

Jain ontology in context with temporary and permanent

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Abstract

According to Jain metaphysics, the cosmos is a collection of six kinds of Dravyas including Jivas (souls) and Pudgal (matter/energy). Each unit of Dravya is a sovereign entity in itself, and it was neither created nor can be destroyed. Each unit of Dravya is eternal. But a combination of two or more units of Dravyas is temporary. The creation and dissociation of a combination takes place according to the definite laws of nature. We shall see that in the interest of our happiness, it may be valuable to visualize the cosmos in terms of the eternal Dravyas and their temporary combinations.

1. Introduction

Everybody wants to have a world view of all that we see with our eyes and all that we cannot see with our eyes. The purpose of having such a world view may be different for different persons. In the spiritual world, the main purpose is to realize the truth which leads to happiness and bliss. As a bonus, with such realization, it is also very likely that the person becomes lucky in gaining many worldly gains. In this article we propose to provide such world view with an emphasis on eternal *Dravyas* and temporary combinations. To clarify some minute concepts, we shall also present our discussion in the question-answer format.

2. Matter, Pudgal, and Pudgal Dravya

The smallest constituent of the matter is called *Pudgal Paramaanu* in the Jain vocabulary. All material things (such as table, chair, water) and particles including a proton, or an electron or a photon can be considered as the combinations of innumerable *Pudgal Paramaanu*. According to Jain philosophy, in this cosmos the number of souls as well as number of *Pudgal Paramaanus* remains constant.

It does not mean that there is absence of words, 'creation' and 'destruction' in the dictionary of modern science or Jain philosophy. Modern science as well as Jain philosophy talks of creation and destruction also. When a goldsmith converts a bangle of gold into a necklace then a lay person would say that there has been destruction of the bangle and creation of the necklace. The modern science as well as Jain philosophy would also say the same. But if we focus our attention on the substance gold then we would say that nothing is created and nothing is destroyed. Only the form has changed. The gold which was initially in the form of the bangle has been changed into the necklace form. Just like the permanency of gold, for scientists it is always important to look for that which remains permanent or eternal. Similarly, the Jain philosophers have also been interested in observing that which remains permanent.

Sat dravya lakshanam. (Tattvarthsutra 5.29)

Meaning: That which is *Sat* is *Dravya* (substance), and that which is associated with the creation, destruction and permanence is called *Sat*.

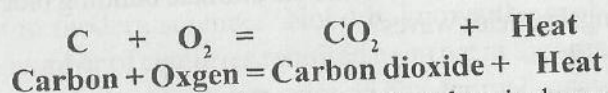
To arrive at a deeper understanding we shall like to explore further in the question-answer format.

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it is gold that exists before as well as after such transformation, i.e., the form of gold changes but the gold has neither been created nor destroyed. But when the coal burns then we see the destruction of coal. Like gold, here we do not see any thing that undergoes such transformation. Is there any entity which remains constant during such a destruction of coal?

Answer:

According to modern science, the main part of the coal is carbon that burns and produces heat. When a carbon atom burns in the air then carbon dioxide and heat energy are produced. In the language of Chemistry one can write:



In addition to this chemical reaction, other chemicals present in the coal in small fraction in combination with various gases present in the air also produce different types of gases and ash.

But a chemist knows that in all the chemical transformations, not a single atom gets destroyed or created. Thus in brief, one can say that during the burning of coal, neither new atoms are created nor existing atoms are destroyed. Further, in this article we shall discuss that in a deeper sense even an atom is not permanent, i.e., even a gold atom is not permanent. For seeking permanent constituents, we are required to go further deep to visualize the *Pudgal Paramaanu*.

Question 2: In the atomic explosion of uranium we know that uranium atoms are destroyed and new smaller atoms are created. In such nuclear fission, is there any entity that remains conserved?

Answer:

In such process the energy remains conserved. (Additionally, electric charge and various other quantum numbers remain conserved.)

