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A PRIMER OF INDIAN LOGIC
A Primer of Indian Logic

ACCORDING TO
ANNAMBHAṬṬA'S TARKASAMGRAHA

BY
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SECOND EDITION

THE
KUPPUSWAMI SASTRI RESEARCH INSTITUTE
MYLAPORE, MADRAS
1951
FIRST EDITION—1932
SECOND EDITION—1951

PRINTED AT
THE MADRAS LAW JOURNAL PRESS
MYLAPORE, MADRAS
PREFACE TO THE FIRST EDITION

कणादं पाणिनीयं च सर्वशास्त्रोपकारकम्

Kāṇādaṁ Pāṇiniyam ca sarvasāstropakārakam.

"Logic and grammar are indispensable aids for every branch of knowledge."

This little book, called A PRIMER OF INDIAN LOGIC, is primarily based on Annambhaṭṭa's Tarkasaṁgraha and is designed to serve as an introduction, not only to the study of Indian logic as embodied in the Nyāya-Vaiśeṣika literature in Sanskrit, but also to the study of Indian philosophy in its diverse systems. In preparing this book, the oft-quoted Sanskrit dictum given above was borne in mind. This book comprises three parts. Part I contains an historical introduction. Part II gives the Sanskrit text of the Tarkasaṁgraha in the Devanāgarī script and in English transliteration. Part III forms the bulk of this work and contains an English rendering of the Sanskrit text accompanied by a critical and comparative exposition of each topic in English. In this exposition, an endeavour is made to combine strict fidelity to the original Śāstraic texts in Sanskrit with an intelligible presentation of the technical ideas of Indian systems of philosophy in an English garb. In the course of this endeavour, it has become unavoidably necessary to coin and bring into vogue certain technical terms, which, at first sight, look somewhat uncouth.
Nearly two years ago, I undertook to write this book for the benefit of modern University students, more especially B.A. students offering philosophy as their optional subject, in compliance with a suggestion made by my esteemed friend, Prof. P. N. Srinivasachariar, M.A., Professor of Philosophy in the Pachaiyappa’s College, Madras. Messrs. P. Varadachari & Co., Publishers and Book-sellers, 8, Linga Chetty Street, Madras, kindly undertook to publish this work. The printing of parts II and III was finished in January 1931 and these two parts were separately made available to students in the beginning of 1931. The complete work, with part I also and a very useful Sanskrit glossary, is now made available in a complete form; and in this form, it is hoped that it will be received well by all the students and scholars interested in Indian philosophy.

The bulk of the matter in this book is directly based on Sāstraic texts in Sanskrit. In the course of the preparation of this work, I consulted well-known English books on Indian philosophy like Prof. Radhakrishnan’s ‘Indian Philosophy’, Dr. Keith’s ‘Atomism and Indian Logic’, and Dr. Randle’s ‘Indian Logic in the Early Schools’. My thanks are due, in particular, to two of my young friends and former pupils—to Mr. T. R. Chintamani, M.A., Senior Lecturer in Sanskrit, Madras University, for preparing the table of contents and the Sanskrit glossary, and to Mr. T. Chandrasekharan, M.A., (Diploma in German), Professor of History of Sanskrit Language and Literature, Madras Sanskrit College, and Manager, Journal of
Oriental Research, Madras, for reading the proofs. I should also take this opportunity to express my thankfulness to the Madras Law Journal Press, Mylapore, for its very kind and efficient co-operation in seeing this work through the press and to Pandit T. S. Subrahmanya Sastri (Sāhitya-Śiromāṇi) of the M.L.J. Press for the alert and willing assistance which he rendered at various stages in getting me to do the work in the midst of my multifarious duties.

S. KUPPUSWAMI SASTRI

5, North Mada Street, Mylapore,
11th March, 1932.
PREFACE TO THE SECOND EDITION

The authorities of the Kuppuswami Sastri Research Institute have great pleasure in bringing out this second edition of the Primer of Indian Logic by Prof. S. Kuppuswami Sastri, and publishing it on the occasion of the Seventh Foundation Day celebrations of the Institute founded in the name of the author.

Dr. A. Sankaran, M.A., Ph.D., and Dr. V. Raghavan, M.A., Ph.D., were in charge of the work of bringing out this second edition.

The corrections noted by the author in his own copy of the book preserved in the Institute Library have been incorporated here.

Sri K. Venkateswara Sarma, M.A., was of much assistance in the reading of the proofs and seeing the work through the press.

The thanks of the Institute authorities are specially due to Sri N. Ramaratnam, M.A., B.L., Proprietor, M. L. J. Press, for his continued co-operation in the work of the Institute.

7th Sept. 1951.
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A PRIMER OF INDIAN LOGIC

PART I

INTRODUCTION
SECTION I

PRELIMINARY: LOGIC IN THE WEST AND IN INDIA

In the cultural history of Europe, over twenty-two centuries ago, thinking, like speaking, needed an elucidative and regulative aid and found it in a distinct branch of investigation, which was founded and organised in Greece by Aristotle and which came to be designated Logic. It is significant that the name logic is etymologically connected with the Greek word logos, which denotes both ‘thought’ and ‘word’ or ‘discourse’. The significance of this etymological connection can be adequately appreciated if it is remembered that logic, in its rise and development in the western world, particularly in Greece, was closely connected with rhetoric. Thus the name logic is of a tell-tale character in its application to logic in the West; and it may be taken to indicate how, almost from its very rise, western logic found itself in the firm grip of formalism and how it took more than twenty centuries for the scientific method underlying Aristotle’s Organon to be redeemed, brought into prominence and implemented in the Novum Organum of Francis Bacon (1561-1626). The term logic should not be taken to carry with it all these implications of European history when it is used in the phrase Indian logic. This phrase is usually rendered by the Sanskrit equivalents—ānvīksīki
It is also usual to describe Indian logic by the anglicised phrase *Nyāya-Vaiśeṣika system* and it is usually described thus in this work. All these phrases are significant and appropriate in one way or other, particularly in view of the place which Indian logic occupies in the cultural history of India and of the manner in which it arose and grew—not as a mere grammar of thinking, but as an orthodox (āstika) system of philosophy with a special stress on the science of methodical reasoning in both its inductive and deductive aspects, this science forming its dominant and distinctive part. Indian logic is ānvikṣikī or *nyāyavistara* or *nyāyadarśana* in the sense that it is a philosophical system, of which methodical reasoning or investigation of knowledge got through observation or perception and trustworthy verbal testimony forms the central theme; it is pre-eminently the science of ratiocination or *tarkaśāstra*; and in contrast with the *padaśāstra* or ‘the science of grammar’ (*Vyākaraṇa*) and with the *vākyasāstra* or ‘the exegetics’ (*Mīmāṃsā*), it is described as the *pramāṇaśāstra* or the epistemological science, chiefly concerned with valid knowledge and its sources. That Indian logic is usually described as the *Nyāya-Vaiśeṣika* system is not because it is the result of the syncretism of the two opposing systems—Nyāya realism and Atomistic pluralism; rather, it is so described because at a very early stage in the history of Indian logic, the Vaiśeṣika stress on the inductive phase of inference came to be synthesised with its deductive phase in the Nyāya theory of reasoning.
Those who are familiar with Western logic and desirous of studying Indian logic from a historical and comparative point of view will do well to bear in mind the fact that, while one may find striking parallels in the Indian and Western systems of logic, one should not be misled by such parallels and lose sight of the fundamental differences in respect of scope and method, which Indian logic discloses in its rise and development, as compared with Western logic.

