CHAPTER III

WHOLE-PART RELATION

3.1. PRELIMINARY CONSIDERATIONS

3.1.1. The implications of the notions of 'whole' and 'part'

The conceptions of 'whole' and 'part' denote distinguishable but interdependent phenomena. According to Koestier, "'Part' conveys the meaning of something fragmentary and incomplete, which by itself has no claim to autonomous existence. On the other hand a 'whole' is considered as something complete in itself, which needs no further explanation."¹ But, 'whole' generally connotes an entity with parts and, part, by definition is always an element of a whole.

It is necessary to note that the terms 'whole' and 'part' have not always been used with the same connotation. Nagel points out that they have often been employed vaguely, ambiguously, and sometimes even metaphorically.² Emphasising the need for clarity in this regard, he has listed a few of the contexts in which these terms have been used. The word 'whole' is used to refer to something with a spatial extension, and anything that is spatially included in it is called a part of such a whole. Sometimes it refers to a temporal period whose parts are the temporal intervals in it. It has also been applied to any class, set or aggregate of elements.
'Part' in this context would designate either any proper sub-class of the initial set or any element in the set. A property of an object or a process has also been termed as a whole and some analogous property that stands to the first in certain specified relations is treated as its part. 'Whole' sometimes refers to a pattern of relations between certain specified kinds of objects or events, the pattern being capable of embodiment on various occasions with certain modifications. 'Part', then, may refer to any one of the elements that are related in that pattern on some occasion of its embodiment. It has also been used to refer to a process, its part being another process, some discriminative phase of the more inclusive one. A concrete object has also been described as a whole, its properties being treated as its parts. The word 'whole' has also been used to denote a system, whose spatial parts stand to each other in various relations of dynamical dependence.\(^3\)

3.1.2. The questions involved in whole-part relation

The primary problem in all the relations studied here is the determination of the criterion on the basis of which the terms of the relation can be distinguished in spite of their inseparability at the empirical level. In the case of the whole-part relation also, it is necessary to clarify the sense in which the whole is distinct from its parts. The whole may be distinguished from its parts on various grounds.
(1) It may be contended that the whole is distinct because it represents a systematic organization of the parts.

(2) The whole may be considered as distinct because it manifests properties, that are not found in any of its parts independently but are products of their joint effect.

(3) The whole may manifest properties, that are neither found in its parts nor accountable as products of their joint effect on, therefore, be considered distinct.

Once the possibility of distinguishing between the whole and its parts on any one or more of the grounds mentioned above is admitted, it becomes necessary to delineate the kind of relation that subsists between the two.

These observations are to be kept in mind while examining the view of the four systems being studied here.

New Realistic thinkers have discussed this issue extensively. Spaulding has offered a classification of the different types of whole that can be distinguished, and has analysed in detail the nature of the terms involved, the relation between them in each of the types etc. Perry holds that the whole-part relation is an instance of a dependence relation. Pittina has attempted to establish that the relationship between whole and parts is an external one even in the case of organic wholes. The primary purpose of the New Realistic observations
in this regard is to establish the external nature of this relation as against idealistic postulation of the internality of all relations. We do not find any significant discussion of the problem in Critical Realist literature.

3.3. NYĀYA-VAISЕŚIKA ON WHOLE-PART RELATION

3.3.1. Whole as a distinct entity - the Buddhist critique

Nyāya-Vaiśeṣika maintains that the whole (āvayavin) is a distinct entity over and above the parts constituting it. This view is not admitted by the Buddhist. The Buddhist holds that the whole is only an aggregate of its parts and is not a distinct entity. A number of arguments are offered in support of this view.

Attention is drawn to certain logical difficulties that would arise if the whole and its parts are considered as distinct entities, given the fact that they are always experienced insep separably. It is pointed out that it is not possible for each single part to reside in the entire whole because both are not of the same dimension. In spite of this difficulty, if it is held to be so, there will be no connection between the whole and other parts. Nor can it be contended that the part resides in only one part of the whole, because, one cannot talk of parts of the whole apart from the parts being considered. The same objection can be raised even if the relation is analysed from the angle of the whole. The entire whole cannot
reside in each one of the parts, because they are different sizes, not can it be said to subsist in parts in all the parts, as it has no other parts. It cannot also be contended that the whole resides apart from the parts, as in that case, it would either be non-existent or eternal. It cannot also be said that the whole is a mere quality of the parts, and is therefore the same or identical with them.

