

Logic and Epistemology Depicted in Nyāya Philosophy

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Nyāya is a philosophy which highly expounds the epistemological theories in Indian philosophy. The author of Nyāyasūtra markedly name as Gautama Akṣapāda (about 150 A.D) (**Vidyabhushana, S., 1920, 47**). said to be the founder of Nyāya philosophy. Vātsyāyana (about 400 A.D) (Ibid) who wrote the commentary known as Nyāya Bhāṣya, Uddyōtakara (about 600 A.D) (Ibid) who composed Nyāya Vartika, Vacaspati Misra (9th century), Jayanta Bhaṭṭa (9th century), Bhāsarvana (9th century) Udayanācarya (10th century) and Gangesha (13th century) were eminent scholars who contributed to form Nyāya philosophy.

The word “Nyāya” literally means the mind is led to a conclusion (Niyate anena iti nyāyah). Having traced the above statement Radhakrishnan defined Nyāya as equivalent to “argument”, “right” and “just” as well as equivalent to science of right knowledge (**Radhakrishnan, S.,1931, 43**). Vidyabhushan’s (**Vidyabhushan, S., 1920, p, 40**). definition on Nyāya philosophy is correspondent to above definition of Radhakrishnan. Both of them determined that Nyāya signifies the syllogistic reasoning. These definitions imply that Nyāya is the philosophy which emphasizes epistemological theories more than any other philosophical works. Thus, Nyāya remarked that the light of the lamp sets alight to observe the object around oneself, similarly, knowledge or cognition (Jñāna or Buddhi) is manifested all the matters come before it. The valid knowledge (pramā) and invalid knowledge (apramā) are the two main aspects of knowledge.

The “Pramā” includes (pratyakṣa), inference (anumāna), comparison (upamāna) and testimony (śabda). The “Apramā” is threefold, viz.1) Doubt (saṁśaya), 2) error (viparyyāya), (3) argument (tarka) (**Baladeva Upadhyaya, Chap .7**). Some scholars additionally traced memory (smṛti) as non-valid knowledge (**Chatterjee, S. & Datta, D.,1948,196**). Doubt is a conflicting knowledge arising due to the recognition of properties common to many objects. For instance, the individual sees the tall object in the twilight, but he cannot decide whether it is a man or a pole. Owing to this, doubt is not a valid knowledge. The misunderstanding of an object is known as error (viparyyāya). For an example, in the twilight, man is misconstrued rope as a snake. Tarka or argument is not a valid knowledge since, it does not give any knowledge of objects. Smṛti or memory is not directly related to the perception, as well as it is a past memory recalled by the mind, since, it is not a right kind of knowledge. The valid or right knowledge (pramā) is the empirical knowledge on the object (yathārthānubhavaḥ pramā tatsādhanāṁ ca pramānaṁ – Udayana) as well as the thing that conduces to achieve empirical reality is called “Pramā” (pramiyate aneneti pramānaṁ) (**Baladeva Upadhyaya Chap.7**).

Perception (Pratyakṣa)

In Nyāyasūtra, Gautama has defined the perception as the knowledge that rise due to contact (sannikarṣaṇa) of sense organs and objects and which is infallible and non-erratic. (Indriyārtha sannikarṣōtpannaṁ jñānaṁ avyāpadeṣaṁ avyābhicāri vyāvasāyātmakaṁ) (**Vidyabhusan, S. ed., & tr., 1913, 1.1.4**). The perception has divided into different groups by Nyāyikās. The most prominent among those classifications is Nirvikalpa (indeterminate perception) and Savikalpa (determinate perception). The first sight or first glance at the object without knowing its name, genus, attribute colour, shape

etc. is the indeterminate perception. This is the first movement of contact between sense organs and object. For an example a person sees a red colour vehicle outside his room, at the first glance, he does not recognize it as a red colour vehicle, only cognizes it as an object. This is the process of indeterminate cognition. Determinate (savikalpa) perception is the cognition of object with its characteristics, such as recognizing of name, colours shape, size, etc. of the object. For an example, the person cognizes vehicle as “Toyota” and recognizes its colour as red.

