CHAPTER SEVEN

APPREHENSION OF THE WHOLE

Two main questions arise in connection with the whole, (i) what is the nature of the whole? This is, as we have seen, the ontological problem which we have till now discussed, (ii) how is the whole apprehended? This is the epistomological problem to which we shall address ourselves in this chapter. That we know a whole is never a matter of doubt. We may hold different views as to what the whole is, but that we know a table, a flower or a pen, each of which is a whole, nobody questions. The problem before us is not whether the whole is known but how it is known. Is it known by perception or by inference or by some other means? Again, is the knowledge of the whole in any way dependent on that of the parts? Or are the whole and the parts known in separate acts of perception? The Nyāya view is in part known to us, in so far as the Buddhist criticism has brought it out in the earlier chapters, but we have to probe it still more deeply and inquire into the alternative possible solutions. We shall also have to take a look into the Buddhist and the Sāṅkhya views to complete the picture and have the full canvas before us. As before, we shall first take up the Sāṅkhya then go to Buddhism and lastly, to the Nyāya.
We may mention in the very beginning that no specific discussion of this problem is found in the Sāṅkhya. It is not that the Sāṅkhya has not investigated epistemological problems, including the problem of sources of knowledge; but nowhere do we find a discussion on 'how do we know an avayavin or an avayava-samudaya?' Or 'whether knowledge of avayavas is involved in knowing a thing?' etc. We can of course form an idea of the Sāṅkhya view on the present issue from the account it gives of how perception takes place. The account, an utterly bald one, is as follows: An object stimulates one or other of the senses; buddhi, which alone has the power to manifest itself and others, shoots out through the sense and takes after the object (tadākāракārita). Then arises an indeterminate consciousness (ālocana-mātra) in which the particulars of the thing are not noticed. Then manas (mind-organ) through its functions of sāmkalpa and vikalpa renders the knowledge determinate. Now, from this it appears that according to the Sāṅkhya we perceive a thing all at once through our buddhi-vṛtti. The vṛtti is not restricted to a part only but extends to all parts and lights up the whole thing. No question arises of perceiving parts successively or inferring the thing from a partial perception. Perception is complete and exhaustive in so far as the vṛtti is not sectional and fragmentary. We must

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1 S.K., St. 5,27, 23 and 30. Vijnana bhiksu's view is different from what is given here on the basis of S.T.K. Cf: S.P.B., ii. 32.
also remember that according to the Sāṅkhya sense-organ or indriya is not pratyakṣa-pramāṇa, as in the Nyāya but buddhi-vṛtti.

III

As we already know, the Buddhist, like the Sāṅkhya is an avayava-samūha-vādīn and holds that a thing is just its parts taken together. And like the Sāṅkhya again it believes that the avayava samudaya is known by perception. How it is known and what the differences between the Sāṅkhya and the Buddhist theories of perception are will come out in course of our discussion. Some of the arguments here may ring familiar in view of the rather lengthy discussion made in the previous chapters, but they have nevertheless been inserted in the compelling interests of logical necessity and unity of presentation. It must also be observed in this connection that not all the arguments put in the mouth of the Buddhist, or the order in which they are here set forth, or even their form, are found in the Buddhist works. But they are such as the Buddhist could easily use in conformity with his metaphysical framework. The aim all through is at a robust logical reconstruction rather than a fragmentary reproduction of the Buddhist view.
It is clear however that of the four schools of Buddhism only the Vaibhāṣika and the Saumtrāntika have any relevance for us, since, as we have noted in Chapter One, only they believe in the reality of the external world. There is however a basic difference between them viz., the former believes in vāhyavratyakṣavāda and the latter in vahya-am̐iyavāda. The former holds that things of the world are known directly by means of perception while the latter is of opinion that they are known inferentially. We cannot however leave this topic without observing that the theory of inferability of the external world which is supposed to have been held by the Saumtrāntika seems on the very face of it odd and curious. Inference presupposes perception and to repudiate perception is to cut the ground from underneath inference. "The existence of the external object does not seem to be really a matter of inference according to the Saumtrāntika, though it is described as anumeyā." The statement that it is indirectly known only means that the object is postulated as a hypothesis to account for the fact of perception consistently with the doctrine of momentariness. Moreover, we do not find the doctrine of inferability of external objects propagated anywhere in the works of Dignāga, Dharmakīrti or Santarakṣita. Dharmakīrti clearly draws a line between determinate cognition (vikalpa pratīti)

2 The difference to be noted here is in addition to what has been said in Chapter One vide Supra, pp. 3, 10-11.
4 Outlines of Indian Philosophy by Hiriyanna, p. 203 (7th impression)
5 Cf. Slokavartika (Chowkhamba Series) pp. 233-4, St. 51 (Com.)
and indeterminate cognition (nirvikalpaka pratīti), and while rejecting the former as invalid upholds the latter as revelatory of reality and not as imagination or conceptual construction. Its content is a Sva laksana, a unique particular, shorn of the five-fold conceptual determination generality (jāti), quality (guṇa), action (karma), name (nāma) and substance (dravya). The svalaksanas which are just so many bits of reals are therefore known directly in nirvikalpaka pratīti and not by inference.

A. Both the Vaibhāṣika and the Saumrāntika believe that the svalaksanas are revealed in perception and both are agreed that they are not ultimate reals. They are the brute data of experience, minimal content of experience - they are not metaphysical entities. The patch of blue colour which we cognise in perception is a svalaksana but is itself composed of certain primary elements and is therefore secondary. The ultimate elements of reality or the bhutas are atoms and the nila-rūpa is just rūpa paramāṇu saṁcaya, a mass of colour atoms. A thing according to the Buddhist is really a conglomeration of parts. It is not really one but many, a multitude of component elements. Even a part is not really one part but a cluster of minuter elements which finally

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6 Nyaya-manjari (Vizianagram Sans. Series), pp. 93-4; also Prof. H. N. Randle: Fragments from Dignaga, p. 71.
7 For various senses of the term 'svalaksana' in Buddhist Philosophy, Stcherbatsky's Buddhist Logic, Vol. II., pp.33,34, 40,41; and pp.175-78 of Vol. I. We must remember however that Stcherbatsky has read too much of Kantianism in Buddhism and has thereby failed to distinguish sufficiently between Buddhist 'svalaksana' and Kantian 'thing-in-itself' Cf: Hiriyanna, Op.Cit., p. 204.
lead us back to atoms. A thing, e.g., a tree is really paramāṇu-puṇja, a concourse of atoms.

The Buddhist further holds, as we have had occasions to notice earlier, that while the atoms, separately and in isolation from one another, are imperceptible, they together and in a cluster are perceptible. We may not be able to see one atom but we can see a cluster of atoms. The Buddhist furthermore observes that this cluster or aggregate (samudāya) is not a superadded entity to the elements, it is just the elements added up, and while the process of adding up or taking together is subjective, objectively there is nothing in the cluster more than the elements themselves. The concourse of atoms is not the atoms plus something else called the 'concourse', it is just the atoms and not a whit more. There is thus no distinction between samūha and samūhi, the samaṣṭi and the vyāṣṭi, samudāya and samudāyī.

The Naiyāyika objects that in such an event the aggregate should become invisible. If the samūha were identical with the samūhi, if the paramāṇu puṇja were nothing but the paramāṇus taken distributively, then the totality should be imperceptible like the individual atoms and we should be unable to see the ordinary objects of experience, the chair, the table, the tree etc. Confronted with this objection the Buddhist realises the grave predicament he is in and tries his best to get out of it.
Three courses are open to him:

B. Firstly, he may deny absolute supersensuousness or imperceptibility of atoms. He may hold that imperceptibility is not an intrinsic character. It is not absolute but relative, relative inter alia to the cognitive apparatus of the subject. What one cannot perceive, another of the same species can, given a better psycho-physical set-up; and what is elusive to one species may be accessible to another. The dog has a stronger nose and the eagle a sharper eye than man; and what they can sense is imperceptible to man. Similarly; an individual atom may ordinarily be imperceptible but may conceivably be perceived by a Buddha or a creature of a higher order than man. Dharmakīrti expressly states that ordinary people have visiṣṭa buddhi of things because their intellect is polluted with desires and passions (asūddha dhiyam), they cannot therefore grasp the subtle entities. The yogis are however free from such defects and can have direct nirvikalpaka vision of all that there is in the world. Atoms will come within their ken and cannot therefore be admitted as intrinsically infra-sensible. Even the Naiyāyika concedes this when he holds that the atoms can

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8 Relativity of perceptibility is subsumed under perceptual fitness (pratyaksa yogyata) in Buddhist epistemology. Vide Infra., p. 210-212.