SECTION II

ANTECEDENTS AND FORESHADOWINGS OF THE VAISESrKA AND NYAYA

The story of India's quest for truth and of India's attempts to lay out suitable ways and approaches to truth is long and varied and it has been reconstructed with a considerable measure of success by several eminent scholars, Indian and alien, from the ancient literary monuments of India, which are mostly in the form of Sanskrit works. In all this quest and these attempts, a careful student of the history of Indian philosophical thought may discern, almost from the very beginning, two tendencies—the intuitionistic and the rationalistic, and two chief aims—the achievement of Dharma and the realisation of Brahman. If one of the Rg-Vedic seers could be said to have boldly intuited the monistic absolute in the well-known verse "That One breathed breathlessly by itself" (Anidavātām svadhayā tadekam: Rv. X.129.2), it would not be
far-fetched to find the rationalistic exhortation of another Rg-Vedic seer in the verse “Meet one another, discuss and understand your minds” (Samgacchadhvain sanvadadhvain san vo manāmsi jānatām: Rv. X.191.2). These two tendencies came to exhibit themselves throughout the Vedic age, in close association with the two aims mentioned above. On one side, as a result of the influence of the rationalistic tendency on the ritualistic aspect of the Veda, ritualistic and exegetic doctrines, which, in due time, emerged as Jaimini’s system of Pūrva-Mimāṃsā, were developed. And, on the other side, the combined workings of the intuitionistic and rationalistic tendencies in the direction of spiritual insight and knowledge of truth led to the emergence of the Upaniṣadic philosophy of Ātman. This philosophy was marked by a pronounced emphasis on the efficacy and value of intuition, which culminated in Bādarāyaṇa’s system of Vedānta. The dominant feature of the philosophy of the Upaniṣads is its monistic absolutism, which led up, within the Upaniṣadic period itself, to rationalistic reactions of different types representing collateral and casual phases of Upaniṣadic thought—some of them coming to be systematised later on in the dualism and realism of Kapila’s Sāṃkhya and the allied discipline of Patañjali’s Yoga, some others eventually giving rise to the pluralistic rationalism of Kaṇāda’s Vaiśeṣika system and its complementary Nyāya of Gautama, and yet others emerging as anti-Vedistic rebels in the form of the Jaina may-be-ism (syādvāda), the Baudhāya idealism (vijñānāvāda) and nihilism (śūnyavāda), and the
Cārvāka materialism. All these post-Upaniṣadic systems came to be called *darsanas* (*darśanāṇi*). It should be noted here that the term ‘system’ is very inadequate as the English equivalent of the Sanskrit word ‘*darśana*’. While the former word brings into prominence the idea of systematisation, the latter word brings into relief the fact that the plenary intuition of *truth* or *spirit* (*tattvadarśana* or *ātmadarśana*), which a gifted saint or seer came to have, lies at the root of every system of Indian philosophy and forms its fruit also. A long-established and widely accepted tradition classifies these *darsanas* into āstika and nāstika. The history of the meaning of these two words throws some light on the manner in which the ground of classification happened to be shifted under varying circumstances. Pāṇini’s sūtra 4.4.60 (*asti nāsti diṣṭam maṭih*) gives the derivation of the words āstika, nāstika and daiṣṭika: and according to Pāṇini, āstika is ‘one who believes in the other world’, nāstika is ‘one who does not believe in the other world’ and daiṣṭika is a ‘pre-destinarian’ or ‘fatalist’. This is the oldest recorded explanation of these words. On the basis of this explanation, even Jainism, and Buddhism in some of its aspects, could be described as āstika systems. An old popular tradition would take the word āstika in the sense of ‘one who believes in God’. If this should be accepted, Jaimini’s Pūrva-Mīmāṃsā and Kapila’s Sāṁkhya, which are usually included in the āstika list, ought to be dropped from that list, as they do not recognise *Īśvara*. A post-Buddhistic, but pre-Christian, tradition fixed the meaning of the word āstika as ‘one
who believes in the infallibility and the supreme authority of the Veda’ and of the word nāstika as ‘one who does not believe in it’. This tradition has been widely accepted for a long time. According to this, the Sāmkhya and Yoga, the Vaiśeṣika and Nyāya, the Pūrva-Mimāṃsā and Vedānta are described as āstika-darśanas, and the Cārvāka, Jaina and Baudhā systems as nāstika-darśanas. In this context, whenever the terms orthodox and heterodox happen to be used as the English equivalents of āstika and nāstika, it should be remembered that they have reference to belief and disbelief in the authority of the Veda.

Though the first beginnings of the Vaiśeṣika and Nyāya systems are misty in certain respects, a careful student is not likely to miss the foreshadowings of the central doctrine of these systems in the Upaniṣads. In the well-known three-fold scheme of self-culture leading to self-realisation, as taught in the oft-quoted Upaniṣadic text ‘‘Verily, Maitreyi, the Spirit should be realised, heard, discussed and constantly contemplated upon’’ (Ātmā vā are draṣṭavyāḥ śrātvayo mantavyaḥ nidadhyāsitavyaḥ—Bṛhad. IV. 5), it is generally accepted that hearing or initial comprehension (śravāna) represents the inaugural stage, investigation and discussion with the help of reason (manana) represent the central stage and constant contemplation (nidadhyāsana) stands for the culminating stage. The grim spiritual teacher of the Kaṭhopaniṣad, Death (Yama), pulls up the rationalist of the Upaniṣadic age with the warning ‘‘Self-realisation cannot be got
INTRODUCTION

through ratiocination or *tarka*” (*Naiṣā tarkena matirā-paneyā*—Kātha II. 9). From these foreshadowings of deliberate attempts to exercise reason, when considered together with the fact that philosophical debates such as those that were carried on under the auspices of Ajātaśatru and Janaka were very common during the Upaniṣadic age, the inference is irresistible that, already during the period of the Upaniṣads, some logical doctrines should have not only begun to appear, but also progressed beyond the nebulous stage.

SECTION III

HOW THE VAISESIKA AND NYAYA SCHOOLS EMERGED AND WHEN THEIR DOCTRINES WERE REDACTED INTO SUTRAS

(1) Before the end of the Upaniṣadic period and prior to the advent of the Buddha, the Vedic scriptures embodying the results of the intuitive insight of the Vedic and Upaniṣadic seers had asserted their authority so far as to persuade a large section of rationalistic thinkers to agree to play second fiddle to scriptural authorities. This should have resulted in the development of the pre-Buddhistc *Nyāya* method in close association with Vedic exegesis and accounts for the earlier use of the term *Nyāya* in the sense of ‘the principles and the logical method of Mīmāṃsā exegetics.’ This also accounts for the fact that, even after the disentanglement of the Nyāya logic from Vedic exegetics, the legislators of ancient India like Manu and Yājñavalkya
emphatically recognised the importance and value of logical reasoning (tarka) in a correct comprehension of dharma as taught by the Vedas (Manu XII. 105 and 106; Yājñavalkya I. 3). Another section of rationalistic thinkers who did not agree to play second fiddle to scriptural authorities, perhaps developed and expounded rationalistic doctrines on independent lines, without subjecting themselves to the thraldom of Vedic religion and philosophy. Some of these doctrines—perhaps shaped themselves into the Sāṃkhya thought of the pre-Buddhistic stage, with a marked degree of hostility to Vedic ritualism. Some other doctrines of this kind gave rise to the pre-Buddhistic logic and and metaphysics of the Vaiśeṣika, with a special leaning in favour of the inductive method of reasoning based on observation and analysis and with a simple rationalistic scheme of two sources of valid knowledge—perception and inference (pratyakṣa and anumāna). It is very likely that the anti-Vedic speculations of the pre-Buddhistic Sāṃkhya and the anti-Vedic logic and epistemology of the pre-Buddhistic Vaiśeṣika paved the way for the development and systematisation of Buddhism.) It may here be borne in mind that Buddhistic tradition, as preserved in ancient Chinese records, readily recognises the priority of the Sāṃkhya and the Vaiśeṣika to Buddhism. (See Ui’s Vaiśeṣika Philosophy, pages 3 and 4.)

(About the fifth century B. C., when the anti-Vedic movements of Buddhism rose and began to spread, the exponents of Vedic philosophy and religion keenly felt the need for showing greater accommodation to-
rationalistic modes of thought. The rationalistic resources available for Vedic religion and philosophy had to be pooled together and kept fit for defensive and offensive use, as against the impact from collision with avaidika developments. On the one side, it was found easy to disentangle from its Vedistic environment the logical method (Nyāya) of Vedic exegetics; and on the other side, to bring the unfettered methods of reasoning and analysis known to the early Vaiśeṣika under the influence of the attempts for rapprochement made by the Vaidika thinkers turned out to be an easy task, chiefly as a result of the disquieting nihilistic excesses of early Buddhism. Thus, the Nyāya of the Vedic exegesis and the logic and metaphysics of the early anti-Vedic Vaiśeṣika came to fraternise with each other and gave rise to two sister-schools of philosophical reasoning—the Vaiśeṣika school mainly concerned with inductive observation and analysis, and the Nyāya school chiefly concerned with the formulation and elucidation of the principles of ratiocination on the basis of inductive reasoning. These two schools should have appeared in a fairly definite form, with their characteristic methods of reasoning and metaphysics, by the middle of the fourth century B. C., though the chief doctrines of these schools came to be systematised and redacted in their basic sūtras at a relatively later date. This statement may receive good support from the following facts, if they could be taken to be conclusively established. Bhadrabāhu, a Jaina sage, whose activity as a Jaina logician may be assigned to about 357 B. C., was quite familiar with an old theory of ten-membered
syllogism. The Nyāya logic was known to Kātyāyana of the fourth century B.C., as Goldstucker has shown in his work on 'Panini and his Place in Sanskrit Literature'. Bādarāyaṇa's Vedānta-sūtras (II-ii 11 to 17) definitely presuppose the Vaiśeṣika. The Lalitavistara and Milindapañha mention the Vaiśeṣika. Even the Vaiśeṣika-sūtras, which were, in all probability, produced later than the middle of the fourth century B.C., do not controvert any of the Buddhistic doctrines, while Buddhistic tradition generally recognises the pre-Buddhistic origin of the Vaiśeṣika. These considerations, which tend to show that the Nyāya and Vaiśeṣika schools came into being in a definite form before the middle of the fourth century B.C., cannot be lightly brushed aside.

