

CHAPTER - I

INTRODUCTION

Inference as a valid form of cognition

According to Naiyāyikas imperceptible condition that may be in case of the invariable relation between any kind of smoke and that of fire can be avoided with the help of *Vipakṣa Bādhaka Tarka* related to causality. *Vipakṣa Bādhaka Tarka* related to causality is such - if there is no invariable relation between smoke and fire, smoke will not be produced by fire. But smoke is produced by fire. So smoke must be invariably concomitant with fire. The invariable concomitance related to causality which is the base of Tarka is 'that what is produced by that is invariably concomitant with that' That condition which is apprehended in case of invariable concomitance, same kind of apprehension can be made in the case of the invariable concomitance which is the base of *Tarka*. If it is apprehended that smoke is produced without fire, satisfaction will come without food. But it is admitted, there will be practical obstruction in case of *Pratyakṣa Pramāṇa*. So this is possible to ascertain the invariable concomitance between smoke and fire and there is no apprehension of imperceptible condition.

In the *Nyāya Mañjurī*, Jayanta Bhaṭṭa has admitted the practical utility of inference. In any society all men infer at every step, though they are not aware that they infer. Such kind of spontaneous inference occurs in case of the child though they are not acquainted with any process of the

inference. Farmers also infer about paddy crops through the clue of a probans or reason. Even the child can infer the primary relation between the word and its meaning by observing the verbal usage of the old people. If there is no solid ground in the context of lecture, that lecture can never be attractive to any man whether he is educated or uneducated. When we advise our relatives to do anything, we have to support that advice with the help of some arguments so that the advice can be effective.

Now we shall determine the definition of inference. The word '*Anumāna*' is constituted with two words '*Anu*' and '*Māna*'. The meaning of the word '*Anu*' is 'after' and the meaning of the word '*Māna*' is knowledge. So the etymological meaning of the word '*Anumāna*' is the knowledge which succeeds another knowledge. After perceiving the smoke in the hill the knowledge of fire is possible. Here the preceding knowledge is perceptual knowledge. 'The knowledge of fire'- this later knowledge is inference. Vātsyāyana in his book '*Nyāya Bhāṣya*' describes inference in this way – '*Tatpurbakanumānam*'. Here perception has been mentioned by the word '*Tat*'. Therefore it is said that inference always follows perception.

The famous example of the inference of Naiyāyikas is 'The hill is fiery as it has smoke'. In this inference 'smoke' is probans. The probans is that by which something is inferred. Fire is inferred with the help of the probans named 'smoke'. Fire is probandum. That which is inferred in the subject is probandum. Fire is probandum as it is inferred about fire. The place where fire is inferred is 'the hill'. 'The hill' is pakṣa. The place where there is doubt about probandum is called pakṣa. Because before inference there is doubt about fire which is the feature of the

probandum. So it follows that in the pakṣa 'hill' is inferred the probandum 'fire' is inferred by the probans 'smoke'. Here there arises a question that we infer fire by perceiving 'smoke', but why do we not infer water? In response to this we may say that as smoke and fire always remain in the same place, we infer fire by perceiving smoke. That is as smoke and fire always reside in the same locus there is concomitance rule or the relation of universal concomitance between them.

The etymological meaning of the word '*Vyāpti*' is *vyāpakatā* or extensiveness. That is the concomitance relation resides in such two entities that one entity co-heres with another entity. In Tarkasamgraha Annambhaṭṭa determines the nature of *Vyāpti* – The form of the concomitance relation has been shown by the statement 'where there is smoke there is fire', Here by the word 'smoke' probans has been indicated and by the word 'fire' Probandum has been indicated. For understanding all places of smoke the part 'where there is smoke' has been included. The part 'the rule of concomitance' is the defining characteristic of 'the concomitance relation'. 'Co-existence' – that too entities abide in the same locus is called '*Sahacāra*' The relation of *sahacāra* is called concomitance. The word 'concomitance' means co-location. The entities which abide in the same locus are co-related. The colour and smell of rose abide in the same locus. So in this case the colour and smell of rose are colocated. The presence of concomitance is co-location. Thus 'wherever there is smoke there is fire' – the meaning of this sentence is, in the locus where smoke resides, fire also resides in that locus, that is there is coherence relation between smoke and fire. But only co herence is not called *vyāpti*. The rule of co-location is called *vyāpti*. By the word 'rule' is meant, the regular co-herence.

In *Tarkasamgraha Dīpikā* Annambhaṭṭa has explained the rule of concomitance as ‘*Hetusamānādhikaraṇatyāntabhāva pratiyogisādhyasamāñādhī Karanyam*’. Simply it is said that probandum will be the non-negatum of the absolute absence which will be in the locus of probans. When there is no presence of a object with another object in any time, i.e. – past, present and future such type of absence is called absolute absence. As for example – there is not only the absence of colour in the air, but also there can not be colour in the air in any time. The absence of any object is the negatum of that object. As for example –the pot is the negatum of the absence of the pot. Where there is the absolute absence of any object, there can never be the negatum of that absolute absence. Now we shall notice whether the characteristic of *Vyāpti* which has been described is applicable to the valid inference or not. If the characteristic is not applicable to any valid inference, it will be meant that the characteristic is faulty. So to examine the characteristic it will be applied to any valid inference. The characteristic will be applied in the case of famous inferential case. In this inference the probans is ‘smoke’, probandum is ‘fire’ and the subject is ‘hill’. The place where there is smoke is called the locus of smoke i.e., the locus of the probans. The locus of the probans ‘smoke’ is kitchen, field & the ritual platform etc. The absolute absence of the probandum which is in the locus of the probans can never be in that locus. The absolute absence of the fire can never be in the above mentioned substratum i.e., kitchen, field, ritual platform etc. In the locus of the probans ‘smoke’ there will be absolute absence of jar, pot etc. The negatum of the absolute absence of jar, pot is jar, pot. The non-negatum of the absolute absence of the jar, pot is the probandum ‘fire’ As the probandum ‘fire’ is different from jar, pot which

is negatum of the absolute absence which abides in the same locus as the probans, fire is the non-negatum of the absolute absence of jar, pot etc. The characteristic of *Vyāpti* is considered as valid and also as faultless as the probandum 'fire' which is the non-negatum of the absolute absence abides in the same locus as the probans also abides in the same locus as the kitchen etc. Let us consider another inference. Let us apply this characteristic in the inferential case 'The hill has smoke as it has fire'. 'Fire' is the probans in this inferential case. The locus of the probans 'fire' in red hot ironball. As in the locus of probans 'fire' i.e. in the red hot iron ball there is absolute absence of the jar, pot etc., so also in the probandum 'fire' there is absolute absence. As in the locus of probans red hot iron ball, fire abides but not smoke, fire and smoke can not abide in the same locus. As in this context the probandum is 'smoke', the negatum of the absolute absence which abides in the locus of the probans is smoke. As in this inferential context the characteristic does not match, this inference has considered to be faulty.

Only after establishing the concomitance relation between smoke and fire, we can not infer in this way – the hill has fire. At first after the observation of the concomitance relation between smoke and fire in the kitchen, ritual platform etc. and then the non observation of smoke in the place where there is no fire, the concomitance relation between smoke and fire is established. But if afterwards we do not perceive smoke in the hill and we do not affected by the impression which is due to the perception of the formerly acquired concomitance relation, such kind of memory can not be produced that smoke is pervaded by fire. So it is implied that after the perception of the probans in the subject, the remembrance of the concomitance relation between the probans and the

probandum is possible. Such kind of knowledge ‘The hill has smoke’ is called *Pakṣadharmatā* Jñāna i.e. ‘The subject (pakṣa), ‘the hill’ has a feature’; If the etymological meaning of the word *Pakṣadharmatā* is accepted, ‘*pakṣasya dharmah Pakṣadharmah, tasya bhavaḥ pakṣadharmatā*’ has derived from such sixth *Tatpuruṣa Samāsa* and then for inner meaning the word ‘*pakṣadharmatā* has derived from the root word ‘*Tal*’. Let us discuss the nature of *pakṣa* before discussing *Pakṣadharmatā*. *Pakṣa* is that where there is *pakṣatā*. Literally the meaning of *pakṣatā* is the feature of *Pakṣa* or such a characteristic resides in the entity, for which the entity is called the *pakṣa* of that inference. Again we mean by *pakṣa* that entity about whom a probandum is certainly ascertained. To prove certainly that there is probandum, the entity should have capability of being *pakṣa*. The capability of being a *pakṣa* is dependent upon a particular situation. The etymological meaning of such a situation is called *pakṣatā* without which the entity can not be a *pakṣa* of a inference. In *Tarkasamgraha Dīpikā* Annambhaṭṭa describes *Pakṣatā* – the *siddhi* that is accompanied by *siṣādhayiṣā* i.e. the absence of the certainty of *sādhyā* is called *Pakṣatā*. In the *pakṣa* there is probandum, such kind of certainty is called *siddhi*. Generally no one can infer if there is the certainty of the probandum in the subject or the *pakṣa*. But inspite of the certainty of the probandum, if anyone desires to infer, then he can infer. So *siṣādhayiṣā* or desire to infer acts as a stimulant in case of the inference and being stimulant this *siṣādhayiṣā* helps to construct inference in spite of the presence of the *siddhi* as hindrance. But in case of the inference if there is *siddhi*, not *siṣādhayiṣā*, there can not be *pakṣatā* in that case. So it is seen that the negation of the certainty of the probandum which is accompanied by the desire to infer is accepted

