

Jain Philosophy: A Scientific Approach to Reality

Proceedings of the International Conference
on
Science and Jain Philosophy
held at Indian Institute of Technology Bombay, Mumbai, 2016



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Publisher: Jain Vishva Bharati Institute
Ladnun-341306 (Rajasthan), India

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ISBN : 978-93-83634-36-1

First Edition : 2018

Price : ₹ 1000/- (\$30)

Sponsor

Rosy Blue Foundation
1608-09, Prasad Chambers,
Opera House
Mumbai 400 004, India
www.rosybluefoundation.org

This publication is collection of papers presented at the International Conference on Science & Jain Philosophy at IIT, Bombay (January 8-10, 2016). Contents and opinions included in this publication are the personal opinions of individual writers, and publisher or editors are not responsible or liable for any copyright issues and ideas expressed in the papers.

Printed by: Print Vision Pvt. Ltd.
Ambawadi Bazar, Ahmedabad-380 006
Ph. : 26405200, www.printvision.in

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Section I: Nature of Reality

1. Ācārya Mahāprajña's Views on Theory of Creation (*Sṛṣṭivāda*) in Jain Canonical Literature*

*Samani Chaitanya Prajna*¹

Abstract

Creationism is one of the earliest concepts to explain the existence of different species on Earth and is in stark contrast to the Evolutionary theory of Charles Darwin, proposed about 150 years ago. Creationism is founded on two basic assumptions. The first is that all the living beings were created directly by God and are not a consequence of long and gradual evolutionary process of interaction with the environment as proposed by Darwin [1]. The second assumption is that God creates a soul for each human being whenever required, in contrast to the pre-existence of souls (that souls preexist) and traducianism (that souls generate souls as and when bodies generate bodies). The theory of creation has become a matter of serious discussion in all the philosophical schools. Jain thinkers all along have been presenting their arguments, rejecting the idea of God as Creator, but have not made much effort to present the Jain view in a systematic manner. Ācārya Mahāprajña, a great thinker and philosopher, has presented a consistent Jain theory of creation for the first time.

The basic points of *Sṛṣṭivāda*, based on various Jain scriptures, are presented in this article. Basically, evolution takes place in three ways: by effort of the self; by innate nature of matter, which may include interaction with environment and

* Original article '*Āgama Sāhitya Mein Sṛṣṭivāda*' (in Hindi) by Ācārya Mahāprajña.

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combination of these two processes. The transformation occurs by bonding. Various types of bonds required for formation of different species and subtle bodies are discussed in some detail.

1. Introduction

Ācārya Mahāprajña has divided Jain literature into three categories: canon, post-canon philosophy and medieval philosophy. The inner corpus *Ācārāṅga* etc. and its supportive texts come under the first category. The texts pertaining to philosophy such as *Sanmati Tarka*, *Tattvārtha Sūtra*, *Samayasāra*, *Pañcāstikāya*, *Āptamīmāṃsā*, *Viśeṣāvaśyakabhāṣya*, *Ṣaṭkhaṇḍāgama*, *Kaṣāyapāhuḍa* etc. come under the second category. The texts such as *Laghiyastraya*, *Śāstravārtāsamuccaya*, *ṣaḍdarsannasamuccaya*, *Pramāṇa-Naya-Tattvāloka*, *Nyāya-kumada-candra*, *Pramāṇa-Mimāṃsā* etc. come under the third category of medieval philosophy.

The philosophical texts present canonical doctrines in philosophical style whereas the medieval philosophical texts do not primarily focus on the canons and their style is logical and subject-matter is determined in relation to other philosophies. For example, they examine the logical and metaphysical theories propounded by the Naiyāyika and the Buddhist philosophies. The Jain approach is seen to oppose other philosophies rather than being an independent approach.

This objection that Jain philosophy is a bundle of theories propounded by other philosophies and apparently does not have its own independent existence is not absolutely baseless. It is so because in the field of logic, the Naiyāyikas and Buddhists already had a firm footing. The Jain logicians used the arguments of Naiyāyikas to reject the theories of the Buddhists and the arguments of Buddhists to reject the theories of the Naiyāyikas. Although, the Jain logicians were successful in the development of the theory of *Anekāntavāda*, they did not propose a self-consistent doctrine containing the concepts documented in Jain canons. Had it been so, as we will see in this article, the originality of the Jain philosophy would have been a subject of serious study by other schools of thought.

