

**CLASSIFICATION OF INFERENCE AS DEVELOPED BY NYĀYA-  
VAIŚEŚIKA COMMENTATORS****\* Priyanka Sarkar****Abstract:**

The purpose of this paper is to show the development of the classification of inference with the help of Nyāya-Vaiśeṣika commentators. The most discussable concept, in Indian philosophy, is mainly the means of valid knowledge (*pramāna*), particularly Inference. Though there are some philosophers, like Cārvāka, Grammarian Bhaṭṭhari, do not accept Inference (*anumāna*) as a means of valid knowledge. For Cārvāka, only perception (*pratyakṣa*) is a means of valid knowledge, whereas for Bhaṭṭhari, perception (*pratyakṣa*) and verbal testimony (*śabda*) are the means of valid knowledge. However, for Nyāya-Vaiśeṣika philosophers, Inference (*anumāna*) is a means of valid knowledge. If we see closely the original text of Nyāya-Vaiśeṣika philosophy, then we can easily discover the development of inference (*anumāna*) through their commentators in which commentators also develop the concept 'classification of inference' through their own philosophical and logical perspective. The classification of inference as *svārthānumāna* and *parārthānumāna* has been first developed by Praśastapāda, in his Praśastapādabhāṣya, who is a commentator of Vaiśeṣikasūtra. Afterwards later Naiyāyika philosophers like Annambhaṭṭa in his Tarkasaṃgraha and Keśava Miśra in his Tarkabhāṣā, clearly distinguish inference between *svārtha* and *parārtha*. Again, the classification of inference as *pūrvavat*, *śeṣavat*, and *sāmānyatodṛṣṭa* has been introduced by Nyāya logician Goutama in his Nyāyasūtra, and then the commentators developed his view, such as Vātsyāyana in his Nyāyabhāṣya. Moreover, the third classification of inference as *kevalānvayī*, *kevalavyātirekī*, and *anvaya-vyatirekī* has been first provided by Uddyotakara in his Nyāyavārtika, who is a commentator of Nyāyabhāṣya; but his view also has been developed by the commentators, such as Vācaspati Miśra in his Nyāyavārtikatātparyatikā, Annambhaṭṭa in his Tarkasaṃgraha, and Keśava Miśra in his Tarkabhāṣā, and also Navya Naiyāyika Viśvanātha in his Bhāṣāpariccheda. To explain their predecessors view, the commentators bring another notion, such as three types of *hetu* as *anvayī*, *vyatirekī*, and *anvaya-vyatirekī*; and also, two types of *vyāpti* as *anvaya vyāpti* and *vyatireka vyāpti*. And their explanation regarding every notion based on logic. Thus, the classification of the concept of inference was developed jointly by Nyāya-Vaiśeṣika logicians.

**Keywords:** Inference (*anumāna*), *Hetu*, *Sādhya*, *Pakṣa*, *Sapakṣa*, *Vipakṣa*, Classification of Inference, *Svārthānumāna*, *Parārthānumāna*, *Pūrvavat*, *Śeṣavat*, *Sāmānyatodṛṣṭa*, *Kevalānvayī*, *Kevalavyātirekī*, *Anvaya-vyatirekī*, *Anvaya vyāpti*, and *Vyatireka vyāpti*.

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## Introduction:

The term ‘*anumāna*’, in Indian logic, has been translated in English as ‘Inference’. There are only a few philosophers, whether Oriental or Occidental, who reject the validity of inference. They are - Cārvāka philosophers, who accept only perception (*pratyakṣa*) as a means of valid knowledge, and Grammarian, such as Bharṭṛhari,<sup>i</sup> who accepts perception (*pratyakṣa*) and *śabda* as a means of valid knowledge, and objects the validity of inference as a means of valid knowledge. They reject inference on the basis of their denial of the possibility of invariable concomitance (*vyāpti*) through which our inference of the thing-to-be-inferred (*sādhya*) becomes possible.

## Definition of Inference (*anumāna*):

Maharshi Goutama in his ‘Nyāyasūtra’ has defined inference as ‘*atha tatpūrvakam trividham anumānam pūrvavad śeṣavad sāmānyatodṛṣṭam ca*’ (1.1.5)<sup>ii</sup>. The term ‘*atha*’, used in the *sūtra*, refers sequence, i.e. inference should be discussed after perception. So, he discusses inference after discussing perception. Inference, according to Gotama, is preceded by perception. This is the meaning of the term ‘*tatpūrvaka*’. Bhāṣyakāra his Nyāyabhāṣya too explains the meaning of the term ‘*tatpūrvaka*’ in terms of ‘preceded by perception’. While explaining this term i.e. ‘*tatpūrvaka*’ he brings out the notion of the relation between the logical mark (*hetu*) and the thing to be inferred (*sādhya*), and the notion of the logical mark. He says that ‘preceded by perception’ means perception of the relation between the logical mark and the thing to be inferred, and perception of the logical mark. Perception of the relation between the logical mark and the thing to be inferred implies the remembrances of logical mark. Thus, with the help of remembrance of the relation between the

logical mark and the thing to be inferred, and perception of the logical mark one infers non-perceptible thing.<sup>iii</sup>

*Bhāṣyakāra* states that inference is a means of knowing the object with the help of the known logical mark<sup>iv</sup>. Hence in inference, we need two things namely, invariable concomitance (*vyāpti*) and consideration (*parāmarśa*). Consideration is the knowledge that this mountain has smoke which is invariably connected with fire is called consideration (*parāmarśa*). The knowledge born of it that the mountain is fiery is called judgment (*anumiti*). Invariable concomitance is the certainty of association that wherever there is smoke, there is fire. In inference consideration (*parāmarśa*) is the intermediate operation, the knowledge of invariable concomitance (*vyāpti*) is an instrument,<sup>v</sup> and *anumiti* is the resulting judgement. *Anumiti* thus depends upon *parāmarśa*. *Parāmarśa* occupies a very important place in Nyāya logic. It is so because when a valid *parāmarśa* is obtained a sound conclusion necessarily and immediately follows. Thus, one’s capability to prove the thing-to-be-inferred with the help of the means of knowledge, i.e. perception of the necessary relationship between the logical mark and the thing-to-be-inferred (*vyāpti*) and the perception of the logical mark (*parāmarśa*), is called inference.

