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> From the Desk of the Editor-in-Chief

With the blessing of Param Poojya Sarakodharaka Upadhyayrathan Munishri 108 Gyansagar Maharaj ji, we are peased to publish the first issue of the Journal of Gyan Sagar Science Foundation. An attempt has been made to converge, Science, Society and Spirituality in a single forum. Such a move will enable us to strike a balance between materialistic requirements and spiritual understasnding for sutasnining growth and harmonious living. In this issue papers from different disciplines, natural science, Jain philosophy and work at their interfaces are included. The latter theme is reflected from many papers such as, Medicinal plants \& Jainism and self interaction of Karma \& Genes.

We dedicate Journal of Gyan Sagar Science Foundation to our revered Munishri 108 Gyansagar Maharaj ji. The papers published in this issue were presented during the conference "Scientific Development and our Responsibility" held in Mumbai during 7-8 January, 2012. The first conference in this series was held at Bangalore during 29-31 January, 2010. This series of conferences are organized by the Gyan Sagar Science Foundation and are supported by the protagonist and philanthropist of Jain Society.

Journal of Gyan Sagar Science Foundation will publish high quality papers in natural science and Jain philosophy. It is hoped that the Journal will be a medium for creating awareness in the society about the scientific facts and spiritual knowledge for global harmony and peace.


The following article is printed on page 95 to 99 of this journal.

# Doer, Deeds, Nimitta, and Upaadaan in context with modern science and spiritual science 

(भौतिक विज्ञान एवं अध्यात्म विज्ञान के परिप्रेक्देय्य में निमित्त, उपादान, कर्ता एवं कर्म)


## सारांश

मानवीय कमजोरी है कि वह प्रत्येक घटना के कर्त्ता का नाम जानना चाहता है। वह पूछता है कि पानी कौन बरसाता है? भूकम्प कौन भेजता है ? किन्तु आधुनिक भौतिक विज्ञान में 'कौन' शब्द को स्थान नहीं है। भौतिक विज्ञान यह पूछता है कि पानी कैसे बरसता है? भूकम्प कैसे आता है? अध्यात्म विज्ञान में आचार्य कुन्दकुन्द ने कौन कर्त्ता है इस प्रश्न का विज्ञान सम्मत उत्तर दिया है। उन्होंने सम्बन्धित द्रव्य को ही यानी स्वयं को ही स्वयं का कर्त्ता बताकर जो उत्तर दिया है वह आधुनिक विज्ञान के पूर्णतया अनुकूल है।

सोने की डली से सोने का एक आभूषण किस क्रम से कितनी कंटाई-छंटाई-धिसाई-गलाई-जलाई आदि होने पर बनता है इसका उत्तर भौतिक विज्ञान दे सकता है, किन्तु सुनार को वह उस आभूषण का जनक नहीं मानना है। आटोमेटिक प्लाण्ट का रोबोट विज्ञान इस तरह की मान्यता पर ही आधारित है। भौतिक विज्ञान इस बारे में चुप रहता है कि सुनार को कितना श्रेय मिलना चाहिये। पर धर्म-विज्ञान के व्यावहारिक पक्ष को सुनार के पेट का भी ख्याल रखना होता है, यानी धर्म-विज्ञान को व्यवहार का भी यथोचित ख्याल रखते हुए व्यवहार-कर्ता को उचित परिप्रेक्ष्य में स्वीकारने की आवश्यकता होती है। इसी तरह एक कांच की खिड़की को एक बालक पत्थर फेंककर तोड़ता है तो समाज में व्यवस्था हेतु बालक को कांच फोड़ने का कर्ता (भाव करने का कर्ता) भी व्यवहार में बताना आवश्यक हो जाता है। वह बालक वास्तव में कर्ता है या कर्तापन व्यवहार की आवश्यकतानुसार आरोपित किया जाता है? इस प्रश्न का विश्लेषण कई तरह से उपयोगी सिद्ध हो सकता है।

अपार मेहनत, साधना, त्याग आदि से एक माँ अपने बच्चे की माँ बनती है व बच्चे का लालन-पालन करती है। बच्चे को माँ का योगदान कभी नहीं मूलना चाहिये। यह अत्यन्त आवश्यक है। किन्तु यदि माँ अपने योगदान के प्रति आसक्ति भाव रखकर दुःखी होती है तो ऐसी माँ का दुःख कम करने की दवा माँ के हाथ में घर्म-विज्ञान कर्ता-कर्म व निमित्त-उत्पादन की सही समझ के माध्यम से प्रदान कर सकता है किन्तु भौतिक-विज्ञान यहां भी मौन रहता है।