2. Creationism

One of the important subjects of philosophy is creationism. Jain philosophy accepts the theory of existence-cum-nonexistence. According to it, the five extended realities (soul (*Ātmā*), matter (*pudgal*), space (*Ākāśa*), medium of motion (*dharmāstikāya*) and medium of rest (*adharmāstikāya*) termed as *Astikāyas*) are real and existent. Substantially, they are permanent, devoid of phenomena of origination and cessation. Only the modes of substances originate and cease and therefore,

everything becomes real in the present and becomes unreal in the past and future. Out of the five, the three extended realities, the medium of motion, the medium of rest and space are non-material and motionless and therefore they are not the main cause of creation. Their existence is confined to the subtle world. Soul is non-physical. Matter is physical. These both entities are dynamic. These both are the main cause of the gross world. Soul is non-physical and subtle too. *Paramāṇu*, the smallest unit of matter, is subtle but physical. The fundamental or main cause of the gross or visible world is *paramāṇu*. Soul is only supportive to it. The explicit mode or gross change occurs in both soul and matter. The explicit mode is the direct cause of the manifested world or creation. The implicit mode or subtle change is unmanifested, while the explicit mode is manifested. In Illuminator of Jain Tenets, Acarya Tulsi writes that "It is because of the various combinations of soul and matter, the world is multifaceted. The multiplicity of the world is called creation [2]".

2.1 Modification

There are three types of modifications or changes: *Prayoga* i.e. by effort or force, *Visrasā* i.e. natural and *Miśra* i.e. mixed. On the basis of the three types of modifications creation is also of three types ([3], 8.2):

1. **Creation** by effort or inner force of soul termed as 'forced' modification.
2. **Creation** due to innate nature of an entity termed as natural modification (intrinsic, with self power).
3. **Creation** based on combination of the above two processes, termed as mixed modification.

Siddhasena Gaṇi, the commentator of *Tattvārtha Sūtra*, has mentioned three types of causes, viz. *pariṇāmī* i.e. material, *nimitta* i.e. formal and *nirvartaka* i.e. auxiliary ([4]; 5.16, p 338). In the Vaiśeṣika philosophy also there are three types of causes, viz. *samavāyī* (material cause), *asamavāyī* (auxiliary) and *nimitta* (formal). According to the Jain canons, the natural creation is free from the law of cause and effect; it occurs spontaneously. The forced creation is free from the law of formal cause. It is caused by the free will. In the mixed creation, there is need of both the causes auxiliary and formal. Thus, in Jain philosophy, the law of cause and effect is relative. There is no necessity of looking for the cause for every effect since change is the natural property of every substance.

Ācārya Umāswāti (ca. 2-4 century) has classified the functions (*kārya*) of matter. One of them is bonding. The material aggregates come into existence because

of the integration or disintegration of *paramāṇus*. There are three reasons of the formation of the material aggregates:

1. *Prayoga* i.e. by effort or force
2. *Visrasā* i.e. Natural
3. *Miśra* i.e. Mixed

The formation of body is possible only by the effort of soul of the living being. Hence, body is the example of the creation by force ([5]; Patra 32). According to Siddhasena Gaṇi, 'force' means by the effort of soul ([6]; 5.24, p.363) and according to Ācārya Akalaṅka (ca. 8th century), 'force' means relation with body, speech and mind of the living being ([7]; 124, p. 487).

The modification that takes place by both: force (external means) and nature (internal means), is called mixed. According to Siddhasana Gaṇi, mixed implies the creation of a material object by the effort of living being, such as, pillar and pitcher ([6]; 5.24, p 360). Akalaṅka has mentioned only two types of creations. He has not mentioned the mixed separately. He mentioned the third one by introducing two types of the forced creation, viz. the forced creation related to non-living entity or matter, and the forced creation related to both the living and the non-living entities. He has given the example of *Jatukāṣṭha*, a kind of glue used to join two wooden pieces, to explain the forced creation related to non-living entities ([7]; 5.24, *Vṛtti*, p.468). Siddhasena Gaṇi has also given the same example ([6]; *Vṛtti*, p.360). The forced creation related to living and non-living are of two kinds:

1. **Bondage of Karma**, e.g., the bondage of knowledge-obscuring karma etc.
2. **Bondage of Matter Other than Karma**, e.g., the formation of the gross body etc. ([7]; 5.24, *Vṛtti*, p. 486).

Abhayadeva Sūri, the commentator of *Bhagavaī*, has given two examples in his commentary to explain mixed creation:

1. The body left by the liberated soul (*Mukta*).
2. The conversion of the *Audārika Vargaṇās* into the gross body etc.

The body is formed by soul so it is creation by force but after formation it changes by nature so it is mixed creation.