9 P. V., p. 253; Cf: 'asuddha dhiyam vasano paapalabuddhimadar vagdarsinam janam prati, na tu visista buddhin yoginam prati, yasmad yoginam saksmavvyavataparcittadigaterachintya. Bhavasallamatram yogignanapeksam grahylaksanam ityarthah (M.V. on Ka 532).
be directly perceived by a yogin though an ordinary man would never see them. Hence, imperceptibility of an atom does not collide with perceptibility of the aggregate.

The Naiyāyika may be left unconvinced and may retort that the plea of individual and specific variations would not avail the Buddhist in the present case, for here the subject remains the same. The man who sees the aggregate clear and distinct has no inkling of the individual atom. The anomaly of imperceptibles making up a perceptible stares us in the face and cannot be accounted for by the Buddhists.

The Buddhist vigorously contests this view and challenges its basic assumption. There is no maxim, he asserts, that a cluster of imperceptibles will itself be imperceptible. The issue has to be settled by actual facts and not by a prior logic, and the facts of life give the lie direct to such maxim. The man suffering from the eye disease called 'timira' cannot see a single hair but can well see a lock. Similarly, a single hair in the distance may escape him, but not a lot. These facts prove that while a component may be invisible, the complex may be visible. Any logic purporting to prove the antithesis will be squashed by the brute facts of experience.

10 Yuktasya tavād yogajadharma sahayena manasakasa paramanvadi nikhilapadartha gocaram jnanaṃ sarvadāvī bhantumarhati / Bhaspariceheda and Siddhanta Muktavali, 65-36.

11 Yathaikasya kesasya dure pratyaksatvepi tat samudhyā pratyaksatvam / S.P., Karika, 36-37. also, kesasamuhā tainurikopalabdhivat tadapalabdhīh / N.S. 4.2.13. Yathaikakah kesa staimirikena nopalabhītā kesasamuhās tupalabhītā, tathaikai konunopalabhītā, anusamuhā stupabhītā, tadidamanasamuhā viśevam anubhāvam 44 / N, RB, Thid.
The Nyāya Vaiśeṣika points out that the illustration of imperceptibility of a hair is not in order. A hair is not imperceptible by nature. Only certain factors prevent it being seen by us viz., distance, insufficient light etc. If we were sufficiently near or the light was adequate or we had good eye sight, the hair would be quite visible. Not so, however, is an atom. It is never perceived under any circumstances (at least by ordinary men. Whatever the yogis may be able to see is not of much concern to us). There is thus a qualitative difference between a hair and an atom, between a thing by nature imperceptible and one that is perceptible but is not being perceived in a given context because of frustrating factors. The Buddhist cannot therefore repudiate the distinction between an imperceptible and a perceptible. That being so, he has to explain how a concourse of imperceptible atoms comes to be visible. This brings us to the second line of Buddhist defence.

C. Secondly, the Buddhist may argue, and this is his usual line of defence, that although a cluster is identical with the atoms, yet it has a special feature which he calls 'atisāya'. The term is however left vague and its specific meaning is rather obscure. Both Vatsyāyana and Uddyotakara refer to it but take

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it in different senses. While considering the Buddhist view about our perception of a thing as extended (mahat), Vatsyayana says the Buddhist might hold that mahattva is just "an 'excess' (atisāya) in the extent of 'spread-outness' which a particular group of atoms is capable of exhibiting only by being contrasted with another". Atisāya is here taken by Vatsyayana to mean 'additional occupancy of space'. In such an event, says Vatsyayana, the perception of extension comes to be false, being perception of what is really unextended as extended. For reasons indicated in the previous chapter, such a false perception would require for its possibility the occurrence of a prior veridical perception of extension - a requirement which the Buddhist can hardly fulfill within his metaphysical frame-work.

Uddyotakara however interprets the word 'atisāya' in a different light. That the term is used to 'mean' 'additional feature, 'special feature' or 'excellence' - whichever term we may use - admits of no doubt, but Uddyotakara asks "what does it specifically refer to"? The speciality produced in the aggregate must be, he says, either avayavin or saṁyoga. If the Buddhist

13 Studies in Nyaya Vaisesika Metaphysics, p. 258. Vatsyayana's comments are: anusamhe tisayagrahanam mahat pratyaya iti cet? soyam amahatsvanusu mahat pratyayah / N.B., 2.1.36.
14 Vide Supra, p.120, infra. 15 Vide Infra, p.252.
16 The meaning here would be clear if we remember the distinction between sense and reference made by Gottlob Frege and others. Cf: Philosophical Writings of Gottlob Frege, pp. 56-78.
admits that the atisāya is avayavin, he would be throwing up the sponge and come over to the Nyāya view; if he holds that it is saṁyoga, he would be guilty of a patent contradiction; for atoms which would be the substrate of such saṁyoga being imperceptible, the samyoga also would not be capable of being perceived.  

It seems to us that Uddyotakara is more to the point than Vātsyāyana whose interpretation puts the Buddhist in a bad light, and even Uddyotakara is not quite correct, as will be presently clear from the following discussion. His first interpretation is obviously unacceptable to the Buddhist; it is only his second interpretation that comes nearest to the truth.

Dharmakīrti discusses the very point we are considering viz., he says, “what contradiction is there if many atoms having acquired some‘excellence’that was originally absent in a single atom, cause comprehension of one gross object like the sense and others?” What he means is that on the Naiyāyika’s own theory causal conditions, taken each by itself, do not produce an effect, e.g., the eye by itself does not produce visual perception, nor does the object nor does any other factor; but all these conditions —

17... kim paramanava upajata visesa buddhibhedam kurvanti utanupajata visesa iti. Kim cah ? Yadyaupajatavisesaḥ, yo san visesa so vayaviti praptam, athanupajata visesa ta evatindriya aindriyakascati mahanvirodham ... /N.V., p.243

18 Ko va virodho vahavah sanjatatisaya prthak bhaveyuh karanam buddher yadi natmendriyadivot / P.V., Verse 223.
the eye, the middling magnitude, manifest colour, light and the object - are together required for visual perception. Thus on his own showing they conditions can do collectively what they cannot do individually, and the Naiyāyika moreover admits that the totality of these conditions is not itself a further condition, for if it were to be so recognised, we should be landed in infinite regress. Similarly, says Dharmakīrti, the Buddhist holds that atoms are severally imperceptible but together are perceptible. What is wrong with it, he asks and how can the Naiyāyika find fault with it when it is on all fours with their own a theory as outlined above?

Vācaspati who cites the above karika of Dharmakīrti observes that the basic point of Dharmakīrti had already been answered by Uddyotakara. If the totality develops no special feature (anupajāta viśeṣa) and remains the same as its constituents, how can it then be perceptible when they remain imperceptible? Vācaspati does not however give any answer to the analogy which Dharmakīrti has drawn between Buddhism and the Nyaya in respect of the illustration cited by him. We do not know why; but we can venture a reply from the Nyāya point of view. It is this: causal conditions severally cannot produce visual perception but they do it together because of an additional factor.

19 N. V. T. T., p. 396.
originally absent viz., their compresence (sāmanadhikaranya) in the same locus as that of the karya (kārya-kārana-sāmanānāhi kāmya nīyamena). Usually the locus is the samāvayi kārana of the effect. The compresence may be due to a vṛttiniyāmaka relation like sāmyoga or sāmāvaya or vṛttyaniyāmaka relation. In the instant case, visual perception is the effect; being a form of jnana it abides in the self which is its samāvayi kārana. In the atman all the other factors are to be found in one relation or the other - mind, body etc. exist by the relation of sāmyoga and visaya exists by the relation of visayitā. This compresence by a particular relation is the further factor necessary to visual perception, and this further relation by means of which compresence is possible is reducible to any of the factors concerned.

Now, the Buddhist view is very different from this. If special feature of the cluster of atoms is taken to be just close proximity adequate to perception, as Manorathanandin takes it, then this proximity or nirantarasanivesā is not anything different from the atoms. The Buddhist does not distinguish between a thing and its qualities - a dharmin from its dharmas. Sannivesā being a property is not a distinct padartha other than the atoms and therefore comes to nothing. The problem from the Buddhist angle remains baffling as ever.