It may be noted that there are many forms of energy such as light, electricity, heat, sound, and mass (gold, dust, water, uranium, etc.). The energy of one particle of light is very small as compared to the energy of one atom of a chemical substance. For example, the

energy of one atom of hydrogen is 444 million times larger than the energy of one particle (photon) of yellow light of sodium. (Calculated using Einstein's mass energy equivalence formula: $E = mc^2$)

Question 3: You said that a light particle has very small energy. Is it the smallest in the nature?

Answer: No. The energy of one particle of sodium light is one billion times larger than the energy of one particle of radio waves of frequency 509 Kilo Hertz. In other words, even one particle of light is very 'heavy' as compared to that of radio waves.

Question 4: Is there any smallest particle known to the modern science which can be considered as the ultimate building block of all material things/particles/waves?

Answer: No. The modern science has not yet reached to such a level. With the advancement of high energy physics we know the existence of various elementary particles such as quarks and gluons. Further advancements may lead to the smallest building block.

According to Jain scriptures, there exists the smallest building block of all material things/particles/energy. Such a smallest or ultimate constituent is called *Pudgal Paramaanu* or *Paramaanu* or indivisible *Paramaanu* or *Anu*.

The Jain metaphysics also uses a technical word '*Skandh*' to describe a combination of two or more than two such indivisible *Paramaanu*. Even a particle like light photon or a photon of radio waves is a *Skandh* consisting of innumerable *Pudgal Paramaanu*. Similarly, the smallest atom of chemistry (Hydrogen atom) is also a *Skandh*. Jain metaphysics also talks of particles of Karmic dust (called Karmic *Vargana*) which are also *Skandh*. A *Skandh* of Karmic dust is very small as compared to that of radio waves or any particle known to modern science.

Question 5: Is the existence of indivisible and indestructible *Pudgal Paramaanu* as described in Jain scriptures consistent with modern science?

The constancy (conservation) of number of *Pudgal Paramaanu* described by Jain metaphysics and the law of conservation of energy of modern science, very likely, are consistent. Further, any physical or chemical process can be described by Jain metaphysics in terms of the combination/separation/exchange of *Pudgal Paramaanus*. This fact is also consistent with the modern science. At basic level, there is no any creator or destroyer of *Pudgal Paramaanu*. This fact also agrees with the modern science. Tattvarthsutra 5.24 [2] explicitly indicates that just like matter, energy is also *Pudgal*.

The ultimate smallest entity of material substance (*Pudgal*) is not yet known to modern science. Nobody knows the probable duration or the number of centuries required to arrive at the smallest possible material entity by the modern science. Due to smallness of the karmic dust, it is not surprising that modern science has been unable to detect such finer particles in a laboratory. A *Pudgal Paramaanu* is still smaller than a Karmic dust particle. Jain scriptures suggest that when the smallest particle would be detected in the laboratory then a Karmic particle would also be detected in the laboratory because a Karmic particle is bigger than the smallest particle (*Pudgal Paramaanu*). The verification of this point would wait for a day when the science would be able to say that it has detected the smallest particle.

3. Each combination is temporary but each

Dravya is eternal

Question 6: Is it correct to say that a gold atom or a uranium atom is a *Pudgal Dravya*?

Answer: If by this statement we want to say that gold is not *Jiva* but *Pudgal*, then in this context the statement is correct. But if this statement is used to highlight the point that gold is a *Dravya* and therefore it is *Sat* (eternal), then this statement would be incorrect in this regard. One should note that an atom of gold is a combination of many (innumerable) *Pudgal Paramaanus*, i.e., it is a *Skandh*. A combination can always break. A combination can not be eternal. In this sense a gold atom is not a *Dravya*. In true sense, an indivisible *Pudgal*

Paramaanu is ever existent (eternal) and, therefore, a *Pudgal Paramaanu* is a *Dravya*.