The *Audārika, vaikriya etc. vargaṇās* are natural but they convert into the form of body by the effort of soul so the conversion of *vargaṇās* into the form of body is also a mixed creation.

Abhayadeva raised question regarding the difference between the creation by force and the creation by mixed process. He himself answered it stating that in the creation by force nature also plays a role ([5], *vṛtti* of *sūtra* 1). Siddhasena Gaṇi has also mentioned that in the mixed creation both force and nature play primary role ([14], 5.24, *Vṛtti*, p.360).

According to Ācārya Mahāprajña, both the interpretations can be justified only in the context of the theory of cause and effect. Pillar and pitcher are the examples of the mixed creation. In making the pitcher there is effort of man and to convert into the form of a pitcher is in nature of the soil. Hence, pitcher is the outcome of the mixed process. It can be compared with the material cause (*samavāyikāraṇa*) which is accepted in the Vaiśeṣika philosophy [8].

In the forced creation, there is no need of any external cause. It is done by the inner effort of soul itself. In the mixed creation, there is role of the external cause along with the internal effort. Natural creation is independent of both the internal and external causes ([6], 5.24, *Vṛtti*, p. 360).

2.2 Formation of Body

In the canon *Bhagavaī*, there is a detailed discussion in regard to the material entities created by force or effort ([3], 8.2-39). It implies that a living being makes body, senses, and their colour and shape by its own inner efforts.

The creation by force implies the theory of self-exertion (*Puruṣārthavāda*) and the creation by nature, the theory of nature (*Svabhāvavāda*). Jain philosophy is non-absolutistic in its approach; hence it regards both, the theory of self-exertion and the theory of nature, in relative sense.

The first example of the creation by force is – the bodies of one-sensed living beings ([3], 8.2). Similarly, the example of the mixed creation is also the bodies of one-sensed living beings. But both the examples are not of the same nature. The one-sensed living beings create body out of matter of the *Audārika Vargaṇā* and only that matter is created by force.

The bodies of the one-sensed living beings change by nature. Such bodies come under the mixed creation. In these bodies there are both, the inner effort and natural change.

Pitcher is made of soil. Soil is the body of the one-sensed earth-bodied living beings. It becomes dead when the one-sensed living beings pass away. In this state

the soil is the dead body of the living beings. Soil has innate quality to convert into pitcher. Soil is converted and it takes shape of a pitcher.

The visible world is a material world. What we see around is either a living body or the body left by the living beings. The living body is the example of the creation by force. There are five main types of the living bodies:

1. The living body of one-sensed beings
2. The living body of two-sensed beings
3. The living body of three-sensed beings
4. The living body of four-sensed beings
5. The living body of five-sensed beings

The sub-types of these bodies are innumerable.

The body left by the living being is also of five types. Their sub-types are also innumerable.

Modifications or changes by force (effort), by nature and by both are the fundamental causes of creation. The first two are the creation by the living beings. The natural change is the creation by the non-living. Since the change in colour etc. is due to the nature of matter itself. The soul has no role in it.

In *Bhagavaī*, there is mention of nine types of material entities created by force or effort ([5], p.331-332; *Bhagavaī Joḍa*, *Śataka* 8, *ḍhāla*130, *gāthā* 49-131; [11], 36.68-247: [9], 1.10-88).

1. The creation of all the physical entities by the effort of the living being.
2. The creation of the bodies pertaining to fully developed (*pariyāpta*) and undeveloped (*apariyāpta*) living beings.
3. The creation of body by effort.
4. The creation of sense-organs by effort.
5. The creation of both body and senses by effort.
6. The creation of colour, smell, taste, touch and shape of material body.
7. The creation of body and colour etc.
8. The creation of sense-organs and colour etc.
9. The creation of body, sense-organs and colour etc.

In brief, there are two kinds of creation according to Jain Philosophy:

1. **Self-induced Creation**
2. **Non-self-induced creation**

The living being creates body, senses and their colour, smell, taste, touch and the shape by its own inner power. It is creation by soul or the living being. The cause of the diversity of the self-induced creation i.e. by the effort of the living being, is the difference in the development of their body, senses and colour etc. ([11], 36.83, 105, 116, 125, 135, 154, 168, 178, 187, 203, 247). *Bhagavaī* gives an elaborate treatment of the diversity of self-induced creation on the basis of the difference of body, senses and colour etc. ([3], 8.2-39).

