CONCEPT OF UNIVERSAL PROPOSITION (UDHARANA) IN NAYAYA PHILOSOPHY

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ABSTRACT

Universal proposition (Udharana) is also known as general proposition or categorical proposition. Universal proposition is defined as the proposition in which the relation between the subject term and the predicate term is without any condition, in which the predicate is either affirmed or denied of the subject unconditionally. In nyaya logic the term vyapti is a universal proposition or invariable relation between the middle term (linga/hetu) and the major term (sadya). According to the category of relation propositions are divided into categorical and the conditional. Although proposition is a logical entity which is an assertion, either affirm or deny the subject. Truth and falsity are the values of proposition. Universal proposition is of two kinds: universal affirmative proposition and universal negative proposition while universality is the quantity of the subject and affirmation or negation is the quality of the proposition. Anumana (inference) is the knowledge of the objects which follows some other knowledge. In nyaya logic Inference is a combined deductive-inductive reasoning consisting of at least three categorical propositions and in it there are at least three propositions consisting of three terms, viz. the paksa or minor term about which we infer something, the sadhya or major term which inferred object, and the linga(probans) or sadana or middle which is invariably related to the major, and is present in the minor. Indian inference resembles to the categorical syllogism of western logic. In nyaya logic inference consisting of three propositions the first proposition is the conclusion of the syllogism, the second is the minor premise and last the major premise which is totally opposite of western logic. Syllogism of nyaya logic contains five propositions, called its Avayavas or members. These are pratijna, hetu, udarana, upanaya, and nigamana. Middle term have five characteristics in order to make five Figures of syllogism as Figure is the form of the syllogism. These five characteristics, or at least four of them, must be found in the middle term of a valid inference. If not, there will be fallacies(error in reasoning). Nyayikas give us three classifications of inference. According to first inference is of two kinds, namely, svartha and parartha. According to another inference is of three kinds, purvat, sesavat and samanyatodrsta. According to third classification inference is distinguished into kevalanvayi, kevala-vyatireki and anvaya-vyatireki.

OBJECTIVES

The main objectives of this research paper are:

1. To explore the nature and structure of universal proposition (Udharana) in nyaya logic.
2. To determine the role of universal proposition in the premises of inductive argument, deductive argument, and for syllogism
3. To explain and clarify the concept of inference, terms of inference, and the premises of inference.

Keywords: Universal proposition, udharana, vyapti, proposition, inference, syllogism, nyaya logic, premises, terms, induction, deduction.

INTRODUCTION

Nyaya school of Indian philosophy is a theistic (Astik) : one who believes in the authority of vedas. It is also known as school of logic, argumentation or justification and also nyaya literally means “method” or “rule”. The founder of Nyaya philosophy was Gotama. Nyaya philosophy is also known as Anviksiki, Nyayavidya, or Hetuvidya which literally means “the science of reasoning or logic. Nyaya philosophy accepts four valid sources of knowledge: perception, inference, analogy and testimony. While inference (Anumana) as a second valid source of knowledge is entailed on the premises or arguments of the universal proposition (Udharana). Inference is a significant and explanatory concept in the nyaya logic. Anumana is derived from two words Anu (after) and Mana (knowledge). So anumana is defined as the reasoning or judgment which follows some another knowledge or the knowledge of objects which is deduced from the Mark(linga) I.e A Implies B, B Implies C. therefore A Implies C. Or The hill is fiery, because it smokes. Therefore whatever smokes is fiery. In these examples there is universal relation between middle term(linga) and the major term (sadya). In deductive inference there are at least three propositions and most three terms which is not necessary in inductive inference. The paksa or minor term A about which we infer something , the sadya or major term C which is to prove and the linga or middle term B which is the mark for major term. This middle term is invariably related to the major and is present in the minor.1

