

## NYAYA-VAIŠEṢIKA THEORY OF NUMBERS (SANKHYĀ)

Numbers according to Nyāya-Vaiśeṣika are not subjective fictions but objective realities. Just as entities are seen to be in possession of different kinds of qualities like colours, tastes, they do possess numbers as their qualities (guṇāḥ). When we perceive a certain object as red, corresponding to our perception of red, there is red colour in the object. Similarly when we count realities belonging to different categories as one, two, three, such numbers exist in them. Replying to the objection that "Oneness" (Number one) is not a separate reality but only a specific form of the object, Śrīdhara observes that in that case the use of two words viz. "one" and "Jar" will become superfluous since they refer to the same object.<sup>1</sup> Uddyotakara argues that we have cognitions of "one" and "many" and they must have causes just as we have colours in the objects for our cognition of colours. Our cognition of "one" and "many" are different from our cognition of a jar. Hence they must have causes other than the jar and the causes for our cognition of "one" and "many" is the quality "number"<sup>2</sup>. Numbers are the qualities inhering in the substances and they are the basis for our usages "one" and the rest.

The followers of the old Vaiśeṣika school held that number as a quality belongs to and inheres in substances only.<sup>3</sup> But then they have to explain such usage that "this picture is painted with four red colours" wherein number belongs to qualities which suggests that number four as a property of four red colours should inhere in the red colours (qualities). The followers of the old Vaiśeṣika school, however, maintain that this usage should not be interpreted to mean that number (four) inheres in qualities (red colours) for it contradicts the Vaiśeṣika dictum that a quality cannot inhere in qualities.<sup>4</sup> They contend that when one says that "this picture is painted with four red colours" it has to be understood that the substance painting (picture)

constitutes the substratum for both the number four and the red colours to inhere in and thus adhere to the rule that "a quality cannot inhere in a quality." Raghunātha does not accept this view. According to him when one says that "this picture is painted with four red colours", our awareness here is that number four belongs to the quality (red colours) and not to the substance picture. Hence, he contends, that it is reasonable that we link number four to the quality red colour as such. He observes that number four resides directly in the quality red colour by inherence (*samavāya*).<sup>5</sup> Raghunātha, however, respects the old Vaiśeṣika view that "one quality cannot inhere in another quality" by accepting number as a distinct category.<sup>6</sup>

According to *Nayāya-Vaiśeṣika*, first we have to distinguish between the eternal and the non-eternal numbers and second among the latter between (1) those that are produced by the respective numbers of their cause and (2) those that are produced by the enumerative cognition (*apekṣābuddhi*). Number oneness (*ekatva*) is eternal in eternal entities such as souls, minds etc. and non-eternal in products such as cloths, pots and the like. Oneness of an entity such as a cloth is produced by oneness of its inherent cause viz. yarn. Kaṇāda holds the view that the quality of the cause-substance produces the corresponding quality of the effect substance.<sup>7</sup> The colour of the cause substance, yarn, produces the colour of the effect substance, cloth. Similarly the quality oneness of the effect substance viz. cloth must be held to be produced by the oneness of its inherent cause viz. yarn. But all numbers from duality (*dvitva*) onwards are produced by our enumerative cognition. It is the contention of *Nyāya-Vaiśeṣika* that numbers from duality onwards do not exist in objects always. When we, for instance, say that a cloth is red, here we perceive the red colour of the cloth produced by the red colour of its cause (yarn). Similarly when we claim to perceive the quality oneness in the cloth we perceive a quality originated by the corresponding quality of its cause viz. yarn. In both these cases we perceive qualities that had already been ex-

isting in the objects. But when we perceive two objects e.g. two jars as two, here our perception of the quality duality is not one of perceiving a reality which had already been there, but it is a case of perceiving a reality which is produced in the two jars for the time being by our enumerative cognition.

This however, should not lead us to think that numbers from duality onwards are not as much objective as number one or other qualities. They are equally objective and independent of our cognition, but there is this difference — whereas number one in a product is produced by a similar number of its cause, numbers from duality onwards are produced by our enumerative cognition. Hence the duration of the former is likely to be longer (existing as long as its substratum exists) whereas the duration of the latter is relatively shorter. But whether they last longer or disappear after a few moments, there are ontological correlates corresponding to our notion of all numbers.