Body and senses are material. Colour, smell, taste and touch are the material qualities. Shape is the defining characteristic of material entities. The diversity of self-induced creation is due to its relation with matter. This is the reason why there is discussion of body, sense and their colour, smell, taste, touch and shape in the context of the diversity of self-induced creation. As the living being creates its own body and senses so it creates colour, smell, taste, touch and shape also.

The power of self is of two types, viz. voluntary (*ābhiyogika*) and involuntary (*anābhiyogika*). To perform something motivated by desire, the soul uses its voluntary power. The involuntary power is autonomous. Body, senses and their color etc. are created with the help of the involuntary power ([6], 8.3 *Vṛtti*, p.128).

There are five types of bodies, five types of colours, two types of smells, five types of tastes, eight types of touches and five types of shapes ([3],8.42). The colour, smell, taste and touch have further innumerable grades. Various combinations of these parameters give rise to the diversity of life we see around.

3. Bonding

Bonding or creation is of two types, viz; natural (intrinsic) and forced (unnatural/by effort, extrinsic).

3.1 Natural Bonding

The natural bonding is of two types, viz. with and without beginning. The smallest unit of the three eternal substances: the medium of motion, the medium of rest and space, is technically known as *pradeśa*. Both the medium of motion and the

medium of rest have innumerable units (*pradeśas*). Space has infinite units and is divided into two, viz; cosmic (*lokākāśa*) and trans-cosmic (*alokākāśa*) space. The cosmic space has innumerable units and the trans-cosmic space consists of infinite units. The bond among the units of each of these extended realities is natural and eternal (beginningless). Their units are static i.e. have constant dimensions; there is no extension and contraction in them. They are static; do not move from their place.

There are two types of bondings: partial and complete. In partial bonds there is partial contact between two adjoining members such as between two units of a chain. In complete bond, there is full contact between the members as it happens in the mixture of milk and water. In such a mixture, the two constituents can not be seen individually.

So far as the bonding between two units of the medium of motion, and also that of the medium of rest and space is concerned, it is of touching only. The two neighbouring units only touch each other at some point. If their units merge into one another, they will not have independent location ([5], Patra, 395). The bond of the units of all these entities is beginningless and endless.

The natural bonding having a beginning is of three types:

- **Bond Caused by Integration**
- **Bond Caused by Container**
- **Bond Caused by Transformation**

3.1.1 Bond Caused by Integration

Clusters are formed by integration of *paramāṇus*. Two *paramāṇus* combine together to make a *dvī-paramāṇu* cluster. Similarly, three *paramāṇus* combine together to make a *tri-paramāṇu* cluster, and so on up to infinite number of *paramāṇus* combine to make cluster of infinite-*paramāṇus*. The bonding between *paramāṇus* takes place due to:

1. Difference in *snigdhatā* (S)
2. Difference in *rūkṣatā* (R)

In the context of modern science the properties *snigdhatā* and *rūkṣatā* have been recognized as positive electric charge and negative electric charge respectively. This is an electrical or ionic bonding.

A *paramāṇu* possessing some degree of positive charge does not integrate with the *paramāṇu* having the same degree of positive charge. Similarly, a *paramāṇu* possessing some degree of negative charge does not integrate with another *paramāṇu* having the same degree of negative charge. The *paramāṇus* integrate with each other only when either their charges are of different kinds or, if the charges are similar, then the charges should differ in degrees ([5], Patra, p.395). In the scripture *Prajñāpanā*, there is mention of bonding between *paramāṇus* having similar and dissimilar charges ([8], *Pada* 13.21-22). There is no mention in *Bhagavaī* about the bonding between *paramāṇus* having dissimilar charges.

3.1.1.1 Laws of Combination of Similar *Paramāṇus*: The combination of *paramāṇus* not only depends on whether they are *snigdha* or *rūkṣa* but also on the degree of *snigdhatā* and *rūkṣatā*. According to *Prajñāpanā*, the positive *paramāṇus* combine with other positive *paramāṇus* and the negative *paramāṇus* combine with other negative *paramāṇus* if their charges differ by two or more degrees. The *paramāṇus* do not combine if they have the same charge or the charges differ by one degree ([8], 13.21-22; *Paṇṇavaṇāvṛtti*, Patra 228). *Cūrṇi* of *Uttarādhyayana* gives some examples of bonding between similar *paramāṇus*. The *paramāṇu* of one degree *snigdhatā* can combine with the *paramāṇu* of three-degree *snigdhatā*. Similarly, the *paramāṇu* having three-degree *snigdhatā* combines with the *paramāṇu* of five-degree *snigdhatā*. The *paramāṇu* of the five-degree *snigdhatā* combines with the *paramāṇu* of seven-degree *snigdhatā*. This text does not mention any restriction for the *paramāṇu* having minimum degree i.e. one-degree *snigdhatā* to combine with another *paramāṇu* of the same quality. The same rule applies to the *paramāṇus* having dissimilar i.e. *snigdha* and *rūkṣa* qualities ([11], *Cūrṇi*, 2.17).