Therefore Dharmakirti's attempt to cite a similar instance from the Nyāya does not succeed and the Buddhist fails to
effect the passage from imperceptible atoms to a perceptible branch of them. Yet a third course is open to the Buddhist.

It seems to us that the Buddhist may hold in accordance with the doctrine of momentariness that a set of atoms of a given moment produces another set at the next moment with the difference that while the former is invisible, the latter is visible. It is this visible set which is perceived as pot or a cloth, the invisible atoms being destroyed earlier. By the doctrine of momentariness the causal and the effect atoms need not be identical but only similar. Similarity is not impaired by the emergence of the characteristic of visibility or perceptibility, their atomic character remaining intact. The Naiyayika cannot take exception to this view on the ground that imperceptibility cannot father perceptibility, for he himself propounds the thesis that a triad which is the minimum visible arises out of dyads which are invisible. Therefore, the Buddhist concludes that there is nothing illogical in holding that things which are sets of atoms can be known by perception.

Since this view is based entirely on the doctrine of momentariness, it stands or falls with the latter. The Nyaya has made an extensive criticism of the Ksanabhanga-vada which is found scattered in the works of Uddyotakara, Vacaspati, Udaya and others.

198. cf. Vaibhāṣika Darśana, p. 299-300,
Since, however, a discussion of the point is beyond our purview, we rest content merely with pointing out that neither kṣavabhanga vāda nor this final defence of the Buddhist which is based thereon is admitted by the Nyāya as valid.

E. The Naiyāyika raises a further objection from another point of view. Largeness or mahattva as distinguished from minuteness or anutva is a condition of perceptibility. Of course, not any and every largeness, not largeness of infinite extent (parama mahattva) but largeness of finite magnitude, known technically as avantaramahattva or madhyama parimāna, i.e., medium magnitude. According to the Naiyāyika it is this magnitude (along with manifest colour) that imparts perceptibility to a substance. If the aggregate is to be perceived, it must be admitted to be of medium dimension, but then it would be different from the constitutive atoms which have only atomic magnitude; this would go counter to the Buddhist view. On the other hand, if, as the Buddhist avers, it is identical with the atoms, it would not acquire the middle dimension and would not consequently be fit to be perceived.

20 Nyayakandali (ed. VSS), p. 133.
The Buddhist rejects this plea outright and points out that avantara mahattva is not at all a condition of perceptibility. In fact magnitude has nothing to do with perception. Even the atoms may under certain conditions come to be perceived viz., when there is a collection of atoms. It is plurality and not magnitude, anekadravyatva and not avantara mahattva that is the condition of perception. The Nyāya Vaisēsika also admits that in some cases, e.g., in the case of a triad the magnitude is due not to the atomic magnitude of the dyads, otherwise like the latter it would have been imperceptible, but due to the plurality of dyads (which is 'three' here). Kanāda enunciates this rule in his aphorism 'kāranavahuttvāccha'. The only difference between the Buddhist and the Nyāya vaisēsika is that while according to the latter the possible causes of gross magnitude are three in number - gross magnitude (kārana mahattva), loose combination (pracaya visēṣa) and plurality (kāranavahuttva) according to the former only the last is enough.

21 V. S., 7.1.9.
22 P.P. Bh. p. 131; also V.K.T. II.ii. 11, p. 504.
F. The Naiyāyika urges another objection. Even if magnitude is dispensed with as unnecessary to perception, what about sense-object contact? Must it not be regarded as indispensable? If so, how can the aggregate be said to be perceived? At a given moment we can see only some atoms, the atoms in front, and not all—we see only a slice and not the whole bunch. Our knowledge of the whole lot would therefore follow apprehension of some atoms and should therefore be inferential and not perceptual. The Buddhist should hold that jars, chairs and other composite wholes are known by inference.

The Buddhists once more furnish us with a strikingly original answer. They point out that sense-object contact is not a sine qua non for perception. What is more, there can be no sense-object contact at all in the case of the eye and the ear. For the Buddhist the senses are the external organs (golaka) occupying different parts of the surface of the body. They are not subtle, super-sensible entities different from physiological end-organs, as the Naiyāyikas suppose nor modifications of the subtle, material principal called Ahamkāra, as the Sāṃkhya urge. They are just physical (bhautika) end-organs and

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23 The Naiyāyika does not hold it but assumes it only for the sake of argument. According to him, atoms are always invisible.


cannot reach out of their seats located on the surface of the body.\textsuperscript{27} Hence, the eye and the ear which alone play a vital part in knowing distant objects are regarded by the Buddhist as aprāpyakāri, i.e., they function without coming into contact with their objects, whereas for the Naiyāyika they (and all other senses) are prāpyakāri, i.e., they cannot function without prapti (contact) of the object. In the circumstances, contact between the eye and the atoms being impossible, no question arises of its being an essential condition of visual perception. The Naiyāyika points out that if sense-object contact is not needed at all, anybody with normal eye-sight should be able to see appropriate objects, whether far or near, covered or uncovered, present or absent. But this is not a fact. How would the Buddhist account for it?\textsuperscript{28}

The Buddhist replies that it can be accounted for by his theory of perception. According to him, there is only one condition of perception, viz., visayabhāva or visayagata-yogatā, the capacity or fitness of an object to be perceived. This view dates from Vasuvandhu who had defined perception in his work 'Vādavidhi' as 'knowledge due to object'.\textsuperscript{29} Perception is appre-

\textsuperscript{27} Santaragahanaṁ na syat praptan jnane dhikasya ca/
Adbhθhanad bahir na 'ksam, taccikitsadivyogatah //
Satyapi ca bahirbhave na saktir visaye kṣam i
yadi ca syattāda pasyedpyumnulya nimilanat //
Dignaga's verse quoted in N.V.T.T. I i.4.

\textsuperscript{28} For detailed arguments pro and con, vide N.V. and NVTT.I.i.4; Slokavartika on Pratyaksa Sutra.

\textsuperscript{29} 'Tato'rthadvijnanam pratyaksam', Quoted in NV., p.40, and NVTT., p. 150.
hension conditioned solely by the object. Māṇḍūkya explains it thus: If a knowledge is determined solely by the object, and by nothing else than the object, of which it is said to be the knowledge, it is perception. 30 Uddyotakara and Vacaspati also elucidate it in the same vein.

G. All these bring home the Buddhist view of perception viz., the sole determinant of perception is the object, the qualities and features that constitute it. Neither sense-object contact nor magnitude has any part to play here. It is thus viṣayabhāva, otherwise technically known as visayagata yogyata that conditions perceptual awareness. If the object is fit to be perceived, it shall be perceived without fail; if, however, it is not so, it shall not be perceived. A veiled or a distant object has no pratyakṣa-yogyata and therefore cannot be perceived. Perceptual fitness includes negatively the absence of all factors which are a bar to perception and positively plurality of constituents (anekadravyatva). By this hypothesis, the Buddhist holds, all facts of perception can be explained. It cannot be said

\[30\] yad vijnanam yena visayena vyapadisyate tat tattvadrut
padyate nanyatah tato anyatasca na bhavatiti taj jnanam
pratyakṣam / Pramanasamuccaya.
that the concept of pratyakṣa yogyata is a coin of his mint; it is a common coin used also by the Naiyāyika. Even the Naiyāyika admits that there is samyoga of the eye with the soul or the akasa; still these things would not be perceived, because they are not pratyakṣa yogya or amenable to perception, not appropriate objects of perception. The Buddhist only says that this by itself is the sufficient condition, an adequate explanation of perception, a further assumption of sense-object contact or magnitude is redundant (kalpanā gaurava doṣa).

Thus the Buddhist view boils down to this: Mahat parināma or gross magnitude is not a condition of perception. In fact, for the Buddhist there is only anuparimana and no other parimāṇa. So, while in the Nyāya gross magnitude (mahattva), extension (sthūlatva) and perceptibility (pratyakṣatva) are synonymous and have the same reference, though not the same sense, to the Buddhist the first is to be deleted and the equation will be between perceptibility, extension and manifold character (sancayatva or anekadravyatva). Even then the term extension or sthūlatva has to be taken in a different sense, because it does not mean the same thing in the Nyāya and Buddhism. In the Nyāya sthūlatva refers to magnitude — it is the same as mahattva or gross-magnitude. In Buddhism, however, it has no such reference.