The doctrines of these two schools were systematised and redacted in the form of the Nyāya-sūtras and Vaiśeṣika-sūtras. The authorship of the former is ascribed to Gautama, and that of the latter to Kaṇāda. According to the generally accepted Indian tradition, which goes back to the early centuries of the Christian era, Gautama is otherwise known as Aksapāda and Kaṇāda is otherwise known as Ulūka and Kāśyapa. It will be obvious to those who are familiar with the traditions of ancient India that Aksapāda was the personal name and Gautama the gotra name of the author of the Nyāya-sūtras, and that Kaṇāda and Ulūka are the personal names and Kāśyapa the gotra name of the author of the Vaiśeṣika-sūtras, in the same way as Pakṣilasvāmin is the personal name and Vātsyāyana the gotra name of the author of the
Nyāyabhāṣya. Though the exact dates of Kaṇāda and Gautama are not known, the dates of their sūtras can be fixed within fairly definite limits. Jacobi, in his well-known article on the date of the philosophical sūtras (Journal of the American Oriental Society XXXI. 1911), endeavours to show that the Nyāya-sūtras and the Brahma-sūtras were redacted between 200 and 500 A.D., that the Vaiśeṣika-sūtras and Mimāṃsā-sūtras were redacted at a somewhat earlier date, that the redaction of the Yoga-sūtras should be assigned to about 450 A.D., and that the sāṅkhya-sūtras were produced at a much later date, later than the fourteenth century. With regard to the Sāṅkhya-sūtras, it is generally accepted that they were composed later than the fourteenth century, though the Tattvāvatīsaṁśa, which may be regarded as the nucleus of the basic sūtras of the Sāṅkhya system, is perhaps older than Iśvākṛṣṇa and the Christian era and is certainly older than the Bhagavadajjuka, a farce earlier than the seventh century A. D. (See Journal of Oriental Research, Madras, Vol. II. pages 145 to 147). If the Bhikṣu-sūtra referred to in IV. iii.110 of Pāṇini's Aṣṭādhya and the Brahma-sūtra mentioned in XIII.4 of the Gītā could be taken to refer to Bādarāyaṇa's Brahma-sūtras, it would be difficult to accept, without due reservations, Jacobi's argument in its application to the Vedānta-sūtras. The name Patañjali, borne by the author of the Yoga-sūtras, presents some difficulties to Jacobi, as the date of Patañjali, the author of the Mahābhāṣya, is accepted to be the middle of the 2nd century B. C. But Jacobi would attempt to differentiate
the author of the Mahābhāṣya from the author of the Yoga-sūtras, though, as a matter of fact, the ancient tradition identifying the two Patañjalis is sound and maintainable on reasonable grounds. The central point of Jacobi’s argument relates to the internal evidences furnished by the nature of the Buddhist doctrines controverted in some of these sūtras. The Nyāya-sūtras, according to Jacobi, refute the nihilistic śūnya-vāda of Nāgārjuna (3rd century A. D. circa) and do not refute the idealistic vijñāna-vāda of Asaṅga and Vasubandhu (middle of the 4th century A. D.). But, according to Vātsyāyana and Vācaspatimiśra, the Nyāya-sūtra IV. 2.26 refutes the vijñāna-vāda. It should also be remembered here that the śūnya-vāda and vijñāna-vāda doctrines were not introduced in the world for the first time by Nāgārjuna and Asaṅga and Vasubandhu and that, before these Buddhist teachers, these old doctrines had been in existence for a long time. Even if this line of argument adopted by Jacobi should be accepted as satisfactory, it does not touch the Vaiśeṣika-sūtras; and if the obverse of this argument were to be applied to these sūtras, the logical result would be that they should be held to be pre-Buddhistic. Kauṭaliya Arthashastra mentions the types of thought comprising ānvikṣikī in the statement:—Sāmkhyam yoga lokāyatam cetyānvikṣikī (Vol. I. page 27, Trivandrum edition). Though the date of the Kauṭaliya is not yet finally settled, the general trend of well-informed and unprejudiced opinion among Indian and alien Indologist is in favour of assigning that great work to 304 B. C. In this extract from the Kauṭaliya, there is no
specific mention of Nyāya or Vaiśeṣika as such. Attention is drawn by Ui and Randle to noteworthy cases of parallelism between the Vaiśeṣika-sūtras and Nyāya-sūtras, in which it would be more reasonable to say that the former sūtras were used in the composition of the latter (See Ui’s ‘Vaiśeṣika philosophy’, Introduction, page 16, note 1; and Randle’s ‘Indian Logic in the Early Schools’, Introduction, page 7, note 1). There is evidence to show that the sixth Jaina schism (18 A.D.) presupposes the Vaiśeṣika redaction (Ui’s ‘Vaiśeṣika philosophy’, Introduction, page 34). Chiefly, on these grounds, it is surmised by several scholars that the Vaiśeṣika-sūtras should have been redacted in the pre-Christian era, subsequent to 300 B.C.; and that the Nyāya-sūtras should have been redacted about the time of Nāgarjuna and Deva, between 150 and 250 A. D. may be inferred from the fact that the sūtras 2.2.17—19 seem to presuppose the refutatory comments in Nāgarjuna’s Vigrāha-vyāvartanī on the realistic position regarding the relation between pramāṇa and prameya (Ui’s Vaiśeṣika Philosophy, Introduction pages 84 to 86). Randle concludes that the “Vaiśeṣika and Nyāya were systematised between 200 B. C. and 200 A. D., the Vaiśeṣika being the earlier of the two”; and that “the indications, such as they are, point to the beginning of the first century A. D., as the latest date for the systematisation of the Vaiśeṣika”. (Randle’s ‘Indian Logic in the Early Schools’, Introduction, pages 16 and 17.)

These conclusions, based as they are on good grounds as far as they go, would appear to require
reconsideration on a careful scrutiny of all the evidences available. That the redaction of the Nyāya-sūtras presupposes that of the Vaiśeṣika-sūtras may be readily admitted. It is not easy to establish that the Vaiśeṣika-sūtras were redacted subsequent to 300 B. C., on the ground that the name Vaiśeṣika is not contained in the extract from the Kauṭaliya quoted above. 'Those who are sufficiently familiar with the use of the word yoga in its old sense of vaiśeṣika, as it is found used, for instance, in Vātsyāyana’s bhāṣya on 1.1.29, are not likely to consider it a strained interpretation to take the word yoga, as used in the Kauṭaliya, in the sense of vaiśeṣika. In fact, according to Vācaspatimisra’s Tātpryaṭikā and the Bhāṣyacandra on the bhāṣya on 1.1.29, the word yoga may be taken in the somewhat comprehensive sense of Nyāya, including the Vaiśeṣika, the Nyāya being a philosophical school laying special stress upon yoga or yukti or reasoning (yogo yuktiḥ pradhānatayā vidyate yeṣāṁ—Bhāṣyacandra). Further, in the extract quoted above from the Kauṭaliya, scholars have generally overlooked one important point, to which sufficient prominence ought to be given in this connection. In chapter 2, the Vidyāsamuddeśa section of the Kauṭaliya, the chief branches of knowledge (vidyā), according to Kauṭalya, are stated at the outset. These are four:—ānvikṣiki (logic and philosophy), trayī (the Vedic religion and philosophy of dharma and adharma), vāritā (the economic science and philosophy of wealth) and dandaṇiti (the science and philosophy of polity). Then there is a reference to the view of
the Mānavas (Manu’s disciples or ancient legislators),
according to which ānvikṣiki should be regarded as a
special part of trayī. This view, it may be noted, is
consistent with the spirit of the Vedic and Upaniṣadic
age, when logic (Nyāya) had not yet been disentangled
from its applications to Vedic religion and philosophy.
There is also a further reference to the materialistic
doctrine of the Cārvākas (the followers of Bṛhaspati),
that trayī (including ānvikṣiki) is only a pretension or
imposture of one who knows the ways of the world and
that only vārtā and daṇḍaniti should be reckoned with
as the two real vidyās. The followers of Usanas (the
teacher of the Asuras) are afterwards referred to as
recognising only one vidyā—viz., the daṇḍaniti. At the
end of this chapter, Kautalya reiterates his views about
the four branches of learning and explains their nature
and aim. In the concluding para of this chapter, he
makes two important observations. One is to the
effect that ānvikṣiki consists of Sāṁkhya, Yoga and
Lokāyata. The other is that ānvikṣiki is helpful to the
world through its ratiocinative process in the investiga-
tion of the soundness or unsoundness of the conclu-
sions and doctrines of the different branches of know-
ledge.