3.1.1.2 Laws of Bonding of Dissimilar *Paramāṇus*: Dissimilar *paramāṇus* having minimum *snigdha* and *rūkṣa* properties do not combine. It means that the *paramāṇu* having one degree *snigdhatā* does not combine with the *paramāṇu* having one degree *rūkṣatā*. The *paramāṇu* of two-degree *snigdhatā* can combine with the *paramāṇu* having two-degree *rūkṣatā*. This is the combination of same degree *paramāṇu*. The *paramāṇu* having two degree *snigdhatā* can combine with the *paramāṇu* possessing three- or four-degree *rūkṣatā* etc. This is the combination of different degree *paramāṇus*. In the combination of the dissimilar *paramāṇus*, both the rules of same and different degrees are applicable.

The Digambara canon *Ṣaṭkhaṇḍāgama* gives a systematic scheme of forced and natural bonds.

Tables (1, 2, 3, 4 and 5) present the laws accepted in different Jain texts ([11], Book 14, Division 5, Parts 4-5, 6, 26-27).

Table 1: Rules for combinations of *paramāṇus* according to *Prajñāpanā*, *Uttarādhyayana*, *Cūrṇi* and *Bhagavati*

Sr. No.	Degree of two <i>paramāṇus</i>	Similar quality or charge (S&S)	Dissimilar quality or charge (S&R)
1.	1+1	No	No
2.	1+2	No	No
3.	1+3	Yes	No
4.	1+4	Yes	No
5.	2+2	Yes	Yes
6.	2+3	Yes	Yes
7.	2+4	Yes	Yes
8.	2+5 to infinite	Yes	Yes

Table 2: Rules for combination of *paramāṇus* according to *Tattvārthabhāṣyānusāriṇī*

Sr. no.	Degree of two <i>paramāṇus</i>	Similar quality or charge (S&R)	Dissimilar quality or charge (S&R)
1.	1+1	No	No
2.	1+2	No	Yes
3.	1+3	Yes	Yes
4.	1+4	Yes	Yes
5.	2+2	No	No
6.	2+3	No	Yes
7.	2+4	Yes	Yes
8.	2+5 to infinite	Yes	Yes

Table 3: Rules for combination of *paramāṇus* according to *Sarvārthasiddhi*

Sr. no.	Degree of two <i>paramāṇus</i>	Similar quality or charge (S&R)	Dissimilar quality or charge (S&R)
1.	1+1	No	No
2.	1+2	No	No
3.	1+3	No	No
4.	1+4	No	No
5.	2+2	No	No
6.	2+3	No	No
7.	2+4	Yes	Yes
8.	2+5 to infinite	No	No

Table 4: Rules for combination of *paramāṇus* according to *Ṣaṭkhaṇḍāgama*

Sr. no.	Degree of two <i>paramāṇus</i>	Similar quality or charge (S&S)	Dissimilar quality or charge (S&R)
1.	1+1	No	No
2.	1+2	No	No
3.	2+2	No	Yes
4.	2+3	No	Yes
5.	2+4	Yes	Yes
6.	2+5 to infinite	No	Yes

Table 5: Rules for combination of *paramāṇus* according to *Tattvārthasūtra*

Sr. no.	Degree of two <i>paramāṇus</i>	Similar quality or charge (S&S)	Dissimilar quality or charge (S&R)
1.	1+1	No	No
2.	1+2	No	No
3.	2+2	No	No
4.	2+3	No	No
5.	2+4	Yes	Yes
6.	2+5 to infinite	No	No

3.1.2 Bond Caused by Container

Things kept in a container for a long time get automatically changed. For example, the old wine becomes solid (*gādhī*), the old jaggery and rice convert into a lump after long time ([3], *Tikā* p.395).

3.1.3 Bond Caused by Modification

The clusters of *paramānus* convert into various forms such as cloud etc. due to some factors other than the two i.e. integration and effort is called creation by modification.

3.2 Forced Bonding

As indicated before that *pradeśa* is a dimensionless smallest unit of an entity. It is considered as a point. How an extended structure of soul is constructed starting from a point? For this purpose a small elemental form was conceived. This elemental form becomes the building block in constructing the extended structures. This is like a brick used in constructing a house.