The Nyāya-Vaiśeṣika view gives rise to problems at the ontological level also. It is pointed out that if the whole were to be a different entity there should be a separate weight for it apart from that of its parts. In that case when a new whole, such as, for instance, a piece of cloth emerges from the threads, its weight should get doubled since a new object with separate weight has been added. Such an increase in weight, the Buddhist contends, has not been found in the case of any whole. Further, the Nyāya-Vaiśeṣika position involves certain difficulties when an attempt is made to describe the nature of the whole, in instances like that of cloth produced from threads of different colours, or the cloth that is partly dyed red, etc. In these instances, it is pointed out, it is not possible to specify the colour of the whole. Further, the Buddhist holds that the whole is never experienced as an entity distinct from its parts. On these grounds, the Buddhist contends that the whole is only an aggregate of the parts and not a distinct entity.
3.2.2. Whole as a distinct entity - the Naiyāyikā defence

Naiyāyikā-Śaṅkara denies the validity of these arguments and maintains that the whole is a distinct entity. Regarding the logical difficulties involved in such a conception, the Naiyāyikā argues that the contention of the Buddhist is not tenable because, when we are referring to a whole we are talking of a singular entity, and terms implying diversity cannot be applied to it. It is pointed out that the terms entire (kṛtāna) and in parts (ekadāsa) are connotative of diversity and they can not be applied to a whole which is a single entity by nature. 16 As Uddyotakara says, the question whether the avayāvin subsists in each part in entirety or partially, denies the unitary nature of the whole, because in either cases it will be several entities subsisting in several ones. 17 He also points out that there are many other entities like the number duality (dvitva) separateness (prthaktvā), etc., each of which, though one, resides in many. 18 Jayanta, defending the position on similar grounds, states that there is no need for other similar instances to establish the position that one resides in many, because no instance is needed to prove a thing which is directly experienced. 19

Among the objections raised at the ontological level, the only significant objection relates to the absence of a change in the weight even after the emergence of a distinct entity. Thinkers like Uddyotakara, Śrīdhara and others have attempted to explain the absence of an increase in weight. 20
Examining the various explanations in this regard, Shastri holds that none of the explanations is satisfactory. The problems involved in the case of the cloth produced out of threads of different colours and the cloth partly dyed red etc., are not of a serious nature. In the first case, the Naiyāyika contends that it is valid to talk of the variegated colour Citrārūpa) of the cloth as distinct from the colours of different threads. In the latter case it is held that the red colour does not belong to the cloth at all, but only to the dye stuff with which the cloth is connected.

The major difficulty encountered by the Naiyāyika is at the experiential level. The Buddhist holds that one never perceives the whole as distinct from its parts. This is not to deny the experience of certain entities as wholes, but such an experience, the Buddhist argues, is inferential in nature. The Buddhist maintains that when an object like a tree is perceived, one perceives only a few front parts and, on the basis of those few parts, the whole tree is apprehended. This process is similar to the inferential process and, therefore, it is argued, a whole is only inferred and is never an object of direct perception.

This argument is not admitted by the Naiyāyika on the following grounds. If the tree is not a whole distinct from the parts, but a mere aggregate as held by the Buddhist,
it can never be perceived. It can neither be the parts that are said to be perceived, nor the parts which are said to be inferred. Further, inferential process necessarily involves direct perception of both the inferential mark and the thing inferred therefore, as associated with each other. In the present instance, this implies that to infer the whole tree from the perception of the parts, the tree as a distinct entity must have been perceived along with the parts at sometime or the other. Nyāya-Vaiśeṣika admits the possibility of perceiving an object as a whole on the basis of the perception of only a few parts because all the parts can never be perceived.

