CHAPTER VII

Indian Logic and the Problem of Vyāpti

Introductory:

Right from Vātsyāyana onwards Indian Philosophy defines consciousness as Jnana or knowledge. The founder of Nyāya sutra Gautam maintained Buddhi uplapdhi (Apprehension) to be the different names for an identical object i.e., consciousness. To be conscious, therefore means to be conscious of something. For cognising something, the subject is a sine qua non. Cognition therefore is ultimate subject as it forms one of the positive characteristics of ultimate reality i.e. Brahman. The cognition here has wider connotation and application. The cognition for jnana in a wider connotation and application is cognition by an absolute subject. The knowledge of individual subject is not different from the cognition of such an absolute subject. Jnana or cognition is an impossibility in the absence of subject. Jnana or cognition as a consciousness is related to the other hand on one hand and on the other hand, it is related to the object. The object is grasped by individual subject

(1) Nyāya Sutra : Vātsyāyana Bhāṣya 1.1.15
in terms of judgement which is no other than consciousness is intended object for it is grasped. When the self directs its Vrutis or modifications of mind towards it. The therefore is grasped phenomenologically and not as is in and by itself. The object in and by itself remains where it is i.e. in space and time while its image or the mental representation in terms of modification of the mind is what is grasped by the mind and is known as cognition.

The subject, in cognising the object, becomes aware of the objects in terms of its own modification. Knowledge thus is also consciousness, the object grasped is grasped in terms of conscious apprehension and the awareness of the subject in terms of something apprehended, all the three stand as an important condition of identity for any knowledge whatsoever. The relation of all the three basic constituents of knowledge stand in a self relating relation (svaroop sambandha).

(1) **Classification of Relations in Indian Logic**:

Early Nyāya classified knowledge as relation into four types.

(i) Identity or (Tādātmya)
(ii) Self Relating Relation (Svaroop Sambandha)
(iii) Inherence (Samavāya Sambandha)
(iv) Conjunction (Samyoga Sambandha)
The concept of relation is defined in Nyāya school of Indian Philosophy with the help of the concept of adjunct (Pratiyogin) or subjunct (Anuyogin). A relation accounts for their being so cognised, and hence a relation is said to govern such a qualitative cognition. This elementary definition of relation seems to be tacitly assumed by Nyāya literature.

(1) **Samyoga**: (Conjunction)

By Samyoga, Nyāya means the direct contact of two embodied to the ubiquitous. Nyāya calls conjunction a quality (Guna), and quality by definition can occur only in what they call substance (Dravya). A substance is defined as that which can be the locus of the quality. Thus it can be asserted that for each thing $X$, if $X$ is locus of a conjunction, then $X$ must be a substance. (2) If anything is a substance under Nyāya view, then it necessarily has a magnitude or size (Parimāna) i.e. it must be atomic or medium size or ubiquitous, it must be countable by numbers and thus, must have numerical particularity or difference, it must always have distinctness (Prathakatva) samyoga and vibhāga (disjunction). Embodied substance possesses these qualities. Samyoga or conjunction is conceived generally to be produced through some motion of one relatum or of both the relate.

(2) B.K. Matilal: Negation in Navya Nyāya
(Nyāya assumes from the beginning that at the very first moment of its production a substance remains untouched by any guna or quality or Kriya (motion)). The pre-requisite of any samyoga (according to Brasastapāda) is that at least one of the two relate must be able either to move about or to occur in some locus without depending upon the other (Yutsiddha). This characteristic of conjunction sharply distinguishes it from inherence because inherence according to Nyāya is supposed to be eternal.