## Classification of Inference:

Inference (*anumāna*), in Indian logic, is a combined deductive inductive reasoning process consisting of at least three categorical propositions. In the Nyāya philosophy, we observe three different kinds of classifications of *anumāna*. According to the first classification, inference is of two kinds namely, *svārthānumāna* and *parārthānumāna*. According to the second classification, inference is of three kinds namely,

*pūrvavat*, *śeṣavat*, and *sāmānyatodṛṣṭa*. According to the third classification, inference is of three kinds namely, *kevalānvayī*, *kevalavyatirekī*, and *anvaya-vyatirekī*. We will discuss these three different kinds of classification of inference in the following way:

### The first classification of inference:

It should be stated here that inference for one's own self (*svārthānumāna*) and inference for others (*parārthānumāna*) is a later addition. Goutama in his Nyāyasūtra does not mention inference for one's own self (*svārthānumāna*) and inference for others (*parārthānumāna*). This division has been given by Praśastapāda in his 'Praśastapādabhāṣya', commentator of Kaṇādasūtra or Vaiśeṣikasūtra. Etymologically what is intended for oneself is called *svārthānumāna* and what is intended for others is called *parārthānumāna*. It is believed that *svārthānumāna* is depended on *parārthānumāna* in the sense that a man cannot convince another if he himself is not convinced. Praśastapāda classifies *svārthānumāna* into two namely, *dṛṣṭa* and *sāmānyatodṛṣṭa*. When the thing-to-be-inferred of a man is exactly of the same kind as its prototyped, is called *dṛṣṭā*. In other words, when the character which I have perceived before in a familiar place and the character that is to be inferred possesses specific unity pertaining to the same species, is called *dṛṣṭa anumāna*. For example, 'When a man infers a cow on the basis of his previous knowledge of cows having dewlaps (*sāsnā*)'. Again, when the perceived character and the inferred character both have generic unity, is called *sāmānyatodṛṣṭa anumāna*. For example, when we observe that the actions of a farmer (*karṣaka*), a merchant (*vaṇij*) etc. lead to same results, we infer that the actions do by the four classes of society (*varṇāśrama*) like sacrifice etc. must lead

to same results, then the result that is to be inferred, viz., the attainment of heaven, which is non secular, is of a species totally different from the former result, which is secular.<sup>vi</sup> Therefore, *svārthānumāna* is a psychological process. In this case one does not require the formal statement of the different members of inference. Here one infers the thing-to-be-inferred (*sādhya*), which is the Pramiti, from the perception of smoke (*hetu*), which is the source of knowledge or *pramāṇa*, on the part of a man who employs that inference. He holds that when a thing-to-be-inferred is apprehended through the help of the five membered syllogism, is called *parārthānumāna*.<sup>vii</sup> In *parārthānumāna* premises are discovered by one man and demonstrated to another through the medium of language. This classification of inference though developed by *praśastapāda*, but subsequently other logicians like Annambhaṭṭa in his Tarkasamgraha, and Keśava Mīśra in his Tarkabhāṣā<sup>viii</sup> adopted this classification of inference in their thesis.

The later Nyāya logician Annambhaṭṭa in his Tarkasamgraha classifies inference into two namely, *svārthānumāna* and *parārthānumāna*. In *svārthānumāna*, one infers the thing-to-be-inferred, which is unperceived object, for a man who employs that inference. For example, having repeated observation (*bhūyodarśana*) that wherever there is smoke, there is fire, such as kitchen, and having the knowledge of invariable relationship (*vyāpti*), when one sees smoke on the mountain, doubt arises that is there fire or not, but when he remembers the *vyāpti* relation that wherever there is smoke there is fire, he comes to the knowledge that this mountain has fire as concomitant with smoke (*vanhivyāpyadhumavāna ayam parvata*). This kind of knowledge is called consideration (*lingaparāmarśa*). Afterwards he comes to the

conclusion that 'this mountain is fiery'. This kind of inference is called *svārthānumāna*.<sup>ix</sup>

But when a person after having the knowledge of fire from the smoke, makes the application of the five membered syllogistic form (*pañcāvayavavākya*) for demonstrating the truth of the conclusion to others, that inference is called *parārthānumāna*. For example,

1. The mountain is fiery.
2. Because it is smoky.
3. Whatever is possessed of smoke is fiery, such as kitchen.
4. And the mountain is smoky.
5. Therefore, the mountain is fiery.

