



सारांश

आत्मा को समय भी कहा जाता है। पुद्गल का एक परमाणु भी समय कहलाता है। इसी तरह कालाणु व अन्य द्रव्य भी समय नाम पाते हैं। समयसार की गाथा 3 में आचार्य कुन्दकुन्द कहते हैं कि समय सर्वत्र सुन्दर होता है व समयों के बंधन की कथा में विसंवाद असुन्दरता है। यद्यपि पुद्गल परमाणु समय है किन्तु कई परमाणुओं का संयोग यानी पुद्गल का स्कन्ध समय न होकर समयों का पिण्ड है। आचार्य अमृतचन्द्र आत्मस्ख्याति टीका में बताते हैं कि समयसार की गाथा सभी द्रव्यों के लिये है। पुद्गल की बात आते ही भौतिक विज्ञान का महत्व भी हो जाता है। जब कहते हैं कि पुद्गल के परमाणु में सुन्दरता है व स्कन्ध में असुन्दरता या बंधन की कथा में विसंवाद या असुन्दरता है तो हम कई प्रश्नों द्वारा सुन्दरता एवं बंधन के बारे में जानना चाहते हैं। आचार्य समझाना चाहते हैं कि पुद्गल का परमाणु अविनाशी होता है अतः सुन्दर है। किन्तु कई परमाणुओं का पिण्ड या संयोग शाश्वत नहीं रह सकता है। जो मिलते हैं वे कभी बिछुड़ते हैं। जो शाश्वत हैं वही शाश्वत सत्य हैं व जो शाश्वत सत्य हैं वही सुन्दर है।

क्या पुष्प सुन्दर नहीं है ? इस प्रश्न का एक उत्तर दो दिन पुराने मुरझाये हुए पुष्प को जब फूलदान से निकालकर फेंका जाता है तब मिलता है। पुष्प की तरह पुद्गल का एक अविभाजी परमाणु कभी नहीं मुरझाता है। जब पुष्प मुरझा रहा होता है तब भी पुष्प के अन्दर का प्रत्येक पुद्गल परमाणु ताजा रहता है।

आत्मा की तरह पुद्गल परमाणु भी कभी नहीं जलता है या तलवार से नहीं कटता है या पानी से नहीं गीला होता है - यह बात आज के सूक्ष्म विज्ञान से समझने पर आत्मा की अजरता-अमरता भी अच्छी तरह समझ में आ सकती है।

क्या मनुष्यों का सामाजिक बंधन असुन्दर होता है ? उत्तर नहीं, यदि सभी सदस्यों की स्वतंत्रता का भी सभी द्वारा सम्मान हो। अस्वतंत्रता असुन्दर होती है। तथाकथित बंधन अवस्था में भी प्रत्येक की स्वतंत्रता की स्वीकृति में सुन्दरता है।

बंधन से संबंधित कई रोचक वैज्ञानिक तथ्य भी यहां प्रस्तुत किये गये हैं।
(1) दो हाइड्रोजन के एटम जब रासायनिक बंधन में बंधकर हाइड्रोजन मॉलिक्यूल बनाते हैं तब एक सेकेण्ड के करोड़ों भाग समय में एक करोड़ तीस लाख बार एक दूसरे को धक्का देकर दूर भेजते हैं - व इतनी ही बार थोड़ा ही दूर जाने पर एक दूसरे को आकर्षित होकर पास आते हैं। (अति अशांत अवस्था)

(2) जब स्टील की चाबी के छत्ते से उंजली में पहनी हुई सोने की अंगूठी टकराती है तब कई इलेक्ट्रॉनों की अदला-बदली छत्ते एवं अंगूठी के बीच हो जाती है।

कुछ इलेक्ट्रान जो अब तक सोने के अंश थे अब वे लोहे के अंश हो जाते हैं। उनका इठलाना समाप्त हो जाता है। ये इलेक्ट्रान यह संदेश देते हैं कि क्षणिक संयोगों से क्या इठलाना ? क्या घबराना ?