as the cause of the inference and that cause is called *pakṣatā*. The subject or *pakṣa* which is accompanied by *pakṣatā* is considered as *pakṣa*. In the above discussed example by the term ‘the hill etc’ is meant that subject or *pakṣa* which is accompanied by *Pakṣatā*. For this reason in *Tarkasamgraha Annambhaṭṭa* describes ‘*pakṣadharmatā*’ as ‘The hill has probans’, That which is *āsraya* or the seat of the *vyāpti* is called *vyāpya*. As for example – in the above mentioned example fire is invariably concomitant with smoke. So smoke is invariably concomitant with fire. The presence of the probans in the subject or *Pakṣa* is called *pakṣadharmatā*. After observing the concomitance relation of smoke with fire in the places like courtyard, kitchen etc. accepting the invariable relation between smoke and fire, if smoke is perceived in the hill, then the knowledge ‘*Dhumaḥ Parvata vṛtti*’ i.e. mountainhood of the probans ‘smoke’ is called *pakṣadharmatā*. If that probans which is invariably related with the probandum is in the *pakṣa*, is called *pakṣadharmatā*, In the knowledge of *Pakṣadharmatā* the hill acts as *viśeṣya*, smoke acts as *prakāra* or *viśeṣaṇa* of the hill and smokeness acts as *prakāra* or *viśeṣaṇa* of smoke.

But a question arises when a person perceives smoke in the hill and he certainly knows that wherever there is smoke there is fire – from these two knowledge whether he can infer that there is fire in the hill. After perceiving smoke in the hill that person acquires the knowledge of *Pakṣadharmatā* as ‘*Parvataḥ Dhūmavān*’ and he acquires the knowledge of invariable concomitance as ‘*Vahnivyāpyaḥ Dhūmaḥ*’ after perceiving the invariable concomitance between smoke and fire. But these two knowledge being separate cause of the inference can not be able to produce this inference ‘*Parvataḥ Vahnimān*’. Because smoke is *prakāra*

in the pakṣadharmatā knowledge ‘Parvataḥ Dhūmavān’, and the hill is Viśeṣya. Here only smoke is the object of this *pakṣadharmatā jñāna*, the invariable concomitance between smoke and fire is not the object of this *Pakṣadharmatā jñāna*. The hill is not the object in the knowledge of the invariable concomitance ‘Vahnivyāpyaḥ Dhūma’, only there is the relation of invariable concomitance of the smoke with the fire. As the knowledge of *pakṣadharmatā* and the knowledge of *vyāpti* are completely separate, they can not produce this inferential knowledge ‘Parvataḥ Vahnimān’. The inferential knowledge will never be possible if there is no knowledge of invariable concomitance of that smoke with fire, i.e., the smoke by which fire is inferred in the hill. The inferential knowledge will never be possible unless there is the knowledge of the smoke which is in the hill is invariably concomitant with fire. Therefore third knowledge is to be admitted which is the addition of two knowledge i.e. *pakṣadharmatā jñāna* and *vyāpti jñāna* and the form of this knowledge is ‘*Vahnivyāpya Dhūmavān Parvataḥ*’ If Vyāptivisistatva as the adjective of Probans which is included in the knowledge of *Pakṣadharmatā* is the object, there arises viśista jñāna called parāmarśa. Except this *Parāmarśa Jñāna* inference is not possible. Therefore Annambhaṭṭa expresses the characteristic of inference as ‘*Pramāṣājanyam Jñānam anumiti*’. As the characteristic of inference is expressed by inference, it is essential to understand the exact meaning of parāmarśa.

Classification of Inference

Many philosophers have classified inference into various classes in respect of their point of view.

Sage Gautama has described inference into three subdivisions – i.e. (1) *Pūrvavat* (ii) *Śeṣavat* and (iii) *Sā' mānyatodrṣṭa*. Commentator Vātsyāyana has described these three kinds of inferences in two kinds of interpretations.

In the first interpretation of the commentator the meaning of the word '*Pūrvā*' is a cause and the meaning of the word '*Śeṣa*' is the effect. As in the sequence of the cause and the effect, the cause occurs former and the effect occurs later, so the word '*pūrvā*' is applied in the meaning of the cause and the word '*seṣa*' is applied in the meaning of the effect. '*Pūrvam vidyate yatra*' that is *pūrvavat* inference is that inference where the cause exists as probans. According to such etymological meaning this inference is the inference due to cause. In this case the effect is inferred by means of the cause. As for example by perceiving the cause i.e. dark cloud in the sky we can infer its effect i.e. future rain, According to the second interpretation of the commentator this inference is – in the case of the perception of the concomitance relation in the way the two entities are perceived, between these two in another place for perceiving the same kind of entities like formerly seen probans is inferred the same kind of entities like formerly seen probandum, that inference is *pūrvavat anumāna*. The word '*Pūrvavat*' has come from the word '*Pūrvā*' which has derived from '*Vati*' The meaning of this word is similar to *Pūrvā*. The famous example of it is – '*Yathā dhūmenāgniriti*'. Earlier in the

kitchen by perceiving the co-existence between smoke and fire, we perceive the concomitance relation between smoke and fire. Afterwards in the hill by perceiving the same kind of smoke which was like formerly seen smoke, same kind of unperceived fire which was like formerly seen fire was inferred. ‘*Śeṣo vidyate yatra*’ that is *śeṣavat* inference is that inference in which effect exists as probanṣ. From this etymological meaning this inference is effect based on inference. In the context of this inference the inferential knowledge of that pervaded cause is acquired by the knowledge of the particular effect. By perceiving the effect i.e. the swift muddy flooded water of a rain, we infer its cause i.e. the past rain. Another interpretation of this inference “*Śeṣavannāma Pariśesaḥ*” ‘*Śisyate aviśisyate*’ - according to such etymological meaning the entity which is residual is meant by the word ‘Śeṣa’ “*Śeṣo’sti yasya Pratipadyatayā*’ that is residual entity is implied by *anumāna pramāna*. The inference by which inferential knowledge is acquired about residual entity is called *Śeṣavat* inference. A person clarifies with argument that sound is quality. Among six entities i.e., substance, quality, particular and inherence, universal and action, sound is not universal, particular and inherence. Because that three entities are not eternal, but the sound is non-eternal. So in the next step such kind of doubt arises whether sound is substance or quality or action. But by such kind of inference i.e., ‘sound is not substance, as it is inherent in substance’, it is ascertained that sound is not substance. Because non-eternal substances have component and they inhere in the more than one substance with component. But only sound inheres in the substance called *akāśa*. So sound is not substance. In the next step by the inference ‘sound is not action’ from the production of the same class it is determined that the

sound is not action. Because in the next moment of the production of the sound, that sound produce another sound of the similar class. Because if a action is produced in a substance, in the next moment that action has a division from other substance. So only action is meant for division and that which is not meant for division, has no characteristics of action. So in action there is no production-hood of the same class. Only substance and quality is the producer of the same class. In this way if in the sound substancehood and actionhood is fulfilled, qualityhood is the residual entity. So the qualityhood of the sound is proved. The proof of qualityhood is the inference about the residual entity i.e. qualityhood. In this case Śeṣavat inference is that inferential means which proves that residual entiy.

In the case of inference where inferential entity is not liable to the ordinary perception, so it is not possible to perceive invariable concomitance with any other entity. In that case the inference of the unperceived entity is possible by perceiving the relation of the invariable concomitance of any object with any other object - this kind of inferential means is *sāmānyatodṛṣṭa anumāna*. As for example the movement of the sun is unable to see in the ordinary perception. So its concomitance relation with any other entity is not possible to perceive in the ordinary perception. But because of this movement the object which is seen in one place is also seen in another place. Thus because of the perception of the in-general invariable concomitance inferential knowledge of the movement of the unperceived sun is acquired, as in the morning the sun is seen at one place, but at the afternoon the sum is seen at another place. According to the second interpretation *Sāmānyatodṛṣṭa anumāna* is opposite to *Pūrvavat anumāna*. Because in *Pūrvavat* inference formerly

at any place the relationship of pervaded-pervader between probans and probandum is perceived. But in the case where that kind of relation between Probans and probandum is not liable to ordinary perception, in that case the probandum is solved by the *Sāmānyatodrṣṭa* inference. The inference of the qualities like wish etc. is the example of such kind of inference. Besides body etc. soul is not liable to ordinary perception. Though the qualities like wish etc. are the object of the internal perception, it is not possible to perceive the relation of the invariable concomitance of that soul with those qualities, because soul is that in which the qualities like wish etc. are acquired – to ascertain such kind of invariable concomitance there is no illustration that is proved by perception. But whatever is the quality it subsists in the substance itself, as for example colour etc. quality – in this way the relation of the invariable concomitance of in-general category like quality with *dravyāśritva*-ness is established. Because the fact that quality like colour. subsists in the substance is perceived by the external sense organ. As in – general invariable concomitance relation is established, so it is proved that wish etc. qualities persist in the substance i.e., category like substance is the substratum of the qualities like wish etc. As a result of this, additional substance called soul is proved.