Thus, from the knowledge of *liṅga* which is already established, the other man also will be able to infer that the mountain is fiery. The five membered syllogistic form (*pañcāvayava*) are namely, *pratijñā*, *hetu*, *dr̥ṣṭānta*, *upanaya*, and *nigamana*. The example of the five membered syllogistic form is in the following:

1. This mountain is fiery; is the proposition (*Pratijñā*).
2. Because it is smoky; is the logical mark (*Hetu*).
3. Whatever is possessed of smoke is fiery such as kitchen; is the example (*Dr̥ṣṭānta*).
4. This mountain is smoky; is the application (*Upanaya*).
5. Therefore, this mountain is fiery; is the conclusion (*Nigamana*).<sup>x</sup>

#### **The second classification of inference:**

Goutama in his Nyāyasūtra classifies inference into three: (1) *Pūrvavat* (2) *Śeṣavat*, and (3) *Sāmānyatodṛṣṭa*.<sup>xi</sup> However, he does not discuss these three kinds of inference. Vātsyāyana, the commentator of Nyāyasūtra, discusses these three kinds of inference in the following way. Inference which allows one to infer effect on the

basis of cause is called *pūrvavat*. For example, seeing the cloud we infer that rain may happen. Inference in which one infers cause on the basis of effect is called *śeṣavat*. For example, when we see that the water of the river is not what it used to be, and river is full of water with more current in it, we infer that there has been rain. Inference based upon our general observation is called *sāmānyatodṛṣṭa*. We see that a thing, when moved, is displaced. It is our general observation. We see the sun in the morning at one place and in the evening at another place. So, on the basis of this general observation, we infer that sun must be moving even though we are unable to perceive it.<sup>xii</sup>

Vātsyāyana provides another explanation of the above three kinds of inference. *Pūrvavat* inference, following this alternative explanation, is one which is based on our former perception of two things. Formerly we had perceived two things together and now, at the time of inference, the one out of the two, that is not perceived, is inferred from the perception of another. For example, formerly we had perceived smoke and fire together, and now we infer fire after seeing smoke.<sup>xiii</sup>

*Śeṣavat* inference is an inference by elimination. *Śeṣavat* literally means remainder. *Śeṣavat* inference is that in which with regard to an object, we eliminate some of its properties and this elimination does not apply to some other property. Thus, we have cognition of the property which remains un-eliminated. This property is remainder. Vātsyāyana takes example of sound which is an entity and momentary. Being an entity and being momentary are common to Substances, Qualities, and Actions. Generality, Individuality, and Inherence are entities, but not momentary. They are eternal. Sound being an entity and momentary is thus

eliminated from Generality, Individuality, and Inherence. Thus, doubt arises whether Sound is a substance, or Quality, or Action. Now we reason through the process of elimination in the following manner: (a) Sound cannot be a Substance, because Sound inheres in a single substance (*ākāśa*); (b) Sound is not an Action, because Sound is the originator of another Sound. Thus, sound is not a Substance, further Sound is not an Action; therefore, Sound must be a Quality. We come to this conclusion by the process of elimination.<sup>xiv</sup>

*Sāmānyatodṛṣṭa* inference is that in which the relation between the logical mark and the thing-to-be-inferred is imperceptible; and imperceptible thing-to-be-inferred (*liṅgi*) is inferred on the basis of similarity of the logical mark (*liṅga*) to something else. For example, Self (*Ātmā*) is inferred from Desire (*icchā*). We know that Desire is a Quality (*guṇa*), and Qualities always inhere in Substances (*dravya*). On the basis of similarity of Desire to other Qualities, we reach to the conclusion that Desire must inhere in a Substance. This leads to the inference that the Substance in which Desire inheres is the Self.<sup>xv</sup>

### The third classification of Inference:

Uddyotakara in his Nyāyavārtika introduces, at a very first time, three kinds of inference which are different from the earlier distinction of inference as provided by Gotama and Vātsyāyana. These three kinds of inference as given by Uddyotakara are namely, affirmative-negative inference (*anvaya-vyatirekī anumāna*), purely affirmative inference (*kevalānvayī anumāna*), and purely negative inference (*kevalavyatirekī anumāna*).<sup>xvi</sup> These three types of inference are based on three types of *hetu-s* namely, affirmative-negative logical mark (*anvaya-vyatirekī hetu*), purely affirmative logical mark (*kevalānvayī hetu*), and

purely negative logical mark (*kevalavyatirekī hetu*). It is maintained that the logical mark (*hetu*) differs when there is a difference between the concomitance as occurred between the logical mark (*hetu*) and the thing-to-be-inferred (*sādhya*), i.e. *anvaya vyāpti* and *vyatireka vyāpti*.<sup>xvii</sup> In other words, the three kinds of inference are based on three kinds of *hetu*, and three kinds of *hetu*<sup>xviii</sup> are based on two kinds of invariable relationship (*vyāpti*). The definition of *anvaya vyāpti* is that the unfailing presence of the logical mark in the locus of that thing-to-be-inferred (*sādhya*), which is *vyāpaka* of *hetu*. For example, ‘Wherever there is smoke, there is fire, such as kitchen.’<sup>xix</sup> And the definition of *vyatireka vyāpti* is that the absence of the thing-to-be-inferred is regarded as *vyāpya* and the absence of the logical mark is regarded as *vyāpaka*. That is to say, *vyatireka vyāpti* is the counter positiveness of that non-existence which is inclusive of the non-existence of the thing-to-be-inferred. For example, ‘Wherever there is absence of fire, there is absence of smoke, such as lake’.<sup>xx</sup>

The affirmative-negative logical mark (*anvaya-vyatirekī hetu*) is the one which is compatible with similar cases but is non-existent in dissimilar cases. In this case both *anvayī* and *vyatirekī dṛṣṭānta* are available where both *anvaya* and *vyatireka vyāpti* are established. For example, ‘wherever there is smoke, there is fire, such as kitchen’, and ‘wherever there is no fire, there is no smoke, such as lake’. Here ‘kitchen’ is the example of *anvaya vyāpti* where *hetu* and *sādhya* both are present, and ‘lake’ is the example of *vyatireka vyāpti* where *sādhya* and *hetu* both are absent. Therefore, the *hetu* ‘smoke’ should be considered as *anvaya-vyatirekī hetu*. In another example, ‘Sound is non-eternal, because it is a product, such as a jar’, and ‘Wherever there is absence of non-eternality (*anityatvābhāva*),

