PROPERTIES OF MATTER IN JAIN CANNONS

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Introduction

Jain philosophy is noted for its principles of polyviews to explain the plurality of realities in contrast to Vedantins. Scholars have taken large pains to establish the priority or posterioty of these Indian philosophies but no definiteness has accrued on this point as yet as large number and variety of statements are found in pre-Christian era literature supporting both types of opinions theless, a logical point may be stated that adwaita grew out of plurality to explain and sustain some phenomena on intellectual scale. It is now agreed that Uttaradhyayan precedes the Vaisesika philosophy which is followed by other Jaina philosophical cannons just at the beginning of Christian era. This paper is concerned with some of the physical contents developed during the period and later on. It will deal with only three important aspects of these contents, viz (i) methods of obtaining knowledge (ii) definition of and (iii) attributes of matter and evaluation with respect to the current views on them. The author feels that no proper and systematic attempt has been made in this direction and would feel pleasure if this paper leads to some serious studies in this regard to critically evaluate and supplement the points raised in this article.

Methods of obtaining knowledge

There are two words "Janadi and Passadi" in literature associated with knowledge. Tatia has shown that there was not much difference in these two activities in early days as they were supposed to be simultaneous. Later on, it was surmised that sensory perception preceded the mental conception. Thus Passadi became the more important part of obtaining knowledge of material world. Umaswati has pointed out two ways of sensory perception-Pramanas and nayas. The naya method consists of studying an object with respect to a particular aspect, mode or state. As a substance has many aspects, there may be many nayas to study it. Pramāṇa is a way of all inclusive study of the object. Thus it will synthesize all the analytical studies by naya method. Realistically, it is not possible to do so in normal state, hence naya method is the chief source for obtaining knowledge for the human beings. Actually, the naya method follows the same methods as used in pramana studies. It has been pointed out that the knowledge about an object can be ascertained through six categories: description, ownership, cause, substratum, duration and classification. There are other ways of expressing these

categories without much difference from these six. All these means employ both the above methods of studies.

Whatever the method employed, it has two aspects: the study may be intutional or sensual. The technical words used for these are Pratyksha and paroksha respectively. These words have different meanings in Jain philosophy in contrast to other philosophies like Vaiseşika leading to some confusion in understanding by others. Akalanka removed this discrepancy by classifying the intutional method in two forms—one by pure intution and other by sensual perception. The latter he called sensual intution caused by senses and mind. It was regarded upto a stage it was not expressed through words. What other systems presume as pratykşa, Jainas call it as Paroksha and Laukika Pratyakṣa. This includes sensory cognition, resemblance, recognition, induction and deduction and recording for onward transmission for advancement of knowledge. The aforesaid six categories for obtaining knowledge are thus rendered possible, by these methods. On close examination of these methods, one finds that sensual perception is the one without which others may not be possible. The importance of sensual perception, therefore, is thus self evident for knowledge. It will thus be interesting to see how this cognition is obtained and what are the steps involved in it? It has also been pointed out that besides senses and mind, external causes like light etc. are also partly responsible for the process. As this knowledge depends on senses, mind and light etc., it is called Paroksa.

Umaswati³ has stated that sensual cognition is obtained through senses first and mind next. There are four steps involved in this type of cognition: apprehension (awagraha), speculation (Iha), perceptual judgement (Awaya) and retention (Dharana). In the first stage of apprehension, the object comes in contact with sensory organs and one feels there is something or sees it. One has only a crude idea about what it could be? Actually, this stage has two steps depending on the senses utilised for contact with the object. If senses are other than eyes and mind, one will have indistinct apprehension or Darsana first and distinct apprehension next. With eyes and mind, one has always a distinct apprehension. Observation is the current name for this stage. The type of observation leads to qualify our knowledge. More acute and keen the observation, more fruitful and exact will be our knowledge. In the olden days, experiments were rare and only nature and its various aspects were observed.

The next stage is to have more observation to analyse about the nature of the object. This requires the use of mental faculty in the process of knowledge. Hence the connection of senses and mind is clearly recognised. It is clear that larger the type and number of observations, better will be their analysis for proper judgement. Pujyapada⁵ exemplifies these two stages. To observe a white thing is the first stage while to analyse whether it is a flag or a bird—is the next stage. For this, one has to have more particulars about the object.