But according to Uddyatakara and Vācaspati Miśra soul is not proved by *Sāmānyatodrṣṭa* inference because soul is not the object of the inference. But whatever is quality persists in the substance – in such a way as the invariable concomitance of the quality like category with *Dravyāśritva* is ascertained, quality like wish etc persist in the substance is proved by the *Sāmānyatodrṣṭa* inference. After that wish etc. quality does not persist in the body, in the sense ^{organ} ~~organ~~ – this is proved by

inferential means, at last other than body etc. quality like wish persists in the substance, i.e., soul is the quality of that additional substance - it is proved by *śeṣavat* inference. First of all the inference that proves that the substance is the substratum of the qualities like wish etc. is called *Śeṣavat*.

In reference to this it is mentioned that *Sāṃkhya* Philosophers also has divided inference into three classes – as for example – *Pūrvavat*, *Śeṣavat* and *Sāmānyatodrṣṭa* inference. According to the old *Sāṃkhya* Philosopher *Pūrvavat* inference is analogical inference. The word '*Pūrvavat* has composed by adding *Pratyaya* 'Vatic' 'Vatic' is analogical *Pratyaya*. We have seen that from dark cloud the rain falls. At present the clouds have gathered as before. So it will be rain. This kind of inference is *pūrvavat*. In case of *Sesavat* inference we know a small part of the large and we infer that the residual part like small part contains the same quality. As for example – tasting a small amount of water with the help of tongue we know that the sea water is salty and with the help of *Śeṣavat* inference we come to know that the remaining part of the sea-water is salty. Imperceivable movement is inferred by *Sāmānyatodrṣṭa* inference. As for example – a person named Rama from one country goes to another country. Perceiving Rama in another country we can realize that he has movement. We can not perceive the movement of Rama with the help of eye. We cannot perceive the movement of the stars and the moon though we can notice their displacement from one place to another. We infer their movement by the probans i.e. the displacement in one place from another place. Though there is the difference between the movement of Rama and the movement of the moon and the sun, the movement has some universal feature. We are

inferring the movement of the moon and the stars on the basis of the universal feature called movement. For this reason such kind of inference is *sāmānyatodṛṣṭa* inference.

Vācaspati Miśra has divided inference into two subclasses – *Vīta anumāna* and *Avīta anumāna*. This subdivision of inference has made on the basis of the method of determining the invariable concomitance. The invariable concomitance is determined on the basis of the agreement and the difference. That inference where the invariable concomitance is determined on the basis of the agreement, and the inference which is meant for positive object is called *vīta anumāna*. As for example – ‘The hill has fire as it has smoke’. This kind of inference is inclined to find out the probandum on the basis of the invariable concomitance based on the agreement *Avīta anumāna* is that where the invariable concomitance is based on the difference. This kind of inference is engaged in finding out the Probandum on the basis of the invariable concomitance based on the difference. In spite of being implemented, it prohibits i.e. ‘there is nothing’-such kind of absence is implied by it. In one word it is said that *vīta anumāna* is the knowledge of the invariable concomitance which is for the knowledge of the concomitance relation based on the agreement and *avīta anumāna* is the knowledge of the invariable concomitance which is for the knowledge of the concomitance relation based on the difference. In the commentary of Vātsyāyana that Śeṣavat inference which has been mentioned is this *Avīta Anumāna*. In *Śeṣavat anumāna* that which remains residual, is the content of the inference. As the content of this inference is residual, this inference is called *Śeṣavat*. In course of describing this inference Vācaspati Miśra has quoted this very famous line – “*Prāṣakta – Pratishedheanyatra prasangashisyamane*

sampratyaya Pariseshesah iti'. *Tattvakaumadi, Sa.Ka. 5.*, quote *Nyāyabhāṣya* – 1.1.5. By negating these categories which have probability and by not considering those which have no probability, the category which remains residual is called *Parīśeṣa*. If we descube the famous example of *Nyāyadarsāna*, the matter will be clarified 'Whether sound is substance or quality, or action' – in what category sound will be included – that is the considerable matter. Sound is existent and non eternal. For this reason the probability of being sound is less in the case of negation, generality, particularity and inherence as negation is non-existent. Though eternal generality, particularity and inherence are existent. By not considering the categories like generality, particularity and inherence, we will consider whether sound is substance, or quality or action. We think greatly that these categories have the probability. If we prove that sound is not substance and action, quality will remain residual. Sound is creative category. If sound is substance, it will be *avayavī*. If it is *avayavī*, it will be inherent in many constituents. But more than one constituent of the sound is not seen. So sound is not substance. Whether sound is action. Action is not originated from another action. But sound is produced from another sound. So sound can not be action. So sound is quality. Substance and quality have the probability of being sound, generality and particularity etc. have no probability of being sound. In the former said manner sound will not be probable substance and action and it will not be improbable generality and particularity. At last there will remain quality. Thus inclusion of sound in quality will be proved by *Śeṣavat* inference.

To make *Avīta* inference understand Vācaspati Miśra has quoted the example of Vātasāyanā's inference which proves qualityness of sound.

But in his book called ‘*Tātparyatīkā*’, Vācaspati Miśra has pointed out that the example given by Vātasyana is not well reputed. Because in the case of *Avita Anumāna* the knowledge of the invariable concomitance is established on the basis of the method of difference. But in the inference of the proof of the qualityness of the sound, the knowledge of the invariable concomitance is established by the method of the agreement and the difference. So according to him the proof of the soul as the substratum of the wish etc quality is the consistent example of the *Śeṣavat* Inference.

Vita inference has been divided into two parts – as for example (1) *Pūrvavat* and (2) *Sāmānyatodrṣṭa*. The meaning of the word ‘*Pūrvavat*’ is related to *pūrva*. Here the meaning of the word ‘*Pūrva*’ is famous. Vācaspati Miśra has given the meaning of the word ‘*Pūrvavat*’ is related to *purva*. Here the meaning of the word ‘*Pūrva*’ is famous. He has given the meaning that we formerly perceive the particulars of that universal which is inferred. Let us take a famous inferential case i.e., ‘The hill has fire as it has smoke’. In this case we do not infer the particular fire, we infer the universal ‘fireness’ Because only particular is perceivable. Formerly many times we have seen the particular ‘fire’ in the kitchen. The universal ‘fireness’ is existent in this particular ‘fire’ also. Therefore the particular individual (*Svalakṣaṇa*) of that universal which we are inferring, has been seen before. To make this matter understand the meaning of the word ‘famous’ has been stated – ‘*Drṣṭa Svalakṣaṇasāmānyam*’. *Drṣṭam Svalakṣaṇam yasya Samanyasyā* – i.e. that *Svalakṣaṇa* of the universal which is the object of the perception, if we take another *svalakṣaṇa* of that universal as probandum (*sādhya*) there will be *Pūrvavat* inference, here fire is a universal entity. The

particular fire is *svalakṣaṇa*. As before this inference the *svalakṣaṇa* of that fire i.e., only individual fire has been perceived, the inference ‘the hill has fire as it has smoke’ has been *stated Pūrvavat*. As a result of this the fire in the hill is inferred. The probandum which is the object of the knowledge of the invariable concomitance, that type of the inference which is related to the probandum is called *pūrvavat*.

Second kind of *Vīta* inference or *Sāmānyatodrṣṭa* is *adrśya svalakṣaṇa Sāmānyaviṣayaka*. *Svalakṣaṇa* of that generality has not been perceived before, but *Svalakṣaṇa* of generality which is pervaded by that generality is perceived, the inference where that generality is the object is called *Sāmānyatodrṣṭa* inference. Let us clear the point with the help of an example – ‘*Rūpajñānam Sākāraṇakam Kriyātvāt Chidādikriyāvat*’ – if we analyse this example we came to know that the knowledge of the colour is the action of the internal sense organ. So there is the instrument of that action. As for example there is the instrument of the action of the cutting. The axe is the instrument of the action of the cutting. In this case there is inference of that generality which is the form of instrumenthood. The particular axe etc. entities of that generality is perceived by us. We infer that instrumenthood generality of the instrument of the action of the colour etc. The particular sense organ of that instrumenthood is never perceived. At all times sense organ is imperceivable entity. But instrumenthood is the generality which is pervaded by sense organhood generality, The axe etc. is *Svalakṣaṇa* of generality which is pervaded by this instrumenthood. This kind of inference is called *sāmānyatodrṣṭa* as axe etc *Svalakṣaṇa* is perceived and the particular sense organ which is *Svalakṣaṇa* of the sense organhood generality is not perceived. In this inferential case the concomitance



relation has been established between the action of cutting and the instrumenthood. But by this inference the senseorgan is established. In the hill to establish fire in the case of the concomitance relation as particular fire is the object, likewise particular senseorgan is not the object in the case of the accepted concomitance relation to establish the senseorgan as the instrument of the knowledge of the colour etc. But the axe etc. is the object. This axe etc is not *svalakṣaṇa* of the probandum of that inference. So in the knowledge of the colour etc. as instrumenthood is established, this inference is called *sāmānyatodṛṣṭa* as before inferring *Svalakṣaṇa* of such kind of instrument is not perceived. Though there is similarity between *sāmānyatodṛṣṭa* with *Pūrvavat*, there is dissimilarity between them. The similarity between them is that both inference is caused by the knowledge of the invariable concomitance which is due to agreement Yet in the case of *Sāmānyatodṛṣṭa* we infer that generality of which the particular individual can not perceive before. In some cases that particular individual can be imperceivable object. But in the case of *Pūrvavat* the particular individual of the inferrable generality is perceived before.