In short, from one view point, a gold atom can be considered as *Pudgal Dravya*, and from another view point, we would say that a gold atom is not a *Dravya* (but is a *Skandh*). In the language of *Anekant* or *Naya* one can say that from the real point of view (*Nishchaya Naya*) a gold atom is *Skandh* and is not a *Dravya*, but from the relative point of view (*Vyavahar Naya*) gold is a *Dravya*. This point has been narrated in *Niyamsaar* verse 29 [3]. This verse says that from the real point of view a *Pudgal Paramaanu* is a *Pudgal Dravya* but from the relative view point a *Skandh* is also a *Pudgal Dravya*.

A student of physics when studies nuclear physics then he comes across some facts: He learns that hydrogen atoms can be converted into helium atoms, uranium atoms can be converted into plutonium atoms, gold atoms can be converted into other types of atoms, and so on. After learning so much, one can say that an atom is not eternal. But all such examples do not disagree with the conservation of number of *Pudgal Paramaanus*, i.e., the permanence of each *Pudgal Paramaanu*. It should be remembered that an atom of hydrogen or of any element is a *Skandh* and is very large as compared to a *Pudgal Paramaanu*.

In this context, there is one important point worth noting: In all chemical reactions a gold atom or any other atom can neither be created nor be destroyed. But during nuclear reactions, atoms can be created and destroyed. Thus a traditional chemist would say that an atom is permanent but a nuclear scientist would say that an atom is a combination of various constituents and such a combination of various constituents is not a permanent one. Thus in this regard the traditional chemist and nuclear scientist appear to be contradictory, but a knowledgeable person is not bothered by this contradiction. He knows that both are correct from their respective view points. **Such a person accepts the statement of a chemist that a gold atom is permanent, and at the same time he also accepts the observations of a nuclear**

scientist regarding the temporariness of a gold atom.

Such a discussion of science can be helpful in resolving various important contradictions. For example, we come across the following concept: **Every *Jiva* is eternal, a human being is also a *Jiva* but is not eternal.** Such a contradiction would disappear if we note that a human being is a combination of eternal *Jiva* and a large number of eternal *Pudgal Paramaanus*. Individually, all basic constituents of a human being are eternal but the combination is not eternal.

To understand eternal and non-eternal entities more clearly, one should first visualize that every soul is eternal and every *Pudgal Paramaanu* is eternal. If you see the disappearance of any entity then you should learn that the disappearing entity was a combination. A combination is non-eternal. But do not end your task here. You need to find the eternal entities present in the disappearing substance. If you can visualize only non-eternal life and non-eternal material, and **if you are unable to comprehend the eternal entities associated with the non-eternal combinations (things/creatures) then it is an indication that you have neither a clear concept of *Jiva Dravya* nor a clear concept of *Pudgal Dravya*.** On the other hand when you can comprehend the clear presence of eternal soul(s) and the eternal *Pudgal Paramaanu* in a living creature then you may say that you have understood the *Jiva Dravya* and *Pudgal Dravya*. An understanding that gives a sharp line of demarcation between *Jiva Dravya* and *Pudgal Dravya* in a combination of *Jiva* and *Pudgal* is technically known as ***Bhed Vigyan*** in Jain vocabulary.

In an example of the conversion of a gold bangle into a necklace it is easy to visualize that the gold was existent before and after conversion. But it is difficult to visualize that gold itself is not eternal. To be more explicit, **it is easy to visualize a piece of gold as a combination of many small gold particles, each gold particle as a combination of many gold atoms, but it is difficult for a common person to comprehend every single atom of gold as a combination of many *Pudgal Paramaanu* which are not gold.** Even a physicist knows that one gold atom is constituted by 79 protons, 79 electrons,

and 118 neutrons, and none of these constituents has properties of gold atoms.