(3) कितने ही वर्षों का बंधन क्यों न हो, स्वतंत्र रासायनिक एटम अपने गुण नहीं छोड़ता है। शक्कर से एक हाइड्रोजन एटम निकाला जाये या नीम की पत्ती से, दोनों हाइड्रोजन एटम एक जैसे होते हैं, कोई ज्यादा मीठा या ज्यादा कड़वा नहीं होता है। बंधन के बावजूद समय के गुणधर्म नहीं बदलते हैं।

(4) क्या वो हाइड्रोजन एटम जब रासायनिक बंधन में होते हैं तब उन्हें जोड़ने के लिये कोई गोंद या तिनका होता है ? उत्तर नहीं, वे तो स्वयं की शक्ति से ही नजदीकी बनाये रखते हैं।

आचार्य कुन्दकुन्द इस गाथा में यह सन्देश देना चाहते हैं कि हमें हमारे समय (आत्मा) की एवं अन्य सभी आत्माओं की सुन्दरता पहचानना चाहिये।

Introduction to -

Ācārya Kundakunda is one of the most reverend Ācārya of Digambara Jaina Tradition. In the Māṅgalic verse his name is recited just after *Bhagavāna Mahāvīra* and *Gaṇadhara Gautam*. Among various scriptures written by Ācārya Kundakunda, the *Samayasāra* (1) is considered as the most important scripture as it covers the basic philosophy. *Gāthā* (verse) number 3 of this scripture has deep philosophical significance. As the concept described in this verse includes the non-living substance also, its discussion in the light of modern science is also valuable in assimilating the concept. We shall here first state the original verse in Prakrit and then shall proceed with its English translation, explanation and discussion after mentioning the *Sanskṛita* equivalent given by Ācārya Amṛtandra.

एयत्तणिच्छयगदो समओ सव्वत्थ सुंदरो लोए।

बंधकहा एयत्ते तेण विसंवादिणी होइ ॥3॥

eyattaṇicchayagado samao savvattha sundaro loe

bandhakahā eyatte teṇa viśaṁvādīṇī hoi (3)

एकत्वनिश्चयगतः समयः सर्वत्रसुन्दरो लोके।

बन्धकथा एकत्वे तेन विसंवादिनी भवति ॥3॥

Translation : Everywhere in the cosmos a Samaya uncontaminated with others is beautiful. The story of bonding leads to a conflicting dialogue.

II Explanation

In *Gāthā* 2, two categories of Samaya (soul) have been defined. Here the Ācārya wants to highlight that out of the two categories (self-samaya, and other-samaya) the Self-Samaya category is beautiful and the other category leads to conflicting dialogue.

In the commentary of this verse, Ācārya Amṛtandra has taken a broader meaning of the word 'Samaya'. Here by Samaya he means any eternal substance whether it is soul or matter. When we talk of non-living substance then we remember modern science specially physics and Chemistry.

The Ācārya wants to explain that not only Jīva Dravya but in case of all kinds of Dravya each Dravya is a sovereign entity in itself. Any so called encroachment of one entity into other or bonding of one by other leads to conflicts. An encroachment contradicts the sovereignty. It may be noted that the truth is always beautiful as well as permanent. A temporary association or togetherness may make a story of bonding but can not be considered as a real bonding in absolute sense.

Question : We see beautiful flowers made by the bonding of many atoms and molecules. Does it contradict this verse?

Answer : No. So long as you are focused on the bonding you would see a flower having a transitory beauty. But you should not forget that its beauty would soon fade away and you would throw it away in a few hours from your vase.

Question : Everywhere whether it is a family or society or a flower or a house we see the combinations or togetherness or the bonding. Does it mean that nobody is beautiful?

Answer : You see beauty in your spouse or your child, and in the name of bonding you want to 'own' him or her. When you do so, do you not come across conflicts? See the individual eternal soul in them and you would soon avoid many conflicts and your family life would be more decent. This is a lighter side of the answer of your question.

The Ācārya wants to focus on the individual constituents of every combination even when they are in the combination. Once you can visualize such individual constituents you would see that each constituent is eternal and has a sovereign identity. Then even in a fading flower you may note the presence of eternal everfresh Pudgal Paramāṇu (a Pudgal Paramāṇu is smaller than atoms and molecules described in physics and chemistry. By Pudgal Paramāṇu one means an ultimate indivisible unit of physical matter/energy). No any pudgal paramāṇu becomes old with time. It is always fresh. When you focus on a combination or bonding then you would find some things as beautiful for some days and same things as ugly on some other days. But when you focus on the individual eternal constituents even in a combination then you would be able to visualize the 'truth'.

If we go more deeply, we would see that Ācārya wants to teach us that a bonding is always a 'so called bonding' because it is never permanent. It is a temporary togetherness. Therefore, a story of bonding of two or more entities is not a permanent story but is a story that has many 'ifs' and 'buts' or a story with conflicts and contradictions. By using the word 'story of binding' in the verse the Ācārya is recognizing the bonding at a story level only.

III. Some examples from modern science to illustrate the concept of this Gāthā

According to Ācārya Amṛtandra in this verse no. 3 of Samayasāra the word 'Samaya' means any dravya (eternal substance) living or non-living. Therefore, here one can attempt to illustrate the theme of this verse from the view point of modern Physics also.