3.8.8 Conditions contributing to the emergence of a distinct whole

The arguments advanced by Nyāya-Vaiśeṣika serve to establish only the validity of considering the whole and its parts as ontologically distinct in spite of their inseparability at the level of experience. It is also necessary to clarify the sense in which the whole is distinct from its parts. In other words, the conditions under which the connections of a number of entities produce a new whole will have to be specified. Nyāya-Vaiśeṣika admits that in some instances such a connection may simply result in an aggregate, as in the case of a bundle of bamboo sticks tied together, an army or a forest, etc.
Scholars examining this question hold the view that Nyāya-Vaiśēsika thinkers do not give a definite answer to this problem. According to Shastri, there is no definite criterion as to the conditions under which collections of parts produce a new whole and where they do not. The decision is said to depend on experience. But Shastri points out that whenever a collection of parts appears to be presenting an object which performs a new function not performed by the parts, that object is generally regarded as a new entity born out of the parts by the Nyāya-Vaiśēsika. Shastri does not accept the view of Shastri and maintains that there is a definite criterion to determine when a 'whole' (antyāvyāvin) is produced by the contact of two or more parts and when not. When two or more parts of the same kind (jīti) come in contact, they produce a distinct 'whole' and when the parts coming into contact are not of the same kind, no new whole is produced. More recently Potter has pointed out that Nyāya-Vaiśēsika thinkers have not said much on this issue.

The problem of determining the conditions under which the parts relate to form a whole is complicated further by another postulate of the system, viz., that certain substances can be regarded as ultimate wholes (antyāvyāvins). Such entities cannot be parts of any other whole. Regarding the kinds of entities that can be termed as ultimate wholes, however, the views of Nyāya-Vaiśēsika seem to be equally
ambiguous. Both Chastri and Bharatiya have pointed out the absence of a specific answer to this question in the literature of the school.

Potter has referred to the observations of a contemporary Nyāya scholar, Jitendranath Mohanty, in this regard. Mohanty examines this defect in the Nyāya-Vaiśesika theory, suggesting an intriguing answer to it. He points out that since wholes are produced from contact among the parts, it might be thought that the Naiyāyika postulates a special kind of contact which produces wholes rather than mere aggregates. But, Mohanty argues, since even the parts of a whole, the threads in the cloth, can be separate, this conception is not satisfactory. Why, he asks, is the potter's handiwork a whole, but God's handiwork, namely the universe is not a whole? Mohanty suggests that the answer may be found in the implicit promise of the Naiyāyika. He holds that in Nyāya everything is "intentional" with respect to other things and so the pot-halves "call for" a pot while the whole pot does not call for any larger entity.

Commenting on the observations of Mohanty, Potter notes that Mohanty's views apparently seem to be arbitrary without any direct support being found in the literature. But Potter maintains that a clear study reveals that the Vaiśesika system offers detailed rules that determine the combinations
of the entities admitted by the system and the entities produced as a result of the combination of these entities. And the role of the self-linking connector saravāya is quite important in this process and the notion of saravāya involving the intentional element is emphasised by Mohanty. Potter, however, admits that the Nāyāyika does not pay sufficient attention to the problem of how one as to tell a final whole from one that is not.  

Another answer to the question posed above is suggested by the Nāyāya-Vaiṣeṣika view that the whole-part relation is the same as that of substance-attribute relation. One of the reasons justifying the postulation of the ontological reality of the substance is the manifestation of certain additional traits in certain collections of attributes. The whole, then, may be considered as distinct from its parts, because it manifests traits that are not found among any of the parts constituting it.

This raises the question of the source of the additional traits that are manifested by the whole. In the course of his examination of the view that the organism is a special type of 'whole', Mc Kullin has summarised the various alternative positions that can be adopted regarding the relation between the nature of the whole and its parts. According to one of the theories, the living whole is an
emergent in the sense that the dispositional properties of the parts do not suffice to explain the properties of the whole. The whole, somehow, transcends the parts in the sense that when the parts are properly interposed, a set of new properties emerge for which the parts are necessary, but not sufficient conditions. This, he terms as 'radical emergence.' Nyāya-vaiśeṣika seems to advocate a position broadly similar to the radical emergence conception. Mc Nullin has pointed out an important defect of this theory. He observes, "Radical emergence appears to involve a break-down in causality. The emergent properties do not proceed simply from the dispositions of the material, as would be assumed in normal causal analysis."\[38\]