The units (*pradeśas*) of an embodied soul are dynamic and not static like that of medium of motion, medium of rest and space. They can contract and expand. If the body is big, the units of soul expand and if the body is small, they contract. In the state of *Samudghāta*, the units of soul expand to occupy the whole *loka* and contract again to the original size ([6], 5.16). This is the reason why there is separate mention of the bonding of the units of soul from the eternal natural bonding which is found in the units of medium of motion, medium of rest and space.

The units of soul expand and contract and therefore their bonding is by force. *Bhagavāi* mentions eight middle units of the four extended realities ([6], 5.16). The bonding of the eight middle units of soul is beginningless and endless and therefore their bonding must be natural; yet their bond is considered as by force because of their relation with other unstable units of the soul. According to Abhayadeva, the meaning of the forced bonding is the bonding of the units which takes place by the effort of soul. The alternative meaning of the forced bonding is the bonding of the units of soul with the matter of *audārika* etc. *vargaṇās*.

In figure 1, the eight middle units are shown marked by A-H. Among the eight units, there is eternal bonding or connection of one-one unit with three-three adjacent units located in three directions. Similarly, among the four-four units situated up and down, there is eternal connection of one-one unit with two-two adjacent units located in two directions. These units, in turn, are connected with other units and so all units

of soul are connected with each other. This implies that all units of an extended reality are connected with each other and they together form one body.

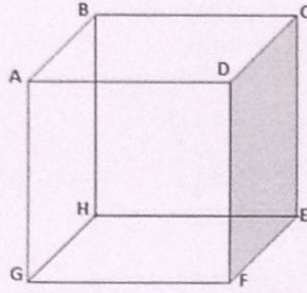


Fig. 1: An eight unit element of *pradeśas*, having a structure like one cube, formed by bonding proposed for the four extended realities: *ātmā* (soul), *ākāśa* (space), *dharmāstikāya* (medium of motion), and *adharmāstikāya* (medium of rest).

3.2 Forced Bonds

Abhayadeva Sūri mentioned four alternative types of the forced bonds in the soul ([5], Patra 32):

1. The bond of the eight units of soul is beginningless and endless, while the bond of the rest of the units of soul has beginning in the sense of having power of contraction and expansion.
2. The bond without beginning and without an end is impossible.
3. The bond with beginning and without end: The bond of the units of a liberated soul (*Mukta*) is with beginning but without end, i.e. it continues for ever.

Ṣaṅkhaṇḍāgama mentions that the bond of the eight central units of soul as beginningless psychical bond ([11], Book 14-5, 6, 63). Siddhasena Gaṇi has also discussed eight middle units in his commentary of *Tattvārtha Sūtra* ([6], 2.9 *Bhāṣya* p.151, 154). In the *Tattvārthavārtika* of Akalaṅka, the location of the eight middle units is shown constant. They are located up and down, four units up and four down. They always remain associated with each other so their bond is beginningless. The other units of soul contract and expand because of karma. They are, therefore, with beginning ([11], Patra 398).

4. The bond with a beginning and an end are of four types:
 - *Ālāpanā Bandha* i.e. Bond by rope etc.

- *Ālīnakaraṇa Bandha* i.e. Bond by glue etc.
- *Śarīra Bandha* i.e. Bond by contraction of units of *Kārmic* and *Taijasa* bodies.
- *Śarīra-prayoga Bandha* i.e. Bond by physical effort ([5], Patra 395).

3.4.1. Ālāpanā Bond

Bonding by the rope like things is called *Ālāpana* bond. *Bhagavatī* mentions the following means to understand this bonding:

1. *Vetralatā* i.e. like a piece of bamboo grown in water.
2. *Varatra* i.e. like a rope of leather.
3. *Vallī* i.e. like a creeper.
4. *Darbha* i.e. like a small soft grass blade used on auspicious occasions.
5. *Valka* i.e. like the bark of a tree.
6. *Rajju* i.e. as the rope made up of Sana plant.
7. *Kuśa* i.e. as the grass with hard and edged leaves.

The commentator has mentioned *Kuśa* as grass without root and *Darbha* as grass with root. Cloth etc. are also means of *Ālāpanā* bond ([5], Patra 398). *Śaṅkhaṇḍāgama* ([11], Book 14, 5.6.41, p. 38) and *Tattvārthavārtika* ([11], 5.24, *Vṛtti*, p.486-488) also mention iron in the list of this type of bond.