31 We are here referring to the distinction between 'sense' and reference first made by Gottlob Frege, and now adopted by others. Cf. Philosophical Writings of Gottlob Frege, pp. 56-78.
Rather it refers to 'spreadoutness' or occupation of space. Pandit Asoka makes this clear in his famous article 'Avayavinirā karana'. He says: "Atoms of an aggregate occupy different and discrete spatial positions. When they appear together in our perception, they appear as spread out in space." This spreadoutness or extension is what constitutes sthūlatva. We must also note that while for the Nyāya sthūlatva and sthūlaparimāṇa are the same, in the Buddhist vocabulary they are not. The former has utility in his conceptual framework, the latter has none.

The equation between perceptibility and manifold character can also be borne out by reference to Pandit Asoka. To quote him again, "when the atoms make up an aggregate, only then do they become fit to be perceived. When they are so fit, they are sthūla". These two quotations will show that for the Buddhist sthūlatva, pratyakṣatva (or pratibhāsa yogatā) and saṃcayatva (or punijatva) are synonymous.

The Nyāya of course does not accept all these conclusions of the Buddhist. As we have seen in the earlier chapters, for the Nyāya extension (in the sense of gross magnitude) is not an illusion and unity of a thing is not a myth. Even if sense-object contact is deemed unnecessary, argues the Nyāya, the

32 Paramanava eva hi pararrunadesapariharenotpannah paraspara sahita avabhāsamāna desavitanavanto bhasante - Vipata desavatvamca sthulatvam/
S. N. N. T., p. 79.
Buddhist view of perception is still unsatisfactory. His position comes to this: A thing is an aggregate; then its perception should mean perception of the entire aggregate without a remainder. But obviously that is not possible. We cannot perceive all the parts of an aggregate at a time. We can at best perceive one part, the other being hidden from the eye. How, then, can the Buddhist say that the entire aggregate is pratyakṣa yogya? He should then give up the theory of perceptibility of things and adopt that of inferability. Of course, that, too, will involve difficulties of its own. But that is a story which will unfold itself as we proceed to the Nyāya view which we are presently doing.

IV

We now come to the Nyāya view. The Naiyāyika who is an avayavi-vadin holds that the whole is known by perception. And he defends his position by refuting all the alternative theories with a wealth of arguments that takes one's breath away. We find a very illuminating and fairly exhaustive discussion in the old Nyāya, especially in the works of Uddyotakara and Vacaspati.

Uddyotakara observes following Gotama that the problem has to be discussed from the stand points of both the avayavi vadin and the avayava-mātra-vadin. 33

33 Vide Supra., p. 25 (Chapter II).
1. Discussion from avayava samuha vadin's viewpoint.

The avayava samuha vadin may advance any one of the following views:

(a) The whole is directly inferred from the apprehension of the fore-part.

(b) The whole is known by means of pratisandhana of the two parts, the fore-part and the hind-part.

(c) The whole is known through the complex process of initial anumana followed by pratisandhana.

(d) The whole is known through the complex process of initial pratisandhana followed by anumana.

Let us discuss these in the given order:

(a) This view has been discussed in detail by Gotama. Gotama introduces this discussion in connection with perception. He refers in 2.1.30 of his Nyaya Sutra to a view which seeks to deny perception as a pramana and subsume it under inference. It holds that there is no such thing as perception and what is called perception is really inference. Knowledge is generally said to be perceptual when it arises immediately out of sense-object contact and Gotama also defines it as such. But this is

34 Pratyaksam anumanam ekadesa grahanatt upalabdheh / Nyaya Sutra 2.1.30.
This must not be taken to refer to the Buddhist view especially the Sautrantika, as is often wrongly done (vide Nyaya
darsana by P. B. Tarkavagish, Vol.II., p. 141) because on his view even a part cannot be perceived, everything external being inferred. Cf: Supra, p. 146.
challenged by the above view mainly from the standpoint of parts and whole. It contends that objects supposed to be perceptible must admittedly have gross magnitude (avāntara mahattva) and therefore composite wholes, being made up of parts. Sensory contact, however, at a given moment, can pertain only to a part of an object, the part nearest to us, the part in front (arvagbhaga); it does not cover the whole. Hence, our knowledge of an object as a whole goes beyond and contains more than is given to the sense. When, e.g., we 'see' a tree in front and are aware that this is a tree, the awareness is supposed to be perceptual. But this is not correct. We actually 'see' only a part, the part that stimulates the visual sense and forms the 'visual field' at the moment. But a part is not the whole and apprehension of the part is not apprehension of the whole. Apprehension of the whole is therefore clearly not perceptual but is inferential in character, being based on and reaching out of the former. The part serves as the liṅga or the sign and on knowing it we are at once led to the whole as the signified or the liṅgi by way of inference. Uddyotakara clearly brings this out: "Just as cognition of one thing proceeding from the cognition of another thing is inferential, so also the cognition of the tree proceeding from the cognition of

35 arvagbhagamayam grihitva vrksamupalabhate,
na caikadeso vrksah tatva yatha dhumam grihitva vahniminoti
tadrgeva bhavati / Ibid., Nyaya Bhasya, p. 2.1.3a
the part must be regarded as inferential. The cognition of
tree issuing out of the cognition of the part is exactly like the
cognition of fire issuing from the cognition of smoke.36 Hence,
this view holds, as Gotama succinctly puts it, that all perception
is really inferential cognition, inasmuch as it proceeds from the
cognition of a component part.37 Thus, on this view a whole is
known by inference while the parts in front are known by perception.

The Naiyāyika takes exception to this view on the ground
that as it stands, it is untenable.

How can the avayavasamūha-vādin (hereinafter to be called
the 'opponent' or the pūrvapakṣa) say that the whole, i.e., all
the parts are being inferred when some of them, viz., those in
front are being already perceived? The same parts cannot both
be perceived and inferred at the same time and the same cognition
cannot both be perception and inference. Consequently, the oppo-
nent should amend his position and hold that not the whole, not
all the parts but only parts other than those being perceived at
a given moment are inferred. We perceive the front and infer the
remaining parts - this should be the position of the opponent.38

36 yatha anyasya darsanad anyapratipattiva manam evam ekadesa
grahanad vrkasprattiraanumanamiti / Nyaya Vartika (Chowkhamba).
p. 207.
37 Vide Supra, p. 15.
Vide Supra, p. 15 Anumana hāse means anumiti and not its usual
sense of anumitikarana. Cf: Nyaya Sutra Vrtti. Similarly
perception also is to be taken as perceptual cognition,
not as instrument thereof.
38 ekadesagrahamadarthantaram pratipadyate kim tadarthantaram?
avayavasamūha pakse tavadavayavantaram / Nyaya Vartika, p. 207.
As against this the Nyāya argues that the view fails to account for the concept of a 'whole'; for the whole somehow remains beyond our ken and we never get at it either by perception or by inference. What we infer here is not the 'whole', but the parts unobserved. To take the example of a 'tree', on this view the very conception of 'tree' is impossible. The front part that is apprehended is not the tree (avrksa), hence to know it is not to know the tree. Similarly, the central part (madhyabhāga) and the hind-part (parabhāga) are neither of them 'tree'. Therefore by knowing them we cannot presume to know the tree. The view thus fails to explain how we come to have the notion of a 'tree' or for that matter, of a whole and how to admit that such notions are all false. The notion of the 'tree', as and when it arises, would arise always with regard to what is 'not-tree' and thus would be without any factual basis.

The Nyāya further contends that the pūrvapaśīn cannot even speak of 'front part' (arvāghbhāga), 'central part' (madhyabhāga) or 'hind part' (parabhāga) etc., there can be for him no such thing as 'part' or bhāga. Now, 'bhāga' and 'avayava' mean the same thing and can be rendered into English by the term

39 avayavasamuhapakse tavad vrksabuddherabhavah parabhagasya avrksatvat arvagbhagavah / Ibid., p. 203.
40 yathaivayam arvagbhago na vrksah madhya parabhagavapi na vrksah saiyam vasamuhapakse (avrksa) vrksabuddhir utpadyamana nirvīrā / Ibid., p. 203.
41 Bhaga ityetadavayavasya etannama / Ibid.,
'part'. The Nyāya argument is that for one who does not admit the whole to be a distinct substance (arthaṁtaram avayavinam), the term 'part' (i.e., bhāga, or avayava) is meaningless (nirabhidheyam). 'Front-part' and 'hind-part' are but parts of a whole and if the whole as an extra entity is repudiated, such concepts become illegitimate and untenable.