This suggests that the Nyāya-vaiśeṣika theory of a distinctive whole is acceptable only if it is supported by a causal theory that postulates the emergence of properties, not experienced in the causal factors, in the effect. We shall note in the next chapter that this condition is satisfied by the causal theory advocated by this system, viz., the asatkārya-vāda or theory of non-existent effect. It is sufficient to state here that the theory of whole-part relation advocated by the Nyāya-vaiśeṣika in order to reinforce his notion of substance has to be supported, in turn, by a specific type of causal theory. These observations also suggest that the nature of the relation between the whole and its parts, which accounts for their inseparable nature is the samavāya relation, which unites substance and attribute as well as cause and effect.
3.2.4. The place of whole-part relation in the Nyāya-Vaiśeṣika metaphysics

This emphasis on the reality of both the whole and its part has an important bearing on the pluralistic realism advocated by the system. As Bhartṛi Ārya remarks, "Nyāya-Vaiśeṣika, as an exponent of Realism, had the responsibility of proving the reality of the external objects, as they appear to us. But the ultimate reality, according to Nyāya-Vaiśeṣika, is in the form of atoms which are very minute, indivisible, imperceptible and detached particles. The external world is not so. It consists of gross and unified perceptible objects. How could the imperceptible and discrete atoms produce the perceptible unified objects." 39 This contradiction can be resolved either by denying the reality to one of them, thereby making empirical experience purely subjective or introduce a principle that would account for the reality of both. The idealistic thinkers had to introduce an additional principle to account for the supposed reality of both. The Nyāya-Vaiśeṣika conception of whole (avayavin) is intended to serve this purpose. When applied to the atomic theory, this principle affirms that from the level of atoms till the level of the so-called ultimate wholes recognised by the system, each subsequent level signifies a whole emerging out of the parts. It may be said that, when two atoms combine, there emerges an avayavin in the form of an object which is different
from atoms. Similarly, further wholes result from the combination of these dyads with different degrees of complexity manifested at different levels.

3.3. **Sāṅkhya on Whole-Part Relation**

In the context of the dualistic ontology postulated by Sāṅkhya, the concepts of 'whole' and 'part' have no application at the level of ultimate metaphysical entities. Sāṅkhya is primarily concerned with the analysis of the nature and functioning of these ultimate principles and does not deal with the entities of empirical experience in as explicit a manner as in hindu-Veṣāsika.

3.3.1. **Praktī-Guṇa relation interpreted in the whole-part framework**

However, the praaktī-guṇa relation which provides the framework for understanding the Sāṅkhya views regarding substance-attribute relation admits of an interpretation in the whole-part framework also. If this interpretation is admitted, praaktī can be treated as a whole with sattva, rajas and tamas constituting the parts. The Sāṅkhya Kārika describes these guṇas as mutually subjugative, supporting, productive and co-operative. Elaborating this, Vācaspati Miśra points out that they are called mutually subjugative because they are so constituted that when one is brought into play for some purpose it subjugates the other. The idea of mutually supporting, he
holds, does not mean one being contained in the other, but that the operation of one is dependent upon the other. They are said to be mutually productive because one can produce (its effects) only when resting on the other two. Later, we note in our discussion of cause-effect relation, that production in this context means modification. They are also mutually co-operative, which, according to him, means that they are mutual concomitants not existing apart from one another. It is obvious from the above that the term 'whole' has a connotation in the Śāṅkhyā scheme different from that Nyāya-Vaiśeṣika. The Śāṅkhyā prakṛti can be designated as a 'whole' only in the sense that it is a system whose parts stand to each other in various relations of dynamical dependence, which is one of the connotations of the term recognised by Hegel.