The neo-logicians has divided inference in two parts – the inference for oneself and the inference for others. This kind of division of the inference has done on the basis of the utility which the inference serves. That inference is called *Svārthānumāna* by which the person can infer his own probandum. In the term ‘*Svārtha*’, by the term ‘*artha*’ is meant utility. Then the meaning the term ‘*Svārtha*’ is ‘done for serving any utility of own’. Again by ‘utility’ it is meant the removal of the doubt which we have about the probandum. Thus according to the etymological meaning, the meanīng of the term ‘*Svārthānumāna*’ is –

Svārthānumāna is that inference from which one's own purpose is served, that is the doubt about probandum which arises in one's mind is removed. As for example it is said that when any person who has the knowledge of the perceiving the concomitance relation between smoke and fire in the places like kitchen etc, goes to any hill and perceives the smoke emerging from the hill, then doubt arises in mind that there may be fire in the hill. Then that person remembers that there is constant concomitance relation between smoke and fire i.e. he remembers this kind of invariable concomitance relation - 'wherever there is smoke there is fire'. Then he acquires this kind of certain knowledge i.e. 'This hill has smoke which has invariable concomitance with fire'. At last from this certain knowledge he infers 'The hill has fire'.

In the case of *Parārthānumāna* the meaning of the term '*artha*' is utility. In the case of this inference the utility is for the purpose of any other person. *Parārthānumāna* is that inference by which another person can acquire the knowledge of the inferrable entity. In this case of the inference at first any person infers for his own purpose and then to make it understand another person he applies five membered statement. After perceiving smoke any person by himself infers fire in the hill and then if he makes it to convince another person, he has to apply those five statements i.e. – (i) The hill has fire (ii) Because it has smoke (iii) Whatever has smoke has fire e.g. Kitchen (iv) This hill has smoke which is invariably associated with fire (v) Therefore this hill has fire. These five statements are called Nyāya and its part statements are called *Avayava* The five statements *Pratijñā*, *Hetu*, *Udāhāraṇa*, *Upanaya* and *nigamana* are called *Pañcāvayava*.

Among these five 'The hill has fire' is *Pratijñā*. This statement describes the proposed conclusion to other person. By this statement it is meant that a particular probandum (*sādhya*) is in the particular subject (*Pakṣa*). In the case of any inference it is ascertained that there is a particular probandum (*sādhya*) in a particular subject (*pakṣa*). But we have to take probandum (*sādhya*) by limiting the limiter of *sādhya* and in the same way we have to take subject (*Pakṣa*) by limiting the limiter of *Pakṣatā*. As for example, the statement - 'The hill has fire' is called *pratijñā*. In this case 'the hill' is subject (*Pakṣa*), 'the fire' is the probandum (*sādhya*). The limiter of *Pakṣatā* is mountainhood and the limiter of *sādhya* is firehood. Then from this 'Pratijñā' there will be knowledge that the hill which is limited by mountainhood there is smoke which is limited by smokehood. In this way in all inferential cases that statement is called *Pratijñā* in which there acquires knowledge between *sādhya* (Probandum) which is limited by that limiter of *sādhya* and the subject (*pakṣa*) which is limited by that limiter of *Pakṣatā*. The statement called *Pratijñā* is essential for the knowledge of *Pakṣadharmatā*.

Hetuvākya is the statement by which it is said that 'In the subject (*Pakṣa*) there is probandum (*sādhya*). 'Dhūmavattvāt' – such type of statement is *Hetuvākya*. After *Pratijñā* there is the application of *Hetuvākya*. The main task of this statement is to express the proposed probands of inference to other. In Sanskrit there is fifth case ending at the end of such statement. There may be *hetuvākya* if it is said 'dhūmāt' instead of *dhūmavattvāt*.

The Statement ‘*Udāharaṇa*’ exemplifies Vyāpti or the rule of the invariable concomitance i.e., *Udāharaṇa* is that statement which implies the invariable concomitance of probans (*Hetu*) with Probandum (*sādhya*) or the invariable concomitance of the absence of the probandum (*sādhya*) with the absence of the probans (*hetu*). In this statement the rule of the invariable concomitance or *Vyāpti* is mentioned with example. ‘wherever there is smoke there is fire’, as for example kitchen’ or ‘wherever there is no fire there is no smoke’ as for example lake’ – such type of statement is *Udāharaṇa*. Here in the first statement the relation of the invariable concomitance has been established by the example of the Kitchen and in the second statement by the example of lake, the relation of the invariable concomitance has been established between the absence of fire with the absence of smoke. In the *Nilākanṭhī* commentary it has been said that where there is real probans (*hetu*), there remains Probandum (*sādhya*) which is invariably connected with real probans – that statement from which such kind of knowledge yields, is called *Udāharaṇa*. Simply this statement apprehends another person about the knowledge of the invariable concomitance that except the knowledge of the invariable concomitance no one can prove the existence of the probandum (*sādhya*) in the subject (*pakṣa*) in any inference. *Udāharaṇa* is essential for producing the knowledge of the invariable concomitance.

By the fourth statement called *upanaya* is meant that the probans is characterized by the invariable concomitance. By this statement the relation is established between the probans which is characterized with the invariable concomitance and the subject (*Pakṣa*). It has been said in the commentary of *Nilakanṭhī* – ‘that which is qualified by the limiter of *Pakṣatā*, there is Probans which is invariably concomitant with real

Probandum (*sādhya*). As the example of *Upanaya* it is said that – ‘This hill has smoke’. By the term ‘*Ayam*’ which is included in this statement is meant the hill which is qualified by the limiter ‘hill-hood’, and by the term ‘*Dhūmavān*’ is meant that smoke which is invariably concomitant with real Probandum (*sādhya*) (i.e. fire) is in that subject (*Pakṣa*). Though there yields the knowledge of probans (*hetu*) from hetuvākya, that probans is invariably connected with probandum – such kind of knowledge arises from *Upanaya*.

In *parāṛthānumāna* fifth statement i.e. *nigamana* establishes the existence of Probandum in the subject (*Pakṣa*) on the support of probans which is characterized by the *Pakṣadharmatā* in what is *Vyāpti-Viśiṣṭa*. ‘This hill has fire’ – such type of statement is the instance of *Nigamana Vākya*. By this statement it is meant that the subject has the probans and the probandum. In the subject (*pakṣa*) the relation of probandum is apprehended on the perspective of the relation of that kind of probans. The function of *Nigamana Vākya* is to convey other person the fact that the ‘Probans’ adduced for the proposed probandum is free from faults like ‘*bādha*’, ‘*satpratipakṣa*’ etc. So it is to be accepted as granted. The utility of *Nigamana Vākya* is to imply uncontradictoriness and non-counteriness.

In this way in case of *Parāṛthānumāna* we observe that on one hand there is no irrelevant statement, on the otherhand, each statement like *pratijñā* etc. has its own utility.

But according to Mīmāṃsakas for emerging certain knowledge of probandum to other person’s mind these three *avayavas* – either *pratijñā*

hetu and *udāharāṇa* or *udāharana*, *upanaya* and *nigamana* are sufficient. According to them there is necessity of *Pratijñā vākya* to mention specially the conclusion. They admit the necessity of *Udāharāṇa* and *Hetuvākya* for the knowledge of *Vyāpti* and *Pakṣadharmatā*. The *Mīmāṃsakas* think that three *avayavas* admitted by them are able to serve the necessity. But *Naiyāyika* criticizes the opinion of the *Mimamsakas* and says that when *Parārthānumāna* is constituted only by three *avayavas* viz. *pratijñā*, *hetu* and *udāharana*, there lies the possibility of the faults like *Satpratipakṣa* and *Bādha*. Besides, there is necessity of admitting the fourth statement called *Upanaya* because the remembrance of the knowledge of the invariable concomitance between fire and smoke and the perception of smoke in the hill – these two separate knowledge in the hearer’s mind can never emerge the inference of fire in the hill. So combining those two separate knowledge, such kind of Knowledge of *parāmarśa* i.e., “*Vahni vyāpya dhūmanayam parvataḥ*” has necessity.

In the case of *parārthānumāna* all the persons who will have inferential knowledge, their own *Parāmarśa* is the special means of their inference. Because the person who acquires inferential knowledge has *linga Parāmarśa*. Here a question arises, how *Parārthānumāna* i.e. *pañcāvayava vākya* can be said the special means of inference of another person, In reply to this it has been said in the *Nīlkanthī commentary* that though *linga parāmarśa* of other person is the special means of their inference, yet in figurative meaning *pañcāvayava vākya* is said to be *parārthānumāna*. Such kind of figure is possible as *pañcāvayava vākya* is the inducer of *linga Parāmarśa* of other person. That is *parārthānumāna* itself is not the special means of inference of other person, that mark or probans which is implied from it, from that *linga* or

mark the knowledge of *liṅga parāmarśa* of other person emerges and from that *liṅga parāmarśa* other person can infer.