आज समाज में डिप्रेशन एक गंभीर समस्या है। बहुत व्यक्तियों के मुंह से यह सुनने को मिलता है कि मेरे सो जो कार्य, निर्माण, सेवा, योगदान आदि हुए हैं उसका उचित प्रतिफल मुझे नहीं मिल रहा है। दूसरी तरफ कई ऐसे व्यक्ति भी पश्चाताप से दुःखी हैं जो यह मानते हैं कि वे उनके बच्चों को उच्च स्तर की शिक्षा व सुरक्षा नहीं दे पाये हैं। इस शोध लेख में वर्णित विज्ञान एवं अध्यात्म के गहन सत्य ऐसे कई व्यक्तियों के लिये एवं ज्ञान-पिपासुओं के लिये उपयोगी सिद्व हो सर्केंगे।

## Introduction

It is a human tendency that we look for the doer of an activity. Who is the doer of a rainfall? Who is the doer of earthquakes? ... But in Physics, we do not find the word 'who'. Instead, in Physics we find 'how'. In Physics, we ask, "How does it rain? How do we have earthquake? ...," Based on the way, Āchārya Kundakunda has logically explained various concepts in Samaysaār, one may find that Āchärya Kundakunda was aware of the limitation of answering the questions related with 'who'. This is evident from various facts which we are going to discuss in this article.

## Doer of the self

It would be appropriate to look at Samaysaār, where Āchārya Kundakunda [1] writes the following:

जो जग्हि गुणे दवे सो अण्णगिह दु ण संकमदि दवे। सो अण्णमसंकंतो कह तं परिणामए दब्ब॥ः०१॥ दब्वगुणस्स ब आदा ण कुणदि पोग्गलमयम्हि कम्मग्हि। तं उभयमकुण्बंतो तण्हि कहं तस्स सो कत्ता॥?०४॥

Meaning: The attributes and substance (Dravya) of any Dravya do not change into those of another Dravya. Without such change, how can one Dravya transform another Dravya?

A soul cannot do any attribute or substance (Dravya) of Pudgal Karma. Without doing these two how can a soul become the doer of that (material Karma)?

It may be noted that Āchārya Kundakunda does not confine to the above concepts based on real point of view. In Samaysaär, we find that on one hand Āchārya Kundakunda explicitly writes that in reality (from the

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real point of view) a soul cannot be the doer of pitcher, cloth, chariot, senses, karmic matter, physical body, etc. [2] but a soul can be the doer of one's own Bhava [3]. On the other hand from the relative point of view (Vyavhaār Nay) a soul becomes the doer of pitcher, cloth, chariot, senses, karmic matter, physical body, etc. [4]. This concept of real point of view has been narrated by other spiritual teachers also. For example, refer to Paramātma Prakāsha [5]

Question: Based on the above description, how can we show the agreement between Āchārya Kundakunda and modern Science?

Answer: We have seen that Physics does not answer the question 'who is the doer?' whereas Āchārya Kundakunda answers this question in the following two ways:
(i) In reality, a Dravya is the doer of any change in itself only. Thus a soul cannot be the doer of any other soul or any material particle.
(ii) A Dravya can become the doer of transformation in other souls and material particles from the relative point of view.

Thus the point (i) conveys that a cook cannot make even one particle of food. This answer is in total agreement with Physics. But the point (ii) is meaningful when the wages to cook are to be given. The salary of a cook is a subject of Economics, not of Physics. Physics cannot certify the cook as the doer of the cooking. It should be noted that the spiritual science as well as any religion has to cover natural sciences as well as social sciences. Here it is clear that point (i) is in agreement with the natural science, and the point (ii) is in agreement with the social science. Thus there may be difference in words, but there is agreement between modern science and Āchārya Kundakunda [ see point (i)] as regards the answer of the question- 'who is the doer?"'

The central theme of Samaysaār related to this aspect is simple. In the treatise Samaysaär, Āchārya Kundakunda answers the question, 'who is the doer?', related with all events in two ways: (i) Relative point of view, and (ii) Real point of view. From the relative point of view he accepts the conventional answer. But the reality is described by the real point of view. According to Āchārya Kundakunda, in reality, one is the doer of oneself only. Each and every Dravya is a sovereign entity and has 'divine' powers to do its tasks.