In view of these difficulties the opponent may point out that 'bhāga' and 'avayava', 'part' and 'constitutive cause' are not the same, if by 'avayava' reference to an 'avayavin' is meant to be implied. He may construe 'part' simply as one place or region (ekadesa). To say that 'A or B or C or D... is a part' is not to hold that there is another distinct thing, say X, of which they are constitutive causes (avayavas) but simply that each of them is a place or region.

The Nyāya retorts, "what is meant by this one place or one region?" A place or region is only a container, a receptacle and in the present instance the only thing of which the place could be the receptacle is the produced substance, the whole. If the opponent repudiates such a substance, he has in the same breath to repudiate 'ekadesa'.

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42 athaikadesa bhaga ityucyate / Ibid.,
The opponent may then clear up his position by saying that what he means by saying 'certain things are component parts' is not that each of them is a place but that they co-exist in one place, i.e., they are in close juxtaposition without being causally related to one another. In other words, according to the purva-pakṣin, the Nyāyaika is wrong in interpreting 'ekadesa' or one place in terms of 'avayavin' viz., as the substratum of avayavin (avayavinah adhārah). Two entities A and B are parts says he (i) if there is co-existence between them by reason of mutual contiguity or juxtaposition and (ii) if there is no causal relation between them. Therefore 'ekadesa' need not imply recognition of 'avayavin'. Uddyotakara criticises this on the grounds that firstly it is skilful misrepresentation of facts and secondly it is jugglery of words (sabdārtha kansalam). It misrepresents facts, because there can be no juxtaposition where there is no causal relation. Vācaspāti drives home the point by analysing the conditions of mutual dependence or contiguity (parasparapratyāsatti). According to him, we can have mutual contiguity only in three cases:

(a) When a number of causes co-operate for production of

a single effect, e.g., when clay, potter's wheel, revolving staff, thread etc., are used so as to produce a jar. 46

(b) When a number of co-effects are produced by a single set of causes e.g., colour, taste and smell in respect of a jar are produced when a jar is produced.

(c) When two things are one the cause of the other e.g., fire and smoke. 47

In other words, mutual dependence or proximity is possible only if there is karya karana bhava or eka karyatva or eka karanatva. Since none of these conditions is here fulfilled, there can be no proximity. 48

Secondly, the opponent's view rests on an astounding manipulation of words. Component parts are so called, because they help one another in supporting the avayavin which is a distinct substance. When there is no such substance, there can be no such mutual co-operation and the things concerned cannot be called component parts. 49

46 karyasyaikasya karanaṇam tādekam karyam kartum paraspara pratyasathrbhavati. Yatha mṛddandacakraśrutram ghatenaitavye pratyasattih / Ibid.,

47 karyanam caikasamagri janmanam paraspara pratyasattih yathā rupa rasa gandha sparsanam, karyakaranayor va yathā agnidhumayah / Ibid., p. 377

48 yesam tu na karyakarana bhavo naikakaryatvam va naikakaranatvam va tesam kuto niyamarati pratyasatti rityarthah / Ibid.,

Hence, the view that wholes are inferred or for that matter, knowledge of unobserved parts means knowledge of the whole is rejected by the Nyāya.

(b) The difficulties of the first view have led many to hold that the whole is known not by inference but by means of \textit{pratisandhana}. To continue with the above example of a true, we first observe the fore-part, infer the hind-part and then there occurs in our mind a patching up of these two cognitions (pratisandhana), the latter being tinged and coloured by the former. Thereupon we have the final resulting awareness of the tree.\textsuperscript{50} The steps of this process of knowledge may be set forth for the sake of convenience: -

(i) Apprehension of the fore-part (arvāgabhāga darsāna)

(ii) Inference of the hind part on the basis of apprehension of the fore-part (parabhāgānūmāna).

(iii) Patching up (pratisandhāna) of the perceptual knowledge of the former and inferential knowledge of the latter (pratisandhāna pratyaya).

(iv) The final judgment 'This is a tree' arising out of the above pratisandhāna pratyaya (This is pratisandhāna pratyayaja vrksabuddhi).\textsuperscript{51}

The term 'pratisandhāna' needs some explaining here. It is

\textsuperscript{50} Apare tu arvāgabhāga darsanena para bhagamumānam kṛtvā pratisandhāna pratyayajam avṛkṣe vrksabuddhim adhyavasyanti/ Nyāya Vartika, p. 203.

\textsuperscript{51} What we have to note here is that knowledge of the tree is not itself pratisandhāna pratyaya but pratisandhāna pratyayaja buddhi.
one of those few Sanskrit terms which are rather hard to render into English. In the Nyāya it is used in various senses. Vatsyayana uses it for the first time in his bhāṣya on the Nyāya Sutra 1.1.2. In this Sutra Gotama chalks out the way to salvation and asserts that false knowledge is the basic obstacle to salvation. Salvation will come only if we disabuse ourselves of false notions about different padārthas and acquire true knowledge about them. In course of illustrating false notions Vatsyayana refers to re-birth (pretyabhāva) as viewed by the Buddhist nairatmyavāda viz., "dehendriya buddhi vedānā santano ocheda pratisandhan abhyam niratmakah pretyabhava iti". Here Vatsyayana uses the term in the sense of re-assemblage (punarut patti), and the expression within quotes means - Re-birth does not involve any permanent self; it is caused by dismantling (or disintegration) of a collective set-up consisting of body, senses, intellect, pleasure and pain followed by re-assemblage (pratisandhan) of these elements. Gotama also uses the term in this sense in 4.1.65, 'na pravṛttih pratisandhanāya hinaklesasasya'. i.e., 'the deeds of a person devoid of desire, aversion and ignorance will not bring about his re-birth'. Vatsyayana also takes the 'pratisandhana' in the sense of 'pratisandhi'.

52 Vatsyayana's commentary on Nyaya Sutra, 1.1.2.
53 Nyaya Vartika (Chowkhamba) / p. 497.
54 pratisandhistu purvajanma nivrttan punarjanma, (Vatsyayana's commentary on N. S., 4.1.65).
Sometimes, the term is used to mean 'simply knowledge' or apprehension, sometimes 'act of uniting or joining'. But mostly it is used to mean a sort of recognition or pratyavijñā and it is this sense which is intended here. Vatsyāyana uses it in this sense in his exposition of sutra 1.1.10. In fact, pratyabhijñā or recognition is expressly defined by him as 'pūrva-parayor-vijñānam eka viśaye pratisandhiḥ nam pratyabhijñānam', i.e., recognition is identical reference of a past and a present cognition to the same object. I see a jar, recognise it as something that I perceived before and say 'this is the same jar that I saw'. Here, the subject and the object of the two cognitions are the same, and the cognitions themselves are also of the same kind, viz., visual. The Bhāṣyakāra elsewhere gives an example of pratisandhāna where the subject and the object are the same but the two cognitions are of different kinds; 'the object that I saw is the very object I am now touching'. In certain other cases even the objects of the present and the past cognitions would be different e.g., 'I am the person who perceived colour in the past and have now perceived taste'. What is to be noted here that in all pratisandhāna the subject would remain the same while the object may or may not be so.

56 ... darsana pratisandhanadbhavati lingamatmanah; Also, NV.,p.64
57 Nyaya Bhasya on Sutra 3.1.7.
58 Yamaham adrasam caksusa tam sparsanenapi sprsamiti/ N.B. on Sutra 3.1.1. Also, ... ekavisayan cesam pratyayaveka
As regards the specific nature of pratisandhana and its break-up, there is no unanimity among Indian thinkers. The Nyāya view is that pratisandhana is of the nature of perception, since it is brought about by sense-object contact. It is, however, a variety of internal perception or manasapratyakṣa.

To come to our case in hand, the view of the pratisandhana vadin is that the whole is known not indirectly or inferentially but directly through a sort of 'manasapratyakṣa' of the nature of recognition. We see the front of a tree and infer the hind-portion, and as a result of the blend of these cognitions we have the mental perception of the tree and recognise it as such.

The Naiyāyika however controverts this view on the grounds that firstly, the hind-part cannot be inferred from the fore-part and secondly, even if it is inferred, knowledge of the tree cannot be had by pratisandhana.