Another classification of inference has been done by Naiyāyikas. *Anumāna* has been divided into three classes as it is based on the nature of *Vyāpti* and on the different methods of establishing it – as for example – *Anvaya-vyatireki*, *kevalānvayi* and *kevala-vyātireki*.

Anvaya-vyatirekī inference is that inference where the *Vyāpti* between the middle term and the major term in respect of presence and absence. The famous example of this inference is – ‘The hill has fire as it has smoke’. In this inference ‘hill’ is the inferential subject (*Pakṣa*), fire is Probandum (*sādhya*) and smoke is *Probans* (*hetu*). Here the two types of the rule of concomitance is involved is *anvaya-vyāpti* and *vyatirekī-vyāpti* *anvaya-vyāpti* or the rule of invariable concomitance based on agreement is the knowledge of the invariable concomitance which emerges from the fact that the probans (*hetu*) and the probandum (*sādhya*) exist in the same locus. In this case the relevant concomitance – rule in agreement would have the form ‘Wherever there is smoke there is fire’. This knowledge of the rule of invariable concomitance is based on supporting instances like ‘kitchen’, ‘cow-shed’ etc. where smoke is found associated with fire. As there is no instance to the contrary showing the presence of ‘smoke’ and yet not of ‘fire, the rule of invariable concomitance is taken to be unexceptionable. Here the instances supporting the rule of invariable concomitance are those of agreement in presence. Besides this inference depends on another kind of the knowledge of the rule of the invariable concomitance – i.e. *Vyatireka Vyāptijñāna*. *Vyatireka Vyāpti* is that knowledge of the rule of the

invariable concomitance which arises from the knowledge of the agreement in absence. In this inference the form of the knowledge of the rule of the invariable concomitance is 'wherever there is no fire, there is no smoke'. We find that in instances like a pond, a river, a sea etc, there is absence of 'fire' as well as 'smoke'. The negative concomitance of 'smoke' and 'fire' is supported by the negative instances like lake, river, sea etc.

Kevalānvayi inference is that inference which is involved in a rule of concomitance through knowledge only of agreement in presence. Let us take one example of *Kevalānvayī* inference. 'The pot is nameable because it is knowable'. In this inference 'Pot' is inferential subject (*pakṣa*), 'Nameability' is Probandum (*sādhya*) and 'knowability' is the Probans (*hetu*). The meaning of the term 'Nameability' is the entity which is apprehended by the power of 'name'. That meaning is said to be nameability what is meant by the name or power of any term. All objects are nameable because in this world there is no such object which is not known by the name of any term. The meaning of the term '*Prameyā*' is the object of *Pramā* or valid knowledge. In the world all the entities are the object of knowledge. Though each and every object is not knowable to common people, all objects are knowable to God. As all objects are knowable, knowability exists in everywhere. In this inference the relevant concomitance rule would have the form 'wherever there is knowability, there is nameability'. This rule is based on supporting instances like 'table', 'chair' etc. which are both knowable and nameable. As the two features 'knowability' and 'nameability' are found in some supporting instances and as there is no instance to the contrary showing that something is the object of knowledge without being

‘nameable’, the rule of invariable concomitance is to be taken as unexceptionable. ‘Wherever there is absence of knowability, there is absence of nameability’ – such type of the concomitance rule through agreement in absence is not found. It is not possible to have instances of agreement in absence (*Vyatireka*) in support of the relevant vyapti i.e. it is not possible to be found ‘the absence of nameability’ as well as ‘the absence of knowability’. In the case of the *Kevalānvayi* inference the relevant rule of concomitance is established only by instances agreement in presence (*anvaya*).

Kevala vyatirekī inference is that inference which is involved in the rule of concomitance through knowledge only of agreement in absence and where there can be no concomitance rule through agreement in presence. Let us take an example of *kevala-vyatirekī* inference – ‘Earth differs from other things, because it is endowed with smell; what does not differ from other things’ is not endowed with smell, as for instance, water in this inference ‘Earth’ is the inferential subject ‘difference from other things’ is the probandum (*sādhya*) ‘being endowed with smell’ is the probans (*hetu*). By ‘other things’ which is included in the probandum is meant ‘things other than the inferential subject, Earth’. In this inference it is not possible to have any concomitance rule through agreement in presence like ‘whatever is endowed with smell is different from other things’. Because it is impossible to get any instance of agreement in presence which is required for such a concomitance rule through agreement in presence. Since every specimen of earth is the subject of this inference, there is no instance of agreement in presence which is required for such a concomitance rule through agreement in presence. The supporting instances for this rule of concomitance would then be all

specimens of Earth, for it is only earthy things that can have smell. So the rule must then be only of negative concomitance based only on instances of agreement in absence and will be of the form ‘whatever is not different from other things is not endowed with smell’. As the phrase ‘other things’ in the probandum means ‘things other than the inferential subject earth’ it is easy to establish this rule of concomitance. As for example water, Tejas are things other than Earth, they are ‘not different from other things and they are ‘not endowed with smell’. As there is no instance to the contrary showing that something is ‘not different from other things’ and is yet ‘endowed with smell’. So the rule of concomitance on which the *Kevala vyatireki* inference is based, should be taken to be unexceptionable.

In *Tarkasaṃgraha Dīpikā* Annambhaṭṭa has given a special discussion on *Kevala vyatireki* inference and has presented a dilemma. In the *kevala vyatireki* inference under discussion the inferential subject (*pakṣa*) is ‘earth’, ‘the’ difference from other things’ is the probandum (*sādhya*). Now the probandum called ‘difference from other things’ has been mentioned is either (i) known or (ii) unknown. If the probandum in question is known then there would no rule of concomitance through agreement in absence. Because in the locus where the probandum ‘the difference from other things, is known, if the probans (*hetu*) ‘being endowed with smell’ is also present there, then it may be the rule of concomitance through agreement in presence. If the probans ‘being endowed with smell’ is not present in an instance where the probandum ‘difference from other things’ is also present, then as the probans is not present either in *sapakṣa* or in *vipakṣa*, there would be the fallacy called *asādhāraṇa*. On the other hand, if the probandum ‘difference from other

things' is unknown, i.e., not formerly known, then there will be no knowledge of probandum (*sādhya*), i.e., inferential knowledge will not be possible. The knowledge of the absence of the probandum must be dependent on the knowledge of the invariable rule of concomitance through agreement in absence and the knowledge of the probandum is dependent on the knowledge of the absence of the probandum. If there is no knowledge of the probandum, if the probandum is unknown, then there can be no knowledge of the rule of the concomitance through agreement in absence.

In reply to such criticism in the commentary *Dipīkā Annambhaṭṭa* has said that if by 'difference from other things' is meant 'difference in general from other things' then such kind of objection can be done. He points out that the difficulties mentioned in the dilemmatic objection do not arise at all if 'difference from other things' is taken to mean not 'difference in general from other things' but 'difference in particular from other things'. In Nilakanṭha's language, what is predicated in the instance of '*Kevala vyātirekī*, inference is not difference in general from others things but the totality of the several particular differences viz, 'difference from water', 'difference of tejas', 'difference from air' and so on. (*Prthivī tara-sāmānyabhedah na sādhyate, api tu jaladi-bheda kūṭah sādhyate* – Nilakanṭha's commentary - Page – 106), So 'difference from other things', can not be known in other places. So there will not be concomitance rule through agreement in presence. Where there is no probans 'being endowed with smell', there will not be uncommon in the known 'difference from other things', as by the term 'difference from other things' is meant 'things other than earth'. The number of the things which is meant as the things other than earth has

mentioned. The earth is different from thirteen differences collectively – i.e. the earth is different from eight substances – water, *tejas*, air, *ākāśa*, space, time, soul and mind and from five categories like quality, action, generality, particularity and inherence. The meaning of the term ‘the difference from other things’ is the collection of the reciprocal absence or the difference from one entity from another among thirteen differences like water etc. Water is different from fire, fire is different from air, in this way among all these differences locus of every difference will be known. So ‘the difference from other things’ will not be unknown. So there will not be the fallacy of having the concomitance rule through agreement in absence.

Knowledge is a kind of lamp by which the nature of an object is revealed. According to the Naiyāyikas, cognition or *Buddhi* is of the two types : presentative cognition (*anubhava*) and recollection (*smṛti*).¹ A presentative cognition may be valid (*yathārtha*) and invalid (*ayathārtha*). A valid presentative cognition which is called *Pramā* is of four types : *Pratyakṣa*, *Anumiti*, *Upamiti* and *Śābda*. The uncommon causes (*Karaṇa*) of these four types of knowledge are called perception (*Pratyakṣa*), inference (*Amumāna*) comparison (*Upamāna*) and verbal testimony (*Śabda*) and they are special sources of attaining valid knowledge (*Pramānas*)².

Perception is the knowledge which arises out of the contact (*sannikarṣa*) of the sense organs (*indriya*) with objects (*artha*). This knowledge will be indescribable (*avyapadeśya*) i.e. indeterminate (*nirvikalpaka*) non-deviated (*avyabhicāri*) definite (*vyavasāyātmakam*) i.e. determinate (*Savikalpaka*). This definition of perception given by

older logicians has been rejected by Gaṅgeśa, as it does not cover God's perception. According to Gaṅgeśa, perception is the knowledge of which the knowledge is not the uncommon cause having operative process (*Karaṇa*)³ The perceptual knowledge of an object is independent in the sense that it does not depend on the knowledge of other objects and hence it is immediate (but not mediate).