there is absence of productivity (*kṛtakatvābhāva*), such as *gagana* or *ākāśa*. Here 'jar' is the example of *anvaya vyāpti* because in a jar, both *hetu* (product) and *sādhya* (non-eternal) are present, and 'gagana' is the example of *vyatireka vyāpti* because in Gagana, both *sādhya* and *hetu* are absent i.e. Gagana is eternal. Therefore, the *hetu* 'product' can be considered as *anvaya-vyatirekī hetu*.<sup>xxi</sup> Purely affirmative logical mark (*kevalānvayī hetu*) is the one which exists in similar cases, but is without dissimilar cases. It occurs where no *vyatirekī dṛṣṭānta*, which can guarantee the *vyatireka vyāpti* in the form 'wherever there is absence of *sādhya* there is absence of *hetu*', is available. For example, 'Sound is nameable, because it is knowable'. Here the *hetu* 'knowable' is invariably concomitant with the *sādhya* 'nameable', since whatever is knowable is nameable, such as a jar'.<sup>xxii</sup> Therefore, there is no *vyatirekī dṛṣṭānta*. Purely negative logical mark (*kevalavyatirekī hetu*) is the one which, while pervading *pakṣa* is absent from dissimilar cases, whereas the similar cases do not exist at all. In this case no *dṛṣṭānta* is available where the affirmative concomitance between *hetu* and *sādhya* can be guaranteed. For example, 'Earth is different from other elements because it has smell'.<sup>xxiii</sup> Here the *hetu* 'smell' which can be present only in locus 'earth'. Therefore, there is no *dṛṣṭānta* available which shows the affirmative concomitance between *hetu* 'smell' and *sādhya* 'different from other elements.' In the present context *anvaya* is of the form 'wherever there is *hetu*, there is *sādhya*' and *vyatireka* is of the form 'wherever there is absence of *sādhya*, there is absence of *hetu*'. Thus, these three types of *hetu* or logical mark lead three types of inference. They are as follows:

The affirmative-negative inference (*anvaya-vyatirekī anumāna*) is that in which the logical mark abides in the locus as well as in objects homogeneous with the thing-to-be-inferred or similar cases (*sapakṣa*), and does not abide in those objects which are heterogenous with the thing-to-be-inferred or dissimilar cases (*vipakṣa*). For instance, 'Sound is non-eternal because it has both generality (*sāmānya*) and particularity (*viśeṣa*) and it is perceived by the external sense-organ of ordinary human beings, like the jar'.<sup>xxiv</sup> In other words, the logical mark i.e. generality and particularity, and it is perceived by the external sense-organ of ordinary human beings, abides in the locus (i.e. sound) as well as in objects homogenous with the thing-to-be-inferred (i.e. non-eternal objects) like a jar, but does not abide in objects heterogenous with the thing-to-be-inferred (i.e. eternal objects) like *ākāśa*.<sup>xxv</sup>

The purely affirmative inference (*kevalānvayī anumāna*) is that in which the logical mark abides in the locus as well as in objects homogenous with the thing-to-be-inferred or similar instances (*sapakṣa*), and there is no object in which the thing-to-be-inferred is known to be absent (*vipakṣahīna*). For instance, 'Sound is non-eternal because it is a product.' In this example one does not trace any object in which the thing-to-be-inferred does not exist.<sup>xxvi</sup> The earlier stated reasoning reminds us the theory that all objects are momentary as held by Buddhists in which it should be understood that the specific particularity of objects is something that can be nameable because it is knowable, all knowable objects are nameable, like the generality of things.<sup>xxvii</sup>

The purely negative inference (*kevalavyatirekī anumāna*) is that in which the logical mark abides in the locus alone, and there is nothing

else, apart from the locus, in which the logical mark is known to be exist, that is to say, the logical mark does not exist in the similar cases (*sapakṣa*) as well as in the dissimilar cases (*vipakṣa*). For instance, ‘The living body is not without a soul, if it is without a soul, the problem of being without the life will arise.’<sup>xxviii</sup> Here the logical mark (i.e. without the life) does not exist in the similar cases, in which the thing-to-be-inferred is known to be exist, that is negation of without a soul, and this logical mark cannot be exist anywhere else except the living body, which is the locus. Therefore, if there is a soul, there must be a life.

Now, Uddyotakara moves to give another interpretation of the aforesaid distinction of three kinds of inference, i.e. the *pūrvavat*, the *śeṣavat*, and the *sāmānyatodṛṣṭa*. He states that the word ‘*pūrva*’, as existed in the word ‘*pūrvavat*’, refers to the thing-to-be-inferred. Therefore, *pūrvavat* inference is that in which the logical mark is invariably concomitant with the thing-to-be-inferred and which has the thing-to-be-inferred for its locus. The word ‘*śeṣa*’, as existed in the word ‘*śeṣavat*’, refers to the thing-to-be-inferred as well as other objects which are similar to the thing-to-be-inferred (*sādhyasajātīya*). Therefore, the *śeṣavat* inference is that which has the thing-to-be-inferred as well as objects similar to it for its constant locus. This is the difference between the *pūrvavat* and the *śeṣavat* inference, while the former is invariably concomitant with the thing-to-be-inferred only, the latter is invariably concomitant with the thing-to-be-inferred and also with the other objects similar to the thing-to-be-inferred (*sapakṣa*). The *sāmānyatodṛṣṭa* inference is that in which the logical mark is not found in common (*sāmānyata*), that is to say, logical mark exists nowhere else except in the locus. Goutama has given the particle ‘*ca*’ at the end of the *sūtra* through which he wants to show

that the particle ‘*ca*’ is the quality of the word ‘*sāmānyatodṛṣṭam*’ which refers that *sāmānyatodṛṣṭa* inference should not be contrary either to the Scriptures (*āgama*) or to any fact of ordinary perception (*pratyakṣa*). Among these three kinds of inference, the first two kinds of inference, i.e. *pūrvavat* and *śeṣavat*, are differentiated by four characteristics, while the third one, i.e. *sāmānyatodṛṣṭa*, has five characteristics.<sup>xxix</sup>