3.4.2. Ālīnakaraṇa Bond

Joining of one object with another by some glue is called *Ālīna* bond. It is of four types:

- **Śleṣa Bond:** The bond is made by some adhesive element, for example, bonding of walls and pillars etc. ([5] Patra 388; [10], Book 14, 5.6.48, p.41). Some bonding agents are lime, mud, glue, *lākha*, wax etc.
- **Uccaya Bond:** Piling up of objects to make a heap or a bundle. For example, the heap of grains or grass.
- **Samuccaya Bond:** In *Samuccaya* bond, there is piling as well as cementing of the objects like bricks or stones on one another in construction work.

- **Samhanana Bond:** It is bond obtained by joining different parts. It is of two types:
 - a. **Partial Samhanana Bond:** Joint of some parts without cement like material, e.g., the construction of a bullock cart.
 - b. **Complete Samhanana Bond:** the bond formed by unification, e.g., mixture of milk and water.

3.4.3. Śarīra Bandha

Soul consists of innumerable units. The units are always associated with each other so they are inseparable. Due to their association with karmic body their structure gets changed. They contract and expand. In the process of *Samudghāta* the units of soul expand and contract. In this event the units of *kārmic* (*kārmaṇa*) and electric (*taijas*) bodies, which are associated with embodied soul, also expand and contract. The expansion and contraction of the two bodies is called *Śarīra Bandha*. The main cause of this is *Samudghāta* i.e. astral projection. In *Samudghāta*, soul expands out of body and gets back to it. The expansion and contraction of the units of soul is called *Śarīri* i.e. psychical bond.

Abhayadeva Sūri has given some details of the psychical Bond. In the case of physical bonding (*Śarīra bandha*) the units of *kārmic* and electric bodies are mainly involved and the units of soul (*Ātma-pradeśas*) are marginalized. In the case of psychical bonds, the units of soul are primarily involved and the units of *kārmic* and electric bodies are marginalized ([5], Patra 399). The psychical bond and the physical bond are also considered separately in *Ṣaṭkhaṇḍāgama* ([11], Book 14, 5.6.44, 625 p.41-45) and *Tattvārthavārtika* ([11], 5.24, *Vṛtti*, p.488). The physical bond is of two types:

- **Pūva-Prayoga Pratyayika** i.e. bond caused by past effort
- **Pratyutpanna Prayoga Pratyayika** i.e. bond caused by present effort

Bond Caused by Past Efforts: The meaning of physical bond here is the contraction of *kārmic* and electric bodies during *Samudghāta*. The main cause of this contraction is due to the effort of soul itself, since *Vedanā Samudghāta*, *Kaṣāya Samudghāta* etc. take place due to effort of the soul. Living beings undergo *Samudghāta* because of different reasons. During the time of *Samudghāta* the units of soul expand and contract while remaining bonded. In this process of expansion and contraction, the effort of soul along with the units of the two bodies is related to the past. This is the reason why the bond is said to be caused by past effort ([5], Patra 399).

Bond Caused by Present Effort: The total time of *Kevalī Samudghāta* is eight moments (*samaya*). In the first four moments the soul expands and in the last four moments it contracts. The fifth moment is the first moment of contraction known as "*Mantha*". In this state, the units of soul along with the units of the two bodies start contracting. The bond (contraction) during *Mantha* is by present effort.

This bond has never taken place at any point of time in the past and therefore, the bond is unique. This bond is found in sixth, seventh and eighth moments also but starts from fifth moment and therefore, the fifth moment only is regarded appropriate time for the bond caused by present effort.

3.4.4 Physical Bond by Application of Force

The soul develops its own body. The subtle electric body and *kārmic* body are always associated with the embodied soul. The gross body technically known as *Audārika śarīra* is built at the time of new birth and separates from the soul at the time of death of the living being. *Vaikriya* i.e. protean body and *Āhāraka* i.e. communication body are also comparatively gross. The gross body is built by human and sub-human beings, the protean body is developed by the celestial and hellish beings and the communication body is developed by human beings with the help of mystical or meditational powers.

There are three causes for the bonding or creation of the gross body ([3], 5.110, *Bhāṣya*)

1. **Power of Soul, Action of Body and Matter:** Power of soul is obtained by destruction-cum-subsidence of *Vīryāntarāya* karma. The word 'action' implies mental, physical and vocal activities of the living beings. Matter here means the material aggregates pertaining to the gross body. All these three entities jointly determine formation of the body structure.
2. **Non-attentiveness towards Soul:** It also plays some role in the bond caused by physical effort.
3. **Role of Karma:** The rising (*udaya*) karma, the actions of the body etc., psyche and the present life-span are the deciding factors in the formation of the gross body. The main cause of this formation is the rising of body-making karma and the power of soul, actions of body etc., and matter are its auxiliary causes ([5], Patra 400). In *Ṣaṭkhaṇḍāgama*, the bond of gross body is counted as *nokarma*, matter different from the *kārmic* matter ([11], Book 14, 5.6.40, p.37).