In other words, as per the real point of view, one Dravya cannot be the doer of another Dravya. Āchärya Amratchandra [6] has very nicely summarized this
concept in the following verse:

## यः परिणमति स कर्ता य: परिणामो भवेत्तु तत्कर्म। या परिणतिः क्रिया सा त्रयमपि मिन्नं न क्स्तुतया।।

Meaning: The doer, deed, and action, all three, correspond to the same Dravya (substance).

A scientific example to illustrate the above verse is the law of conservation of energy, which says that the energy can neither be created nor be destroyed, it only changes its form. Thus in reality, nobody can be the doer or maker or creator of energy. The energy in the form of mass in the uranium converts into the electrical energy in the nuclear power plant.

Question: When a child throws a stone at a glass window then we say that the child has broken the glass. We do not say that the glass has broken the glass. How can we say that the glass has been broken by the glass itself?

From the relative point of view we say that the child has broken the glass window. For the sake of teaching the lesson to the child, and maintaining the law and order it is important to have this point of view.

In a laboratory, where the research on the development of a new rough and tough glass material is carried out, a scientist tests the new material to find its strength. After completing the experiment, the scientist reports the minimum impact necessary to break it. His emphasis is on the nature of the material. He knows that the material breaks according to its own nature. He understands that he is the instrumental cause to impart the impact. Thus in the real sense, the scientist does not become the doer of the breaking of the glass, because he knows that the glass has its own breaking parameters under which it would break. In other words, from the view point of the science, the glass breaks according to its own property (nature).

## Nimitta and Upādāna

In the language of scriptures, we call the instrumental cause as Nimitta. Any happening in an Upādāna in accordance with the definite laws of nature due to one or more than one Nimitta is technically known as an outcome due to Nimitta- Naimittika relationship. The phrase 'Nimitta- Naimittika relationship' of scriptures may be understood as the happening of transformation in accordance with definite laws of nature. For more clarity let us discuss some concepts in the questionanswer format.

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Question: What about the involvement of engineers and scientists in the production of electricity in the nuclear plant? Does natural science give any place to engineers and scientist in the process?

Answer: The Physics clearly says that in the nuclear power plant, the electricity comes from the nuclear fuel, not from the pockets of engineers and scientists. The engineers and scientists cannot create energy. We all know that without laborforce, security guards, politicians, scientists, engineers, clerical staff, finance, physical space, etc. the power plant can neither be functional nor can be sustained. But all these aspects are recognized by the social sciences and engineering disciplines, not by the natural sciences. None of these persons becomes the part of scientific equations describing the transformation of nuclear energy into the electricity.

Question: If engineers and scientists are needed in the nuclear power plant, then how can we say that they are not the doer or creator of the electricity?

Answer: The engineers and scientists deserve appreciation and salary for their contributions. But in the equations of Physics related with the production of electricity, they do not get any place. If public does not recognize this fact then on one hand the public may be too much thankful to them and on the other hand the public may have too much expectation from them. In such case, even the public may expect a continuous supply of electricity irrespective of the availability of nuclear fuel.

Question: Can we say that engineers and scientist associated with the nuclear power plant are the Nimitta (instrumental cause) for the production of electricity?

Answer: The Physics does not use this word 'Nimitta' (instrumentalcause). ThePhysicsisinterestedindescribing 'how'. This 'how' is described through machines, forces, and the laws of nature. Ācārya Kundakunda and other Indian philosophers use 'Nimitta' word in a proper context. If all other components including engineers and scientists work properly and the electricity is produced, then each component is called the instrumental cause (Nimitta), and the actual source of energy (nuclear fuel) is called Upaadaan. If they make mistakes or if any component is missing and the electricity is not produced then they are not called as Nimitta. If by their mistake there is an explosion and many persons loose their lives then they would be Nimitta for the deaths of those persons.

## More advanced concept of Nimitta

The above description of Nimitta is very crude. In more advanced description, the things, souls, persons are not called as the Nimitta but the specific actions and states leading to the desired specific outcome are considered as Nimitta.

This concept of recognizing specific actions of a person or a soul or a robot, as the case may be, leading to the desired outcome, as Nimitta is so important that it would be worthwhile to explain it by giving some examples:
In a cricket match, suppose a cricket player makes six sixes on six successive balls. Certainly, he deserves appreciation, credit, award, etc. But on the basis of this, If his fellow citizens and fans say, 'You did very good job. Now we know that you can make six runs on every ball Therefore, we request you to continue this practice. Please go on making such sixes. If you do this then we shall reward you, but if you do not continue making such sixes on every ball then we shall consider it a match fixing and we would criticize and punish you." Would he agree to this request by his fans? Would it be possible to make such sixes on all balls?