Sāṁkhyaṁ yogo lokāyatam cetyānvikṣiki. Dharm-
mādharmanau trayyām. Arthānarthau vārtāyām. Balābale
caitāsām hetubhiranvikṣamāṇā ānvikṣiki lokasyopakaroti;
vyaśane abhyudaye ca buddhimavasthāpayati;
prajñāvākyakriyāvaiśāradayaṁ ca karoti.
It is evident here that Kautilya elucidates the two meanings of the term *anvikṣiki*. One is the general sense, *philosophical enquiry* or *philosophy*. In this sense, it is used in the first sentence of the above extract. As already pointed out, the word *yogah* in this sentence refers to the Vaiśeṣika logic; or even if it be taken in the special sense of the *yoga* discipline of Patañjali's system, the word *lokāyata* does not refer to the materialism of the Cārvākas, but very probably it refers to the logic of the Vaiśeṣika and Nyāya in its secularised form and as disentangled from its Vedic associations. It should be noted here that the view of the Cārvāka materialist is separately mentioned in a previous part of the same chapter and Kautilya rejects it and is not prepared to bring the Cārvāka doctrine under any recognised *vidyā* or branch of learning. Vātsyāyana, in the concluding part of his bhāṣya on 1.1.1, amplifies the second sense of the word *anvikṣiki*, i.e.—‘logic which investigates by means of rationalistic methods’ (*hetubhirvānvikṣamāṇa*) and gives Kautilya's verse quoted above, with its last quarter modified as “*vidyoddeśe prakirtitā*”. It is quite clear from this amended quarter of the verse, as given by Vātsyāyana, that he is quoting from the *vidyāsamuddeśa* section of the Kautiliya. It is hardly necessary to point out that a careful consideration of the above extract from the
Kauṭaliya in comparison with its striking parallel in 
Vātsyāyana's bhāṣya on 1.1.1 would make it very diffi-
cult to believe that ānvikṣikī, in the sense of ‘system of 
logic’, was not presupposed by the Arthasastra of 
Kauṭaliya. Further, a careful consideration of the ex-
tract from Nāgārjuna’s Vigrahavyāvartanī, which Uj 
gives in pages 84 and 85 of his introduction to the 
‘Vaiśeṣika philosophy’, in comparison with its parallel in 
the Nyāya-sūtras 2.2.17—19, would tend to show that 
Nāgārjuna is presupposing these sūtras and refuting 
the view embodied in them, rather than support Uj’s 
inference in the reverse direction. Patañjali, at the end 
of his bhāṣya on Paṇini’s 3.2.123, remarks—“Other 
thinkers hold that there is nothing known as the 
present time” (Apara āha—nāsti varlamānaḥ kāla ūtī) 
and gives five verses in support of this view. This 
portion of the Mahābhāṣya closes with the remark 
“Another thinker holds that there is such a thing as 
the present time, and it is not perceived in the same 
way as the Sun’s motion is not perceived” (Apara āha 
—asti varlamānaḥ kālāḥ) and supports this view with 
one verse. Between this portion of the Mahābhāṣya 
and the Nyāya-sūtras 2.1.40—44, there is a striking 
parallelism, which none can miss. A careful consider-
at ion of these two texts would lead to the impression 
that Patañjali is here using not only the ideas in the 
Nyāya-sūtras referred to, but also the phraseology in 
those sūtras, in his characteristically graphic narration of 
of a discourse between two imaginary dialogists. All 
these considerations may reasonably lead to the 
conclusion that the Vaiśeṣika-sūtras and the Nyāya-
sūtras were redacted between the middle of the fourth century and second century B.C., perhaps towards the end of the fourth century B.C., the Vaiśesika-sūtras being earlier than the Nyāya-sūtras.

SECTION IV

THE NAMES VAIŚEŚIKA AND NYAYA; THE NATURE, AIM AND SCOPE OF THE TWO SYSTEMS

It is generally accepted that the names Vaiśeśika-darśana and Nyāya-darśana are based upon the terms—vīśeṣa and nyāya. It is not possible now to ascertain exactly what these two terms signified to the early exponents of these two systems, who were responsible for devising and introducing these two names. According to an old tradition recorded by the Chinese Buddhists—Ci-tsān (549-623 A.D.) and Kwhēi-ci (632-682 A.D.), Kaṇāda's work came to be called the Vaiśeśika-sāstra, since it excelled works of the other systems, more especially the Sāmkhya and it was differentiated from them, the term vaiśeśika being taken in the sense of 'superior to' or 'distinct from'. (See Ui's Vaiśeśika Philosophy—pp. 3 to 7). Indian tradition is in favour of connecting the name Vaiśeśika with the doctrine of specialities (vīśeṣāḥ), vīśeṣa being regarded as the distinctive category of the Vaiśeśika scheme of categories. The Vaiśeśika-sūtra—1.1.4—which practically represents the beginning of Kaṇāda's sūtras, lays special emphasis, not upon any of the categories, but upon 'the comprehension of truth through similarities and dissimilarities' (sādharmyavaidharmyābhyām
tattvajñānam)—upon the striking out of the one in the many; and this amounts to an unmistakable stress on the analytic or inductive method of philosophical reasoning'. Gautama’s Nyāya-darśana took its name from nyāya, which means ‘the synthetic or deductive method of syllogistic demonstration’. Gautama’s system lays particular stress on the synthetic method of syllogistic reasoning. One of the earlier meanings of the term nyāya is ‘exegetical principle or maxim’; and after logical reasoning had been released from Vedic exegesis, the term nyāya developed the specialised sense of syllogistic reasoning. The appropriateness of using the term nyāya, in this specialised sense, as the name of Gautama’s system lies not only in the historical connection between the Nyāya and Mīmāṃsā systems; but it lies also in the fact that the term nyāya means illustration or example and that example (udāharana) is the most important of the five members constituting Gautama’s syllogistic expression. Thus it may be seen that the names vaiśēśika and nyāya may be connected with the two aspects of sound reasoning—the analytic or inductive aspect which mounts up from particulars (viśeṣa) to the general or universal (sāmānyya) and the synthetic or deductive aspect which moves on from the universal (sāmānyya) to the particulars (viśeṣa). In these logical notions, it would be in keeping with the history of Indian philosophical thought to recognise the basis of the names, vaiśēśika and nyāya, rather than in the ontological doctrines of atomism and pluralistic realism. This would account better for the way in which the interrelation of the
Vaiśeṣika and the Nyāya came to be conceived of as two sister systems in spite of their differences on the metaphysical side.

The Vaiśeṣika and the Nyāya, in their early and later phases, are not restricted in their scope and aim to logic in a narrow sense. Like other Indian systems, these two form self-contained philosophical disciplines of a complex character, with a distinctive central theme correlated to their special goal. The final cessation of all miseries (apavarga) is the goal of the Vaiśeṣika and the Nyāya. The Vaiśeṣika stresses the analytical side of reasoning and furnishes the metaphysical background and the inductive basis of the Nyāya system. With the Vaiśeṣika material, suitably modified in minor details, the Nyāya builds up a complete system of epistemology and logic, combined to some extent with psychology, ethics, ontology and religion. Such a mixed composition of Indian philosophical systems is due not to any lack of appreciation of differences of value in different things, but rather to the cultural outlook of India, which is dominated by an intense desire to synthesise all the departments of knowledge in a scheme of progressive realisation of life’s ends culminating in final emancipation (mukti) conceived of as the sumnum bonum. Methodical reasoning, involving a critical investigation of knowledge got through perceptual experience and verbal testimony, i.e., anvikṣā, with the help of the five-membered scheme of syllogistic expression (nyāya or pañcāvayavavākya), forms the distinctive contribution of the Nyāya to phi
Since its first redaction, the Nyāya system has permanently secured for itself a position of importance in the Hindu scheme of Vedic religion and philosophy, chiefly by the ancillary role which it has assumed in its relation to the Veda; and if the Vaiśeṣika also is given a place among the āstika systems, it is due mainly to its fraternity with the Nyāya. Gokulanātha, a Naiyāyika of the 16th century A.D., suggests in his philosophical drama, called Amṛtolodaya, that Ānvikṣikī is the amanțian commander-in-chief of Śruti—the empress ruling over the empire of knowledge and emancipation. This poetic representation would be very helpful in appreciating the exact position of the Nyāya-vaiśeṣika system in the scheme of āstika schools of philosophy.