(i) To take up the first ground. The Naiyāyika asks, how would the opponent proceed to infer the hind-part? Since he starts from perception of the fore-part (arvāggha), the fore-part can be taken by him either as pakṣa or hetu and the hind-part

60 For different views see The Nyaya Theory of Knowledge, by S.C. Chatterjee (University of Calcutta, 1935), pp. 205-208.
61 Purvabhiṣjnana visista grahyamamamisyatam pratyabhijñanam/ N.M., p. 461. (Ed. vss)
would be sādhyā or probandum. If the fore-part is taken as paksa, the form of the conclusion should be: This front-part possesses a hind-part (ayam arvābhāgah parabhāgavān). Now, what is the hetu (or probans) here? It cannot be 'hind-part, which is sought to be proved (sādhyā) and is till now unproved or asiddha. It cannot obviously again be 'fore-part' which is the paksa here, for that would be meaningless, hetu and pakṣa becoming identical. Complete identity (tadātmya) between the hetu and the pakṣa would be repugnant to the validity as also to the utility of an argument.

The opponent cannot also treat the fore-part as hetu and seek to infer the hind-part, for what would be the pakṣa in the inference? It cannot again be identical with the hetu but must be something different from it. It cannot be 'tree' as a distinct entity (arthāntara-bhūta-vṛkṣah), for there is no such thing for the opponent who is a believer in the whole being a collection of parts (avayava-samūha-vādin). He cannot also take the stand that "all parts" (avayava-samūha) is the pakṣa, for how does he come to know these parts? In fact, this is precisely the problem here - how are all the parts known?

63 Uddyotakara takes this form, vide N.V., p. 209; but another form is possible, viz., 'the hind-part belongs to the fore-part'. The content is the same, there is only a difference of visesya and visesana. On this difference see Karika.

64 In Neo-Maṇḍūkya identity between the hetu and the sadhyā is sometimes admitted purely for the sake of verbal sophistry, but even there it is not complete identity, the hetutavacche daka dharma and the paksatavacchedaka dharma remaining different.
The Naiyāyika does not stop here. He raises further objections. He says that inference of the posterior from the anterior would have been possible if the following conditions were fulfilled:

(a) The fore-part and the hind-part must have been perceived in other cases as being related by way of vyāpti. The former must have been known as the mark (linga or vyāpya) and the latter as vyapaka. In other words, there must be vyapti-graha.

(b) The concomitance or vyāpti having been grasped, it is necessary that the linga or the hetu (here, the fore-part) be observed again in the present instance. This perception of the linga is technically known as second or dvitiya linga parāmarsā.

(c) It is further necessary that this perception is followed by the recollection that the front-part is always associated with the hind-part. This is known as linga-smṛti.

(d) Then the knowledge would arise in mind that this front-part which has ever been accompanied by the hind-part is here also accompanied by it, this is known as trtiya linga parāmarsā.

(e) At last would emerge the final inferential cognition, viz., 'this fore-part possesses the hind-part'.

65 Linga linginoh sambaddhayorddarsanena lingasmrtya linga darsanena capratyakso rtho numiyate / Nyaya Sutra 1.1.5. (Bhāṣyaṭhāna)

66 This step is necessary only according to the Naiyāyika but not according to the Mimamsaka and the Advaita Vedantin.
If these conditions were fulfilled, the opponent could infer the hind-part on the strength of knowledge of the fore-part. But conditions are not as a matter of fact fulfilled. The opponent perceives only the front-part and not the hind-part, for the hind part ever remains hidden by the front and never comes to the fore. Indeed, this follows analytically from the very definition of hind-part viz., it is that which is not in front. Hence, the opponent never apprehends the front and the back together and has no knowledge of them as related. And in the absence of such knowledge of relation there can obviously be no question of recollection of the same. The mere perception of the probans (viz., the fore-part) without the remembrance of its relation to the probandum (viz., the hind-part) cannot constitute inference.

The Naiyāyika does not rest content here. He contends that in fact there can be no relation between the anterior and the posterior parts on the opponent's thesis. How could they come to be related except through the instrumentality of an avayavin? Two parts stand related to each other only through an emergent whole inhering in them. If there is no avayavin, there can be no conjunction between them either, for conjunction presupposes 'wholes' and

68 Na camubhavamantarena smrtih / Ibid.,
69 anumanam tvasakyam ubhayoradarsanat / Ibid.,
can hold only between wholes. Since no whole is admitted by the opponent, he cannot establish any relation between the two parts concerned.\textsuperscript{70}

The Naiy\text{\textviserayika urges a further point against the possibility of such inference. An inference is essentially progress of knowledge regarding a particular object. In passing from premise to conclusion we advance in thought from one property to another in respect of the same object. The premise sets forth a qualifying character of an object and on the basis of the previous knowledge that such property is invariably associated with another, we draw the conclusion that the said object has also that other property. There is thus a relation of dharma and dharmin between the subject and the predicate of the conclusion. When e.g., we infer that the hill is fiery because it is smoky, we start with the knowledge of 'smoky' character of the hill and finish up with the further information that it has another feature viz., fieriness. In the instant case of the tree, the hind-part is not a property (dharma) of the fore-part, nor is the fore-part a dharma of the hind-part, there is no relation of dharma and dharmin between them. In the circumstances how can the hind-part be inferred?\textsuperscript{71}

\textsuperscript{70} Ekavayavismavayayena hi parasparasambaddhan syatam, na cavayavyast, na capi samyuktan, samyogasyavayavirinirasa margena nirastatvadityarthah / N. V. T. T., p. 378.

The Naiyāyika fires a last shot at the opponent from this post and declares that leaving everything aside, the inference, if made, would be factually wrong; hence, it should not be made. The hind part does not in fact belong to the front part, a part does not belong to another part. If it is admitted that a part can belong to another, then the latter would become a whole and not a part. It is not however suggested by the Naiyāyika that a part cannot in its turn be a whole, but what is asserted here is that a part cannot with reference to or as against the same identical element, be simultaneously a part and a whole. If A, B, C, D, are parts of a whole, say X, then X is the bhāgavān, the whole and with reference to it, A is just a bhāga, just as B, C or D are. But if we divide A into smaller parts (where possible), A would be a whole with regard to these fragments. A thing cannot both be a part and a whole in respect of the same centre of reference. The front part of a tree cannot therefore be held to possess the hind-part. Moreover, if the hind-part did belong to the front then it would have been perceived along with the latter, where is then the scope of inferring it over again?

The Naiyāyika further points out that apart from what has been said above, the inference would be impossible for the simple reason that the probandum i.e., the sadhya remains unknown. The

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72 na yuktam anumatum arvagbhāgasya parabhagavattvasambhavat/Ibid.
73 na hi arvagbhāgah parabhagavān, bhāgasya bhāgavattvasambhavat/Ibid.
74 na sa bhāgah bhāgavān bhāgvēvasan/Ibid.
75 Bhagivisayam camunam ityayuktam ubhayasya pratyaksatvat - ubhayam hyatra pratyaksam arvagbhago bhagi ca / Ibid.
hind part is sadhya, it is what is sought to be inferred from the fore part. But how does the opponent know of a hind-part at all? Only the fore part has been perceived and that's all. And it is clear that there can be no inference as to an asiddha vastu, i.e., unestablished entity. For all these reasons the Nyāya rejects in toto the thesis that the hind-part of a thing can be inferred from the fore-part. 76

(ii) We now come to the second ground of the Nyaya attack on pratisandhāna-vāda.

Even if we waive all the above objections and allow for such an inference, how can the opponent get to the knowledge of the tree?, asks the Naiyāyika. The opponent's answer is, as we have already noted, by pratisandhāna. We observe the front-part and infer the hind one; thereupon the two experiences being recognised as belonging to the same self, the latter is coloured by the former (pratisandhāna). 77 This results in the cognition. 'This is a tree'.