At this point, the player may say, "It is not possible for me to make six runs on every ball. The making of a six runs is a matter of circumstances based on the conditions of my body, mind, incoming ball, etc. which are beyond my control." This answer of the player seems reasonable. In effect, he is saying that the conditions of his body, mind, and incoming ball are the instrumental cause for such a happening, and he is not even an instrumental cause for the making of sixes. Therefore, it is not always possible to repeat the same.

Just like this cricket player, a teacher, a doctor, parents, and many others should also accept similar limitations. In the technical language of scriptures, one can say that the state (Paryãya) of a Dravya becomes the Nimitta (instrumental cause), not the Dravya (substance or entity). The logic is simple: if a Dravya is an instrumental cause (Nimitta) then such a task can happen every time by that Dravya. The happening of the task again and again by a Nimitta in association with the Upãdāna has been termed as Nitya Kartratva by Ācārya Amratchandra in the commentary of Gäthā 100 [7]. There he explains that Nitya Kartratva (always same success in doing the same task) is not always possible. Therefore, the participating Dravya cannot be called as a Nimitta, but the states of Dravya responsible for the completion of the desired task are to be called as Nimitta.

In the above example, the cricket player says that if I can be Nimitta of making six runs on every ball then I would love to do so, but I am unable to become such Nimitta.

Only the specific situations leading to a Six can be called as Nimitta, not me. However, when the six-run event takes place, then for my 'involvement' in this process, the public gives me credit of making the six runs. But the public must realize this fact that I cannot always be Nimitta of making six runs on every ball. In this regard, we can take one example of Chemistry: Depending on the specific situations, carbon and oxygen may combine to form carbon monoxide ( CO ) or carbon dioxide $\left(\mathrm{CO}_{2}\right)$. It is also important to note that under many situations carbon and oxygen atoms may not combine even if they are compelled to come close to each other. These possibilities can be expressed by the following equations:
$\mathrm{C}+\mathrm{O}_{2}=\mathrm{CO}_{2}$
$\mathrm{C}+\mathrm{O}_{2}=\mathrm{CO}+\mathrm{O}$
$\mathrm{C}+\mathrm{O}_{2}=\mathrm{C}+\mathrm{O}_{2}$
The author has conducted extensive research on this area of state-to-state Chemistry using Molecular Dynamics to investigate such issues of combination and dissociation of atoms and molecules, and have found again and again that the states of the reacting atoms and molecules play a significant role in the chemical reactions.

## Practical application in our day-to-day

life

## Curing power of medicines

No doubt, the right medicines become instrumental cause (Nimitta) for curing a person. But this is an incomplete information. The medicines alone cannot cure. According to the medical science, the cure takes place when the right kind of molecules of a medicine react appropriately with the molecules responsible for the sickness. Many times in such biochemical events, the environment and psychology of the patient play a crucial role. Due to this reason, the same medicine can cure one person but becomes ineffective for another patient having same sickness. The success in curing every time (Nitya Kartratva) is not observed. Therefore, in strict sense, we cannot grant the status of Nimitta. This again reminds that only specific states of a Dravya can become Nimitta, a Dravya cannot be called as a Nimitta in the strict sense. What to learn from this description? Answer: Don't depend entirely on medicines; in addition to the appropriate medical treatment, think of improving your beliefs, psychology, and the environment also.

Duties without guilt and boasting

Your one student passes his examination with the first position in the merit list of the university and another student fails in the same examination. In such situation would you like to be called as a Nimitta for the success of one and failure of another. If you boast for one then you should feel guilty for another. In both the cases you are mistaken. We should understand very well the teachings of Ācārya Amratchandra described here that the same classroom lectures delivered by you are received differently according to the state of minds of the recipients. Therefore, think of the state of minds of the recipients also before boasting or feeling guilty.

The same applies to the effect of your teachings to your sons and daughters, and other tasks being carried out through your body and mind.

## Peace and happiness by witnessing

I am a soul, not the body. I am not the doer of any physical event. I am not a doer but an observer (a knower) of others. I am not the doer of even my own thoughts. The thoughts are not possible without soul but it does not mean that the soul is the doer of thoughts. Without light the scenes of fire, rain, fight, etc. are not possible on the screen of the cinema hall, but it does not mean that the light is the doer of all those scenes 'stored' in the film. In BhagvatGitā [8] also we find that the soul is beyond mind. Such an understanding of oneself beyond mind and body leads oneself to identify as a witness of all events including the actions of the body and mind.