The *Audārika* body bond may be in two states:

1. **Partial Bond**
2. **Complete Bond**

Soul giving up the previous body creates a new one. In the first moment of the formation of the new body, the living being absorbs only external matter and therefore, it is called complete bond. It means in the first moment he only develops his physical powers which are necessary for new life. These powers are known as *pariyāpti* i.e. bio-potential. Completion of *pariyāpti* means full construction of all physical systems which are necessary for new body ([3], 8.376). In the second, third etc. moments, the rejection of waste matter starts along with intake of new matter. In this situation, there is not only intake and assimilation of new matter but also separation of the unwanted matter aggregates and, therefore, it is a partial bonding.

Abhayadeva Sūri has explained the process by the example of *Apūpa*, an eatable item made up of wheat. *Apūpa* when put in the frying pan absorbs oil during the first moment but in subsequent moments, both the processes i.e. absorption and desorption of oil ([5], Patra 400) occur.

3.5 Material Sources for Body

Vaiśeṣika philosophy has considered *paramāṇus* of earth, water, fire, and air as the source of origin of the universe. According to it, the *paramāṇus* are eternal, absolutely unchangeable. In Jain philosophy, there is mention of matter comprising eight groups of *paramāṇus* technically known as *Vargaṇās*. They are:

- 1) *Audārika Vargaṇā*: *paramāṇus* appropriate for gross body
- 2) *Vaikriya Vargaṇā*: *paramāṇus* appropriate for protean body
- 3) *Āhāraka Vargaṇā*: *paramāṇus* appropriate for migratory body
- 4) *Taijasa Vargaṇā*: *paramāṇus* appropriate for electric body
- 5) *Kārmaṇa Vargaṇā*: *paramāṇus* appropriate for kārmic body
- 6) *Śvasocchvāsa Vargaṇā*: *paramāṇus* appropriate for breathing
- 7) *Bhāṣā Vargaṇā*: *paramāṇus* appropriate for speech
- 8) *Mano Vargaṇā*: *paramāṇus* appropriate for formation of mind

All these *vargaṇās* are variable-constant (*pariṇāmī-nitya*). They are inter-convertible; one can convert into another. For example, the *paramāṇus* of *Audārika*

vargaṇā can convert into *Taijasa vargaṇā* and vice versa. The concept of creation can be explained on the basis of the theory of variable-constant (*pariṇāmī-nityavāda*) only. From the concept of *vargaṇās* it is clear that the fundamental elements of the creation are—matter and embodied soul only. The following are eight types of creation by force. They are five types of bodies and three types of physical apparatus.

1. *Audārika śarīra* i.e. Gross body
2. *Vaikriya śarīra* i.e. Protean body
3. *Āhāraka śarīra* i.e. Communication or Migratory body
4. *Taijas śarīra* i.e. Electric body
5. *Kārmaṇa śarīra* i.e. Kārmic body
6. *Bhāṣā* i.e. Vocal system
7. *Śvāsocchavāsa* i.e. Breathing system
8. *Mana* i.e. Mind

4. Concluding Remarks

The Jain canonical literature gives a unique concept of creation which is governed by natural laws and processes and not by any supreme power called God. The concept of creation in Jainism is explained through the formation process of different types of subtle and gross material bodies.

There is an elaborate discussion about the three types of creation i.e. creation by force, natural and mixed, involving both. In the medieval philosophical period, the canonical concepts have not been properly highlighted and therefore the world of scholars could not come to know the original and unique concept of creation found in Jainism. There is a need of bringing out the ancient wisdom, particularly in the modern context.

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- [3] *Bhagavatī* 8.2.
- [4] *Tattvārthādhigamasūtram* 5.16, p.338.
*Nirvartako nimittam pariṇāmī ca tridheṣyate hetuḥ/
Kumbhasya kumbhakāro, kartā mṛcceti samasaṅkhyakah//*

- [5] *Bhagavatīvr̥tti, patra 32: jīvavyāpāreṇa śarīrāditayā pariṇatāḥ*
- [6] *Tattvārthādhigamasūtram 5.24, p.363.*
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