The Naiyāyika argues that pratisandhāna cannot yield the knowledge of the tree. 78 The front-part that is being perceived is

76 na caitasmin pakse anumanam bhavati - arvagbhagam ayam grhitva parabhagamanumimite iti nanumanasya visayo jnatah / N.V., p.209.
    vrksasyasattvena navayava vrksa iti pratisandhanam / N.V.T.E.,p.378.
not the tree, it is 'avrksa'; even so is the hind-part; how then can these two, when conjoined in consciousness, lead to the notion of the tree? Pratisandhāṇa cannot yield knowledge of what is not already there in experience. It is just a sort of cognitive experience, recognition of oneself as the self-same subject of two or more experiences either with regard to the same object or different objects. It is not cognition of anything hitherto unknown. Here we have seen the fore-part and inferred therefrom the back part; therefore all we can get by pratisandhana is the knowledge "the fore-part and the back part", and nothing more, we cannot get to know the tree, since it was not perceived before. 79

Hence, the Naiyāyika rejects the second alternative, viz., the whole is known by means of manas pratyakṣa, i.e., pratisandhana.

(c) The opponent may adopt the third alternative viz., we infer not the hind-part but the whole and then know it by pratisandhana.

In the teeth of the above difficulties the opponent may take the plea that on observing the fore-part we infer the whole. Of course, in doing so, the opponent, if we may say so from the Nyaya viewpoint, is only jumping out of the frying pan into the

fire. Fresh and insurmountable difficulties wait for him here. The old difficulties of 'how to infer all parts when some are actually being perceived' are already there. To these new ones are now added.

The Naiyāyika asks, what would be the form of this inference? Obviously, it would be, "This is a tree, because it possesses the front-part (vrkso yam arvāgbhāgavattvāt). Arvagbhāgavattva, i.e., the state of having arvāgbhāga or to put it simply, the fore-part is the probans (hetu) here and this (ayam, i.e., the tree) is the pakṣa. But the question is, how can the tree (i.e., the sum total of all parts) be made pakṣa here? It is the sadhya, the thing to be proved; it cannot therefore be the starting point of proof, the premise for the conclusion. Pakṣa and sadhya cannot be identical. Moreover, arvāgbhāgavattva is a qualifying character and there must obviously be a qualifieand, a thing it qualifies. 'What is that thing?' asks the Naiyāyika. It cannot be a distinct entity, for such an entity is disowned by the opponent. It cannot also be the sum of all parts, because the qualifieand and the qualifier must be different entities; here, however, the front part becomes a part of the qualifieand. Nor can it be...
said that the viséyā, the dharmin of which the fore-part is said to be the qualifying character, is an unknown entity, for there can be no inference in respect of a thing unknown. 36

If the opponent still holds out for the position that the tree is inferred, the Naiyāyika poses the question, what then is the use and function of a further pratisandhāna? 37 The two do not go together. One is sufficient, two are superfluous. When a man, on apprehending vyāpti between smoke and fire, has come to know by inference that fire is a qualifying character of smoke, he does not again have recourse to pratisandhāna such as 'This is smoke, this is fire'. 37 This leads us to the following and the last alternative.

(d) We first have pratisandhāna of the tree and then have inference of the same. 38 This pratisandhāna obviously takes place, according to the opponent, after perception of the fore-part and should be of the form 'This is the fore-part, this is the tree'. Then comes the inference 'This is a tree'.

The Naiyāyika however points out that, as in the preceding case, the two processes are unnecessary. Of course, there is at the very outset the difficulty of having pratisandhāna of the tree

35 na ca dharminyanupalabdhē anumānam pravartate / Ibid., na ca dharminyanupalabdhē anumānam pravartate / Ibid., na ca dharminyanupalabdhē anumānam pravartate / Ibid., na ca dharminyanupalabdhē anumānam pravartate / Ibid., na ca dharminyanupalabdhē anumānam pravartate / Ibid.,
36 na ca dharminyanupalabdhē anumānam pravartate / Ibid., na ca dharminyanupalabdhē anumānam pravartate / Ibid., na ca dharminyanupalabdhē anumānam pravartate / Ibid., na ca dharminyanupalabdhē anumānam pravartate / Ibid., na ca dharminyanupalabdhē anumānam pravartate / Ibid.,
37 nayamanumata purvamanupalabhyaagnim anumanaena ca dhunavisesanam aghim pratipadya pratisandhâtte ayam dhumo yam ca gniriti.
38 Atha purvam pratisandhanam pascatanumanaṃ ityata aha / N.V.T.T., p. 378.
from apprehension of the fore-part, for, as we have discussed earlier, there cannot be recognitive experience of what was never known in the past; and when the fore-part is being perceived, there is no knowing of the tree. But even if such pratisandhāna is possible, why should one go in for inference again? If one has already pratisandhāna of fire from smoke, one will not infer it over again, for such inference would be infructuous (vaiyarthyat). 89

The Naiyāyika further observes that as in the case of pratisandhāna, pure and simple, so here in the process of pratisandhāna-cum-anumāna, we cannot have knowledge of the whole (samudāya) but only of the parts (samudāyi). Recognitive synthesis can give us knowledge of the fore-part and other remaining portions of the tree. 90 This is because the opponent recognises no separate avayavin in addition to parts.

If the opponent insists that the tree can be known by pratisandhāna, the Naiyāyika argues, such knowledge would be manifestly false. Such knowledge would arise in respect of the front-part and the hind-part which are themselves 'not-tree' and would consequently be invalid. It would be the knowledge of a thing as what it is not (atasmimastaditi pratyayah). 91 This being so, it

89 pratisandhanasamaye evagnerevagatavatthbhavitavyam atragnineti vyarthamamunamanam syad ityarthah / N.V.T.T., p. 378.
90 pratisandhayapi ca na samudaye pratisandhanam, na ca vrksena hyamekadesadarsanat samudayam pratipadyate na vrksam kintu sesam samudayinameva / N. V., p. 209.
cannot be the result of valid inference. Valid cognition always apprehends things as they are (yathābhūtārtha paricchedakatvāt). Here, the recognitive judgment being false, it cannot be the result of a valid pratisandhāna.

On these grounds the Naiyāyika rejects the possible alternatives of the avayavasamuhavādīn. So, we pass on to the view of the avayavātiriktāvayavidravya-vādīn.

2. Discussion from avayavivādīn's viewpoint:
The avayavivādīn may hold any one of the following alternatives:

(a) From the part cognised the whole is directly inferred.
(b) From the part cognised other parts as well as the distinct substance are directly inferred.
(c) From the part cognised other parts are first inferred and thereafter the whole as a distinct entity is known by pratisandhāna of these two cognitions.
(d) The whole is known by the complex process of initial anumāna followed by pratisandhāna.
(e) The whole is known by the complex process of initial pratisandhāna followed by anumāna.

Let us discuss them seriatim:

92 arvagbhagaparabhagayoscavrksa bhutayor ya vrksabuddhīh sa atasmimstadīti pratyayao namumanādbhavituma arhatiti / Ibid. /
93 Ibid.,
The purvapakṣin here is a believer in the whole as an extra entity and his point is that after apprehending the fore-part we directly conclude the whole (here, the tree). Thus, our knowledge of wholes, though supposed to be perceptual, is really referential. In fact the ordinary objects of the world, the objects that we come to know in experience, like chairs, tables and stones, are all known in this way, i.e., by inference.

The Nyāya, however, demurs to this view. It contends that if the tree, to take the concrete instance, is to be inferred, there must be a prior vyāpti-graha of the two, the fore-part and the tree as a distinct entity. But this means that the avayavin, 'tree' (vrksarūpāvayāvī) must have been perceived in the past as associated with the fore-part; this being so, the avayavin becomes known by perception, not by inference. If it is said that the avayavin is in no way associated with the fore-part, and cannot therefore be an object of perception, the Nyāya retort is that in that case it cannot be inferred either, vyāptigraha being an impossibility. Moreover, if the whole is never perceived, how can the opponent know of it at all? It will be something unknown to him, something aprasiddha (i.e., not known or recognised as existing) and therefore incapable of being inferred.

\[94\] Vide Supra., p. 227 for condition of inference.
If the opponent in view of these difficulties, veers to the view that the whole is known when the fore-part is being known, then, says the Nyāya, such knowledge should be declared perceptual, there being no difference (avisēṣāt) between such knowledge and that of the fore-part.\textsuperscript{95}

Uddyotakara explains this contention of the Nyāya. He asks: according to the opponent is the tree (i.e., the whole as an extra entity) present or absent at the time the fore-part is perceived? If present, is it present along with the fore-part within the visual field of the observer or is it not? The opponent's answer must be in the affirmative. In that case there would be no bar (bādhaka) to the contact of the eye with the whole? Automatically it would be perceived like the fore-part.\textsuperscript{96} It cannot also be urged by the opponent that the tree, though in contact with the eye, is still known by inference.\textsuperscript{97} For in that case even the fore-part would have to be declared as known by inference and not by perception. The opponent cannot obviously accept it, because it goes against his contention that the true is inferred on the basis of perception of the fore-part.