(ii) **Inheritance (Samavāya)**

Relation of samavāya or inherence has been accepted in traditional Nyāya as a separate category (Padārtha). It has been described as a relation connecting the whole (Avayavinḍa) with the parts (Avayava), guna (quality) with Karma (action or motion) with their respective substances, Anāya Vishesha with the eternal substances, and the jāti (Generic property) with its locus. Samavāya has been conceived as a permanent relation in the sense that it connects the adjunct to the subjunct in such a way that the adjunct can never occur or exist as separated from the subjunct. It should be noted that the subjunct of an inherence relation can however, continue to exist even when the adjunct ceases to exist i.e. ceases to occur in the subjunct by inherence. This fact has nothing to do with the supposed permanence of the relation of
inherence. Adjunct cannot continue to be an entity when the subjunct is destroyed. This bespoke of the metaphysical background of samavāya relation in Nyāya Vaisheshik school. The fundamental assumption is that property like guṇa and karma inhere in their locus or substance.

The question may arise here regarding the relation connecting samavāya itself to its locus, How is samavāya or inherence which is which is separate entity, itself connected with its locus? To avoid the possible infinite regress, a very simple answer was given: samavāya relates itself to its locus. This amounts to saying that it is related to its locus by a svaroop sambandha. It may be possible that the problem of relating Absence (Abhava) to its locus was also considered together with this problem of relating samavāya to its locus.

(iii) Svaroop Sambandha:

Svaroop sambandha or self relating relation is not be taken as different from its relata. Through other relation, the adjunct is tied to the subjunct, but through svaroop sambandha, not only the adjunct but also the relation itself is tied to the subjunct. Nyāya argues against this oddity and maintains that oddity arises because we think of relation as universals or repeatable
entities. Nyāya does not think that relations are universals.

There are three kinds of svaroop relations.

(a) Temporal svaroop sambandha
(b) Spacial svaroop sambandha
(c) Absential svaroop sambandha

A property is 'intransic' if it is, denoted by adding suffixes like 'Tva' or 'Ta'. General tendency of Naiyāika's was to consider it as an independent entity. Such qualities are two:

(a) Jāti (generic property)
(b) Upādhi (Imposed quality)

Jāti was accepted as separate category and hence should be ontologically different from its locus or its manifestations. All other properties are earmarked as 'imposed' and ontologically each of them is to be identified with its locus. Svaroop relation makes the position of samavāya precarious. Raghunāth Siromani and others saw the obvious inconsistency of samavāya and tried to reshuffle vaisheshik categories. Samavāya because of its simplicity or lāghava is regarded as one entity repeatedly occurring in different cases and hence it is on par with universal. But svaroop relation is particular and hence
necessarily differs from one occasion to another. It is nothing but the self same nature of the subjunct or locus.

In the case of Abhāva (Absence), particularly in case of constant absence (Atyanta Abhāva), we do not construe here the relation that connects absence with its locus as separate entity. Through Kalopadhi, each entity temporal or permanent has the potentiality to be considered as occurring in another entity interpreted as a slice of time through svaroop relation. The subjunct of a temporal svaroop relation should be time itself. The same is the case with spacial svaroop sambandha i.e. through Desopadhi, each entity spacial or otherwise as the potentiality to be considered as occurring in another finite entity interpreted as a slice of space through svaroop relation. The subjunct of a spacial svaroop relation should be space itself.

Navya Naiyāyikas regarded an absence of something as a separate category. Just as an ordinary term denotes an entity that can be treated as a property (Dharma) occurring in some locus, an absence of that entity is, also regarded as a single 'whole' property occurring in some locus. But while in the former case the relation connecting a positive property to its locus can be different i.e. can be sometimes conjunction, sometime inherence and so on, depending upon the nature of subjunct as well as the
adjunct of the situation concerned, in the later case i.e. in case of absence, the relation is always called svaroop sambandha or Visheshantā, a relation of qualiﬁerness. An absence of something is looked upon as the qualiﬁer of the locus. Nyāya adopts to describe such a supposed the relation without committing itself to the reality of such a relation as a separate entity over and above the relata. According to Nyāya, a relation between two facts is a third unit possessing the reality and existence but the further relation between this third entity on both its side and the two facts connected by it, has no separate existence. It possess svaroop sattā (Visheshana Visheshyā Bhava) but no sattā sambānaya.