The third stage is the decisive or inferential stage. With the help of many particulars obtained about a white flag or a bird on the spot or from independant sources, one infers it decisively to be a bird as it flies up and down or flaps its wings. The process involves analytical studies of observations, classifying or seperating them under various heads. Similar observations are put under same head and others under different heads. The decision is taken after analysing the observed points and applying them to the object. The name given to this stage is Avaya. Some have called it Apaya as it excludes others for deciding on one object.

The fourth stage for the process of knowing is to retain what already had been decisively learnt in stage 3. This retention leads to communication and application of this knowledge to other similar or dis-similar objects. This stage is named as Dhāraṇa and its meaning seems to have been expressed in quite a restricted sense. It would have been better had it been given a more general view. It seems it has been defined with respect to one object at a time and the same object at the other times. Normally, dhāraṇa should mean a valid conception applicable to similar fields. If this little better view is taken, it becomes the base for hypothesis in the current terminology. A universally applicable hypothesis become a theory or a law. The third and fourth processes involve all the mental processes given above for drawing valid decision.

The last stage in the knowing process is the preparation of records of the knowledge so obtained. These records are meant to learn what has been known and communicate for the future generation. It is called Sruta or scriptures having a meaning of heard or seen by previous scholars. There is a large amount of discussion about the nature of shruta and their authors. It is said that the authors are of two types: omniscient and non-omniscient.10 All the present scriptures have been composed by non-omnicient authors on the basis of traditional omniscient authority. It may be surmised they do not satisfy the criteria of their direct omniscient authorship. They should thus be taken as true records by the scholarly authors of various ages. They contain differring views and additional contents in many cases. They may thus be subject to modifications for better accuracy of their contents not substantiated by current observation and analysis. The idea that old scriptures are all-proof and contain all the knowledge for all the times does not stand srutiny. In this case, there should not be any addition or modification in their contents and the knowledge would become like water in a pond. This trend has led India to a trend of non-utilitarian view of pursuance for new knowledge causing her backwardness in recent times in contrast to her earlier competitive position.

Both of the above points are untenable in modern world of scientific attitude. It presumes that the scriptures are records of existing knowledge which grows like a flowing river where modifications and new additions are always possible subject to the condition that they are obtained through the above processes. This fact is

corroborated by the present scriptures themselves. The evolution of two varieties of pratyaksha, mention of time as reality by some⁶, different ways of expressing the eight fundamental qualities of a household and the variety of opinions regarding the functioning of eyes and other senses with or without the contact with the object expressed by pūjyapāda and Virsen³ are but some examples. In fact it would be surprising how the knowledge could be supposed to be full well known when the world is always changing and developing out of curious facts observed constantly.

The scriptures define knowledge as sakar or with details with the first substage of sensual observation without details has been called preception or Darsana (later on this word has a better developed meaning). Thus, the process of knowledge consists of mind activity associated with sensual or experimental observations. This is nothing but the other way of defining the word science of the current terminology as it is also a resultant of combination of intellectual activity coherent with sensual observation. The above mentioned scriptural processes of obtaining knowledge are just akin to the same steps scientific studies have been following since their inception. Experimental observations, characterisation or classification and hypothesization or theorisation—is the generally accepted scientific approach in a cyclic way. Thus, senses (or instruments) aided by mental activity is also the method of scientific studies. This makes it clear that even in olden days too, scientific methods were used for learning about things around. This method has been elaborated by Umaswati and his commentators have pointed out as many as 336 ways of sensory perceptions about things. It is presumed that the knowledge obtained by these would be correct and will have no debatable features unless the senses themselves are in abnormal situation. This being the basis of scriptural contents, it should be quite interesting to compare the knowledge gained on some common objects like matter with the current knowledge about them. Normally, the methods being the same, there should not be much difference between the two except in some minor or finer details. As set forth previously, the definition of matter and its attributes will be examined with this perspective in this paper.