SECTION V
SYNCRETISM AND SYNTHESIS

It has now become usual among modern scholars, when speaking about the historical development of the Vaiśeṣika and Nyāya systems, to refer to the tendency to syncretism in these two schools. In chapter II, part I of "Indian Logic and Atomism", Dr. Keith dwells upon what he describes as "the syncretism of the schools" and the "syncretist school". Syncretism, in its strict sense, means the tendency to reconcile and blend two opposing and irreconcilable systems, by minimising differences. In this sense, it would be
correct to speak about syncretism in the Vaiśeṣika and Nyāya only with reference to their condition before their redaction into sūtras, and even then, with due reservations. It may be said that, in the pre-Buddhistic age, rationalistic thinking came to have a schismatic split which resulted in two opposing types of rationalistic thought, one linking itself with Vedic tradition and the other antagonising it. As already pointed out at page xi-supra, a rapprochement was effected between these two types of thought; and as a result of this, the Vaiśeṣika and Nyāya arose in the form of two sister schools. The tendency which led to the first redaction of these two schools in a fraternal relation may be appropriately described as *syncretism*. Since their definite emergence as two distinct and allied systems about the fourth century B. C. to this day, the Vaiśeṣika and Nyāya have been treated as sister schools, fundamentally agreeing with each other in respect of important metaphysical and logical doctrines and persistently showing some comparatively minor differences; and in this condition, they were never regarded as opposing schools and it would not be quite accurate to speak of syncretism in them, in the strict sense of the term. In the somewhat larger sense, however, of synthesis, one may well speak of *syncretism* in these two sister schools from and after their first redaction. In the history of the Nyāya-Vaiśeṣika system, the Vaiśeṣika and Nyāya schools were never regarded as rival schools. Nor were their differences ever forgotten: and till recently, separate Nyāya and Vaiśeṣika treatises continued to be written.
In fact, even as late as in the seventeenth century A. D., separate handbooks dealing with the Vaiśeṣika doctrines, like Gaṅgādharasūri's *Kāṇādasiddhāntacandrikā* (Trivandrum Sanskrit Series No. XXV), were written. It should be remembered here that Akṣipāda-Gautama, effected the momentous synthesis between the *inductive* (*Vaiśeṣika*) and *deductive* (*Nyāya*) types of rationalistic thinking, in his doctrine of five-membered syllogistic expression (*nyāyaprayoga*) hinging upon the *example* (*udāharana*) as the central member. The Nyāya ontology is built upon the atomic theory and pluralistic realism of the Vaiśeṣika. The Nyāya epistemology, with its fourfold scheme of *pramāṇas* is distinctly *pro-Vedic*; and in this respect, it shows a sharp contrast with the Vaiśeṣika scheme of *pramāṇas* which consists of perception and inference and which betrays *anti-Vedic* leanings. Such points of contrast have only led to Vaiśeṣika gradually losing its hold and influence. Indian philosophical tradition recognises three important pairs of allied systems (*samānatantrāni*)—viz., the Sāmkhya and Yoga, the Vaiśeṣika and Nyāya, and the Mīmāṁsā and Vedānta. Vātsyāyana, in his bhāṣya on the Nyāya-sūtra (1.1.22), speaks of the Vaiśeṣika and the Nyāya as *samānatantra*. It is noteworthy that, while the Sāmkhya and Yoga, and the Mīmāṁsā and Vedānta grew as two pairs of allied systems, the Vaiśeṣika and Nyāya came to be more closely knit together and grew as *twin* systems, chiefly as a result of the complete *synthesis* which the Nyāya effected in its logical method.
SECTION VI
AFTER THE SUTRAS TO UDAYANA

The extant early works, forming the basic source-books of the Vaiśeṣika system, are Kaṇāda's sūtras and Praśastapāda's Padārthadharmasaṁgraha, better known under the name of Praśastapāda-bhāṣya. According to Udayanacārya's Kiranāvali, as interpreted by Padmanābbhaṁīra in his Kiranāvalībhāskara (Benares Sūnskrit Series, Kiranāvali, page 5), Praśastapāda's Padārthadharmasaṁgraha is a comprehensive epitome of the Vaiśeṣika system which presupposes an extensive Vaiśeṣika-bhāṣa, known as Rāvaṇa-bhāṣya and attributed to an ancient philosopher called Rāvaṇa. At page 278 of the manuscript of the commentary called the Prakāṭārthavivarana on Śaṅkara's Brahmaṣūtra-bhāṣya, preserved in the Government Oriental Manuscripts Library, Madras, Rāvaṇa's bhāṣya on the Vaiśeṣika-sūtras is cited. (See p. 491 of Pt. of the edition of this work in the Madras University Sūnskrit Series). Prakāṭārthavivarana is earlier than 13th century A.D. An interesting confirmation of the tradition about Rāvaṇa-bhāṣya is contained in the viśkambha to the fifth Act of the Anarāgarāghava (Nīrnyayasagara edition, page 161). There is evidence to show that this drama must be earlier than the latter part of the ninth century A.D. In this connection, attention is invited to my paper on the Rāvaṇa-bhāṣya, which appears in volume III of the Journal of Oriental Research, Madras, pages 1 to 5. In this paper, it is indicated that it may not be unreasonable to conjecture
that the *Rāvana-bhāṣya* was perhaps dominated by atheistic and pro-Buddhistic proclivities, such as were quite in keeping with the text of the *Vaiśeṣika*-sūtras and with the spirit of the tradition characterising the *Vaiśeṣikas* as *ardha-nāsaśikas* (semi-nihilists), while the work of Praśastapāda gave a theistic turn to the *Vaiśeṣika* system and presented its doctrines in an anti-Buddhistic āstika setting. There is conclusive proof to show that Praśastapāda should be earlier than Uddyotakara, the author of the *Nyāyavārttika*, who flourished in the latter part of the sixth or the beginning of the seventh century A. D. Professor Ui, in his introduction to the *Vaiśeṣika Philosophy*, draws attention to the evidences showing that Praśastapāda should be earlier than Paramārtha and Dharmānāla. Though Keith emphatically asserts in his *Indian Logic and Atomism* that Praśastapāda's indebtedness to Dignāga is undoubted, it must be said that Praśastapāda's debt to Dignāga has not yet been proved. If, on the other hand, Praśastapāda could be taken to be presupposed by Vātsyāyana on the ground relied upon by Mr. Bodas in his introduction to the *Tarkasāra-gaṇaka* (Bombay Sanskrit series, No. LV.), Dignāga, who presupposes Vātsyāyana, must be later than Praśastapāda. The two most authoritative commentaries on Praśastapāda's Bhāṣya are Sridhara's *Kandalī* and Udayanācārya's *Kiranāvali*. Sridhara's date is given as 991 A. D. in his *Kandalī* and Udayana's date is given as 984 A. D. in one of his works—*Lakṣaṇāvali*. Sridhara's reputation is restricted to his Vaiśeṣika work.
but Udayana holds a far higher place in Indian philosophy and he is held in high esteem as the Nyāyācārya par excellence.

The extant basic works of Nyāya are Gautama's Nyāya-sūtras, the Nyāya-bhāṣya by Vātsyāyana, otherwise known as Pakṣilasvāmin, and the Nyāya-vārtika by Uddyotakara. In the Nyāya-vārtika and other works, there is sufficient evidence to show conclusively that Dignāga, the famous Buddhistic logician, adversely criticised the Nyāya-bhāṣya. Vasubandhu, the famous teacher of Dignāga, criticised Nyāya-sūtras and the Nyāya-bhāṣya does not reply to Vasubandhu's criticisms. From these facts, it would be reasonable to conclude that the Nyāya-bhāṣya is earlier than about the middle of the fourth century A.D., which is the date for Vasubandhu. Vātsyāyana suggests alternative interpretations to some of the sūtras, as, for instance, in his Bhāṣya on 1.1.5. This may lead to the inference that Vatsyāyana wrote his Bhāṣya, long after the Sūtrakāra, perhaps at a time when the meaning of some of the sūtras had already become a matter for speculation. There has been some controversy among scholars as to whether there was any commentary on the Nyāya-sūtras before Vātsyāyana, and whether the aphoristic statements, which the Bhāṣyakāra introduces in the course of his exposition, are really quotations from some earlier commentary on the sūtras. Professor Windisch and several others are inclined to think that such aphoristic statements are citations from an earlier commentary. Professor Randle discusses this question in his recent work "Indian Logic in the Early Schools"
(pages 19 to 24) and concludes that these aphoristic statements are not citations from any author but should be viewed as forming "the heritage of the school and as carrying an authority only less than that of the sūtras themselves". Indian tradition, however, is wholly against any speculation of this kind in regard to the aphoristic statements in the Bhāṣya above referred to. In Śāstra literature, more especially in old works like the Bhāṣyas on the various systems, it is a common stylistic device to put forward a main thesis or argument in the form of a terse aphoristic statement and amplify it in an expository note. Several old Bhāṣyakāras have adopted this device and hundreds of instances can be given from the Mahābhāṣya of Patañjali and Śaṅkara's Bhāṣyas on the Brhadāraṇyakopaniṣad and the Brahma-sūtras. In fact, the aphoristic statements which Vātsyāyana makes at the beginning of his expository sections form integral parts of Vātsyāyana's own composition; and it would be as absurd to ascribe such statements to any author different from Vātsyāyana, as it would be to ascribe the aphoristic statement, "Since there is no difference from cattle and other lower animals" in Śaṅkara's Bhāṣya on the Brahma-sūtras (paśvādibhiścāviśeṣāt-1.1.1) to some author different from the Bhāṣyakāra, who amplified that statement in the following expository paragraph beginning with the words "yathā hi paśvādayah". Students of Indian logic will do well to remember that Vātsyāyana is the earliest known writer who drew pointed attention to the reason why Gautama's Nyāya came to be regarded as the science of epistemology
and logic (Pramāṇaśāstra, Ānvīkṣikī or Nyāya-śāstra). It is worth remembering, in this connection, that Vātsyāyana indicates in the very first sentence of his Bhāṣya how valid thinking (pramāṇa) and fruitful doing (arthakriyā) serve as each other’s axle in each other’s wheelings and how they constitute real living with all its complexity in the pluralistic universe of the Nyāya-Vaiśeṣika realism. It is also worth noting that it is Vatsyāyana who first explained how the entire epistemological scheme of Pramāṇas could be synthesised in a valid syllogistic expression, (vide pages 30 to 42 of his Bhāṣya on 1.1.1, Chaukhamba edition) and how, for this reason, logic proper justly came to exercise a profound influence over the whole realm of philosophical thought in India.