Another classification of perception by Nyāyikās is Laukika (ordinary perception) and Alaukika (extra-ordinary perception). Ordinary cognition again divides into two, viz.1) Bahya (external) and Mānasa (internal). The perception gained through the eye (cāksusa) auditory (śrāvana) tactual (sparśana) gustatory (rāsana) and olfactory (ghraṇaja) is the external perception. The perception gained only through the process of mind is called Mānasa or internal cognition. The contact of sense organs and objects (sannikarṣaṇa) in Laukika Pratyakṣa is said to be of six different kinds, viz. (1) Saṃyōga sannikarṣaṇa (mere conjunction). This is the movement of the first contact of sense organs and objects; contact of eye and a flower. (2) Saṃyukta samavāya (inherence in that which is in conjunction). This is the stage of recognizing the object. Ex, recognizes the object as a flower. (3) Saṃyukta-samaveta-samavāya (The inherence in having seen the external object realizes its features and come to conclusion). Ex, this is a sunflower. (4) Samavāya (inherence). As a result of contact of objects and sense organs there is a connection between the object and the sense organs. Ex, Listing sound through ear (there is connection between space (ākāsa) and ear. (5) Samavetasamavāya (The inherence in that which inheres); through the contact of objects and sense organs cognizes the exact quality of the object. For an example, a sound made by a particular person can cognize as, “This is the sound

made by that person” (This is the voice of Nimal). (6) Viśēṣaṇa Viśēṣyabhāva (the relation of the qualification and qualified); when an object moves to another place, cognizes that there is no object, for an example, “When we perceive the absence of the Jar we have an illustration of this, since there is union of our eyes with the floor in which abides the qualification of the non-existence of the Jar.” (Radhakrishnan, S., 1931, 54).

Extraordinary perception (Alaukika) is threefold, 1) Sāmānya Lakṣaṇa (perception of classes); this means understanding the common nature of an object, ex. there are chairs which have different sizes, types, colours etc. But all types of them are generally called as “chairs.” Cognizing of this universal (sāmānya) character is called Sāmānya Lakṣaṇa. (2) jñāna Lakṣaṇa (The different sensation become associated and one integrated perception), for an example, “I saw a fragrant rose.” It is true that we cannot see the fragrance of a rose, but we have experience about the fragrance of rose that we have experienced in the past. Therefore, present perception of fragrance is due to the past knowledge of fragrance of the rose. (3) Yōgaja (intuitive perception) through the supernatural power of individual which gains through the devout meditation (yōgābhyasa), he can perceive an object or thing in the past, future and object which are not in front of him.

Inference

The inference (anumāna) is a right knowledge, which is perceived through the invariable concomitant between middle term (liṅga) and major term (sādhya) as well as it is preceded by the perception. Udyōtakara in Nyāyavartika (1.1.4) has mentioned that the inference is associated with the object in the past, present and future and he has emphasized the necessity of Vyāpti (pervasion) for inference. The Anumāna literally means

a cognition or knowledge which follows some other knowledge (**Chatterjee, S & Datta, D.,1948, 200**). For an example, “The hill is fiery, because there is a smoke, wherever smoke is fiery.” (parvatōyanuhnimān dhūmat). This process of inference is accordance with Western Logic, here hill is Pakṣa (minor term), the smoke is Liṅga or Hētu (middle term) and the fire is Sādhyā (major term).

Nyāyasūtra classifies the inference into three sorts, viz. (1) Pūrvat (a priori); this is the knowledge of effect derived through the perception of its cause. Ex, seeing the clouds (cause) infers, it will rain (effect). (2) Śēṣavat (a posteriori); the knowledge of cause derived through the perception of its effect. Ex, seeing a river swollen (effect) one infers that there has been rain (cause). (3) Sāmānyatō drṣṭa (commonly seen). The commonly seen is the knowledge of one-thing gains through the cognition of another thing with which it is commonly seen. For an example, on seeing rain, one infers that there were clouds.

Nyāyikās also accepted Svārtha and Parārtha anumānas. The inference makes for oneself is known as Svārthānumāna. It is a psychological process. The inference makes for sake of other is Parārthānumāna. It is a verbal process, since it is essential to use syllogism for proving the fact. Nyāyikās employed five members of syllogism (avayava) for Parārthānumāna. The five members are Pratijñā, Hētu, Udaharaṇa, Upanaya, and Nigamana (**Vide, Tarkābhasa, pp, 48, 49**). The five members of syllogism can apply as follows.

- (1) Dēvadatta is mortal (pratijñā)
- (2) Because he is a man (hētu)
- (3) All men are mortal, ex. Rama, Mohana etc. (udaharaṇa)
- (4) Dēvadatta is also a man (Upanayana)
- (5) Therefore, he is mortal (Nigamana)

The Pratijñā is the first proposition which will be proven first. The second proposition is Hētu or reason, which states the reason for his assertion, The Udaharaṇa, is the example that one shows the connection between reason and his assertion. The Upanayana is the application of the universal proposition to present case. Nigamana is the conclusion of all the above process.