(iv) Reshufﬂe of Vaisheshik Categories

Svaroop relation makes the position of samavaya precarious. Raghunath and others saw the obvious inconsistency of samavāya and tried to reshufﬂe vaisheshik categories. Samavāya because of its simplicity (Lāghava) regarded as one entity repeatedly occurring in different cases and hence it is on par with this universal. But svaroop relation is a particular and hence necessarily differs from one occasion to another. It is nothing but the self-same nature of the subjunct or locus.
The doctrine of svaroop relation destroys vaisheshik doctrine of categories. The self same nature of adjunct can also be proved.

The Sanskrit word used for adjunct is pratiyoginā and Naiyāikas following their tradition of combining the subject and the predicate of declarative sentence in two ways:

(i) An attributive way and

(ii) An identifying way

They used pratiyogina in two different contexts. One in describing an absence (Abhāva) and other in describing a relation (Sambandha). They are therefore known as abhāviya pratiyogita (Absentiai adjunctness or contrapositiveness) and sansargika pratiyogita or relational adjunctness or counter corelateness e.g. 'Ghatō Nilah' (The pot is blue) exemplifying the first, 'Ramo narah' (Ram is a man) exemplifying the second. In the case of absence, it should be noted that the Naiyāikas recognise two types of absences.

(i) Relation absence (Sansarga bhava)

(ii) Mutual absence (Anyonja bhava)
The above meaning of Pratigogita or adjuncthood fails in certain cases where the relation is what can be called a not occurrence exacting relation (Vratti Niyamake Sambandha) because the adjuncts of such relation cannot be said to occur in the subjunctions through their relation, or the concept adjuncthood cannot be assimilated in to the concept super stratumhood (Adheyatā). Adjuncthood therefore may be taken as an independent type of svaroop sambandha, a concept that is not further analysable. This can be done on pragmatic grounds only e.g. the conjunction of a pot to the ground and not the conjunction of ground to the pot in the same context when object language is used. They are then merely semantic concepts. But when ontological questions are raised, we can describe these concepts as cases of svaroop relation or other, so that ontologically they should not be held has different from the adjunct pot or the sub junct ground as the case may be. Naiyāikas, whenever they were faced with some analysable and apparently irreducible predicate concept sought to parse it away as Akhanda Upadhi which is predicable of some individual but does not itself constitute a separate fundamental category. They also parse the tie connecting the property with the individual as a kind of svaroop sambandha and sometimes, they were led to construe the said predicate concept or imposed property itself has an independent type of svaroop relation. They maintained that
relation. They maintained that svaroop relation by definition does not involve any ontological commitment. There has been some useful employment in Navya Nyāya of the concept of adjunct hood in other context of which the manipulation of the universal quantification deserves special mention. It may be noted that in the 'Siddhanta Lexana Didhiti', Raghunath finally explains the significance of the term pratiyogi 'Asamanadhikaranya' in Ganesh definition of Vyapti (Pervasion) with the help of these two concepts i.e. relational adjuncothood and relational subjuncthood.

We have said that pratiyogina is also used in the sense of describing an absence and the two uses differ very largely in the sense. We shall now take up pratiyogina in the sense of 'absential adjuncothood or counter positiveness'.

(2) The Theory of Negation in Navya Nyāya:

Nyāya does not accept any such thing as pure negation because an absence, as it claims, must be an absence of something and this something is turned pratiyogina (counter positive) of the absence in question. Absence here is comparable to the term 'cognition' (Jnana) and an instance of cognition is also a cognition of something. Nyāya arrives at absence as a property by hypos- tatic of denial. The denial like 'A is not there' or 'A is
absent there* are interpreted as 'there is an absence of A there'. Thus the absence of A is asserted as a separate entity and A is called the 'counter positive' of the object of the denial. This notion of absential counter positive is closely bound up with other relational abstract viz. limitorship (Avacchedakata) and conditionership (Nirupakata) which are necessary for qualification, we shall limit here ourselves to considered absential counter positive only.

The very etymological meaning of pratiyogita we considered earlier, assume here the following meaning.