You might have read or heard that every soul is eternal. A soul does not burn. A soul can not be cut by a sword, ...and... so on. In this verse Ācārya wants us to realize such a beauty or eternal soul in the non-living substance also. Did you ever think of any material thing that can not be burned and can not be cut by a sword? This verse leads us to contemplate

and have such realization. Can you see that even in the burning of a piece of a coal all the basic constituents of the coal are not burning? Can you visualize that the basic constituents of the coal are eternal? When you can have such visualization of non-burning eternal entities in the coal then it would be easier to appreciate the beauty of Samaya as revealed in this verse. So long as our visualization is limited to the burning of the coal only we are viewing only the story or movie of the bondage which always goes on changing.

Question : The burning of the coal is real that we see by our own eyes. How can we visualize the non-burning at the time of burning (or so called burning)? Is it simply a jugglery of words?

Answer : No, it is not a jugglery of words. The answer of this question is expected to enrich your world view. If you use the eyes of modern physics then you would note that the burning of the coal is expressed by the following equation :

Carbon + Oxygen from air = Carbon dioxide gas + Heat energy

In the symbolic form it is written as follows :



i.e. in the burning of the coal one atom of carbon combines with one molecule of oxygen of air, and as a product one molecule of carbon dioxide gas and heat energy are formed. This is a simple description of the burning process. Now let us investigate at nanolevel.

At nanolevel carbon atom has 16 protons, 16 neutrons, and 16 electrons. An oxygen molecule has 16 protons, 22 neutrons, and 22 electrons. After burning we get a carbon dioxide molecule. Let us see the inventory of this product. A carbon dioxide molecule has 22 protons, 22 neutrons, and 22 electrons. Thus, when we see with our new eyes provided by physics then we find that all the constituents are intact. No any proton or electron or neutron has disappeared. Only location of these 66 particles have changed. No any material particle has vanished. If we ask any of these protons or neutrons about the burning they would say that they have not witnessed any burning. Without losing any electron or proton or neutron we got heat energy in this process because of change in energy due to change in the relative location of these 66 particles.

Question : Does it mean that protons, neutrons and electrons are eternal?

In the chemical reactions protons, neutrons and electrons are neither destroyed nor formed. But in nuclear reactions they get transformed into other entities. In this sense these are not eternal. As a matter of fact these are combinations. A combination is never eternal. In *Tattvārthasūtra* it has been stated that a substance (*Dravya*) is eternal (*Sat*) [2]. In all such contexts one should understand that each of the ultimate smallest constituents is *Dravya* and is eternal. Ācārya Kundakunda has used word 'Samaya' to specify such eternal smallest constituent. In case of matter this 'Samaya' is called as a Pudgala Paramāṇu.

When we are able to visualize the presence of such eternal individual Pudgala Paramāṇu in every material particle then we would be able to see the eternal beauty of nature as revealed in this verse. Then we would see that even during burning or even during any atomic explosion no any Pudgala Paramāṇu has been created or destroyed. For a Pudgala Paramāṇu, one can

say that it can not be burnt by fire, it can not be cut by any sword, it can not be destroyed by the atomic explosion, and so on. At material level the visualization of Pudgala Paramāṇu even in dust, mud, sand, gold, ... is close to truth and beauty. Can we visualize the presence of such Pudgala Paramāṇu all around us? It would be very easy to realize the eternal nature of beauty of a soul if we can have such understanding of the material Samaya. Ācārya Kundakunda says that without such awareness we would continue to come across the stories of bonding, bond breaking and bond forming one after other. Such stories may be miserable some times, or pleasant some times, but these are not beautiful.

Bonding and restlessness

According to Quantum Physics [3, 4] when two atoms are bonded together then they are always restless. They vibrate. Due to zero point energy, it is impossible for them not to vibrate. During vibration they try to come close together. After coming somewhat close both atoms experience a force of repulsion and due to this they start separating from each other. But soon after some separation they again experience attraction for each other and they again start coming close to each other. This process continues for ever till they remain bonded. How fast does it happen? Let us take one example. Let us talk of a hydrogen molecule (H_2) formed by bonding of two hydrogen atoms. They are so restless that they tend to move away from each other 130 trillion times in one second (Note : 1 trillion = 1 million times one million) and for the same number of times they get attracted with each other and they tend to come closer to each other [5].

Bonding is always temporary

No any bond in the nature is permanent. Two hydrogen atoms forming a hydrogen molecule (H_2) which are bonded together at this moment of time were separated from each other before some time (long or short) and would again separate after some time (long or short). Further they have a tendency to be free (dissociated). As soon as they get a chance to acquire sufficient energy they acquire the energy and become free.

