Nyaya philosophy is one of the six orthodox schools of Indian Philosophy. It is a system of logic and epistemology, concerned primarily with the study of knowledge (nyaya means "logic" or "reasoning" in Sanskrit). The Nyaya school is attributed to the sage Gautama (also known as Akshapada), and its foundational text is the Nyaya Sutras.The Nyaya school aims to provide a systematic framework for acquiring valid knowledge and understanding the nature of reality. It is based on the belief that knowledge is essential for human liberation (moksha) and the alleviation of suffering. Nyaya philosophers developed a sophisticated system of logical analysis and argumentation to critically examine concepts and propositions.

The Nyaya theory of knowledge is known as Pramana-Vada, which emphasizes the means of valid knowledge acquisition, called pramanas. According to Nyaya, true knowledge is obtained through reliable sources of knowledge, or pramanas, which are considered to be valid and trustworthy.

The Nyaya school recognizes four primary pramanas:

**Pratyaksha (Perception):**

According to Nyaya philosophy, perception, known as Pratyaksha, is considered the primary source of knowledge or pramana. It involves the accurate cognition of objects through the contact of the senses with external objects. For instance, perceiving a blue book in front of me occurs when my eyes make contact with the object.

According to Gotama, perception is non-erroneous cognition that arises from the interaction between the sense organs and the objects. Perception encompasses five external senses: sight, smell, sound, touch, and taste. Each sense organ perceives specific physical qualities such as color, smell, sound, touch, and taste in the objects.

Nyaya philosophy classifies perception into two categories: laukika (ordinary) and alaukika (extraordinary) perception. The distinction between the two depends on the manner in which the senses come into contact with their objects. Laukika perception involves the usual sense-object contact, while alaukika perception occurs when the object is perceived through an unconventional medium.

Laukika perception is further divided into two types: internal perception or manasa and external perception or bahya. Internal perception involves the mind's contact with psychological states and processes like emotions, cognition, desires, and pain. External perception, on the other hand, involves the five external sense organs coming into contact with the object.

The five external sense organs are composed of the five elements: fire, air, water, ether, and earth. Laukika perception can be categorized into six types: visual perception, auditory perception, tactual perception, gustatory perception, olfactory perception, and internal perception (mental perception).

Alaukika perception consists of three types: Samanyalakshana, Jnanalakshana, and Yogaja. Samanyalakshana perception involves perceiving universals or the concept of classes. Universals are regarded as distinct entities that exist within particulars. For example, the universal concept of "cow-ness" is perceived through Samanyalakshana perception, as it inheres in individual cows.

Jnanalakshana perception, also known as complicated perception through association, occurs when the object is not directly presented to the senses. Instead, it is recollected in memory based on past cognitions of the object, and the perception is formed through representation. For instance, perceiving sandalwood as fragrant or ice as cold is a result of Jnanalakshana perception.

Yogaja perception is an intuitive and immediate perception of all objects from the past, present, and future. This type of perception is attributed only to yogis or liberated souls who possess the power of meditation.

**Anumana (Inference):**

Anumāna is the process of acquiring knowledge about an object based on previous knowledge of a sign or mark (lińga). This previous knowledge involves understanding the universal relation between the sign and the inferred object. In the Nyāya system, annumāna is defined as indirect knowledge obtained through the recognition of a sign and its universal relation (ayāpti) with the object being inferred, rather than through direct observation.

Anumāna can be classified into two categories: svārthānumāna (Inference for oneself) and Parārthānumāna (Inference for others). This classification is based on the purpose (Prayojana) served by the inference. The two purposes that may lead someone to make an inference are gaining knowledge about something and proving a thesis to someone who doubts its truth. Svārthānumāna is the process of acquiring knowledge, while Parārthānumāna is the process of providing evidence or proof.

According to the Nyāya philosophers, the process of inference for others involves five components. Here is an example illustrating these five components:

Pratijnā - There is fire on the hill.

Hetu - Because there is smoke (on the hill).

Drsanta - Where there is smoke, there is fire, as seen in the stove.

Upanaya - There is smoke on this hill.

Nigamana - Therefore, there is fire on this hill.

Hence, this example demonstrates the reason behind the initial statement (Pratijnā). Drastānta provides a comprehensive sentence that shows the constant relationship between the subject (sādhya) and the reason (hetu), supported by an example. Upanaya indicates that the drstānta sentence applies specifically to this particular situation. In this inference, the observation of the linga (indicator or mark) occurs three times.

The second classification system categorizes inferences into three types: purvavat, sesavat, and samanyatodrsta. Both purvavat and sesavat inferences demonstrate a causal connection between the middle and major terms, while samanyatodrsta inferences show a non-causal connection between the middle and major terms.

Pūrvavat: A pūrvavat inference involves inferring the effect from the cause. By perceiving a cause, we can infer the unperceived effect. For example, when we see dense clouds, we infer that there will be rain in the future.

Śeşavat: A Śeşavat inference involves inferring the cause from the effect. By perceiving an effect, we can infer the unperceived cause. For instance, when we observe a river in flood, we infer that there was rainfall.

Sāmānyatodrsta: Sāmānyatodrsta inference provides knowledge about imperceptible or unperceived objects. This type of inference is not based on causality but rather on the observation of a commonality. For example, by observing the sun's change in position from east in the morning to west in the evening, we infer that there is motion in the sun. This inference relies on comparing the sun's position with other objects, as motion becomes apparent when other objects change their position. Therefore, Sāmānyatodrsta inference shares some similarities with comparison.

The Neo-Nyāya school has categorized inference into three types based on the method of establishing vyāpti, which refers to the relation of invariable concomitance. These three types are Kavalanvnyi, Kevalavyatireki, and Anvaya vyatireki.