Factors or means for obtaining knowledge:—Of all the stages described above, the first stage is of prime importance. It requires that there should at least be two factors for the process of knowing about a material thing. These are the senses and the matter itself which is to be known about. To make a preliminary contact between the two, factors like light should also be there. The senses include mind also. Both of these have two varieties; physical and psychical. The contact occurs between physical senses and the matter in the first instance. This encourages the psychical sense to transfer the first information to the brain for cognition. The Nyaya philosophy has accepted this commonsense view of obtaining the knowledge. According to it, knowledge is obtained due to all the intrinsic and extrinsic factors and contact between senses and matter. But the Jainas have distinctly divided these factors in two categories. The primary factor is the knower or soul himself as

if the knower is not there, there will be no knowledge whatsoever despite all other factors working. Other factors are said to be secondary. They help the knower in the body to obtain the knowledge about a thing. Thus all the external factors like senses, mind, light and even the matter itself have been taken as secondary, thus disregarding the Nyaya view. The idea of primary and secondary factors of the Jainas in this connection gives an impression of their deeper insight into the process. They have also said that the knowledge can be valid only when the inner knower is there. It could be intrinsically valid. However, the validity of the knowledge could be extrinsic also like that from the a gamic sources or works of the scholars. Proper examples have been given to illustrate this point of view.

Despite this more accute insight about the classification of factors for obtaining the knowledge, it must be pointed out that there are some statements made for refutation of Nyaya view which require elaboration. In refuting the sense-matter point of view, two main points have been raised. Firstly, senses like eyes and mind do not have contact with matter. Secondly, the omniscientist soul has knowledge of past and future besides the present. This cannot be possible with contact point of view. Hence, the omniscientificity, which is an agamic fact, goes against sense-matter contact theory. It has been pointed out that the eye cannot be called to work in the complete obsence of contact with the matter. The contact of eye with matter is caused through the light rays and their straight path. Thus, the working of the eye may not require direct contact with matter but there is definitely an indirect contact without which it will not work like camera. Thus, the eye works with indirect contact or some other different type of contact from the other senses. Thus non-contactablity of the eye should be redifined as to mean an indirect or some sort of contact (as prefix A has both meanings; partial or negative). This will eliminate the discrepancy regarding the working of the eye. This also applies to dark field which is not the absence of light but a light which is beyond the visible range of human beings. This is the light which is in the visible range of some animals like cats and owls. Its details have been discussed elsewhere,

The physical mind may be equated to the brain of the present. This is a power house and store house as well for the nervous and motor activities. It will work bothways, i. e. when sensations are brought to it through senses and when they arise due to mental processes covering past, present and future experiences. Of course, the working of mind in more indirect in comparision to the eye. Sometimes it may be completely indirect.

Some Indian philosophers have postulated the totality of factors—senses, matter, knower—as leading to true knowledge. Jainas have criticised these views on the basis of the fact that though they lead to knowledge, they are not direct factors for it. These views have been dealt with more intellectually rather than factually. Nevertheless, their secondary role in the process has been accepted by the Jaina philosophers.

Definition of Matter: General and special Attributes

Jainas assume the world as real consisting of six realities. These have been called by various names like Tattva, Tattwartha, Artha, Padartha etc. These names include all terms used in other philosophies like the padarthas of Vaisesika, Tattvas of Sānkhyas and the like with specific definitions. The realities are also termed as Dravyas which characterises them. They may be material like earth or non-material like soul or space. Despite this variety, they have some general characteristics which are found in all the dravyas. Basically, Dravyas are only twothose with consciousness and without it but their inter-relationships have led to their classifications into the Tattvas-seven in number or Padarthas-nine in number at later periods. Sat is another name for drayyas added during post-agamic periods. All these Dravyas have the same general characteristics. Out of the two basic dravyas, the one without consciousness-ajiva seems to be more important as it is responsible for a large part of the worldly phenomena. The ajivas have also two varieties-material and non-material. We will be concerned here with material ajivas or matter only as we can directly study them by many methods today and compare and contrast our knowledge with the scriptures.

