know that all beings, without exception, are assemblage of cells. We find that in all organisms, from the bacterium to man, the chemical machinery of all the cells is essentially the same in both its structure and functioning. Since Angles wrote the primary role of proteins in living processes, it has been further emphasized by the discovery that all these chemical reactions are catalyzed by enzymes which are themselves proteins. By means of 'instructions' embodied in the genetic material, DNA, according to the genetic code that is universal in the DNA-RNA protein system or some variant of it, is operative in all living organisms. But the 'instructions' or information on the basis of which a new living being arises is always contained in the genome, the *genes* and chromosomes, of another structurally similar being, its parent(s). Description of functioning of a living organism may be recorded not merely on a paper, tape or punch card but also in the genetic material (DNA) of which the genes and chromosomes are made. The real marvel is rather how this colossal information is locked in tiny DNA macro molecules, the genes.

First consider the cell structure. All living beings, without exception, are made up of the same two principal classes of micro-molecules—protein and nucleic acids, the nucleotides of the nucleic acids on the one hand and amino acids of proteins, on the other. More importantly, these macro molecules are made up in all living beings by the assembly of the same residues, 20 L type amino acids for the proteins and nucleotides for nucleic acids. As for its functioning the same reactions or rather sequences of reactions we earlier called metabolic pathways are used in all organisms for the essential chemical operations, namely, the mobilization and storing of

chemical potential and the bio-synthesis of cellular components.

If the new born infant is brought up in a jungle environment where there is no human language, he remains speechless for whole life. If during the critical period of his development the environment provides no opportunity for the practice of knowledge, the individual never acquires the gift of speech. He remains a sort of speechless humanoid. Since the precise cortical organization of human cerebral cortex that enables him first learn to speak and thus armed to familiarize himself with the world of objective knowledge depends greatly on an appropriate neonatal environment, the old debate about the relative contribution of heredity (genes) and environment (nature) in making the mind of man.

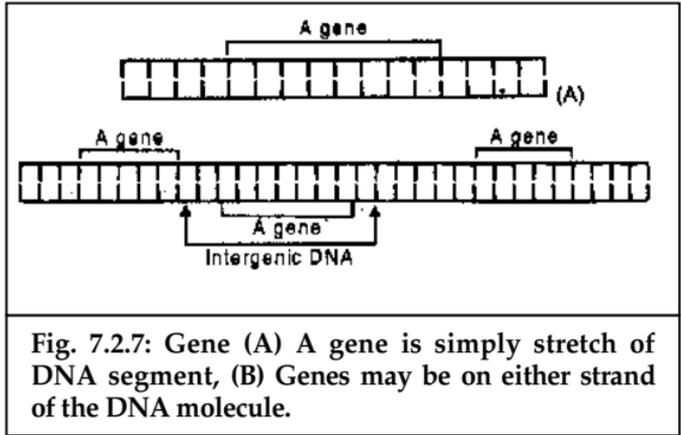
It has been estimated that while the cerebral capacity of the gorilla brain is  $10^{14}$  bits, that of the human brain is  $10^{15}$  bits. Assuming that  $10^{14}$  bits is the minimum threshold for information required for self maintenance and reproduction of an organization as complex as a gorilla or man, there is in a man a vast reservoir  $(10^{15} - 10^{14}) = 9 \times 10^{14}$  bits of cerebral power available for practice of language, science, technology, spirituality and other cultural pursuits. If thus happens that while only 10 percent of this cerebral capacity suffices to perform all the physiological functions of his animal existence, the remainder 90 percent enables him to become what he is, namely, homo sapien—man the wise.<sup>27</sup>

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27 *Genetics Today*—by Jagjit Singh, publisher—National Book Trust, New Delhi, second edition, 1988.

## 7.2.7 PRODUCTS OF GENES

Genes exert their effects through the molecules they produce. The immediate products of a gene are molecules of ribonucleic acid (RNA),



**Fig. 7.2.7: Gene (A)** A gene is simply stretch of DNA segment, (B) Genes may be on either strand of the DNA molecule.

these are copies of DNA, except the RNA has the base uracil(C) instead of thiamine(T). The RNA molecules from some genes lay a direct part in the metabolism of the organism, but most of them are used to make protein. Proteins are chains of subunits known as amino acids, and the sequence of bases in the RNA determines the sequence of amino acids in the protein by means of the genetic code. The sequence of amino acids in a protein dictates whether it will become part of the structure of the organism or whether it will become an enzyme for promoting a particular chemical reaction. Thus change in DNA can produce the changes that effect the structure or the chemistry of an organism.

The nucleotide bases in DNA that code the structure of RNAs and proteins are not the only component of genes. Group of bases adjacent to the coding sequences affect the quantities and disposition of gene products. In higher organisms (animals and plants, rather than bacteria and viruses), the non-coding sequence outnumbers the coding ones by a factor of ten or more and the function of these non-coding regions are largely unknown. This means that geneticists cannot yet prescribe limits to the size of animal and plant genes.

The genetic information is stored in packages, on genes where one gene holds the information for the production of

polypeptide sequence. This idea was first hypothesized by Beadle and Tatum in 1941. Gene is a presumed unit of heredity. It is defined as a discrete sequences of DNA which code for given biological molecules such as structural proteins and enzymes. Thus a gene might be defined as a polynucleotide tRNA, rRNA. As the information is in the form of a series of bases along the DNA molecule, a gene is simply a stretch of DNA, with a defined start site and a defined end. It can then be processed as a unit and the information passed on to the machinery, which will make the protein.

Not all the DNA in a cell is used for the storage of information, therefore, not all the DNA is used as part of a gene. The stretches of DNA that lie between genes are known as intergenic DNA.<sup>28</sup>(see fig. 7.2.7)

#### 7.2.8 READING OF GENE SEQUENCES

All human beings have fundamentally the same anatomical structure and operate through the same bio-chemical and physiological processes and are driven by similar biological urges. Yet no two human beings are alike. What is more important is that any individual living now is entirely different from anyone who has ever lived in the past or will live in future. Each person is unique, unprecedented and unrepeatable. Leonardo da Vinci, the great sculptor, painter, philosopher all rolled into a great creative genius was the so-called illegitimate son of a half witted woman who spent a night with an itinerant soldier at the wayside inn. That was the clicking of the genes. The biological mechanisms through which each person develops his own behavioural singularity are two fold—the evolution part and genetic endowment.<sup>29</sup>

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28 *Basic and molecular genetics*—by Parihar—student edition, Jodhpur, 2004, p. 206-207.

29 *Understanding genetics*—by O.S. Reddi, Allied Publications Ltd., New Delhi, first edition, p. 2