About the end of the sixth century A.D., or in the former half of the seventh century, Uddyotakāra wrote his Nyāya-vārtika, the earliest extant commentary on the Nyāya-bhāṣya. Some scholars like Dr. Keith maintain that Uddyotakāra was a contemporary of the Buddhistic logician Dharmakīrti. Hiuen-tsaṅg (629-645 A.D.) does not speak of Dharmakīrti, while I-ţsing (671-695 A.D.) refers to him. The reference in the Nyāya-vārtika to a Vādu-viṣhi (page 117, line 21, Chaukhamba edition) is the only argument relied upon for showing that Uddyotakāra is not earlier than Dharmakīrti. This argument assumes that Dharmakīrti is the author of the Vāda-viṣhi. Sufficient evidence has not been adduced in support of the view that the Vāda-viṣhi is one of Dharmakīrti’s works. Chinese tradition definitely lends support to the identification of the
Vāda-vidhi with one of Vasubandhu’s works. Further, in the Vārtika on 1.1.4, Dignāga’s definition of perception is criticised; and it is generally accepted by Brahmanical and Buddhistic authorities alike that Dharmakīrti was responsible for the introduction of the additional word abhrānta in that definition, chiefly with a view to meeting the objections raised by Uddyotakara against it. These considerations tend to show that it would be reasonable to assign Uddyotakara to the end of the sixth or the beginning of the seventh century A. D. and to assign Dharmakīrti to about the third quarter of the seventh century A. D. Uddyotakara’s great service to Nyāya consists in his successful endeavour to lift it up from the slough into which it was thrown by Dignāga’s confutation of Vātsyāyana’s Bhāṣya. After Uddyotakara, the philosophical contest between the anti-Vedic and pro-Vedic sides of the Nyāya thought was keenly carried on by great Buddhistic logicians like Dharmakīrti, Dharmottara and Ratnakīrti and eminent Brahmanical logicians like Vācaspatimiśra, Jayantabhaṭṭa, Bhāsarvajña and Udayana. Vācaspati has himself given 841 A. D. as the date of the composition of his index to Gautama’s sūtras, called Nyāya-sūci-nibandha. Vācaspati is famous for his polymathic learning and dispassionate philosophical outlook. He is the author of many important and authoritative treatises, mainly in the nature of expository and critical commentaries, on almost all the systems of Indian philosophy. His Brahmatattva-
samīkṣā on Maṇḍanamiśra’s Brahmasiddhi and Bhāmatī on Śaṅkara’s Brahmasūtra-bhāṣya represent
the Advaita system; his Sāṁkhya-tattvakaumudi and Yoga-bhāṣya-vaiśāradī represent the Śaṁkhya-Yoga system; and his Nyāya-sūcī-nibandha and Nyāya-vārtika-tātparya-ṭīkā represent the Nyāya system. There is evidence to show that Bhāmatī should have been his latest work. In his Nyāya-vārtika-tātparya-ṭīkā, he renders intelligible the difficult portions of the Nyāya-vārtika and incidentally discusses several obscure portions of the Nyāya-bhāṣya and the Nyāya-sūtras, in accordance with the Nyāya tradition handed down to him by his Nyāya teacher—Trilocana. For the monumental contribution which he made to Nyāya in his Tātparya-ṭīkā, he came to be known as the Tātparyacārya in Nyāya literature. He justly claims, in his Tātparya-ṭīkā, special credit for having redeemed from oblivion Uddyotakara’s work, which came to be regarded very old and nearly forgotten in the ninth century A. D. Jayantabhaṭṭa, who presupposes Vācaspati in his work and refers to Ānandavardhana’s Dhvanyāloka (Vide page 48 lines 21 to 25, Nyāyamañjari, Benares), should be taken to be later than the middle of the ninth century A.D.; and with the help of the particulars furnished by Jayanta’s son, Abhinanda, in the Kādambarikathāsāra, Jayanta may be assigned to the third quarter of the ninth century A. D. Jayanta’s chief contribution to Nyāya is his Nyāyamañjari. This work is of the nature of an elaborate vṛtti (expository gloss) on select sūtras of Gautama. Jayanta himself says that the Nyāya-mañjari was so well appreciated by his contemporaries that he came to be recognised as the Vṛtti-kāra of Nyāya.
Bhāsarvajña, who flourished perhaps about the beginning of the tenth century A.D., is the author of an important Nyāya work called *Nyāya-sāra*; and the distinctive feature of this work is its epistemology which deviates in certain respects from established Nyāya tradition, as for instance, in discarding *upamāna* as a distinct Pramāṇa and in recognising six hetvābhāsas including *anadhyavasita*. Udyanācārya is the greatest Naiyāyika of the tenth century A.D. At the end of one of his works, *Laksanāvali*, he has given 984 A.D. as the date of its composition. Besides his erudite commentaries on Praśastapāda’s Bhāṣya and Vācaspāti’s *Tātparya-ṭīkā*—*Kiranāvali* and *Tātparya-pariśuddhi*, he wrote three important Nyāya works—the *Prabodhasiddhi*, otherwise called *Nyāyaparīśiṣṭa*, the *Ātma-tattva-viveka*, otherwise called *Buddha-dhikkāra* and the *Nyāya-kusumānjali*. The first of these three works contains an elucidative and illustrative exposition of the subtleties of *jāti* (futile response) and *nigrahasthāna* (vulnerable points) in accordance with the dialectics of early Nyāya. The *Ātma-tattva-viveka* is a brilliant exposition of the Nyāya metaphysics with particular reference to the Nyāya conception of the self (*jīva*) and contains a forcible refutation of the Buddhistic doctrines of momentariness (*kṣaṇa-bhaṅga*) and voidness (*śūnya*). The *Kusumānjali* is Udayana’s masterpiece. It is devoted to a refutation of the anti-theistic theories maintained by the Vedistic, Sāmkhya, nihilistic and naturalistic schools of his age and to the amplification and vindication of the Nyāya theism, chiefly on the
basis of the creationistic view of causation. Udayana's theistic argument consists of two main parts:—one part arguing towards values, design and causation in the sense of creation and the other part arguing to God from values, design and creation. His monumental contribution to Indian theism has secured for him the high rank of Nyāyācārya. From the references given on page 21 of the Sanskrit introduction to the Kandali (Vizianagaram Sanskrit Series), it may be safely concluded that Udayana was a contemporary of Śrīdhara.