Whatever be the type of reality, it has been defined in various technical terms leading to the same meaning. Any reality could be defined in two ways: it has some general attributes and it also has some special attributes. The reality cannot exist without these attributes. The general properties are called common properties, existential similarities, tiryak samanya, gunas or coexistant qualities. Rajvartik mentions eleven such qualities of a reality. However⁸, Devsen and Mallivadi⁹ have given eight such characteristics details for which are available. They are existence or permanence, motion, changeablity, knowablity, particulate nature, visiblity (or otherwise), non-consciousness (or otherwise) and agurulaghutva (individuality).

The other type of properties contained in the realities are called distinctive or specific properties. They are meant for differentiating one substance from another. Like the general ones, these also have various names: Viseşas, Urdhvtasamanya, Swarūpāstitva or Paryāyas or modifications. There are sixteen such specific properties out of which only six are attributed to material ajīva world, touch, taste, smell, colour, shape and insensiblity. Thus, any reality may be defined as consisting of some general and some specific qualities. It means that a reality in, jaina philosophy is neither a particularity nor a universality exclusively but it is a synthasis of both these types as Mehta¹⁰ has pointed out. This has been alternatively stated as a reality consists of gunas and paryāyas or sāmānya and viseṣa type of attributes. Padmarajaiya¹¹ has qualified these attributes with their static and dynamic nature and has suggested that a reality consists of a blend of both of them. It does not have an exclusive nature. It has inclusive nature. This Jaina definition of reality has accomodated all the exclusivist attitudes and has made the definition as accurate as possible.

Review of General properties

It will be appropriate here if we could compare the general definition with the modern scientific definition of matter. Scientists define matter with three common attributes: (a) It should have weight (b) It should occupy space, i. e. it should have a form or volume and (c) It must be subject to our experience and knowledge. As we have seen, Jainas have counted only two of them as common properties. They have not counted weight as a characteristic property, but they have many others which the scientific definition does not have. Comparatively, the scientific definition of matter seems to be too crude to be called accurate. The definition is more illustrative of the basic general properties indicating the particulate nature, constant motion, changeablity, insensibility and other coexisting properties, The non-inclusion of weight as a common property by the jainas might be due to the fact that they assumed energies like light, heat etc. to be material which did not seem to possess the property of weight together with other nonmaterial realities. Though there is a property called agurulaghutva (neither heavy nor light) indicating some idea about possession of very small weight which could undergo infinitesmal changes, but the basic parmanu of matter has described as devoid of weight. Recent researches, however suggest that however small it might be, energies must have weight euivalent as per Einstein's equation. Even if we presume Jain's 15 point of equating electrons as atoms, they have already been weighted. The scientists are trying to detect particles like nutrinos or gravitational energy and they have every hope that even in these cases, this equation will hold and they will prove it to be material. Thus the weightlessness should be taken to mean very small or negligible weight rather than complete absence of weight.

Muni Mahendrakumarji¹² Il has pointed out that the scriptures describe the basic unit of matter-parmanu of Jain philosophy to be of two varieties—one with four tactile qualities and the other with eight tactile qualities. The first type does have no weight property while the other has it. This only means that one of these (the first one) should be energy while the other should be matter of the present. It can be surmised that interconversion of these types must be occurring in nature especially the energy into matter. The modern scientists are trying to explain the process. Anyhow, whether it is energy or matter, both must have shape or visibility and thus weight also howsoever small it may be. According to Muniji, this point has a capability of solving many intricate problems arising out of various theories of Universe.

The other common properties not indicated in the scientific definition of matter are very important as they have a clear concept of law of conservation of mass and energy and kinetic state of basic unit. This point has been elaborated elsewhere. 14 The modern scientific world of East and West is still unaware of these cannonical contents and history of Chemistry books have no mention about them as yet. An effort should be made to let these facts be known through proper means.

In addition to this, it must be added that the scientific definition of matter must be made more illustrative of the general nature of matter. As todate, it seems to be quite incomplete.