Vācaspati Miśra in his *Tātparyāṭikā* has explained what are those four and five characteristics of these three kinds of inference. At first, he discusses the three characteristics which are common to all inferences, namely, 1) the logical mark which is not contradicted by a non-inferential source of knowledge (*abādhita*), 2) which is not counteracted (*asatpratipakṣa*), and 3) which is invariably concomitant with the thing-to-be-inferred. The above stated three characteristics are the distinctive feature of the *pūrvavat* inference. The *śeṣavat* inference has one more characteristic, that is, the logical mark is also invariably concomitant with the other objects similar to the thing-to-be-inferred. Therefore, the *śeṣavat* inference has four characteristics, namely, 1) the logical mark is not contradicted by a non-inferential source of knowledge (*abādhita*), 2) it is not counteracted (*asatpratipakṣa*), 3) it is invariably concomitant with the thing-to-be-inferred, and 4) it is also invariably concomitant with the other objects similar to the thing-to-be-inferred. Accordingly, the *sāmānyatodṛṣṭa* inference has one more characteristic, that is, the logical mark is not known to be existed anywhere else except in the locus. Therefore, the *sāmānyatodṛṣṭa* inference has five characteristics, namely, 1) the logical mark is not contradicted by a non-inferential source of knowledge (*abādhita*), 2) it is not counteracted (*asatpratipakṣa*), 3) it is invariably

concomitant with the thing-to-be-inferred, 4) it is also invariably concomitant with the other objects similar to the thing-to-be-inferred, and 5) it is not seen anywhere else except in the locus.<sup>xxx</sup>

The Navya Naiyāyika Viśvanātha too in his Bhāṣāpariccheda accepts that there are three kinds of inference namely, purely affirmative (*kevalānvayī*), purely negative (*kevalavyatirekī*), and affirmative-negative (*anvaya-vyatirekī*). He also maintains that the three types of hetu, on which the three kinds of inference based on, are based on the knowledge of vyāpti. Invariable concomitance (*vyāpti*) is of two kinds namely, affirmative invariable concomitance (*anvaya vyāpti*) and negative invariable concomitance (*vyatireka vyāpti*).<sup>xxxi</sup> Purely affirmative inference (*kevalānvayī anumāna*) is that which has no dissimilar instances (*vipakṣa*). For example, 'A jar is nameable, because it is knowable'. Since whatever is knowable is nameable, so there is no dissimilar instance available. Purely negative inference (*kevalavyatirekī anumāna*) is that which has no similar instance (*sapakṣa*). For example, 'Earth is different from other elements, because it has smell'. Since the difference from the thirteen entities beginning with water, i.e. the eight substances other than earth, and the remaining five categories, has not already been definitely known, so a similar instance possessed what definitely has the thing-to-be-inferred, is wanting. Affirmative-negative inference (*anvayavyatirekī anumāna*) is that which has both similar instances and dissimilar instances. For example, 'The mountain has fire, because it has smoke'. Here similar instance is the kitchen and dissimilar instance is the lake. In the case of affirmative inference i.e. 'The mountain has fire, because it has smoke' – it leads to the inference, 'The kitchen has the presence of fire, because it has the presence of smoke', the knowledge of

affirmative concomitance (*anvaya vyāpti*) is the cause, similarly in the case of negative inference i.e. 'The mountain has fire, because it has smoke' – it leads to the inference, 'The lake has the absence of smoke, because it has the absence of fire', in which we can observe that the thing-to-be-inferred and the logical mark have changed their place, the knowledge of negative concomitance (*vyatireka vyāpti*) is the cause. Here we must understand the meaning of 'negative concomitance' (*vyatireka vyāpti*). It is the counter positiveness (*pratiyogitva*) of that non-existence which is inclusive of the non-existence of the thing-to-be-inferred. That is to say, the place where the invariable concomitance of fire is apprehended, by the relation of conjunction (*samyoga sambandha*), to smoke, and which also contains the relation of conjunction to its locus, there that non-existence of fire which is the counter positiveness of which is characterized by the relation of conjunction, leads to the inference of that non-existence of smoke which is the counter positiveness of which is characterized by the relation of conjunction in a lake. Thus, in the case of negative invariable concomitance the knowledge of negative co-existence i.e. the co-existence of the absence of the thing-to-be-inferred and the absence of the logical mark, becomes the cause. Hence, we should remember that the place where the invariable concomitance is apprehended through the knowledge of negative co-existence, there the inference is called negative inference. In the aforesaid example of negative inference, 'Earth is different from other things, because it has smell' – the knowledge of the thing-to-be-inferred (i.e. difference from other things) first arises with regard to a jar etc., because they believe that the inference 'Earth has difference from other things' can take place only from a knowledge of the otherness or other things, there

is no need to acquire the knowledge of difference from other things, thereafter it is inferred in things characterized only by earth-hood.<sup>xxxii</sup>