Prati = Counter, anti
Yoga = Yoking, connection, effort
In = Possessive suffix or suffix of characteristic
Ta = Abstract suffix

This means etymologically 'hostility', 'Opposition', (virodha). In logical context this hostility may be explained as 'being non concurrent (noncoexistence) in the same locus' e.g. 'X' cannot occur in the locus were absence of X is supposed to occur, so X is called the pratiyogina of absence of X and hence is said to have the relational abstract pratiyogita (counter positive-ness).
Raghunath warns us that such a definition fails when \( X \textit{ takas} \) as its value and entity that does not have \( X \) as its entity is called, 'pervasive occurrence' (\( \text{Vy\=apti Vrattitva} \)) a property like blue colour or potness occurs pervasively in a pot in the sense that in no part of the pot is there an absence of such a property. Such a property are known as of pervasive occurrence (\( \text{Vy\=apti-Vritti Dharma} \)). Properties like pot on the ground or Kapi samayoga (monkey contact) in a tree occur only in a part of the locus ground or tree and are called properties of non pervasive occurrence (\( \text{Avayava Vritti Dharma} \)). They etymologically meaning of counter positiveness as shown above is rejected by Ganesha for the reason that it involves the fault of being

(i) Too narrow (Avy\=apti) or

(ii) Too wide (Ativy\=apti) and finally expressed his view that pratiyogita should be taken as a special kind of svaroop sambandha (self relating relation) comparable to the svaroop relation between an absence of \( X \) and the locus of such absence. He, keeping in mind the supposed definition of pratiyogita offered by Udayana in Ny\=aya Kusum\=anjali, gives an alternative definition which may be presented as follows.(3) \( X \) is counter positive of

(3) See: Ny\=aya Udayanacharya : Ny\=aya Kusum\=anjali and also Ganesha-Tatva Chint\=amani
absence $Y$ iff $X$ is identical with the absence of the absence $Y$. Nyāya insists that the negation of a negation i.e. counter positive of an absence must not be an exampled term. We cannot simply negate a term, has no denotation i.e. we cannot have an absence whose counter positive is fictitious entity. This definition of Ganesha is found defective by Raghunāth as it does not apply to the counter positive of mutual absence. He therefore reformulates this as follows: ‘$X$ is counter positive of an absence $Y$ iff $X$ becomes by identity relation the object of such a cognition as is contradictory or hostile (Pratibandhaka) to a conjunction of the absence’.

But this reformulation also, according to Raghunāth is unsatisfactory as it contains unexampled (Aprasiddha) term with regard to certain examples. It is also open to the fault of circularity. He therefore says that the only way out is to interpret this second pratiyogita or counter positiveness as a kind of svaroopa relation.

(4) B.K.Matilal : The Negation in Navya Nyāya
(5) Nyāya Kussumānjal : Chapter III 2
(6) B.K.Matilal : The Negation in Navya Nyāya
(3) **Status of an Absence**

Whenever an entity is taken as a kind of svaroop relation, two things are implied.

(i) The entity acts as a self linking relation relating itself (as a property) to the other relatum, Nyāya thus meets objection of infinite regress against its concept of relation.

(ii) Ontological question about the said abstract property are avoided. Thus, 'if X is described as baring such a svaroop relation to A, then X is declared to belong to the category to which A happens to belong'.

Counter positiveness is a svaroop relation relating the counter positive to the absence. Svaroop literally means, 'the self-same' and hence leads to the question, what is it? In what the counter positiveness is the same? Is it the same as the counter positive or as the absence or both? The concept of absence and the concept of counter positiveness are related in such a way that if the counter positiveness involved in one instance of absence is asserted as identical with that involved in another absence, then the two absences are indistinguishable from each other.
(4) **Anuyogita or Subjuncthood**:

Whatever be the status of counter positiveness, one thing is quite clear: this abstract concept is entirely dependent upon the concept of absence. Thus the sentence, 'X is absent' is interpreted in Nyāya language as, an absence which conditions a counter positiveness resident in X'. Gadadhār has an alternative suggestion. He thinks that the concept of pratiyogitā is not indispensable and that it is theoretically replaceable by another and probably more fundamental concept, Anuyogitā or subjuncthood. In cognition 'X is absent' the counter positive 'X' appears only as a qualifier of the qualificand absence. Thus if we are to speak of svaroopa or self linking relation it will be more convenient to speak of a svaroopa or self linking relation that is resident in the absence and conditioned by the counter positive 'X'. This svaroopa relation is usually called the Anuyogitā or subjuncthood, the property of being subjunct. This means that the concept of subjuncthood is more important in our uses of absence. We speak of pratiyogitā only as a dependent concept definable in terms of Anuyogitā, which in term, can be held to be a more fundamental concept.(7)

(7) Tatva-Chintāmanī: Gadadhārī
(5) Vishayata:

The prevailing tendency of Nyāya was to treat contentness or vishayata, like other relational abstracts, as a svaroop relation. Ganesha explicitly stated that to avoid the danger of an infinite regress 'Anavastha', we should accept such a self linking or svaroop relation. Jankinath in his Nyāya Siddhānta Majari refers to the same view (8) and contentness is a special kind of svaroop relation which is evidenced by the experience in the form of content*. There is a suggestion that contentness may be regarded as a separate entity and this is well evidenced in the writings of Gadādhara and Raghudev but such a formulation of contentness taken as a svaroop relation leads to absurd conclusions. Nyāya therefore postulates that a cognition is indistinguishable from another by virtue of its contentness or vishayata. But in cases of its Kapisanyog (a conjunction of a tree and a monkey). There is involved fallacy of samuhā lambana or dependents of group, although the objects cognised are exactly the same. Nyāya lays down, therefore, an important theory about the identity conditions of a cognition according to which cognitions are to be identified, not when their objects are identical, but when the relational abstract contentness (Vishayatā) of one is identical with that of the other. But this goes against Nyaya theory which maintains

(8) Jankinath : Nyāya Siddhānta Majari 'Vishayata cha vishaya ity akara pratiti saksikatā svaroop samandha visheskhata.'
that unmentioned contentness is different from a mentioned contentness.

(6) **Contentness as Svaroop Relation** :

It is suggested that, contentness as a svaroop relation should be accepted as a separate entity forming an independent category. But ordinary contentness may be regarded as a svaroop relation or self linking relation of cognition i.e. a peculiar property of a cognition and may be said to belong to the same cateogory as a cognition.

(7) **Concluding Remarks** :

Conjunction and inherence are used by Russell in his reduction of the traditional doctrine of proposition to an implicative-alternative-disjunctive form while he has referred to a self relating relation in his illustration of a proposition in a rectangular.

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The proposition in this rectangular is true
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For determining the truth or falsity of a proposition which poses a paradox. Russell's reslutation of the paradox, as he himself admits, is far from satisfactory because his entire
scheme is not so closely considered as that done by Navya
Nyāya or Neo realists, especially Gangesh Upadhya. Navya
Nyāya or Neo realist of Indian Philosophy understood well the
truth functional character of 'and', 'or', etc. and this they
extensively dealt with in their treatment of negation or abhāva
which they considered as one form of self relating relation
(svaroop sambandha). Mathura Nath's Vyāpti panchak Rahasya deals
fully, with the truth functional character of 'and' 'or' etc.
Russell and Whitehead have called them propositional functions
because the truth value of the compound whose parts they join is
determined solely by the truth values of its components 'And',
'Or', etc. when they join statements are called truth functions
e.g. PVQ.

As has been done by Russell considering number as a
class, Navya Nyāya has considered this view of regarding number
as a class by their concept of paryāpti sambandha which according
to Maheshchandra is a concept meaning completion or wholeness.
Numbers through their paryāpti sambandha decide in their wholes
or classes and this is equivalent to Frege's concept of 'class
of all class'.
It is found now, we may conclude that logic based upon extension or external relations is inadequate and that there is a need for reintroducing intensional approaches, especially the theory of classes. When this essential corrective has been made, it can be appreciated that the theory of external relation becomes a very important step or stage in the exposition and justification of Realistic Philosophy. Only synthesis of Russellian and Indian logic could give philosophical realism an adequate logical base.