SECTION VII

AFTER UDAYANA TO ANNAMBIHATTA

Śivādityamīśra's Saptapadārthi is a short and simple manual setting forth the essentials of the Vaiśeṣika system chiefly in accordance with Prasastapāda's Bhāṣya. It also makes use of the Nyāya material in Bhāsarvajña's Nyāya-sāra, to some extent. Śivāditya's text giving his scheme of six fallacious types of probans with anadhyavasita corresponding to asādharana (uncommon probans) as a distinct type, is practically a reproduction of the corresponding text of Bhāsarvajña. (Compare page 23, Saptapadārthi—Vizianagaram Sanskrit Series, with page 25 in the Nyāyasāra—Poona Oriental Book Agency). A careful comparison of Śivāditya's Saptapadārthi with Udayana's Kiranāvali would lead one to believe that the Saptapadārthi utilised the material in the Kiranāvali. For instance, the definition of darkness on page 71 of Saptapadārthi appears to presuppose
Udayana’s remarks about darkness on pages 111 and 112 of the *Kiraṇāvali* (Bibliotheca Indica); the definition of *jāti* on page 70 of the *Saptapadārthi* appears to presuppose Udayana’s enumeration of *jātibādhakas* on page 161 of the *Kiraṇāvali* and the definition of *lakṣana* (definition) found on page 192 of the *Kiraṇāvali* is reproduced on page 35 of the *Saptapadārthi*. Śriharṣa, the author of the *Khaṇḍanakhaṇḍakāhyā*, and Gaṅgeśa, the author of the *Tattvacintāmaṇi*, undoubtedly refer to Śivāditya. *(Vide* introduction to the *Saptapadārthi*—page 2.) On these grounds, it would not be unreasonable to assign the *Saptapadārthi* to the eleventh century A. D. (circa). The importance of the *Saptapadārthi* lies in the fact that later writers like Annambhaṭṭa used it as their model for their primers of Nyāya, as may be unmistakably made out from the close correspondence between several portions in the *Saptapadārthi* and primers like the *Tarkasaṁgraha*.

The greatest Nyāya work, which was written after Udayana, is the *Tattvacintāmaṇi* by Gaṅgeśopādhyāya. In this monumental work, Gaṅgeśa utilised all the constructive, expository, critical and polemical material in the earlier works on Nyāya and Vaiśeṣika and gave the final shape and turn to the logic and metaphysics of Nyāya. In treating the various topics of Nyāya, the earlier writers usually adopted the *categoristic* method, which was inaugurated by Gautama. This method as expounded by Vātsyāyana, consists in enumeration and classification (*uddeśa* and *vibhāga*), definition (*lakṣana*), careful investigation and discussion (*parīkṣā*). Varada-
rāja's Tarkikarakṣā (1100 A. D. circa) is the latest important work on Nyāya, which adopts the old categoristic method in accordance with the Nyāya-sūtras and Bhāṣya. It was Gaṅgeśa who replaced this old method by what may be described as the epistemological method or the pramāṇa method, which definitely shifted the emphasis from the categoristic treatment of the topics (padārthā) of Nyāya to the epistemological treatment of the four means of valid cognition (pramāṇāna) recognised by the Naiyāyikas. Thus, the Nyāya-śāstra which had remained hitherto a mere padārtha-śāstra, for all practical purposes, was turned into a full-fledged pramāṇa-śāstra in Gaṅgeśa's Tattvacintāmaṇī; and in this partly lies the epoch-making character of this monumental work on Nyāya. That the Tattvacintāmaṇī serves as the basic work on which the whole literature of what is commonly known as navya-nyāya (modern Nyāya) rests is also another reason for regarding it as an epoch-making work. The Tattvacintāmaṇī, or the Maṇi as it is popularly known, consists of four main divisions represented by the four chapters (khaṇḍa) on perception (pratyakṣa), inference (anumāna), assimilation in the sense of analogising (upamāna), and verbal testimony (śabda). In the course of an elaborate elucidation and discussion of the nature and objective reach and content of these four Pramāṇas, the relevant topics of the Nyāya-Vaiśeṣika system are considered in the Maṇi in comparison with the kindred topics of other philosophical systems. The language of Gaṅgeśa's Maṇi is also of an epoch-making type. Such of the modern students of Nyāya literature as are
not equipped with the required control over the terminology of *navya-nyāya* are apt to indulge in the ill-conceived criticism that the language of the *Maṇi* and the connected works is spoiled by a huge over-growth of inflated and hair-splitting logic-chopping. The key to *navya-nyāya* is its terminology. Those who have controlled this terminology are sure to find in the *Maṇi* and allied works a discipline of unique subtlety and value. The history of philosophical thought shows that lack of precision in expression seriously hampers its progress. In Indian thought, this defect was sought to be remedied by Naiyāyikas like Gaṅgeśopādhyāya through several thought-measuring devices, which chiefly consisted of formulas in Sanskrit constructed with the aid of terms like *avacchedaka* (the delimiter), *avacchedya* (the delimited), *nirūpaka* (co-forming), *nirūpya* (co-formed), *anuyogin* (containing correlate) and *pratiyogin* (the other correlate or counter-correlate). All the Indian dialecticians, who wrote after Gaṅgeśopādhyāya, were influenced by the thought-measuring formulas used by Gaṅgeśa. By using such formulas, it was possible for later dialectics in Indian philosophical literature to achieve a remarkable degree of quantitative precision in measuring the *extent* (temporal and spatial), *content* and *intent* (purpose and potency) of cognition (*jñāna*).

Gaṅgeśa quotes Śrīhārṣa (the *Khaṇḍanakāra*) and refutes his view (page 233 of the *Maṇi—anumāṇa*, Bibliotheca Indica). There is sufficient evidence in favour of assigning Śrīhārṣa to 1136 A. D. circa. Pakṣadharamiśra, otherwise known as Jayadeva, wrote
a commentary called *Aloka* on the *Mani*. This Jayadeva is believed to be identical with Jayadeva, the author of the *Prasannarāghava*. A verse from this drama (*kadali kadali* etc., I. 37) is quoted in the *Sāhityadarpana*, as pointed out by Mr. P. V. Kane in his introduction to the latter work. Thus Pakṣadharmiśra, alias Jayadeva, must have been considerably earlier than the *Sāhityadarpana* (1300 A. D. circa). These facts will show that it would not be reasonable to assign Gaṅgeśa to any date much earlier than 1200 A. D. and that he may be assigned to the former half of the thirteenth century A.D.

Vardhamānopādhyāya, the only son of Gaṅgeśa according to tradition, was also a reputed Naiyāyika of this period. He wrote several learned and illuminating works, generally known as *Prakāśa*, in the form of commentaries on Udayana's treatises, Gaṅgeśa's *Mani* and Vallabhācārya's *Nyāyalilāvatī*. Jayadeva's pupil, Rucidatta, was a logician of considerable repute and was the author of a well-known commentary called *Makaranda* on Vardhamāna's *Prakāśa*.

The end of the fifteenth century, as also the sixteenth and seventeenth centuries, may well be described as marking the heyday of Nyāya dialectics in Nuddea (Navadvīpa, Bengal). Vāsudeva Sārvabhauma was the greatest Naiyāyika who flourished about the end of the 15th and the earlier part of the 16th century. He had the unique privilege and glory of having taught Nyāya to four of the greatest personalities of the 16th century: *viz.*—Caitanya, the greatest Vaiṣṇava teacher
and reformer of Bengal in the 16th century; Raghunātha, otherwise known as Tārkika-śiromaṇi (the crest-jewel of all logicians); Raghunandana, a famous Bengal lawyer; and Kṛṣṇānanda, a reputed tāṇtrika, who was a great authority on the different forms and charms of the Śākta cult. Raghunātha (Tārkika-śiromaṇi) was admittedly the greatest logician of the sixteenth century. He wrote several treatises on Nyāya, mostly in the form of commentaries and the greatest and the most famous of the works is the Didhiti, an expository and critical commentary on Gaṅgeśa’s Maṇi. Mathurānātha was the most famous of Raghunātha-śiromaṇi’s pupils and wrote authoritative commentaries on the Maṇi and the Didhiti. Jagadīśa and Gadādhara were the greatest exponents of nyāya-nyāya as represented by the Maṇi and the Didhiti, and flourished in the earlier part of the seventeenth century. Jagadīśa is famous as the author of the commentary on the Didhiti, popularly known as Jagadīśī, the Sabdaśakti-prakāśikā—an independent treatise on the speculative Semantics of Nyāya, a short manual called the Tarkāmyta and a commentary called the Bhāṣya-sūkti on the Bhāṣya of Praśastapāda. Gadādhara is famous as the author of the commentary, popularly known as the Gādādhari, on the Didhiti, the commentary called the Mūlagadādhari on portions of the Maṇi, commentaries on Udayana’s Atmatatttvaviveka, and fifty-two dialectic tracts and treatises—such as the Vyuṭṭattivāda and and Saktivada (dialectic treatises on the speculative Semantics of Nyāya). The more important works of Jagadīśa and Gadādhara are still studied carefully by
those students who seek to specialise in *navya-nyāya* and they are regarded as constituting an indispensable discipline of high value to every scholar who wishes to be recognised as a sound sāstrin. The dialectic literature of later Nyāya is a vast *banyan tree*, which had its roots struck deep and its huge trunk fully developed in Mithilā in the *Tattvacintāmaṇi*, had its immense branches and foliage stretched out and ramified in the *Didhiti* in Nuddea, and bore fruit in the rich fruitage of *Jāgadīṣī* and *Gādādhari*, which formed the colossal monument of Indian dialectics in the seventeenth century. If Rāghumāṭha is regarded as the crest-jewel (*śiromaṇi*) of logical dialecticians, Gādādhara may well be characterised as the prince of Nuddea dialecticians, who wears the diadem inlaid with this brilliant crest-jewel.