Many western psychologists and philosophers also have emphasized the importance of being witness. This act of being witness is also valuable in improving the peace of mind and health of the physical body. In this regard the following lines written by Wayne Dyer in Your Sacred Self are worth noting [9]:
"Stephen Wolinsky describes it this way in his book: Quantum Consciousness: 'If I can begin to observe and witness my reactions, then I will feel freer and more at peace. It is only by the identification and fusion with a thought or feeling that I limit myself from being the observer to becoming the experience itself.' "

At another place, Wayne Dyer provides a practical method to become witness. He writes [10]:
"First you want to watch your thoughts. Then you want to watch yourself watching your thoughts. Here is the door to the inner space where, from all thoughts, you experience the bliss and the freedom that transport you directly to your higher self."

In this regard the following comments regarding detachment with emotions provided by Gary Zukav and

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Linda Francis are worth noting [11]:
"Detachment allows you to remain aware of what you feel while the events of your life unfold. When you are detached, your emotions run through you like water through a hose. You are the hose. The same water does not stay in the same place in a hose when the faucet is turned on. Your emotional faucet is never turned off. The fear, resentment, anger, depression, contentment, jealousy, rage, or joy that you feel do not stay, either. When you look at your emotions in this way you can detach from them enough that you will not be controlled by them."

## (d) Prevention of depression

The spiritual masters explain that your sons/daughters/ friends/servants/, etc. receive benefits through you but not from you. When you start thinking that due to you your son has been rich and famous then think again. Such a notion may become the source of your frustration and depression
The religious teachers preach that every son and daughter should be loving, caring, and respectful to his/her parents. But at the same time they also teach that every parent should understand the notion of nondoership described in this article from the real point of view to avoid frustration and depression based on the behavior of his/her sons/daughters.

The writings of spiritual teachers based on the real point of view become valuable not only when you have complaints with others, but such teachings are also valuable when you have complaints with yourself. The chronic complaints with yourself produce guilt feelings which can also lead to frustration and depression. Despite your sincere efforts within your limitations, you might have not been able to save your loved one. Your son/daughter might have not achieved as much as your neighbor's son due to your financial condition. Your son/ daughter might have adopted the wrong track due to some reasons beyond your control. In all such cases, a correct understanding of Upādāna and Nimitta described here on the basis of teachings of our spiritual masters can be helpful. Ask yourself this question: "How long can I keep the feelings of guilt and shame for the actions or inactions beyond my control?"

One should be a responsible person in the society in all walks of life, but in the heart and mind one should not forget this fact that he/she is not omnipotent. It is important to realize that there are many factors which are beyond our control. Further, one should always remember one's identity as the soul different from the body and mind.

## References

1. Ācārya Kundakunda, Samayasāra, Gāthā 103, 104. Ibid. Gāthā 99.
lbid. Gāthā 91, 100.
Ibid. Gāthā 98.
2. Ācārya Yogendu Deva, Paramātma Prakāsha, Gāthā 64 and 65.
3. Ācārya Amratchandra, Ātmakhyāti, Kalasha 51.
4. Ibid, Commentary on Gäthā 100. In this commentary following lines are worth noting:
"निमित्तनैमित्तिकभावेनापि न कर्तास्ति यत्किल घटादि क्रोधादि वा पर्रव्यात्मकं कर्म तदयमात्मा तन्मयत्वानुखहात् ब्याप्यव्यापकभाबेन ताक्न करोति, नित्यकर्तृत्वानुपद्नान्निमित्तनैमित्तिकभावेनापि न तर्कुर्यात्।"

These lines convey the following: The soul is not even the Nimitta doer (instrumental cause) of anger, pitcher, etc. If it is the doer then always it should be able to do the same. After writing these lines, Ācārya Amratchandra further writes that only specific temporary Yoga and Upayoga of soul are Nimitta doer. The soul may (note the word 'may, not 'can') be the doer of Yoga and Upyoga produced by ignorance.
8. BhagvatGītā, Verse 3.42 and 3.43 . Further, regarding doership, verse 3.27 and 13.29 are worth noting.
9. Wayne W. Dyer, Your Sacred Self, Harper Paperbacks, 1996, p. 130.
10. Ibid, p. 136.
11. Gary Zukav and Linda Francis, The Heart of the Soul: Emotional Awareness, Simon and Schuster Source, New York, 2001, p. 110.