Special Attributes of Matter

As pointed out, there are six basic specifics of matter mentioned in scriptures. All are sense perceptible. Each of the five of these six has been subclassified as below with a mention of innumerable varieties of each class:

- 1. Touch or tactile qualities
- 8 Hot-cold, smooth-non-smooth, light-heavy, hard-soft

2. Taste

5 Sour, sweet, astringent, bitter, and acidic

3. Smell

2 good and bad

4. Color

5 Black, blue, yellow, white and red

5. Shape

10 Circular, traingular, point space, hexagonal, symmetrical, unsymmetrical, upper and lower part symmetrical, dwarf, hunchbacked

It has been stated earlier that the tactile qualities refer to temperature, tactile or electrical nature, density and hardness. Jain 15 has referred the attributes of smoothness and nonsmoothness as representing crystalline nature. This does not seem to be correct as it should be included either in shape or color. In exemplifying the two, goats milk and sand 16 have been mentioned which also do not lend support to this view. Rajvartik mentions liquidity, solidification, lubrication and density as other properties. Besides the above, there are many tactile qualities of matter known today. They refer to physical or mechanical strengh of gross material bodies. These include pliablity, plasticity, ductility, elasticity and others. These have become important in modern world as they decide the utility of material for specific purposes. Viscosity, surface tension etc. are some other properties of importance for fluids. These attributes are not only qualitatively described today but a complete quantitative treatment of each of them is available. The scriptures do not have any quantitative treatment in this regard. Vaisesikas20 seem to face a little better as they have atleast defined and classified gravitation, viscosity, fluidity, elasticity, velocity and other attributes of differing character.

The science of tasting ¹⁷ has become quite advanced today in contrast to the five taste theory. Haribhadra ²¹ has removed one discrepancy in this by saying "salty taste should be included in sweet" for non-inclusion of a specific salty taste in scriptures. There seems to be no explanation regarding how taste is experienced by man. Scientists are now agreeing to four tastes only whose innumerable varieties are experienced by about 10,000 taste buds in the tongue. The scientists also opine that normal taste sensation is a combined effect of taste and smell organs. This requires that two sensed jivas might be actually three sensed. This has to be

investigated properly. Structural studies of tasteful materials have also shown some promising results.

The science of smelling ¹⁷ has also made a great stride over the scriptural period, Perfumery science and technology has aided this advance. Though classification of edors is still arbitratory, still nine classes of odors have now been recognised. Their smelling quality can also be quantitatively expressed in terms of olfactory coefficients. Structure versus odors relationships have also been observed in many cases. The modern age seems to have gone much deeper in the knowledge of taste and smell attributes.

The color feeling is a light phenomena. Modern science agreed to seven rainbow colors in the past which excludes white and black colors. Now they have thought of basic colors and they are only three. Other colors are just various permutations and combinations of them. The scriptures seem to express the commonly experienced colors rather than basic colors. Now quite a good knowledge has been obtained about the experience of color and appreciation. The scriptural fact that colors have innumerable varieties in fully substantiated by current experiments as each color represents a specific frequency of light.

Jaina philosophy maintains that the above four qualities are always coexisting. If any one of them is clear, the others may also be there, sometimes in an indistinct form. This statement is a great progress over the Vaisesikas who have a defferring opinion about it. The Jaina view is substantiated by current experimental findings.

Sciptures classify shapes in many ways but the total types of shapes counted seem to be ten in number in various sources. Nowadays, about 232 types of shapes are agreed and each has an example¹⁸. This is dealt with in geometry and crystallography which has grown enormously. Conditions have been ascertained to obtain any specific type of shape or even a single crystal by experiment. The scriptural descriptions suggest that the shapes mentioned therein belong to natural substances. It is now also possible to change their natural shapes by various technics. Theoretical basis of shapes has also been prepared.