Bonding without glue or stick

A lay person might be wondering about a chemical bond. One may think of some glue or some nano-stick to make a chemical bond. But it is not so. In case of bonding of two hydrogen atoms in a hydrogen molecule no any glue or stick exists. There exists only two hydrogen atoms with togetherness due to electromagnetic forces. One can see such togetherness in many situations. Depending on the situation or the nature of forces the togetherness may get different names such as nuclear bonding, chemical bonding, etc.

Preservation of self identity

If we somehow pick a hydrogen atom from a sugar molecule and a hydrogen atom from a water molecule and compare both such hydrogen atoms, then we would not notice any difference. The hydrogen atom coming from the sugar molecule would not be more sweet. It would not have any trace of any property of sugar. It would have only properties of hydrogen.

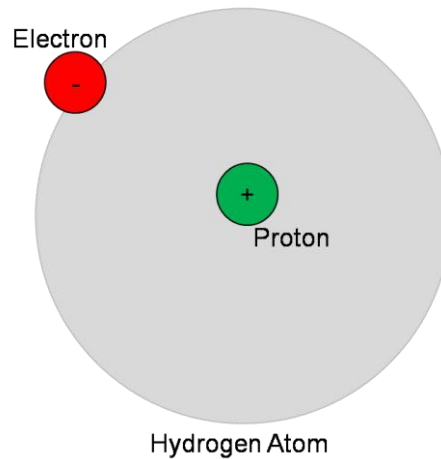


Figure 1: A hydrogen atom taken out from a sugar molecule and that from a Neem tree leaf are the same. Neither the hydrogen atom taken out from sugar becomes more sweet nor that from the Neem leaf is more bitter.

This is very crude example. The message of this example gets better and better as we go to finer and finer particles. For visualizing the preservation of identity of a single Samaya one needs to consider the togetherness/bonding of Pudgala Paramāṇu.

Contradictory statements

Imagine you are wearing a gold ring and are having a key ring made of iron in your hand. Suppose your gold ring and the key ring come in contact with each other with some what pressure or friction. Due to this contact some electrons of gold and iron may get exchanged. Thus by this exchange an electron which was a constituent of gold becomes a constituent of iron. Earlier, the electron of gold could boast as a gold and now it can feel sorry for being a constituent of iron. It may be noted that the electron got the status of gold due to bonding with the gold nucleus and the same got the status of iron due to bonding with the nucleus of iron. Thus from this example it is clear that the status based on the bonding is very temporary. Sooner or later the next status of every entity in a bonding would be in contradiction with the present status. This is one of the messages of this verse.



Figure 2: Due to friction some electrons from the gold ring and the iron ring may get exchanged. By this exchange, the exchanged electrons of gold become the electrons of iron. Thus the status of such electrons has changed from gold to iron. In nature, the status based on the bonding is temporary.

For living beings, pleasure, and pain also one can say the same, i.e. the change is inevitable. A rich may become poor and a poor may become rich. These are temporary [6]. Both, boasting and worry are not beautiful. These are related with the stories of bonding. The status based on a bonding is temporary.

It is not a criticism of the story of bonding. The story of bonding has its own significance. It is about the understanding of the togetherness, freedom, and beautiful laws and behaviour of nature in proper perspective. Ācārya Kundakunda teaches us to appreciate the internal beauty of each and every soul including oneself with whom we come across.

References/Notes

1. Ācārya Kundakunda's Samayasāra, Edited and Translated by A. Chakravarti, (Bharatiya Jnanapith, New Delhi, 1989)
2. Ācārya Umāsvāmī, Tattvārthasūtra 5.29
3. Paras Mal Agrawal, *Quantum Siddhānta* (in Hindi), (Rajasthan Hindi Granth Academy, Jaipur, 1983).
4. Paras Mal Agrawal, *Quantum Mechanics*, in *Horizons of Physics*, edited by A.W. Joshi (Wiley Eastern, 1986)
5. G. Herzberg, *Spectra of Diatomic Molecules* (Van Nostrand, NY, 1950). The number mentioned here is given on the basis of the vibrational frequency of a hydrogen molecule.
6. Ācārya Samantbhadra in Ratnakaraṇḍa Śrāvakācāra, chapter 1 writes that the pleasure based on externals is temporary, becomes seed of sin, and ends up in pain.

*Karm parvashe sante dukherantodiye
Pāpbiḥ sukhānastha shrādhānakankṣhanasmrata.*