Hence the Naiyāyika concludes that the whole cannot be

\textsuperscript{95} Dravyantarotpattipakṣe navāvayamumeyo syai kadesasambaddhāsyā grahanad grahane ca visesadanumeyatvabhavah / Vatsyayana Bhasya on N. S. 2.1.30.
Tasmadvrksamputramunam na bhavati / Ibid.,

\textsuperscript{96} yathādvayamāravagbhagamindriyasambaddham pratyaksata upalabhate tatha vrksamputi namumeyo vrksah / N. V., p. 211.

\textsuperscript{97} Athendriyasambaddhamapi vrksamumeyameva pratipadyate!
said to be known by inference.

(b) So we come to the second alternative viz., the whole as well as other parts are inferred on the strength of the perception of the fore-part. It may be mentioned here that while formulating the view of the avayami-vādin, both Vātsyāyana and Uddyotakara mention only this alternative without any reference to the first one, we have just now discussed. They judge only one issue viz., whether the whole alone can be inferred from the fore-part and do not touch upon the present problem - whether the whole together with the remaining parts can be inferred. We have however sorted out and separated the two issues for the sake of logical consistency.

The Naiyāyika urges that this alternative also is not feasible for the opponent. It combines the difficulties involved in inferring the hind-part and the whole separately. The above difficulties of how to infer the whole from the fore-part are already there; on top of them now come those of how to infer the remaining parts from the fore-part. The opponent does not believe in perception of the whole. For him, both the whole and the

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98 Avayavasamuhapakse avayavantarani, dravyotpattipakse-tani cavayavi ceti / Vatsyayana Bhasya on N. S. 2.1.30.
Uddyotakara uses identical language on the same issue, Cf: N. V., p. 207.
residual parts are things to be inferred. But if he has never perceived the whole, he cannot infer it for reasons we have discussed above. If he seeks to infer other parts, from the fore-part, the old difficulties we referred to earlier will crop up and vitiate the inference. If the fore-part is taken as pakṣa, there must be some hetu; it cannot be the avayāvin for the opponent, since it is not known to him at this stage and has to be inferred. The fore-part cannot be taken as hetu either, for what would be the pakṣa then? The avayāvin cannot be the pakṣa for identical reason. Hence, the Naiyāyika rejects the thesis that a fore-part can serve as basis for inference of the parts as well as the whole.

(c) The next alternative is that the whole is known by pratisandhāna of perception of the fore-part and inferential cognition of the hind-part. The steps of the process are as set forth earlier and need not be recounted here.

The burden of the Nyāya rebuttal is that, as mentioned before, pratisandhāna cannot yield knowledge of the tree. We cannot by pratisandhāna come to know what we did not know before. The whole on this view is given neither in perception nor in inference. How can it then be given in pratisandhāna? We can at best have

100 Vide Supra., p. 222.
a joint knowledge of the fore-part and the hind-part. But they are not the tree, either severally or even collectively, the tree as a whole being an entity altogether distinct from the parts. Vacaspati elucidates the position by means of an illustration. If we have seen a particular cow, Swastimati by name, then on seeing another dark-eyed cow, we can mentally affiliate it to the former and have the resulting knowledge, 'This is a cow!' But suppose we saw in the past not a cow but a horse and now we see another, can we say, 'This is a cow? We cannot, because neither the past horse nor the present one is a cow. They are 'non-cows' (tayoh agotvât) and cannot therefore give rise to the conception of 'cow' by way of pratisandhana. Similarly, in respect of the fore-part and the hind-part we can have the pratisandhâna, 'this is the fore part and this is the hind-part', but not that this is a tree. Hence, the pratisandhâna-vâdin's view is rejected.

(d) and (e). As regards these alternatives we need not say much. All that we said before with regard to avayavasamûnavâda have equal validity here. The main point is that a combination of anumana and pratisandhâna is superfluous, whether it is anumâna followed by pratisandhâna or pratisandhâna followed by anumâna; and

102 svastimatihi gam grhitva kalaksyam yavi gauh iti pratisandhanam drstam, na tvavsam grhitva avstantare gauhit pratisandhanam drstam, tatkasya hetoh taoragotvah - evam arvagbhaga parabhaganam avrksatvat vrksa iti pratisandhanam na bhavedityarthah / N. V. T. T., p. 378.
taken separately, neither anumāna nor pratisandhāṇa by itself leads to the knowledge of the tree.

As against pratisandhāṇa, whether taken by itself or taken as a part of a complex process involving inference, the Naiyāyika urges that if it is regarded as giving us true knowledge here, that would be wrong. As we have seen, pratisandhāṇa here would not be prama but 'mithyābuddhi', false knowledge. What is more, contends the Naiyāyika, false knowledge presupposes valid knowledge. Gotama himself points this out when he says that false cognition is not all false. It is true in respect of the dharmin and false in respect of the superimposed property (āropya dharma). Dharmin is otherwise known in the old Nyāya as 'tattva' and the property superimposed as 'pradhāna'. In shell-silver illusion, the knowledge 'this is silver' has a two-fold content - the content represented by 'this', that which lies in front, and the content represented by 'silver'. The former is the 'tattva' and the later is 'pradhāna'. Now, according to Gotama, so far as the first content is concerned, the knowledge is unerring but it errs only in respect of the other content viz., pradhāna.

103 Tattvapradhāna bhedacca mithyabuddhi dvalividhyopapattih / N. S., 4.2.37.
104 Vrttikara Viswanath says, "Tattvam dhadmisvarupam pradhana maropyam". / Vrtti on N. S. 4.2.37.
105 There is a celebrated Nyaya dictum: "Dharmini sarvam abhrantam prakare tu viparyyayah". This however is to be taken only as a general truth; there may be illusions which are false both in respect of the dharmin and the pradhana.
no silver in front, the character of silver is therefore superimposed but that there is something in front, something known in its general character as 'this', admits of no doubt. Now the property so projected on the substantive in front is always due to its strong similarity with a particular character of the thing presented. For example, shininess is the point in common between shell and silver; hence one is mistaken for another. Perception of similarity is the basis of illusory experience - 'na tu saṃāne viṣaye mithyā-buddhīnām saṃvesāh, saṃānyagrahaṇa vyavasthānāt'. One who has not perceived both silver and shell and their mutual similarity would not have any shell-silver illusion, for the very basis or ground of illusory experience, viz., saḍṛṣṭa is lacking in his case.

In the case under consideration, viz., knowledge of tree, false knowledge of the tree must mean and presuppose that the man in question had genuine experience of a tree in the past and is now taking something else as tree because of similarity between the two. We have seen that pratisandhāna can give us at best a false knowledge of the tree. Now, the Naiyāyika further argues, that such false knowledge must have been preceded by valid cognition in the past, otherwise even pratisandhāna cannot give us false

106 In the parlance of the Navya-Nyaya we should say that tattva is the vīsesya and pradhāna is the vīsesana. There is no mention of these terms in the old Nyaya, these have found their way into later Nyaya from Buddhism.

107 Vatsyayana Bhāṣya on N. S. 4.2.37.
knowledge about it. But if that is so, even the opponent must admit that it was validly known in the past by some process other than pratisandhana and thereby concede that pratisandhana is not the source of knowledge of the tree.

On these grounds the Naiyāyika disposes of all the alternatives likely to be adopted by the opponent, be he a believer in the whole as a sum of parts or as an additional entry. He concludes that the whole must be regarded as being known by perception and not by any other means.

It is also clear from the above discussion that according to the Naiyāyika the whole is perceived along with, and in and through the parts. Naturally, the question crops up, is it perceived through a one part or are all the parts to be perceived for its perception? We have already come across this question in the last chapter and seen what answer the Naiyāyika gives to this poser of the Buddhist. 108 The answer of Gotama and Uddyotakara is, if we may recall, that even if one part is perceived, the whole is immediately perceived. This is however not accepted by Vacaspati and his successors who maintain that perception of several parts is necessary for perception of the whole. As to how many such parts are required is a matter over which experience has the final say and nothing can be said a priori.

108 Vide Supra, pp. 140-141.