Modifications in Attributes

All the specific attributes described above undergo modifications. These are called Paryayas. They are not coexistant like general attributes. For example, color will always be there in matter, but yellow or green color is changeable. Thus, attributes are said to be permanent while their modification are temporary. Thus the matter will always be associated with attributes and their modifications. These modifications are called consecutive properties. Grossness, fineness, binding and dividing capacity are found in material bodies while heat, cold, light, sound, shadow, darkness are caused by energies. The material modifications are described in literatures. The modifications of energy

have also been dealt with seperately. 18,10 All these modifications take place in two ways indistinctly and distinctly, Indistinct modifications are comparatively momentary while distinct modifications are clearly describable and somewhat more durable. These are caused by self and by others. The change of color, formation of molecules, formation of curd from milk and the like are all modifications due to non-self causes. These are quite common even in our daily life. In some cases, the cause of the change has also been mentioned in scriptures. New age has not only identified the causes but it has utilised them in many more fields. It must be added that some of these modifications are chemical while others are physical only. There are innumerable modifications in matter substantiable today.

Conclusion

From the above description, it might be clear that philosophical contents of the Jainas stand in a high position where concepts and intellectual maturity is concerned. We see this in the theory of obtaining knowledge and definition of matter which are very sound in contrast with current scientific views. This is also the case with other concepts. But when one applies these concepts to study the material objects and their properties, one feels that the current knowledge about the differentiating attributes of matter has gone quite ahead of scripturcal period. But here the fortunate situation is that the addition of the knowledge has been supplementary rather than contradictory in most of the cases. This reflects upon our scholar's keen and accurate observation and analytical capacity. It can be confidently said that had there been instruments of today and a little less aversion of physical labor for experimentation, our seers would have stood the current times. The above discussion also points out what was known in scriptural age and the level of our knowledge we have moved in the current age.

References

- 1. Sukhlal Sanghavi, Pt., Tattwarthsutra, 3rd ed., PVRI, Varanasi, 1976.
- 2. Nathmal Tatia, Tulsi Pragya, Dec, 78, Vishwabharati. Ladnun, 1978.
- 3. Phulchand, Pt., Tattwarthsutra, Varni Granthmala, Varanasi, 1953.
- 4. Mahendrakumar Nyayacharya, Jain Darshan, ibid, 1966.
- 5. Pujyapad Acharya, Sarvarthasiddhi, Bharatiya Gyanpith, Kashi, 1971.
- 6. Dewardhi Kshamashraman, Bhagvati Sutra, Shastrodhar Samiti, Rajkot, 1961.
- Akalanka Deva, Tattwarth Rajvartika Vol. 1, Bhartiya Gyanpith; Kashi, 1953.
- 8. Devsen Acharya, Alap Paddhati, Shantivir Jain Samsthan, Mahavirji, 1970.
- 9. Mallivadi Acharya, Nayachakra.

- 10. Mohanlal Mehta, Outlines of Jain Philosophy, Jain Mission Society, 1954.
- 11. Padmarajaiya, YJ, Jain Theories of Reality and knowledge, Jain Sahitya Vikas Mandal, Bombay, 1963.
- Muni Mahendrakumar II, in SC Diwakar Abhinandan Grantha, Jabalpur, 1976.
- 13. Jain, N. L.

ibid.

- 14. Jain, N.L., in Jinavani, July-Sept., 1973, Jaipur.
- 15. Jain, GR., Cosmology, Old and New, Bharatiya Gyanpitha, Delhi, 1975.
- 16. Jain, SA., Reality, Vir Shasan Sangha, Calcutta, 1960.
- 17. Charles H. West and Norman B. Taylor: Physiological Basis of Medical Practice, Science Book Agency, Calcutta, 1967.
- 18. Mee, AJ, Physical Chemistry, BLBS, London, 1964.
- Jain, N. L. Physical contents in Jain Cannons, Magadh University Seminar, 1975.
- 20. Annambhatta, Tark Sangraha, Chhannulal Gyanchand, Banaras, 1934.
- 21. Haribhadra Suri, Şaddarsana Samuccaya, Bhartiya Gyanpith, Banaras, 1970.