Since the relation between prakṛti and guṇas is one of identity, which admits of only an analytical distinction, the other questions raised in this regard are not relevant to Śāṅkhyā analysis. The whole is distinct not because it manifests properties not to be found in its parts, but only because it signifies the integrated entity rather than the distinguishable parts. The Śāṅkhyā description of the functioning of these guṇas makes it clear that no ontological distinction is implied by this conceptual differentiation.
8.4. VISHISTADVAITA ON WHOLE-PART RELATION

The conceptions of 'whole' and 'part' are as important to Vishistadvaita metaphysics as they are to Nyaya-Vaiiseshika though the context in which these conceptions are relevant varies from one system to another. In the context of the pluralistic realism advocated by Nyaya-Vaiiseshika, the conception denotes a wide range of phenomena from dyads to the gross objects of empirical experience. Vishistadvaita, no doubt, recognises the reality of all the objects of empirical experience, but derives the manifold material phenomena from an unitary principle prakrti, adopting the Sanksya approach in this regard. But, according to Vishistadvaita, prakrti along with the selves is ultimately subordinate to the underlying supreme principle Brahman, who is said to be the substratum of both the material universe and the selves.

8.4.1. Whole-part relation as a description of the relation between Brahman and His attributes

To have examined the standpoint of Vishistadvaita regarding the substance-attribute relation and its importance in bringing out certain dimensions of the Vishistadvaita conceptions of the relation between Brahman on the one hand and the material world and the selves, on the other. Another analogy used to delineate this relation is that the whole-part. Material world and the selves are said to be the parts of 'Brahman', the whole, the relation between the two being upadaksidhah.
Rāmānuja has elucidated in detail the implications of the whole-part conception in the context of the relation between Brahmā and Ātman nodes. The need to clarify the connotations of these terms in this context has been emphasised by Varaḍachari. He observes, "If the part were to be treated in terms of extension and the whole too treated in the same way, then we would be confronted with the problem whether the whole is extended and material and Brahmā being conceived as the whole, is material." 42 Visistādhyaksa holds that the notion of part does not have spatial implications here, as, such an interpretation would result in the impossibility of all imperfections being attributed to Brahmā. It cannot also be considered as denoting a piece of Brahmā becomes Brahmā cannot cut into pieces. Rāmānuja defines a part as a particular region (deśa) of something and a distinguishing attribute (vidēgha) is considered as a part of the thing distinguished by that attribute. 43

The nature of this relation is clarified further by pointing out that there is a difference in character between the whole and its parts. As Rāmānuja points out, whenever difference is declared, it is the difference in character between the substance and its nodes that is emphasised. Unity or non-difference is posited on the ground that the attributes are incapable of separate existence and are ultimately bound to the substratum. The relation is compared to that between a luminous entity and its light, involving both identity and
difference. Just as a luminous entity is different from its lustre in its nature, but is experienced as identical with it, Brahman differs from the selves and the world which are parts of it, but is experienced as identical with them. The attribution of the status of parts to the selves and non-sentient matter is justified on the ground that just as lustre is an attribute not to be realised apart from the gem, and therefore is part of the gem, in the same way, selves and matter, the attributes of Brahman, are parts of Brahman also.45

Commenting on the significance of such an interpretation, Vasisthādhara holds that it indicates the integral nature of the relation between the attributes and substance. An entity can be a part only in the context of a whole. At the same time its mortal nature suggests that it neither affects the perfection of the whole nor loses its individuality.46 Such a conception, he notes, neither despiritualises the spirit nor materialises the matter and guarantees the individual selves and prakṛti an individual eternity. The most important implication of the above interpretation, according to him, is that the part need not be of the same nature as the substance of which it is an attribute. It can even be of a very obverse nature, provided it satisfies the definition of being an attribute or part.47
A study of these observations reveals that the terms 'whole' and 'part' are used in a specific sense in the context of the relation between Brahman and His rodes. The rodes are said to be parts of Brahman because they cannot exist independently of Him and are always associated with Him and His attributes. But it should be remembered that while as parts, they define the nature of Brahman, they do not exhaust His nature. Brahman with His rodes constitutes a 'whole', but 'whole' here is not just a distinctive entity emerging out of the relation among the parts with additional attributes, but a principle which no doubt includes the entities constituting its parts, but involves something more than the universe denoted by these parts. This distinction is relevant to an understanding of the nature of material causality attributed to Brahman, which shall be examined in the next chapter.