Similarly, in case of a living being, after accepting the rebirth philosophy it may be easy to visualize that death changes the form of a creature but *Jiva* is always existent. It may be easy to understand that a boy named Suresh was a girl named Sangeeta in the previous life. And it may also be easy to say that the same *Jiva* of Sangeeta is now in Suresh. But it is difficult to realize that the so called *Jiva* of Sangeeta or Suresh which is a combination of soul and associated Karmic dust is not eternal (Note: The Karmic dust is a combination of many *Pudgal Paramaanus*). Just as in the previous example, the gold incorrectly appeared to be eternal, here also the combination of soul and Karmic dust appears to be eternal.

Let us again emphasize, it is a big mistake to accept the combination of *Jiva Dravya* (soul) and Karmic dust as eternal. **Scriptures like *Samayasaar* [4] and *Vrihad Dravya Sangrah* [5] have been written with the main intention of pointing out the difference between so called ‘*Jiva*’ and eternal *Jiva Dravya* (soul).** Next time, when you say that I am ‘*Jiva*’ then you should ask yourself whether you are ‘*Jiva Dravya*’ or you are a combination of ‘*Jiva Dravya* (soul) and Karmic dust’.

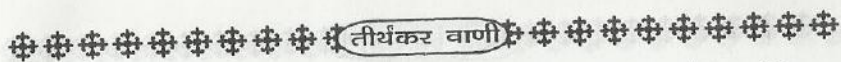
4. Emotions and *Jiva Dravya*

Question 7: So much is clear that the physical body associated with a soul is not a *Jiva*. It is also now clear that Karmic dust associated with soul is not a *Jiva Dravya*. What about anger, jealousy, greed, lust etc. associated with a living being? What are these? Whether or not these are within the boundary of *Jiva Dravya*?

Answer:

The correct answer of the question asked in the last sentence would neither be 'yes' nor 'no'. We have to analyze the issue to arrive at a clear understanding.

In Physics also we come across such situation. In a clear deep lake we see that water is blue. The same water taken out from



the lake and filled in one cup of a glass does not appear blue. Here a question arises: what is the source of blue colour of the water in the lake? If it is from water then in a cup also the water should look blue. But we don't see so. Next, we can also find that the bottom surface of the lake i.e. the base ground of the lake is not blue. Thus the source of the blue color does not appear to be the bottom surface of the lake.

Similarly, we note that the color of the sun is red at the time of the sunrise and sunset and white in the noon. Does it mean that in the morning the sun was red and in the noon it is white? At the time of the sunset in India, we see that the color of the sun is red but the same sun at the same time appears to be white in London (at that time there is noon in London). With this description we now ask a question: Does redness belong to the sun? Now we know that neither 'yes' nor 'no' answer would satisfy you. If some one says 'yes' then you would have an objection that the same sun at the same time is white in London and red in India. If some one says 'no' then you would have an objection that it is the sun only that is appearing red at the time of sunrise and sunset.

A good physicist would not ask about the source of redness of the sun. A good physicist would reframe the question. He would like to ask, "Why do we see the red coloured sun at the time of sunrise and sunset whereas we see white colour in the noon?" Now the right answer on the basis of presence of air, the location of sun relative to observer and other phenomena can be obtained. (Our purpose is not to describe the physics of this point. Our purpose is to highlight the complexity associated with some types of questions.)

This example of sun or lake has been chosen to arrive at an important point that various properties associated with a combination can be very different from the properties of its constituents. To be more clear let us take one example of chemistry: Oxygen helps in burning, hydrogen burns, but a chemical combination of hydrogen and oxygen in the form of water neither burns nor helps in burning but does just the opposite.

In context with the present question, we want to say that anger, greed, etc. are neither part of the nature of the soul nor of *Pudgal* but appear in the combination.

There can be another purpose of asking this question. One may be interested in knowing what to do to alleviate these unwanted and unpleasant anger, hatred, greed etc. The answer of this question has been given by the spiritual teachers in different words based on a common principle mentioned in *Samaysaar* verse 73[6]. In this verse Acharya says, **"I am really one, pure, without any ownership (of anger etc.), and full of knowledge and perception. By staying and being absorbed in such self (soul), I lead all these (anger etc.) to destruction."**

For more details one may also like to refer to verse no. 199-202, 210, 211, 278-281, 316 and 318 of the same (*Samayasaar*).