### Conclusion:

‘The classification of inference’ is one of the most important concepts in Nyāya-Vaiśeṣika philosophy. As we have seen earlier that the classification of inference is not confined to *Sūtrakāra* only, they are the commentators who have discussed and enriched the verses of their predecessors. All those commentators, while commenting upon their predecessors, have not only developed the concepts used by their predecessors, but also have developed their own arguments to explain the views of their predecessors. While doing so they have added new concepts or notions. We have seen that the classification of inference as *svārthānumāna* and *parārthānumāna* is not given by Goutama, rather Praśastapāda, the commentator of *kaṇādasūtra*, who has developed this notion. Then gradually accepted by later Nyāya logicians like Annambhaṭṭa in his *Tarkasaṃgraha* and Keśava Miśra in his *Tarkabhāṣā*. Again,

the classification of inference as *pūrvavat*, *śeṣavat*, and *sāmānyatodṛṣṭa* is first provided by Goutama in his *Nyāyasūtra*, however he does not explain these three kinds of inference, the commentator like *Vātsyāyana* who has developed his predecessor’s notion with his own arguments. Moreover the classification of inference as *kevalānvayī*, *kevalavyatirekī*, and *anvaya-vyatirekī* is first given by Uddyotakara in his *Nyāyavārtika*, then this classification has been developed by Vācaspati Miśra in his *Nyāyavārtikatātparyatīkā*, Keśava Miśra in his *Tarkabhāṣā*, Annambhaṭṭa in his *Tarkasaṃgraha*, and the Navya Naiyāyika Viśvanātha in his *Bhāṣāpariccheda* through bringing other notions like three types of *hetu* as *anvayī*, *vyatirekī*, and *anvaya-vyatirekī*, and two types of *vyāpti* as *anvaya vyāpti* and *vyatireka vyāpti*. Therefore, it is to be concluded that the notion ‘classification of inference’ is a joint development of Nyāya-Vaiśeṣika logicians, rather it is the gradual emergence on the basis of the need of the time.

### Notes and References:

<sup>i</sup> *Tathā hi vaiyākaraṇo brute pratyakṣam ca iti pramāṇadvayam.* (*Bauddha-Tarkabhāṣā* of

Mokṣākaragupta, Prachya Prakashana, 74-A, Jagatagang, Varanasi, Edited and translated in Hindi by Dr. Raghunath Giri, 1969, Page 9).

<sup>ii</sup> *Atha tatpūrvakam trividham anumānam pūrvavad śeṣavad sāmānyatodṛṣṭam ca.* (*Savātsyāyanabhāṣyam Gotamīyanyāyadarśanam*, sutra 1-1-5, edited by Anantalal Thakur, Published from Indian Council of Philosophical Research, New Delhi, Page 12).

<sup>iii</sup> *Tatpūrvakam iti anena līngalīngiṇaḥ sambandhadarśanam līngadarśanam ca abhisambadhyate. Līngalīngiṇaḥ sambadhyayoḥdarśanena līngasmṛtiḥ-abhisambadhyate. Smṛtyā līngadarśanena ca apratyakṣaḥ-arthah-anumīyate.* (*Savātsyāyanabhāṣyam Gotamīyanyāyadarśanam*, edited by Anantalal Thakur,

Published from Indian Council of Philosophical Research, New Delhi, page 12).

<sup>iv</sup> *Mitena līngena līngiṇaḥarthasya paścātmānam anumānam.* (*Savātsyāyanabhāṣyam Gotamīyanyāyadarśanam*, edited by Anantalal Thakur, Published from Indian Council of Philosophical Research, New Delhi, page 8).

<sup>v</sup> *Vyāpārastu parāmarśah, Karaṇam vyāptiḥ dhīḥ bhavet. (Bhāṣā-Pariccheda with Siddhānta-Muktāvalī* by Viśvanātha-Nyāya-Pañcānana, Advaita Ashrama, Calcutta, English Translation, Translated by Swami Madhavananda, with an Introduction by Dr. Satkari Mookerjee, page 105).

<sup>vi</sup> *Tad tu dvividham. Dṛṣṭam sāmānyatodṛṣṭam ca. Tatra dṛṣṭam prasiddha sādhyayoḥ atyanta jātibhede anumānam. Yathā gavi eva sāsna-mātram upalabhya deśāntarepi sāsna-mātra darśanād gavi pratipattiḥ. Prasiddha sādhyayoḥ atyanta jātibhede līnga anumeyadharmā*

sāmānya anuvṛttitoḥ anumānam sāmānyatodṛṣṭam. Yathā karṣaka-vaṅgrājapusaṅhām ca pravṛtteḥ phalavattvamupalabhya varṇāsrāmīnāmapi dṛṣṭam prayojanam anuddīśya pravartamānānam phalānumānam iti. (Prašastapāda Bhāṣya with Commentary Nyāyakandali of Sridhara, Sri Satguru Publications, Edited by Vindhyesvari Prasad Dvivedin, page 205-6)

vii Pañcāvayavena vākyena svanīścita artha pratipādanam parārthānumānam. (Prašastapāda Bhāṣya with Commentary Nyāyakandali of Sridhara, Sri Satguru Publications, Edited by Vindhyesvari Prasad Dvivedin, page 231)

viii Anumānam dvividham. Svārtham parārtham ca iti. (Tarkabhāṣā of Keśava Miśra, Published from Caukhamba Surbharati prakasan, Varanasi, Edited and Translated in Hindi by Dr. Gajananashastri Musalgavkar, page 130)

ix Anumānam dvividham – svārtham parārtham ca. Tatra svārtham svānumiti hetuḥ. Tathāhi svayam eva bhūyodarśanena yatra dhūmah tatra agniḥ iti mahānasādau vyāptim gṛhītvā parvatasamīpam gataḥ tadgate ca agnau sandhihānaḥ parvatē dhūmam paśyan vyāptim smarati 'yatra dhūmah tatra agniḥ' iti, tadantaram 'vanhivāpyadhūmavāna ayam parvata' iti jñānam utpadyate ayam eva līngaparāmarśaḥ uchyate. Tasmāt 'parvato vanhīmāna' iti jñānam anumitiḥ utpadyate. Tadetat svārthānumānam. (Tarkasamgraha of Annambhaṭṭa, Edited and Translated in Bengali by Srinarayanachandra Goswami, Published from Sanskrit Pustaka Bhandar, page 387)