We have indicated above that numbers from duality onwards are produced by our enumerative cognition. Let us ponder over the Nayāya-Vaiśeṣika theory of emergence of numbers from duality onwards. We should not however confound the processes involved in the origination of numbers from duality onwards and our perception of them. The number duality, for instance, originates in the two jars in the very moment when the enumerative cognition operates as “this is one” and “this is one”. But our perception of duality does not take place immediately.

When we perceive any two objects (jars), we do not cognise them immediately as two. We first perceive each jar as “this is one”, “this is one”. This is called enumerative cognition (*apekṣābuddhi*). This enumerative cognition gives rise to the quality, duality in the jars in the second moment. The duality which has originated thus, is not perceived at once. In the third moment after the emergence of duality, we perceive the universality of duality (*dvi-tva*) for in the absence of our perception of the universality of duality we cannot account for our determinate

perception (savikalpaka pratyakṣa) of duality. In the fourth moment we perceive the quality duality inhering in the two jars. This is how the Nayāya-Vaiśeṣika explains the origination and our perception of all numbers from duality onwards.

Several issues crop up at this stage. *First*, when duality originates, where does it 'reside'? Does it 'reside' in each of the two objects? If it 'resides' in each of the two severally then we must be able to say 'two' when we perceive even one of them which is absurd. *Second*, after the destruction of one of the two objects we must be able to say "two" when we perceive the remaining one alone. *Third*, duality produced by the apeṣābuddhi of one man (Mr X) must be perceptible for another or for any other person (Mr Y) who looks at them without themselves producing it again. In other words, Mr Y must be able to perceive the already existing duality produced by the apeṣābuddhi of Mr X without himself producing it by his own apeṣābuddhi again and for that reason any one who looks at those two objects must perceive them as two immediately for it is a case of simply perceiving what exists already. The followers of Nayāya-Vaiśeṣika were alive to these problems. Realising these anomalies the Nayāya-Vaiśeṣika philosophers contended that on account of the absence of the usage that "one is two" and because of the usage that "one is not two", duality is supposed to reside in both objects taken as a group by the relation called "collective extensity" (paryāpti).<sup>8</sup> Paryāpti is a relation by which numbers from duality onwards reside in the objects taken together and not in its members.

The assumption of paryāpti as a relation by means of which numbers reside in groups of objects and not in any member of the group steers clear of all our doubts. First in as much as number two (duality) resides in the two objects taken as a group and not in any of the members of the group of two objects, we are free from the apprehension that we may have to say in respect of one of the two objects as "two". The second anomaly that we must be able

to see duality even in one of them after the destruction of the other, also vanishes on the assumption that duality resides in the two objects taken as a group. The answer to the third objection requires the discussion of the Nyāya-Vaiśeṣika notion of origination and destruction of the numbers from duality onwards. As we have stated already first our enumerative cognition in the form "this is one" and "this is one" comes into operation. Second this results in the emergence of the duality in the two objects. Third we perceive the universality of duality. Fourth we perceive duality as such. But this duality will not continue to be present in the jars for long for being a product of enumerative cognition, it gets destroyed after the destruction of the enumerative cognition. The Naiyāyikas hold the view that this enumerative cognition being a transient psychical phenomenon gets destroyed in the fourth moment and with its destruction its product duality also gets destroyed in the fifth moment. Thus duality will not be present in the two objects (jars) after the fifth moment. However the person may continue to possess the knowledge (jñāna) of the objects as two even after the destruction of duality and knowledge of duality should not be confounded with our perception of duality. Thus if we understand the implications involved in the production and our cognition of duality, the anomaly that one man must be able to perceive the duality produced by the enumerative cognition of another does not simply arise.

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#### NOTES

1. Nyāya-Kandalī, p. 62.
2. Nyāya-Vārttika, p. 210.
3. Praśastapāda bhāṣya, p. 111.
4. Vaiśeṣika Sūtra, 1.1.16.
5. Padārthatattvanirūpaṇam, p. 86.
6. Ibid.
7. Vaiśeṣika Sūtra, 1.1.19, 1.1.10, 2.1.24.
8. Muktavāsi on Kārikā, 108.

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