Even modern psychologists also recognize the above mentioned recipe. For example, one of the best motivational speakers and authors of the western world, Wayne Dyer, suggests the following to be free from the emotional disturbances [7]:

"Try to view your thoughts as a component of your body/ mind. Think of thoughts as things. Things that you have the capacity to get outside of and observe."

To elaborate further, Dr. Dyer writes, **"First you want to watch your thoughts. Then you want to watch you watching your thoughts."**

5. Six kinds of *Dravyas*

Question 8: In addition to *Jiva Dravya* and *Pudgal Dravya* what else have been included in the list of *Dravyas* by Jain Acharyas?

Answer:

In all six kinds of *Dravyas* have been described. These are: (1) *Jiva* (2) *Pudgal* (3) *Dharma* (4) *Adharma* (5) *Aakaash* (six) *Kaal*. It may be noted that this number (6) gives the number of kinds of *Dravya*, not the total number of *Dravya*. Since each soul is one *Dravya*, each *Pudgal Paramaanu* is one *Dravya*, there are infinite number of *Dravyas* in this cosmos.

of *Jiva* and *Pudgal Dravyas*. Without this *Nimitta* of *Dharma Dravya*, *Jiva* and *Pudgal* are unable to move from one place to other. It may be noted that it is just an inert *Nimitta*. It does not motivate or inspire any *Pudgal* or *Jiva Dravya* to move. Similarly, the *Adharma Dravya* becomes *Nimitta* in bringing a moving *Jiva* or *Pudgal Dravya* to a halt. Again, it may be noted that *Adharma Dravya* neither motivates nor inspires any *Jiva* or *Pudgal Dravya* to stop.

There are innumerable number of *Kaal Dravya*. One *Kaal Dravya* is known as *Kaalaanu*. In the smallest possible cell (*Pradesh*) of the *Lokaakaash* there exists one *Kaalaanu*. Whenever any transformation in *Jiva* or *Pudgal* or any other *Dravya* takes place the *Kaalaanu(s)* present at that location (s) become *Nimitta*. There is difference between '*Kaalaanu*' and '*Samay*'. A *Kaalaanu* is an eternal *Dravya*. It is called *Nischaya Kaal* (*Kaal Dravya* in rigorously true sense). The word '*Samay*' signifies the smallest possible interval of time (a kind of quantum of time). The '*Samay*' is considered as *Vyavahar Kaal*.

For a lay person, it is very difficult to comprehend the quantum field theory or relativity or the string theory. The significance of *Kaalaanu*, *Lokaakaash Pradesh*, etc. can not be appreciated by those who are even unable to appreciate the four dimensional space. A common person wonders about the necessity of the fourth dimension (of time) in the relativity. In string theory, one even talks of 10 dimensions. The necessity and significance of *Kaal Dravya*, *Kaalaanu*, *Samay*, *Pradesh* of *Lokaakaash*, etc. would be more prominent with the further development of science. The discovery of new kinds of particles and galaxies would also lead to a better understanding of the cosmos.

If we compare the present day knowledge with that of 16th century we may say that the present day science is at very advanced stage. But if we compare our knowledge with our ignorance then we would say that we know very little. Despite such limitations of the present day knowledge we should realize that the knowledge available to attain the bliss exists even today.

6. Application in our day-to-day life

The cosmos is a collection of six kinds of *Dravyas*. The number of units of each kind of *Dravya* remains constant. Each unit of *Dravya* is eternal. Our soul is also one unit of *Dravya* and it is eternal. It was neither created by anybody nor it can be destroyed by anybody. Though each constituent (*Dravya*) of the cosmos is eternal, yet the combinations of such constituents in the form of human being, animal, table, chair, proton, electron, etc. are temporary. The combination or dissociation of *Dravyas* takes place according to the definite laws of nature. The realization of all such facts may lead to the spiritual fearlessness and peace.

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