Generally, what a man apprehends with the help of his sense-organs must be true if, of course, there is no defect (in perception). No man questions about the truth of the cognition which is attained through sense-organs unless anything contradictory to it is found.

Perception is the basis of all kinds of knowledge. Without taking recourse to perception other sources of valid knowledge i.e. inference, comparison and verbal testimony are not possible.

Utility of Inference in our daily life

Inference consists in making an assertion about an object on the strength of the knowledge of the probans which is invariably connected with it. The word '*anumāna*' literally means the cognition which follows from other knowledge. Here the prefix 'anu' means 'after' and 'māna' means 'knowledge.' From this literal meaning it follows that the perceptual knowledge of the probans gives rise to the inferential knowledge. One can infer the existence of fire, for example, after perceiving the smoke which has got an uninterrupted connection with the

surface of the mountain. The knowledge of invariable concomitance (vyāpti) is the key for having inferential knowledge. This knowledge of vyāpti is not possible without the help of perception. Vyāpti is nothing but an invariable co-existence between probans and probandum⁴ The knowledge of the probandum as related to the subject of inference (pakṣa) depends on the previous knowledge of the probans as related to the subject and at the same time as invariably related to the probandum. One can infer fire on the mountain by virtue of the fact that one perceives smoke on it and has observed it as invariably accompanied by fire. In both the cases the necessity of perception cannot be denied.

Perception and inference are equally important sources of valid knowledge. Perception is independent in respect of the knowledge of other objects while inference is dependent on the previous knowledge. Perception can reveal those objects that are within the range of our sense-organs, i.e. it can give us the knowledge of the present objects that are within the reach of our sense-organs in a normal way.⁵ But inference can give the knowledge of those objects that are not connected with the sense-organs.

Though perception is the fundamental basis of all kinds of knowledge yet inference is by far the important source of knowledge in our everyday life. The inference has got a prominent role in our society. Hence, inference as a special source of valid knowledge (*Pramāṇa*) is accepted by the philosophers of all schools of Indian Philosophy with the single exception of the materialistic school (the Cārvāka school). But it should be clearly borne in mind that the philosophers of the Cārvāka school also do not deny the existence of inference as such. They only

hold that inference cannot be accepted as a special source of valid knowledge or *Pramāṇa*. There can at most be the knowledge of probability through inference, but not definite valid knowledge⁶ So the dispute with Carvakas in regard to inference is limited only to the question of its having the nature of the special source of valid knowledge or otherwise. The *Cārvākas* hold that inference by virtue of having the capacity of producing the knowledge of probability cannot produce definite valid knowledge.

The philosophers of other schools theist or atheist, strongly oppose the standpoint of *Cārvākas* that inference has got no capacity to produce definite valid knowledge. The idea behind the strong opposition is that inference has got tremendous utility in our day to day life, and unless it can produce definite valid knowledge, it cannot satisfactorily be an instrument to serve us in meeting the diverse needs of our life.

It is, of course, to be concluded, they say, that though the knowledge of probability also can serve us to a certain extent to meet the requirements of our life, particularly in respect of guiding us in the field of activity yet it can never serve our purpose in every respect and in all cases. Definite valid knowledge of a particular object alone can guide us invariably towards action, and this definite valid knowledge can certainly be produced by inference in most of the cases.

In a society the help of an inference is taken almost in every step, but generally we are unaware of the fact that we are inferring some objects. In most of the cases inference is drawn spontaneously. Illiterate persons are found to be guided by inference, not to speak of the literate.

Cultivators are seen to infer some object after seeing some sign or mark (*liṅga*). The Naiyāyikas are of the opinion that even a child also infers.⁷ A child attains inferential knowledge spontaneously without being aware of the inferential procedure. The inherent process of inference of a child can be shown in the following manner.

A child comes to know the primary relation (Samketa) of a term with its meaning at first from the verbal usages of the old persons (*Vṛddhasya śabdādhīnavyavahārādeva*). When a man who is aware of the meaning of a term (*vyutpanna*) asks another man who also knows the meaning of the same term to bring a cow, the person who has been asked to bring a cow by the senior person (*uttamavṛddha*) brings it after hearing the word of the senior and realising the meaning of it. On observing the performance of the man who has been asked to bring a cow, a child draws the inference in the form : 'This bringing of a cow is the result of the inclination, the object of which is the bringing of a cow, as it has got effortness in it, as in the case of my inclination to suck mother's breast', (*idṅam gavānayanam svagocarapravṛttijanyam, cestāvāt, madīyastanap ānādivat*)⁸ Then he comes to infer the state or condition of being produced by the knowledge of the feasibility (by one's effort) of which the bringing of a cow has become qualificand (*gavānayanadharmikakāryatājñānajanyatvam*)⁹ in respect of the inclination with the help of the syllogistic argument in the form : 'That inclination to bring a cow is produced by the knowledge of the feasibility (by one's effort) of which the inclination to the same has become qualificand, as it has got the generic property existing in inclination, as in the case of my own (inclination) (*sā gayanayanapravṛtṭiḥ svayīṣayadharmi-kakāryatājñānajanyā pravṛttivāt, nijapravṛttivat*). Here

inclination towards a particular action has become qualificand to the knowledge of the feasibility by one's effort. Any type of inclination presupposes this type of knowledge of feasibility. Then the child again forwards the syllogistic argument in the form : 'The knowledge of the feasibility (by one's effort) of which the bringing a cow has become qualificand, has an uncommon cause, as it is an effort having effortness in it as in the case of a jar. (*gavanayanagocaratajjñānam asādhāraṇahetukam kārīatyāt, ghatavat*). Any type of effect has got its special cause and hence, the effect in the form of bringing a cow needs some special cause. After drawing such inference the child comes to know that the knowledge of the verbal usages of the old persons (*vṛddhavyavahāra*) is the uncommon cause (*asādhāraṇakāraṇa*) of the knowledge mentioned above.¹⁰ A child attains this type of inferential knowledge being completely unaware of the abovementioned inferential procedure.

In a society no man believes in a statement which is baseless. In other words, a statement which is not properly grounded cannot impress other beings. If our neighbours or relatives are advised to do something or not to do something, they should be convinced with the help of arguments in favour of our statements. In every sphere of our life, we are going on saying something depending on some arguments in as much as the groundless speech will fall flat upon others,¹¹ which is also a form of inference.

The valid inferential knowledge guides us in innumerable walks of our life beginning with the dealings with our fellow people in our everyday life. Our life becomes thoroughly impracticable¹² unless our

fellow-beings are properly and satisfactorily dealt with and this can never be done unless we definitely and rightly understand the mind of people around us. This understanding of others' mind depends on inference in most of the cases.¹³

Moreover, from fire red-colour of a mango it is inferred that it is ripen. In the like manner, the past rain is inferred from the muddy current of the river. In the same way, the mental states like pleasure, pain etc. existing in a man can be inferred from their different types of expressions and gestures. Sometimes, the exact place or country where a man resides can be inferred after observing his dress or his particular language carefully. Thus innumerable instances of the knowledge based on inference in our every day life can be shown.

A man is desirous of doing those types of works by which his purpose might be served and hence, it can be said that the end-in-view (*prayojana*) inspires him to do some activities.¹⁴ In order to get or get rid of something a man engages himself in activity.¹⁵ Man's desire is related to result in the form of pleasure or the absence of pain and to the means of it. The longing for the result of some action presupposes the knowledge of it.¹⁶ Hence the desire for the result is due to the existence of the knowledge of it, which is also a form of inference. The cause of desire for the means (of the result) is the knowledge of its conduciveness to the object which is desirable (*iṣṭasādhantājñāna*). This knowledge of its conduciveness to that which is desirable is considered as a *hetu* to the desire for the means also.¹⁷ Again, the knowledge of the feasibility through one's effort (*kṛtisādhyatājñāna*) and the knowledge of its conduciveness to that which is desirable (*iṣṭasādhantā-jñāna*) are

considered as the reasons behind the desire for doing something. Nobody thinks to do action without having the knowledge of its feasibility through one's effort, the cause of desire.¹⁸ This can also be taken as an instance of inference in our day to day life. In the same way, the knowledge of its being productive of what is extremely unpleasant (*dviṣṭaśādhana-tājñāna*) is the cause of aversion (*dveṣa*), the object of which causes pain. Here aversion towards an object is inferred on the strength of its *dviṣṭa-sādhana-tājñāna*.¹⁹

The existence of the imperceptible objects like Ātman, God etc. can easily be proved with the help of inference only.²⁰ Hence, the logicians prove the existence of *Ātman*, as a locus of the attributes like desire, aversion, effort etc.²¹ In other words, soulness (*ātmatva*) is inferred as the limiter (*avacehedaka*) of this inherent causeness of pleasure, pain etc. Again, that which imparts consciousness in the sense-organs and also in the body is *Ātman*. Though the contentness (*Viśayatva*) of the perceptions like 'I am unhappy' etc. remain in Atman, it would not be possible at first to make a person (bearing doubt about it) convinced that *ātman*, the object of the above-mentioned perception, is different from body etc. Hence, another strong argument is to be forwarded. As no result is produced from the cutting instrument like an axe etc. without being guided by an agent, the eyes etc., the sense-organs, cannot produce any result without being guided by an agent. That is why, the agent in the form of impeller of the sense-organs is *Ātman*²². The syllogistic argument regarding the existence of *Ātman* existing in others' body is as follows : 'The body of Devadatta is endowed with *Ātman*, as it is associated with the condition of being qualified by inclination like a chariot'.