Kavalanvnyi: This type of inference applies when the means and the object are always found together, establishing vyāpti through an agreement in presence between the middle term and the major term, without any exceptions. For example:

All knowable objects are nameable.

The pot is a knowable object.

Therefore, the pot is nameable.

This inference states that if something is knowable, it must also have a name. Since the pot is knowable, it is concluded that it must have a name.

Kevalavyatireki: An inference is considered kevalavyatireki when it is based on a middle term that is only negatively related to the major term. It establishes vyāpti through the method of agreement in absence (vyatireka), as there can be no positive instance of agreement in presence between the terms. For example:

No non-soul substance has life.

All beings possessing animal functions have life.

Therefore, all beings possessing animal functions have a soul.

In this inference, a positive instance cannot be provided. We can only observe that chairs and tables, which are non-soul substances, do not possess animal functions and, therefore, do not have souls. However, we cannot provide a positive instance since souls and beings with animal functions are co-extensive in their nature.

Anvayavyatireki: An inference is categorized as anvayavyatireki when it is based on a middle term that is both positively and negatively related to the major term. The universal relation (vyāpti) in this inference is established through the method of agreement in presence (anvaya) and agreement in absence (vyatireka). For example:

All smoky objects are fiery.

The hill is smoky.

Therefore, the hill is fiery.

No non-fiery objects are smoky.

The hill is smoky.

Therefore, the hill is fiery.

In both examples, the inference establishes vyāpti through an agreement in both presence and absence. It concludes that if something is smoky, it must also be fiery based on the agreement in presence. Conversely, if something is not fiery, it cannot be smoky based on the agreement in absence.

**Upamana (Comparison/Analogy)**

According to Nyāya Philosophy, upamāna or comparison is considered as the third valid source of knowledge. The term "upamāna" is derived from two words, "upa" meaning similarity or "sādrusya," and "māna" meaning cognition. In general, upamāna is the knowledge obtained by recognizing the similarity between two objects and is a means of understanding the relationship between a word and what it refers to.

An example of upamāna is when a person is unfamiliar with the concept of a "squirrel." They are informed by a forester that it is a small animal resembling a rat but with a long furry tail and stripes on its body. After some time, when they encounter such an animal in the forest, they recognize it as a squirrel based on the previous description.

The process of acquiring knowledge through comparison involves four steps. First, there is an authoritative statement about a word denoting objects with specific characteristics. Second, when one observes objects that match the given description, they gain knowledge that those objects correspond to the description. Third, there is a recollection of the descriptive statement received from an authority. Finally, the resulting knowledge is that objects of a particular kind are denoted by the word in question.

It's important to note that Buddhism does not consider comparison as an independent source of valid knowledge. Instead, they reduce it to perception and testimony. Sāmkhya and Vaisesika Philosophies, on the other hand, believe that comparison can be reduced to inference.

In Mimansika philosophy, upamana is recognized as a pramana (means of knowledge) similar to the Nyayikas' viewpoint. In upamana, knowledge of an object is determined by comparing it to other similar objects, often using analogy. For instance, if a person has never seen a gavaya (a wild cow) and is unaware of its characteristics, a forester may describe it as an animal similar to a domestic cow but more aggressive and with large horns on its forehead. Later, when the person encounters a gavaya in a forest, they recognize it as a wild cow by comparing it to the forester's description. This knowledge is made possible through upamana or comparison, which helps establish the relationship between a name and the object it denotes.

**Sabda (Verbal Testimony**):

Sabda, also known as verbal testimony, is the statement made by a trustworthy individual, either human or divine, and it involves understanding its meaning. A person is considered trustworthy if they possess knowledge of the truth and convey it accurately. Sabda is often interpreted as aptavacana, and its validity depends on the reliability of the source. Testimony can originate not only from scriptures but also from trustworthy individuals (apta). According to the Nyaya philosophy, sabda (verbal testimony) is the fourth and final valid source of knowledge. Sabda literally means verbal knowledge and refers to knowledge derived from words or sentences. However, not all verbal knowledge is considered valid. Therefore, Nyaya philosophers posit sabda as a pramana (valid means) of reliable verbal testimony.

For example, imagine a situation where a woman wants to cross a river but is uncertain about its depth. In this case, she asks a fisherman who is fishing there if she can cross the river. Since the fisherman is a local person and has no animosity towards her, he replies that she can easily cross the river. Here, the word of the fisherman is accepted as a valid means of knowledge, known as verbal testimony.

There are two different classifications of Sabda:

a) i) Drustārtha

ii) Adrustārtha

b) i) Laukika

ii) Alaukika

The first classification is based on the objects of meaning, while the second classification is based on the origin of words. Sabda that deals with perceptible objects is called Drstārtha, for example, a table is brown, grass is green, etc. Sabda that deals with imperceptible objects is called 'Adrsta', for example, Duty is god, Truth is noble, etc.

Laukika Sabda is known as secular, whereas Alaukika Sabda is known as divine or vaidika. The Vedas are believed to be spoken by God. This vaidika testimony is considered divine and perfect. According to Nyāyikas, since human beings are not perfect, only the words of trustworthy individuals can be considered as laukika sabda.

In simpler terms, there are two types of Sabda: one based on the meaning of objects (Drstārtha and Adrustārtha), and the other based on the origin of words (Laukika and Alaukika). Laukika Sabda refers to secular language, while Alaukika Sabda refers to divine or Vedic language. The Vedas are considered perfect and divine. According to Nyāyikas, only trustworthy individuals can provide reliable information, as humans are not infallible.

These four pramanas are considered to be the reliable means of acquiring knowledge in the Nyaya epistemology. The Nyaya philosophers developed a comprehensive system of logic and epistemology to establish the validity of these pramanas and their application in understanding the world and gaining true knowledge.