लेखसार

जैन आगमों में द्रव्य के गुण

एन० एल० जैन, गर्ल्स कालेज, रीवा, म० प्र०

प्रस्तुत लेख में जैनागमों में वर्णित भौतिक जगत के दर्णन से संबद्ध तीन प्रमुख विषयों—ज्ञान-प्राप्ति के उपाय, द्रव्य की परिभाषा और उसके गुण—पर इस आशा से चर्चा की गई है कि इससे अन्य विद्वानों को इस विषय में मनन और प्रकाशन के लिये प्रेरणा मिले।

ज्ञान प्राप्ति के उपाय—ज्ञान के संबंध में जाणदि और पस्सिद शब्दों का प्रयोग आगमों में आया है। इसमें पस्सिद का संबंध इन्द्रियों से है और जाणदि का मन से। यह स्पष्ट है कि मानसिक क्रिया के पूर्व ऐन्द्रिय ज्ञान अत्यंत आवश्यक है। इस इन्द्रियज्ञान की प्राप्ति प्रमाण और नय से होती है। 'सकलादेशः प्रमाणाधीनः, नयस्तु विकलादेशः।'' इस ज्ञान को निर्देश, स्वामित्व, साधन, अधिकरण, स्थिति और वर्गीकरण के रूप में छह प्रकार से अथवा 'सत्संख्यादि' के रूप में आठ प्रकार से प्राप्त किया जाता है। यह ज्ञान ऐन्द्रियक (परोक्ष) भी हो सकता है और अनैन्द्रियक (प्रत्यक्ष) भी हो सकता है। अकलंक के युग से लोकिक प्रत्यक्ष ज्ञान प्राप्त करने के चार चरण होते हैं—अवग्रह, ईहा, अवाय और धारणा। आज की भाषा

में इन चरणों को निरीक्षण, परीक्षण या विश्लेषण, वर्गीकरण एवं संप्रसारण कहा जा सकता है। इस प्रत्यक्ष प्राप्त ज्ञान को 'श्रुत' में निबद्ध किया जाता है। आज का 'श्रुत' प्राचोन विद्वानों के ज्ञान और अनुभव को निरूपित करता है। इनमें अनेक उत्तरवर्ती श्रुतों में अनेक प्रकरणों में भिन्न-भिन्न मत एवं नयी चीजें पाई जाती हैं। इस प्रकार श्रुत में पर्याप्त संशोधनीयता दृष्टिगोचर होती है। इनसे प्रकट होता है कि ज्ञान एक निरन्तर वर्धमान प्रवाह है।

वैज्ञानिक अध्ययन भी इन्द्रिय और मन के द्वारा उपरोक्त अनुरूपी चरणों में किया जाता है। इन्द्रिय ज्ञान के तो शास्त्रों में ३३६ भेद बताये हैं। अतः ज्ञानप्राप्ति की विधियों की समरूपता से शास्त्रीय विवरणों की आधुनिक विवरणों से तुलना पर्याप्त मनोरंजक विषय है। यहाँ यह उल्लेख भी आवश्यक है कि ज्ञान प्राप्ति के साधनों में नैयायिकादि दार्शनिकों ने जहाँ वस्तु, इन्द्रिय और प्रकाश आदि अनेक कारण माने हैं, वहीं जैनों ने इन्हें प्राथमिक (आत्मा) और द्वितीयक कारणों के रूप में वर्गीकृत कर अपनी गहन अन्तर्दृष्टि का परिचय दिया है।

द्रश्य की परिभाषा: सामान्य और विशेष गुण—शास्त्रों में द्रव्य को अनेक नामों से निरूपित किया गया है। छह द्रव्यों में यहाँ अजीव-पुद्गल की चर्चा ही मुख्यत: की गई है क्योंकि वह दृश्य होता है और उसका अध्ययन इन्द्रियों एवं यंत्रों से संम्भव है। इसमें मुख्यतः दो प्रकार के गुण पाये जाते हैं—सामान्य और विशेष। सामान्य गुणों की संख्या आठ या ग्यारह बताई गई है। ये सभी मूर्त-अमूर्त द्रव्यों में पाये जाते हैं। विशेष गुणों की संख्या सोलह बताई गई है। इनमें से अजीव में स्पर्श, रस, रूप, गन्ध, संस्थान और अचेतना—छह विशेष गुण पाये जाते हैं। प्रस्तुत निबंध में अनेक सन्दर्भों के आधार पर उपरोक्त सामान्य और विशेष गुणों का तुलनात्मक समीक्षण और परीक्षण प्रस्तुत किया गया है।