(Debadattaśarīram ātmavat pravṛttimattvāt rathavat).

It is a fact that a considerable number of people in our society believes in the existence of God even in this modern age, but a very few of them have realised Him. This belief in God is based on some grounds, but *not* on blind faith. The Naiyāyikas have taken pain to highlight the existence of the Divine with the help of some grounds or arguments that are inferential in nature. These syllogistic arguments are as follows.

(a) As the effects like jar etc. are caused by an agent, the earth (*kṣiti*), dyads (*ankura*)²³. must have caused by an agent. The agentness of it, being not possible in persons like us having limited knowledge and power, remains in God. Hence, God is inferred as the cause or agent of earth etc.²⁴ (b) The activity in which dyad becomes a promoter (*prayojaka*) at the time of initial creation is caused by an effort (*prayatnajanya*), as it is an activity. This world is originated from the combination of atoms. These atoms cannot be combined with each other automatically (without being guided by a conscious being) due to their inanimate character. This Conscious Being is nothing other than God²⁵ c) The absence of the coming downwards of weighty substances (*gurutvavatām*) is caused by an effort which becomes an obstacle to the coming down of a substance, as it is endowed with steadiness, as in the _ case of the absence of falling of a bird (*pakṣipatānābhāvavat*)²⁶ This world having weight is not coming down due to having some power in the form of effort, which is God (d) The destruction of the universe presupposes the existence of an effort, as it is a destruction in character as in the case of the destruction of a jar²⁷ This effort from which the destruction of the universe follows is in the form of God. (e)

The initial verbal usages like jar etc. are done by an independent person, as it is a verbal usage, as in the case of the usages of the scripts introduced in modern age. This independent person is God.²⁸ (f) The Vedas are introduced by a being who is other than an individual who entangles in the worldly affairs, as it has the property of being the Veda (*Vedatvāt*). That which is not of this type would not be of this type, as in the case of a piece of literature.²⁹ The *Asāmsārī Puruṣa* is God. (g) The Vedas are introduced by a *Puruṣa* (*Pauruṣeya*) as they possess sentences as in the case of the *Mahābhārata* etc. This *Puruṣa* is god. All these syllogistic arguments prove the existence of god.

The imperceptible objects like atom *Ākāśa Kāla* etc. are admitted by the Naiyayikas with the help of inference. The Naiyayikas have explained the origination of the whole universe in terms of the combination of atoms. This theory would have been meaningless if the existence of atom were not proved through inference. Herein lies the importance of inference. The syllogistic argument is as follows: If the whole of an object has an endless series of parts, there would arise the contingency of equality in respect of size between mountain and a mustard seed. If the whole has some parts, the parts also have some other parts in which there are other parts and so on. In this way, there would arise 'Infinite Regress' (*Anavasthā*). As there is no final unit of a definite size, we cannot add these up to make different sizes. Hence there would arise the contingency of equality in dimension between very big and small objects; as in mathematics anything multiplied by zero is zero.³⁰ So this process of division must be stopped anywhere. If the limit is taken as noneternal, it would be taken into account that a positive effect may be produced even when there is the absence of

inherent cause. If the limit is considered as non-eternal, it must be taken as an effect which remains in its through the relation of inherence (*samavāya*). As there are no parts in it, it can be said that it is a positive effect having no parts.³¹ As a positive effect having no parts is not possible, it would be taken as an eternal object. As the gradation of the medium dimension (*Mahatparimanataratamya*) has limit in *Ākāśā* etc., the gradation of the atomic dimension (*anuparimanā*) has limit somewhere.

Where there is limit is an atom³² It cannot be said that the limit of atomic dimension is a triad (*Trasareṇu*). That a triad possesses its parts (*avayava*) can be established with the help of the syllogistic argument in the form : "A triad possesses its parts, as it is a substance capable of being perceived like a jar" (*Trasareṇuḥ sāvayavaṅ cākṣusadravyatvāt ghatavat*). That the parts of a triad (i.e. dyads) possess their own parts can also be established by another inferential argument in the form : "The parts of a triad possess their own parts, as they become the producer of an object of medium dimension, as in the case of kapāla i.e. upper part of the jar (*Trasareṇo-ravayavāḥ sāvayavāḥ mahadārambhakatvāt kapālavat*). A part of a dyad, one of the parts of a triad, is called Atom.³³

In the same way *Akāśa* is inferred as the locus of sound³⁴ The existence of Kala is inferred from its general causeness to the objects that are produced (*janya*), from its being the locus of this universe³⁵ and from its being an uncommon cause (*karana*) of this knowledge of priority (*Paratva*) and posteriority (*Aparatva*)³⁶

The philosophers of the theistic school specially take recourse to

inference as a means to go above the sphere of grief and sorrow and attain fulfilment in the form of attaining salvation or Mokṣa. The Upanisadic injunction that the realisation of the soul should be attained through hearing, thinking and constantly meditating upon the nature of the soul is accepted by the philosophers of the theist school as a supreme gospel, by obeying which a man can rise above the sphere of sorrow and grief and can attain salvation. 'Thinking' in the injunction is nothing other than inference of the soul as distinct from other worldly objects (*Mananam cātmanaḥ itarabhinnatvena anumānam*). This inference of the true nature of the soul should be attained through frequent practice of inference. Hence, it can easily be understood what great importance has been attached to inference by the theistic philosophers of our country having regards to the utility of inference in the matter of attaining the supreme goal of life.

Each and every object of this world can be inferred as distinct from other worldly objects. As for example, a jar can be inferred as distinct from the objects other than the jar i.e. pot etc. In this way, a pot can be inferred as distinct from the objects other than pot etc. i.e., jar etc. The Hetu of the inference of some object as distinct from others is the definition of that object. As for example, a cow is distinct from the animals other than cow, as it is the locus of the dewlap etc. (*Gauḥ gavetarabhinnā sāṣṇādimattvāt*).

From the above discussions, it can be concluded that inference has great utility in each and every sphere of our life. The particular kind of conditions, both positive and negative, cannot guide or control our activities in the majority of cases of our life for the simple reason that

capacity of those conditions to produce definite valid knowledge is limited compared to that of the procedure of inference.

Though it can be argued that procedure of inference is extremely complicated and it can only be successfully applied by the highly educated persons, trained in the art of drawing right inference, it can also be equally emphasized that the drawing of inference from some given data is not a so difficult proposition. It has already been said that even the illiterate persons also are found to be spontaneously drawing inference from circumstances and controlling their activities accordingly. It is, of course, very difficult to give scholarly analysis of the procedure of inference, but to draw inference from some given data is not at all difficult, rather it is, to a great extent, spontaneous.

Keeping therefore, in view of the above practical aspect of inference, it can safely be concluded that Inference has got great utility in our everyday life.

REFERENCES

1. “..... Buddhistu dvividhā matā Anubhūtiḥ smṛtiśc Syādanubhutiścaturvidhā.”- Bhāṣāpariccheda, Verse No. 51.
“Sā dvividhā Smṛtiranubhavaśceti
... Yathārthānubhavaścaturvidhaḥ.”
Tharkasaṅgraha, Chowdhamba Sanskrit Sansthan, pp.32-33
2. ‘Etāsāmcatasṣṇām karaṇāni catvrāi

‘Pratyakṣānumānopamānaśabdāḥ pramāṇāni sūtroktāni
veditavyāni’ - *Siddhāntamuktāvalī* on Verse 51.

‘Tat karaṇamapi caturvidhamṁ pratyaṣ -
Kānumānopamānaśabdabhedāt’

Tarkasamgraha, pp. 34-35. (Same ed.)

3. “Indriyārthasannikar oṭpannatami jñānam
avyapadey śamavyabhicari vyavasāyātmakampratyakṣam” –
“Athavā jñān karaṇakam jñānam pratyakṣam”

Siddhāntamuktāvalī on Verse, 51.

4. “Yatra dhūmastarāgniriti sāhacaryaniyamo vyāpṭḥ”

Tarkasamgraha, p. 49 (Same Edition).

5. Here the phrase ‘in a normal way’ has been used in order to
exclude the super-normal perception *alaukika pratyakṣa* through
which objects of all times can be perceived.

6. “Dhūmādi jñānāntaramagnyādi jñāne pravṛtṭiḥ pratyakṣamūlatayā
bhrāntiyā vā yutyate. Kvacit phalaprati lambhastu
maṇimantrauṣadhivad yādṛcchikaḥ.” *Sarvadarsanasamgraha*,
Cārvāka-darśanam.

7. “Avalāvālagopālanālikapramukhā api buddhyante
niyatādarthādarthāntaramasamśayam.

Nyāyamanjuri p. 110, Chowkhamba Ed.

8. “Prathamam padeṣu samketagraho vṛddhasya vyutpannasya
śabdād hīnavyavahārādeva vālānām, Tathāhi, gāmānayeti
kenacinnipunena niyuktah kaścana vyutpannastadvākyato’ rtham
Pratitya gavānayanam karoti taccopalabhamāna vila idam
gavānayanamsvagocarapravṛtṭijanyam ceṣṭātvāt. madiyastanap n
divadityanumāya ...”