x Svayam dhūmādgñim anumāya parapatipatti artham pañcāvayava vākyam prayujyate tat parārthānumānam. Yathā parvataḥ vanhīmāna, dhūmavattvāt, yaḥ yaḥ dhūmavāna saḥ saḥ agnimāna yathā mahānasam, tathā ca ayam, tasmāt tathā iti. Anena pratipāditāt līngāt paraḥ api agniḥ pratipadyate. Pratijñā hetu udāharaṇa upanaya nīgamanani pañcāvayavāḥ. Parvataḥ agnimāna iti pratijñā. Dhūmavattvād iti hetuḥ. Yaḥ yaḥ dhūmavāna saḥ saḥ agnimāna yathā mahānasam iti udāharaṇam. Tathā ca ayam iti upanayaḥ. Tasmāt atha iti nīgamanam. (Tarkasamgraha of Annambhaṭṭa, Edited and Translated in Bengali by Srinarayanachandra Goswami, Published from Sanskrit Pustaka Bhandar, page 395).

xi Atha tatpūrvakam trividham anumānam pūrvavad śeṣavad sāmānyatodṛṣṭam ca. (Savātsyāyanabhāṣyam Gotamīyanyāyadarśanam, sutra 1-1-5, edited by Anantalal Thakur, Published from Indian Council of Philosophical Research, New Delhi, Page 12).

xii Pūrvavat iti. Yatra kāraṇena kāryam anumīyate. Yathā meghaḥ ityā bhaviṣyati brīṣṭiḥ iti. Śeṣavat tadyatra kāryeṇa kāraṇam anumīyate. Pūrbodakaviparītam udakam nadyāḥ pūrnatvam śīgrataratvam ca dṛṣṭavā srotasaḥ anumīyate bhūtā brīṣṭiḥ iti. Sāmānyatodṛṣṭam vrayāpūrvakam anyatra dṛṣṭasi anyatra darśanam iti. Tathā ca ādityasya. Tasmād asti apratyāpi ādityasya vrayjeti. (Savātsyāyanabhāṣyam Gotamīyanyāyadarśanam, sutra 1-1-5, edited by Anantalal Thakur, Published from Indian Council of Philosophical Research, New Delhi, Page 12).

xiii Atha vā pūrvavat iti. Yatra yathāpūrvam pratyakṣabhūtaḥ anyataḥ darśanena anyatarasya anumānam. Yathā dhūmena agniḥ iti. (Savātsyāyanabhāṣyam Gotamīyanyāyadarśanam, sutra 1-1-5, edited by Anantalal Thakur, Published from Indian Council of Philosophical Research, New Delhi, Page 12).

xiv Śeṣavat nāma pariśeṣaḥ. Saḥ ca prasaktapratīśedhe anyatra aprasaṅgādi śīṣyamāne sampratyayaḥ. Yathā sad anityam iti evamādinā Dravyaguṇakarmanāmviśeṣeṇa sāmānyaviśeṣasamavāyebhyaḥ nirbhaktasya śabdasya tasmīn dravyaguṇakarmasamāśyāyē na dravyam ekadravyatvāt. Na karma śabdāntarhetutvāt. Yastu śīṣyate saḥ ayam iti śabdasya guṇatva pratipattiḥ. (Savātsyāyanabhāṣyam Gotamīyanyāyadarśanam, sutra 1-1-5, edited by Anantalal Thakur, Published from Indian Council of Philosophical Research, New Delhi, Page 12).

xv Sāmānyatodṛṣṭam nāma yatra apratyakṣe līngalīnginoḥ sambandhe kenacidarthena līngasya sāmānyāt apratyakṣaḥ līngī gamyate. Yathā ichhādibhiḥ ātmā. Ichhādāyāḥ guṇāḥ. Guṇāḥ ca dravya samsthānāḥ. Tad yadeṣām sthānam saḥ ātmā iti. (Savātsyāyanabhāṣyam Gotamīyanyāyadarśanam, sutra 1-1-5, edited by Anantalal Thakur, Published from Indian Council of Philosophical Research, New Delhi, Page 12).

xvi Trividham iti. Anvayavyatirekī, anvayī, vyatirekī ca iti. (Nyāyabhāṣyavārttikam, Uddyotakara, edited by Anantalal Thakur, Published from Indian Council of Philosophical Research, New Delhi, page 43).

xvii Sa ca anvayavyatirekī, anvayena vyatirekeṇa ca vyāptimattvāt. (Tarkabhāṣā of Keśava Miśra, Published from Caukhamba Surbharati prakasan, Varanasi, Edited and Translated in Hindi by Dr. Gajananashastri Musalgavkar, page 134).

xviii Līngam trividham – anvayavyatirekī kevalānvayī kevalavyatirekī ca iti. Anvayena vyatirekeṇa ca vyāptimat. (Tarkasamgraha of Annambhaṭṭa, Edited and Translated in