The concept of universal proposition which is called Udharana in nyaya logic is defined as the proposition which states something without any condition. Universal proposition is also known as general proposition or natural proposition. While proposition is defined as an asserts something about something, which either affirms or negates the subject, is a fact , a logical unit, is true or false and is based on the quality of the proposition and the quantity of the subject. Nyaya logic also states that universal proposition (Udharana) as the necessary or universal relation between the hetu (middle term) which is smoke and the sadya (major term) which is fire. Udharana is established on the basis of particular instances which is called middle term or Probans (smoke). In these particular instances we use deductive method or Paramarsha to establish the universal relation proban or the mark is the particular from which logicians generalize the concept. It is by means of deduction of the “probans” that things are inferred ; and hence it is this deduction we give the name inference. The example of universal proposition udharana is “wherever there is smoke there is fire”.2 Nyaya syllogism consists of five members or proposition where four propositions are the premises and the last proposition is a conclusion. Nevertheless the five propositions are pratijna, hetu, udharana, upanaya, nigamana. In this paper I will also discuss the figures and moods of syllogism.
In nyaya logic both the inductive reasoning and the deductive reasoning (paramarsha) is used concurrently where inductive reasoning is a type of reasoning in which we proceed from general proposition to reach at particular instances (conclusion) and deductive reasoning is a type of reasoning in which we proceed from particular instances to reach at generalization (conclusion). So reasoning in nyaya logic is used in mixed form. The deductive inference and inductive inference is like:

<table>
<thead>
<tr>
<th>Deductive inference</th>
<th>Inductive inference</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Indians are Asians.</td>
<td>Plato, Socrates, Aristotle are men.</td>
</tr>
<tr>
<td>All Assamies are Indians.</td>
<td>Plato, Socrates, Aristotle are mortal.</td>
</tr>
<tr>
<td>Therefore, All Assamies are Asians.</td>
<td>Therefore, All Men are Mortal.</td>
</tr>
</tbody>
</table>

In deductive inference “all Assamies are Asians” is conclusion drawn from minor premise and major premise. While Assamies is a minor term/paksa, Asians is a major term/sadya, and Indians is a middle term/hetu. In this argument the conclusion is more general than the premises. Conclusion is stated at the top of the argument, minor premise at the second place in premise and the major premise at the last of the arguments acts as a conclusion. All the propositions are affirmative and categorical, like without any condition Indians are Asians affirms something categorically. (that which asserts about the subject term without any condition is a categorical proposition). In the inductive inference “Plato, Socrates, Aristotle are men” and “Plato, Socrates, Aristotle are mortal” are particular propositions” and “all men are mortal” is a general or universal proposition

**Universal proposition (Udharana):**

Nyaya philosophy deals with the propositions or statements. Mostly nyaya philosophy discuses universal affirmative or universal negative propositions in their logical theory. Propositions are the fundamental laws of thought and are always true or false. Nyaya inference or syllogism is made up of propositions which are either inductive in nature or deductive. Any proposition is in the form of subject and predicate. In the preposition the hill is subject and fire is predicate. But Nyaya logic discuss deduction in a very external nature because deduction is based on mark/linga or the memory. I will here take the illustration of some of the propositions which are used by the nyaya logicians to make the edifice of their inference

**Argument I**
The hill is fiery
The hill is smoky
Therefore whenever there is smoke there is fire

**Argument II**
The hill is fiery

No hill is smoky
Therefore no smoky objects are fiery

Where the hill is fiery is a categorical proposition, No hill is smoky is also a categorical but negative proposition. Wherever there is smoke there is fire is a universal affirmative proposition from which we deduce the conclusion” the hill is fiery” ."The hill is fiery and the hill is smoky” is the proposition which is deductive in nature and the proposition whenever there is smoke there is fire is also deductive in nature.

The proposition states the quantity of subject and the quality of the proposition. The quality of the proposition “All children of Maitri are dark” is an affirmative and the proposition: No children of Maitri are dark” is negative because in the proposition :All children of Maitri are dark”. the predicate dark is affirmed about the children of Maitri. If we take the same proposition like “All children of Maitri are dark” and the “No children of Maitri are dark”. Their quantity is universal as universality and particularity are the qualities of the proposition. In both the above proposition (all) or (no) indicates the quantity of the subject. there is one more quantity of the subject that is called particularity of the subject. the proposition “some children of Maitri are dark” is a particular affirmative proposition and the proposition “some children of Maitri are not dark” is a particular negative proposition while in both the propositions the word prefix “some” indicates the particularity of the subject of the proposition. Mathematically the word “some” means at least “one member”. So the proposition: some children of Maitri are dark” indicates at least one child of Maitri is a dark complexioned.3