Śabdaśaktiprakāśikā, Nāmaprakaraṇa, Prose portion on Verse No. 20; P. 116 (Jaycandra Śaramā Ed.)

9. “Svaviṣayadharmiketi pravṛttiviṣayaviśeṣyaketyarthaḥ, Kūryatā kṛtisādhyata.” - commentary on, Prose portion of verse no. 20 of *Śabdaśaktiprakāśikā*, p. 116, Edited by Jayaccandra Śarmā.
10. “... Sā yavānāyanapravṛtṭiḥ svaviṣayadharmikakāryatajñānajanāyā, pravṛtṭitvānnijapravṛtṭivaditi
pravṛtṭergavānayanadharmikakāryatajñānajanāyatvaṃ prasādhyā
gavānayanagocaratajñānamasādhāraṇahetukam kāryatvād
ghaṭavadityevaṃ anuminavānaḥ śrutamvṛddhavākyaṃeva
tadasādhāraṇakāraṇatvenāvadhanayati.”
Śabdaśaktiprakāśikā (Nāmāprakaraṇa) Prose portion on Verse No. 20, P. 116, Edited by Jaychandra Sharmā.
11. “Aśiraskavacanopanyāse sādhyāsiddheḥ. Ekākini pratijñā hi pratijñātām na sādhyayet’.
Bauddhadarśana, Sarvadarśanasamgraha.
12. “Anumñāpalāpe tu pratyakṣādapi durlabha lokayātreṭi lokāḥ syurlikhitā ivaniscataḥ” - *Nyāyamañjarī*, P. 110, Chowkhambā.
13. “Pramānāntarasāmānyastheteḥ anyadhiyogateḥ, pramānāntarasadbhāvaḥ”
Bauddhadarśana, Sarvadarśanasamgraha.
14. “Yamarthamadhikṛtya pravartate tatprayojanam”
Nyāyasūta 1.1.24.
“Yena prayuktaḥ pravartate tat prayojanam
Yamarthamabhipsanjihāsan vi karṇ irabhate tenānena
Sarve prāṇinaḥ sarvāni karmāni sarvāsca vyāptiḥ”
Nyāyabhāṣya on Sūtra 1.1.24.

15. “Yamarthamāptavyam hātavyam vādhyavasāya
tadīptih‘ānopāyamanutisthati tat prayojanam, tadveditavyam
pravṛttihetutvīt”. *Ibid.*
16. “Icchā hi phalaviṣayinīca. Phalam tu sukham duḥkhābhāvaśca.
Tatra phalecchīm prati phalajñānath kāraṇam”.
Siddhāntamuktāvali on verse 146.
Nirduḥkhatve sukhe cecchā tajjñānādeva jñāyate.”
Bhāṣāparicchedaḥ, Verse 146.
17. “Icchā tu tadupāye syādiṣtopāyatvadhiryadi”.
Bhāṣāpariccheda, Verse 146.
- “Upāyecchām pratīṣṭasādhanatajñānam kāraṇam”
Siddhāntamuktāvalī on Verse 146.
18. “Cikīrsā kṛtisādhyatvaprakārecchā tu yā bhavet.
Taddhetuḥ kṛtisādharatvamatirbhavet”
Bhāṣāpariccheda Verse 147.
- “Cikīrṣām pirti kṛtisādlyajñāramiṣṭasādhanatjñānam ca karanam
Ataeva vrṣṭyādau kṛtisādhytatājñānābhāvāna cikīrṣā.”
Siddhāntamuktāvali on Verse 147.
19. “Dviṣṭasādhanatā buddhirbhavet dveṣasya kāraṇam”.
Bhāṣāpariccheda, Verse no. 14.
- “Duḥkhopāyaviṣayakam dveṣam prati
dviṣṭasādhanatajñānamkāraṇamityarthaḥ”.
Siddhāntamuktāvali on Verse 148.

20. Ātman, god etc. can be known through *yogaja pratyakṣa* which is not at all easy task. Hence inference is the easy method through which common men can be convinced as to the existence of Self, God etc.

21. “Icchādveṣaprayantnasukhadukkhajñānyātmano liṅ gamiti.”

Nyāyasūtra. 1.1.10

“Ātmatvajātistu sukhadukhādisamavāyākāraṇatāvachedakatayā sidhyati”.

Siddhāntamuktāvalī on Verse 47.

“jñānadhikaraṇamātama”

Tarkasamgraha, P. 19 (Chowkhamba).

22. “Indriyāṇām śārīrasya ca paramparayā caitanyasampādakaḥ yapyapyātmani ahaṁ duḥkhītyādipratyakṣaviṣayatvamastyeva, tathāpi vipratipannaṁ prati prathamata eva śārīrādhībinnastatprātītigocara iti pratipādayitum na śakyate ityataḥ pramāṇāntaram darśayati karaṇamiti. Vāsyādinām chidadikaraṇāṇām kartāramantareṇa phalānupadhānam dr̥ṣṭam, evaṁ cakṣurādīnām jñānakaraṇānāmpai phalopadhānam kartūramantareṇa nopapadyata ityatiriktaḥ kartā kalpyate”.

Siddhāntamuktāvalī on Verse 47.

23. Here the term ‘*An kura*’ means dyad or *dvyanuka*. In the *Kiranāvalī* commentary on *Siddhāntamuktāvalī* it is said that, just as the object which is seen at first as a promoter of a tree arising out of the seed is called *An kura*, the object which is the promoter

of the world-tree (*Sam sōrataru*) arising from two atoms has got resemblance with *An kura* and hence *dvyañuka* is to be understood by the term '*An kura*'. Her '*dvyañuka*' is metaphorised as '*An kura*' and world as tree. The original commentary runs as follows

“An kureti=yathā vijādutpannasya vṛkṣaprayojakasya
prāthamikadarśanaviṣayasyānkuratvam tāthā
paramānubhyāmutpannasya samsārataruprayojakasya
dvyañukasyān kurasāmyāt an kurasābdena dvyañukam lakṣ yate”

Kiranāvalī On siddhāntamuktāvali, p. 16.

(Edited by Krishnaballava Acharya).

24. “Yathā ghaṭādikāryam katṛjanyam tathā kṣityam kurādikamapi”

Siddhāntamuktāvalī on Verse I.

25. “Sargādyakālīnadvyañukaprayojakam karma prayatnajanyam
karmatvāt”.

Dinakrī on Siddhāntamuktāvali, Verse no. 1, p. 20

(Chowkhamba).

26. “Gurutavavatām patanābhāvaḥ
patanapratibandhakaprayatnaprayuktaḥ dṛḷtitvāt,
pakṣipatnābhāvavat”. *Ibid.*

27. Brahmāṇḍanāśaḥ prayatnajanyaḥ naśavāt, ghatanāśāvat”. *Ibid.*

28. “Ghaṭādivyavahāraḥ svatantrapuruṣaprayojyaḥ
Vyavhāratvāt, ādhunikakalpitalipyādivyavaḥāravat”.

Dinkarī on Siddhāntamuktāvali, Verse I, p. 29 (Chowkhamba).

29. “Vedaḥ asaṁ sārīpuruṣapraṇītaḥ. Vedatvāt, yannaivam tannaivam
yathā kāvyamiti”. *Ibid.*

30. *Bhāṣāpariccheda*, p. 44 (Footnote).

Edited by Swami Madhavananda

31. “Teṣāṃ cāvayavadhārāyā anantatve merusarṣapayorapi
Sāmyaprasaṅgaḥ, ataḥ kvacid viśramo vācyah
ataḥ kvacid viśramo vācyah, yatra tu viśrāmaḥ tasyānityatve’
sambhaveta
(bhāva) kāryotpattiprasaṅgāt tasya nityatvam ”.
Siddhāntamuktāvalī on Verse 37.
32. “Mahatparimāṇatāratmyasya gaganādu
viśrāntatvamivāṇuparimāṇatāratmayasyāpi kvacidvisrāntavamastīti
tasya para māṇutvasiddhiḥ”, *Ibid*.
33. “Na ca trasareṇāveva viśrāmo’ stiti vācyam.
Trasareṇuḥ sāvayavaḥ cākṣuṣadravyatvāt
ghaṭavadityanumānena tadavayavasidhau, trasareṇo-
ravayavāḥ sāvayavaḥ mahadārambhakatvāt,
kapālvadityanumānena tadavyavasiddheḥ”.
Siddhāntamuktāvalī on Verse 37.
“Tryaṇukāvayavo’pi sāvayavaḥ mahadārambhakatvāt kapālavat.
yo dvyaṇukāvayavaḥ sa paramāṇuḥ”.
Dīpīka on *Tarkasamgraha*, p. 190.
Chowkhamba with seven commentaries.
34. Śabdaguṇakamākāśam.
Tarkasamgraha, p. 1718 (Chowkhamba).
35. “Janyānām janakaḥ kālah jagatāmāśrayo mathaḥ”.
Bhāṣāpariccheda Verse no. 45.
36. “Paratvāparatvabuddhirasādhāraṇam nimittam kāla eva”. *Ibid*.