Vyāpti (pervasion) is the logical condition of the inference accepted by many philosophical schools of India. Nyāyikās also accepted inseparable concomitant between Sādhya (major term) and Hētu (middle term) as foremost logical condition for the inference. According to Nyāya philosophy Vyāpti is twofold as Vyāpya (pervaded) and Vyāpaka (pervades). A fact is said to be pervade (vyāpaka) another when it always accompanies the other and a fact is said to be pervaded (vyāpya) by another when it is always accompanied by the other (**Chatterjee, S & Datta, D.,1948, 211**). For an example, “There is a smoke in hill therefore, there is a fire. Here, smoke is Vyāpya and fire is Vyāpaka. Seeing the smoke infers about fire is correct, but by looked fire inferring about smoke is incorrect, because in some places there is fire, but there is no smoke; ex, a red hot iron ball. This is the method on pervasion explained by Nyāyikās.

Nyāyikās have classified the inference another three ways, (1) Kēvalānvayi, (2) Kēvalavyātireki and (3) Anvayavyātireki (**Vide, Tarkasaṅgraha, pp, 51,52**). The inference is called Kēvalānvayi when the middle term always positively related with the major term. Here, knowledge of Vyāpti between middle term and major term arrived out only through the method agreement in presence (anvaya).

Ex: All knowable objects are nameable.
The pot is a knowable object.
Therefore, the pot is nameable.

The Kēvalanvyātireki inference is that the middle term is only negatively connected to the major term. This is depended on Vyāpti between the absence of the major term and the middle term.

Ex: The Sun is different from other planets
Because it is stationary

Therefore, what is not different from other planets is not stationary.

The Anvayavyātireki inference is that the middle term is related to major term in both ways as positively and negatively.

Ex: (1) All smoky objects are fiery

The hill is smoky

Therefore, the hill is fiery (positively)

(2) No non-fiery object is smoky

The hill is smoky

Therefore, the hill is fiery (negative)

The fallacies (hētvābhāsa) are the factors that reason to incorrect inference. The inference is valid when the reason (hētu) is correct, the invalid reasons (hētu) that employed for the inference known as fallacies (hētvābhāsa). The fallacies recognized by Nyāyikās are fivefold, viz. (1) Savyābhicāra, (2) Viruddha (3) Satpratipakṣa (4) Asiddha and (5) Badhita.

(1) When the middle term is not uniformly related with the major term, it is called Svyābhicāra.

Ex: All bipeds are rational

Swans are bipeds

Therefore, swans are rational.

In this example the conclusion is not valid since the middle term uniformly is not related to the major term.

(2) The contradictory of middle term (hētu) is called Viruddha.

Ex: Sound is eternal.

Because it produced one

In this example, to prove the eternality of the sound uses the “produced one” but what is produced subject to change. This is the contradicton of the middle term.

(3) The inferentially contradicted middle term (hētu) is called Satpratipakṣa.

Ex: * Sound is eternal.

Because it is audible

* Sound is non-eternal

Because it is produced, like a pot

Here the non-existence of eternality (major term of the first inference) is proved by the second inference with its middle term “produced” against first inference with its middle term audible.

(4) The unproved middle term is called. Asiddha.

Ex: The sky lotus is fragrant.

Because it has lotusness in it, like a natural lotus

In this example sky lotus does not exist (middle term is not established) therefore, it is merely assumed but does not prove the fact.

(5) Inferentially contradicted middle term is called. Badhita.

Ex: Fire is cold.

Because it a substance.

Here, coldness is the major term and substances are middle term (hētu). The non-existence of coldness of the fire prove the hotness of fire that we experienced by touch. Therefore, the middle term is rejected as a contradicted middle term.

Upamāna (Comparison)

The Upamāna is the third valid ground of knowledge accepted by Nyāyikās. For Nyāyikās, Upamāna or comparison is independent right knowledge, but Buddhists and Cārvākas rejected the acceptance of Upamāna as a valid ground of knowledge. Upamāna is defined as “The knowledge of a thing through its similarity to another thing previously well known” (Vidyabhusan, S.,1920, 56). and it is the knowledge of the relation between a name and thing. For instance, one person said that the deer is similar to the cow, the person who heard this goes to jungle and sees an animal like a cow, and then he concludes it must be a deer.

Śabda (Verbal testimony)

The verbal testimony is the last ground of knowledge accepted by Nyāyikās. Śabda is the knowledge derived from words or sentences. The words of a reliable person are called Śabda (āptōpadēśah śabdah -Nyāyasūtra 1.1.6). The verbal testimony is valid, which is made by the person who knows the truth and speakers the truth for the help of others.”(Tarkikaraksa, pp,94-95). There are two types of verbal testimony as Laukika (secular) and Vaidika (scriptural). (Tarkasaṅgraha, p.73) The

words of secular person are known as Laukika. The Vedic scriptures are considered Vaidika. Nyāyikās accepted that verbal testimony is personal (based on the words of reliable person, human or divine).

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