The universal proposition (Udharana) indicates a universal relation between the middle term (Hetu) which is smoke and the major term (Sadya) which is fire.”The best form of udharana is the vyapti”. The invariable relation or the universal relation between smoke and the fire is called vyapti. vyapti literally means a correlation between two facts of which one is pervaded (vapya ), and the other pervades. In this sense smoke is accompanied by the fire or all smoky objects are fiery. but while all smoky objects are fiery, all fiery objects are not smoky. For example “ the red hot iron ball”. In all smoky objects are fiery, the subject term smoky objects is distributed and in all fiery objects are smoky, subject term fiery objects is not distributed. A vyapti between terms of unequal extension such as smoke and fire, is called Asamavyapti or Visamavyapti. It is a relation of non-equivalent concomitance between two term, from one of which we may infer the other, but not vice versa. We may infer fire from smoke, But not smoke from fire. As distinguished from this, a vyapti between two terms of equal extension is called samavyapti or equipollent concomitance. Here the vyapti or universal proposition holds between two terms which are co-extensive. So that we may infer either of them from the other e. g in the universal proposition “ whatever is nameable is knowable” and vice versa. one can infer nameable from knowable and also knowable from nameable.4

Nyaya inference or anumana consists of three propositions. All the propositions are categorical, inference derives a conclusion from the ascertained form of the subject possessing a property which is pervaded or constantly attended by another property. We find out that the mountain is on fire from the fact that the mountain has smoke, and smoke is universally attended by fire. Gautama distinguishes inference into three kind: Purvavat, sesavat, samyato drstam. In inference we pass from the perceived to the unperceived.5 It is purvavat inference or sesavat, according as it pass from cause to effect, or from effect to cause. There is a universal relation
(udharana) between the middle and the major term. While purvavat and sesavat inferences are based on causal uniformity, the last is based on non-causal uniformity. A purvavat inference is that in which we infer the unperceived effect from a perceived cause e.g., the inference of future rain from the appearance of dark heavy clouds in the sky. A sesavat inference is that in which we infer the unperceived cause from a perceived effect e.g., the inference of past rain from the swift muddy current of the river. Both the inferences are inductive in character. In samyadhrstam inference, however, the vyapti relation between the middle term and major term does not depend on a causal uniformity. The middle term is related to major term neither as a cause nor as an effect. We infer the one from the other not because we know them to be causally connected, but because they are uniformly related. In our experience e.g., one seeing the different positions of the moon at long intervals, we infer that it moves, although the motion might not have been perceived by us. In the case of other things whenever we perceive change of position, we perceive motion also. From this we infer motion in the moon, although the movement of the planet is not perceived. Similarly, we may infer the cloven hoof of an unknown animal simply by seeing its horns.  

Universal proposition and syllogism

Nyaya syllogism consists of five members or propositions where four propositions are considered as premises and fifth one is the conclusion. Syllogism is the form of the inference which consists of the three terms (middle term, minor term, and major term) and categorical propositions. Nyaya philosophy does not discuss separately the figures and moods of the syllogism although figures and moods exist in their syllogism. The syllogism of nyaya logic contains five propositions which are known as Avayvas. The first is Pratijna or the proposition: the hill is on fire; second is Hetu, or the reason: because it smokes; third is Udaharana, or the explanatory example: whatever shows fire shows smoke, e.g., kitchen; fourth is upanaya, or the application: so is this hill; fifth is Nigamana, or the statement of the conclusion: therefore the hill is on fire. Syllogism is a chain of arguments. The following is a typical nyaya syllogism:

1. Socrates is mortal (Pratijna).
2. Because he is a man (hetu).
3. Whoever is a man is a mortal, e.g., Pythagoras (Udaharana).
4. Socrates is a man who is invariably a mortal (upanaya).
5. Therefore Socrates is mortal (nigamana).