- Bengali by Srinarayanachandra Goswami, Published from Sanskrit Pustaka Bhandar, page 400)
- <sup>xix</sup> *Hetuvyāpakasādhyasāmānādhikarānya. Tathā hi yatra yatra dhūmavattvaṃ tatra tatra agnimattvaṃ yathā mahānase iti anvayavyāptiḥ. (Tarkabhāṣā of Keśava Mīśra, Published from Caukhamba Surbharati prakasan, Varanasi, Edited and Translated in Hindi by Dr. Gajananasashtri Musalgavkar, page 134-36)*
- <sup>xx</sup> *Sādhyābhāvavyāpakābhāvapratiyogitva. Yatra agniḥ nāsti tatra dhūmaḥ api nāsti yathā mahahṛde itīyaṃ vyatirekavyāptiḥ. (Tarkabhāṣā of Keśava Mīśra, Published from Caukhamba Surbharati prakasan, Varanasi, Edited and Translated in Hindi by Dr. Gajananasashtri Musalgavkar, page 134-36)*
- <sup>xxi</sup> *Yathā śabdaḥ anityaḥ kṛtakatvād ghatavati. Yatra kṛtakatvaṃ tatra anityam. Yatra anityatva abhāvaḥ tatra kṛtakatva abhāvaḥ yathā gagane. (Tarkabhāṣā of Keśava Mīśra, Published from Caukhamba Surbharati prakasan, Varanasi, Edited and Translated in Hindi by Dr. Gajananasashtri Musalgavkar, page 137)*
- <sup>xxii</sup> *Yathā śabdaḥ abhidheyaḥ prameyatvāt. Yat prameyaṃ tat abhidheyaṃ yathā ghataḥ. (Tarkabhāṣā of Keśava Mīśra, Published from Caukhamba Surbharati prakasan, Varanasi, Edited and Translated in Hindi by Dr. Gajananasashtri Musalgavkar, page 145)*
- <sup>xxiii</sup> *Yathā prthivīlakṣaṇaṃ gandhbatvam. (Tarkabhāṣā of Keśava Mīśra, Published from Caukhamba Surbharati prakasan, Varanasi, Edited and Translated in Hindi by Dr. Gajananasashtri Musalgavkar, page 141)*
- <sup>xxiv</sup> *Tatra anvayavyatirekī vivakṣita tadjātīya upapattyou vipakṣa avṛttih, yathā anityaḥ śabdaḥ sāmānyaviśeṣavatvesatyasmad ādi bādhyakaraṇapratyakṣatvād ghatādivad iti. (Nyāyabhāṣyavārttikam, Uddyotakara, edited by Anantalal Thakur, Published from Indian Council of Philosophical Research, New Delhi, page 43).*
- <sup>xxv</sup> *Tathā ca ayam nityebhyaḥ ākāśādibhyaḥ ghatādiṣu ca anityeṣu anvit iti bhavati anvayavyatirekī. (Tātparyatikā, Vācaspati Mīśra, edited by Anantalal Thakur, Published from Indian Council of Philosophical Research, New Delhi, page 140-41).*
- <sup>xxvi</sup> *Anvayī vivakṣita tadjātīya vṛttitve sati vipakṣahīnaḥ, yathā sarvaanityatva ādi nāma anityaḥ śabdaḥ kṛtakatvāt iti. Asya hi vipakṣaḥ nāsti. (Nyāyabhāṣyavārttikam, Uddyotakara, edited by Anantalal Thakur, Published from Indian Council of Philosophical Research, New Delhi, page 43).*
- <sup>xxvii</sup> *Yatheti. Svamate tu abhidheyaḥ viśeṣaḥ prameyatvāt sāmānyavat. (Tātparyatikā, Vācaspati Mīśra, edited by Anantalal Thakur, Published from Indian Council of Philosophical Research, New Delhi, page 142).*
- <sup>xxviii</sup> *Vyatirekī vivakṣitavyapitve sati sapakṣa abhāve sati vipakṣa avṛttih, yathā na idaṃ jīvat śarīraṃ nirātmakam, aprānādima tu aprasaṅgād iti. (Nyāyabhāṣyavārttikam, Uddyotakara, edited by Anantalal Thakur, Published from Indian Council of Philosophical Research, New Delhi, page 43).*
- <sup>xxix</sup> *Atha vā trividham iti, pūrvavat śeṣavat sāmānyatodṛṣṭam ca iti. Pūrvam sādhyam, tad vyāptyā yasya asti iti tat pūrvavat. Sādhyasajātīyaḥ śeṣaḥ, saḥ yasya asti tat śeṣavat. Pūrvavat nāma sādhyavyāpakam. Śeṣavat iti tasyamāneasti. Sāmānyataḥ ca adṛṣṭam. Ca śabdāt pratyakṣa āgama avirudham ca iti. Evaṃ caturlakṣaṇam pañcalakṣaṇam anumānam iti. (Nyāyabhāṣyavārttikam, Uddyotakara, edited by Anantalal Thakur, Published from Indian Council of Philosophical Research, New Delhi, page 43).*
- <sup>xxx</sup> *Evaṃ iti. Etad uktaṃ bhavati abādhitā viśayam asatpratipakṣam pūrvavat iti ca dhruvam kṛtvā śeṣavat iti ekā vidhā, sāmānyataḥ adṛṣṭam iti dvitīyā, śeṣavat sāmānyataḥ dṛṣṭam ca iti tṛtīyā. Tad evaṃ tṛvidham anumānam. Tatra caturlakṣaṇam dvayam. Ekaṃ pañcalakṣaṇam iti. (Tātparyatikā, Vācaspati Mīśra, edited by Anantalal Thakur, Published from Indian Council of Philosophical Research, New Delhi, page 142-43).*
- <sup>xxxi</sup> *Traividhyam anumānasya kevalānvayī bhedataḥ. Dveividhyaṃ tu bhavet vyāpteḥ anvaya vyatirekataḥ. (Bhāṣā-Pariccheda with Siddhānta-Muktāvalī By Viśvanātha-Nyāya-Pañcānana, Advaita Ashrama, Calcutta, English Translation, Translated by Swami Madhavananda, with an Introduction by Dr. Satkari Mookerjee, S. 142, page 233-34).*
- <sup>xxxii</sup> *Anvayavyāptiḥ uktaiva vyatirekādhicyate. Sādhyābhāvavyāpakatvaṃ hetvabhāvasya yadbhavet. (Bhāṣā-Pariccheda with Siddhānta-Muktāvalī By Viśvanātha-Nyāya-Pañcānana, Advaita Ashrama, Calcutta, English Translation, Translated by Swami Madhavananda, with an Introduction by Dr. Satkari Mookerjee, S. 143, page 234-37).*