So far as the whole-part relation at the empirical level is concerned, it may be said that the whole is distinct because it represents an integrated functioning of the parts with additional properties. Such an interpretation is possible in view of its stand with regard to the ontological reality of substance. This raises the question whether these additional properties can be explained purely in terms of the attributes of the parts, or involves a breakdown in causality as is true of the Nyāya-Śāṅkara theory. We will note in the next
chapter that Visistadvaita advocates the existent effect theory
Satkarya-Vāda. This implies that the properties of the whole
emerge out of the properties of the parts.

The relation between the whole and its parts is, therefore,
neither identity as in Sāṅkhya nor difference as in Nyāya-
Vaisēśika, but identity-in-difference.

3.5. DVAITA ON WHOLE-PART RELATION

In line with other realistic schools, Dvaita also holds
that the whole is a separate category.\(^\text{40}\) The argument given
in support of the above position is that otherwise the apprehen-
sion of the whole as a unitary entity would remain in-
explicable. The realistic approach of the Dvaitin leads him
to postulate an objective counterpart to every experience.

The whole, according to Dvaita, is an entity distinct from
the parts that constitutes it. It cannot be
considered as a mental construction because such a view would
be inconsistent with the realistic presupposition of this
school. Dvaita holds that anything that is not superimposed
should be considered as real, and something is known to be
superimposed only when it is sublated later. Since the
experience of a whole as a distinct category is not sublated
later it is contended, it has to be considered as a real term
in an ontological sense.
Since Dvaita advocates a pluralistic ontology with difference constituting the relation among the five fold reals recognised by the system, the conceptions of 'whole' and 'part' are significant only at the level of empirical experience and refer to the objects of the phenomenal world.

3.6. GENERAL OBSERVATIONS

3.6.1. Whole-part relation -- Indian Views -- A comparative account

All the systems studied here excepting Sāṅkhya, hold that the whole is distinct from its parts and maintain that it is experienced as a distinct entity. The grounds on the basis of which the whole is held to be distinct from its parts varies from system to system. Nāyika-Vaideśika contends that the whole is not merely experienced as distinct, but is ontologically distinct also. Though Sāṅkhya does not discuss the problem explicitly, the prakṛti-guna complex admits of a whole-part interpretation also. The whole in this context is not an entity distinct from the parts but denotes a dynamic principle with interdependent parts. Viśisṭādvaita holds that the whole is distinct from its parts, and maintains that in the case of Brahma, the ultimate whole, the area covered by the whole extends beyond the sphere defined by the parts, the material world and selves. Dvaita also admits the distinction between the whole and its parts. All the systems
admit the inseparability of the whole and its parts at the empirical level. It may be said that the realistic views of these systems is responsible for, and reflected in, the recognition of the reality of both the whole and its parts by all the systems.

3.6.2. Reasons underlying the differences in the views advocated by different systems.

The recognition of the reality and distinctive nature of the whole in relation to its parts is required by the realistic orientation adopted by these systems. Factors underlying the variations in the views advocated by different systems become evident when we examine the place of whole-part relation in the overall metaphysics of each system. The Nyāya-Vaiśeṣika view that wholes are distinct entities manifesting properties not found in the parts serves to bridge the gap between the measureless actors and the concrete objects of experience. Further, as pointed out by Shastri, the establishment of avayāvin is one of the important planks in the defence of the Nyāya-Vaiśeṣika theory of substance. Substance, when conceived in terms of extension of space, requires the establishment of avayāvin. The Viśistādvaśta views on whole-part relation are influenced by the Viśistādvaśta description of Brahman as a whole with the material world and selves constituting His parts. The whole-part relation does not play any
significant role in both Sāṅkhya and Dvaita metaphysics and is, therefore, not discussed extensively by these systems.

3.6.3. Western and Indian Views - a comparison.

The primary concern of Na\textsuperscript{a} Realist is to establish the external nature of the relation between the whole and its parts. The Indian realistic system studied here, on the other hand, is concerned with the establishment of the reality of both the terms of the relation in spite of their empirical inseparability.