If we compare it with the Aristotelian syllogism which has only three propositions, we will find that this nyaya syllogism corresponds to the Barbara (AAA) mood of the first figure which is the valid mood of the valid figure. Though the nyaya syllogism has five and the Aristotelian has three propositions, the terms in both are only three; the sadya or the major, the paksa or the minor and the hetu or the middle. All the terms occurs twice in the syllogism. It is through a universal relation between the hetu and the sadya, or the middle and major terms that the paksa or the minor term, which is related to middle, becomes connected with the sadya or the major term that is, the paksa is related to the sadya through their common relation to the hetu or middle term. There are five characteristics of the middle term.
(1) Pakṣadharmata: the middle term must be present in the minor term e. g. the smoke must be present in the hill (M is S)

(2) Sapakṣasattva: it must be present in all positive instances in which the major term is present; e. g. smoke must be present in the kitchen where fire exits or All smoky objects are fiery (M is P)

(3) Vipakṣasattva: it must be absent in all negative instances in which the major term is absent; e. g. whatever is not fiery is not smoky or smoke must be absent in the lake in which fire does not exist (No not-P is M).

(4) Abadhitā: it must be non-incompatible with the minor term; e. g. it must not prove the coolness of fire.

(5) Aviruddha/Asatpratipaksatva: it must be qualified by the absence of counteracting reasons which lead to a contradictory conclusion; e. g. “the fact of being caused” should not be used to prove the “eternity” of sound.

**CONCLUSION**

Universal proposition (udharana) is a fundamental proposition which shows the universal relation between the middle term (hetu) and the major term (sadya). Nyaya logic also employed the term universal proposition for the term vyapti which also states the concomitant or universal relation between the middle term and the major term. While middle term provides the mark or linga from which we deduce a universal proposition. The arguments, inductive reasoning, deductive reasoning, syllogism, figures and moods are all based on universal proposition as universal proposition offers a ground of justification for the nyaya logic. While in western logic syllogism is a group of arguments having two premises and last conclusion but in nyaya logic, syllogism is a group of five propositions or statements. Nyaya logic exercise the concept udharana as the third member among five propositions of syllogism. Universal proposition exists as one of the premise of the deductive reasoning and acts as the conclusion for the inductive reasoning. Nevertheless nyaya philosophy does not distinguished to make classification of inductive and deductive reasoning. Both the inductive and deductive reasoning is utilized in the mixed form. Most of the nyaya logicians argue that the vyapti or the universal proposition which indicates the universal relation between middle term (smoke) and the major term (fire) is based on certain conditions which is called “upadhi” or accident. Suppose take the examples of universal proposition “whenever there is smoke there is fire” and “All men are mortal” where smoke is the subject term of the proposition and fire is the predicate term, men is the subject term and mortal is the predicate term. In both the examples of udharana subject term is distributed i. e we can say that “all smoky objects” are fiery but We cannot argue that all “fiery objects are smoky” because predicate term is not distributed. Their exists fiery objects which are not smoky. Same is the case with the proposition “all men are mortal” the universal or invariable relation exists between men and mortality. Subject term is distributed because there are no men who are not mortal. In the proposition “all mortals are men” here predicate term remains undistributed as “there are mortal things other than men”. One thing I want to share in this paper that is “there may be particular cases accidental/upadhi in establishing the conclusion of the inference but philosophers and logicians deals with the generals i. e I will quote here some examples to understand that accidental conditions does not matter in case of universal propositions (udharana).
Example I: All crows are black
Example II: All scientific theories are reformative.
Example III: All men have five fingers in one hand.

In all these examples there may be some particular conditions or upadhi’s but these conditions cannot be conclusive to refute or to prove these propositions false. There may exist one crow which is not black, one scientific theory which is not reformative, one man who have six figures.

REFERENCES

[10] Ibid. p. 29.
[15] Proposition is a logical entity which is either true or false but not a grammatical entity like sentences. (all propositions are sentences but all sentences are not propositions).


[26] That about which an affirmation or denial is made is subject term.


[29] What is asserted of the subject is predicate term (term is an element of proposition is a set of objects, all terms are words but all words are not terms).