In the latter part of the seventeenth century, the Nyāya scholars interested themselves chiefly in the interpretation of the earlier and later works on Nyāya and in the production of introductory hand-books. Three of such scholars may be mentioned here—Śaṁkara-miśra, Viśvanātha-paṅcānana and Annambhatta. Śaṁkara-miśra wrote a commentary on the *Jāgadīṣī* and a comprehensive commentary called the *Upaskāra* on Kaṇāda’s sūtras. Viśvanātha-paṅcānana wrote a commentary on the Nyāya-sūtras in 1634; and he is famous as the author of the popular hand-book of the Nyāya-Vaiśeṣika system, called the *Bhāṣāpariccheda* or *Kārikāvali*, which consists of 168 easy verses. The *Kārikāvali* is accompanied by the author’s own commentary called the *Nyāyasiddhāntamuktāvali*. Accord-
ing to the traditional methods of study, the *Muktávali* is widely studied by students of Nyāya, immediately after finishing the study of Annambhaṭṭa’s *Tarkasamgraha* and *Dīpikā*.

Annambhaṭṭa was an Andhra scholar who flourished in the latter part of the seventeenth century. He was a versatile scholar and a reputed polymath. He wrote several learned works on almost all the important branches of Śāstraic learning. In this connection, attention may be invited to some of Annambhaṭṭa’s known works. In the sphere of Pūrva-mīmāṃsā and Vedānta, he is known as the author of the massive commentary called the *Rāṇakojjīvani* on Bhaṭṭa Someśvara’s *Nyāya-sudhā*, otherwise known as *Rāṇaka*, and of a commentary on the Brahma-sūtras. In Vyākaraṇa, he is famous as the author of an easy commentary on Pāṇini’s *Aṣṭādhyāyī* and of an extensive commentary called *Uddyotana* on Kaiyāṭa’s *Pradīpa*. In the sphere of the Nyāya-Vaiśeṣika system, he wrote a learned commentary called *Siddhānjana* on Jayadeva’s *Maṇyāloka*, as also the most popular handbook of Indian logic called the *Tarkasamgraha* and its expository and supplementary gloss called the *Dīpikā*. The name *Tarkasamgraha* is interpreted by Annambhaṭṭa himself as a compendious elucidation of the nature of substance, qualities and such other ontological categories of the Vaiśeṣika system, which are accepted by Nyāya. These two works—the *Tarkasamgraha* and the *Dīpikā*—fulfil the object mentioned in the concluding verse of the *Tarka*
A PRIMER OF INDIAN LOGIC

PART II

TEXT
प्रत्यक्षपरिभेष्ठेदः

1. निधायः हृदि विशेषं विधायः गुरुवन्दनम् ।
   बालानां सुखोध्यायः कियते तर्कसंग्रहः ।

2. द्रव्य-गुण-कर्म-सामान्य-विशेष-समवायाभावः सत
   पदायः ।

3. (a) तत्र द्रव्याणि पृथिविय्यूँ-तेजो-वायुकाशकाल-विविधात्म-मनाशि नावेद ।

   (b) रूप-रस-गन्ध-स्पर्श-संख्या-परिमाण-प्रयक्तव-संयोग-विभाग-परिवारतिन्-गुरुत्र-द्रव्यत्व-ब्रह्म - शब्द - बुद्धि-मुख-दुःखेच्छा-दृष्टेऽप्रयव-धर्मार्थं-संस्कारः चतुर्विंशतिविश्वेतुः ।

   (c) उक्षेपणावक्षेपणाकुञ्जन - प्रसारण-गमनानि
   पश्च कर्मोऽगम्य ।

   (d) परस्रु अपरं चेति द्विविंध सामान्यम् ।
   (e) निल्यद्रव्यमृत्यो विशेषाश्वतु अनन्ता एव ।
   (f) समवायस्तु एक एव ।
PRATYAKṢA-PARICCHEDAḥ

1. Nidhāya ḫṛdi viṣveṣam vidhāya guruvandanaṃ| Bālāṇāṁ sukhabodhāya kriyate tarśasamgrahah||


(c) Utkṣepaṇa - avakṣepaṇa - akūścana-prasāraṇa-gamanāni paṇca karmāṇi.

(d) Pāram, aparām ceti c'vividham sāmānyam.

(e) Niṭṭyadravyavrīttayo viśeṣāstū anantā eva.

(f) Samavāyatstu eka eva.
(g) अभावः चतुर्विंशं, प्रागमावः, प्रधानसामावः,
बल्नामावः, अन्योन्याभावः इति ॥

4. तत्र गन्धवती प्रतिविपरीत । सा द्विविधा, नित्या
अनित्या च । नित्या परमाणुरूपः । अनित्या कार्यरूपः । पुनः
श्रीविधा, शरीरिन्द्रियविषयमेदातुः । शरीरमस्मदार्दीनामः ।
इन्द्रियं गन्धात्राहि क्रमः, तथानासारवर्ति । विषयो
सूत्रातां वादीः ॥

5. शीतस्नेविवः आपः । ताः द्विविधः, नित्यः
अनित्यः । नित्यः परमाणुरूपः । अनित्यः कार्यरूपः ।
पुनः श्रीविधः, शरीरिन्द्रियविषयमेदातुः । शरीरां वह्नोऽके ।
इन्द्रियं रसाश्राहिं रसनं जिहाप्रवर्ति । विषयः सति-समुद्रादीः ॥

6. उष्णस्नेविवः तेजः । तत् द्विविधम, नित्यमनित्यः
च । नित्यं परमाणुरूपम् । अनित्यं कार्यरूपम् । पुनः श्रीविधः,
शरीरिन्द्रियविषयमेदातुः । शरीरस्य आदिस्मादिके । श्रसिद्धस्यः ।
इन्द्रियं रूपाश्राहिं चतुः कृष्णतारामयावर्ति । विषयः चतुर्विंशः,
नौम-दिव्योद्योगरजङ्गमेदातुः । नौमं वह्नापदिकम् । अबिन्धवः
रित्वेन सिद्धे विषुवः । सुकुम नरिसामहेतुर्दर्भेः । आकर्षं
सूत्रादीः ॥
(g) Abhāvāḥ caturvidhāḥ, pṛagabhāvāḥ, pradhvamsābhāvāḥ, atyantābhāvāḥ, anyonyābhāvāśca iti.


7. रूपप्रक्ष: स्पर्शवान वायुः। स द्विविधः, नित्यः अनिलः। नित्यः परमाणुरूपः। अनिलः कार्यरूपः। पुनः त्रिविधः, शरीरिन्द्रियविषयभेदात्। शरीरां वायुः।अंकुं इन्द्रियं वर्णधारिकां तत् कर्मशरीरिर्विवर्तिः। विषयं वृक्षालिकम्यन्ते। शरीरान्तः संचारी वायुः। प्राणः। स च एकोधि उपाधिभेदात् प्राणार्थादिसंज्ञां भन्ते।

8. शब्दगुणकारकाशा। तथा एकं, विभू, नित्यं च।

9. अतीतादित्ववहारहेतु: कालः। स च एकाः, विभूः, नित्यः।

10. प्राप्तादित्ववहारहेतु: दिक्कः। सा च एका, विभू, नित्या च।

11. ज्ञानाधिकरणमात्राः, स द्विविधः, जीवालं परमात्मा चेति। तत्र ईशां सर्वेऽ परमात्मा एक एव। जीवस्तु विभू प्रतिश्रीरां भिन्नो, विभूः, नित्यः।

12. सुखारुपसङ्गधिसाधवनमिलित्रं मनः। तथा प्रत्यात्मनिीयतत्वस्तु अनन्तं, परमाणुरूपं, नित्यं च।

13. चक्षुर्मार्गश्रास्त्राः गुणो रूपम्। तथ युक्त-नील-पीत-रक्त-हरित-कपिल-विलालभेदात् सत्तविचारः। श्रीवी-जल-तेजोवृत्तिः। तत्र प्रतिश्रीमातत्पीधम्। अभासवर्गशुद्धं जोते। मास्वर्गशुद्धं तेजसं।

8. Sabdاغuṇकām ākāśam. Tacca ekam, vibhu, nityam ca.


12. Sukhādyupaladbhisādhanaṁ indriyaṁ manah. Tacca pratyātmaniyatatvat anantam, paramāṇurūpam, nityam ca.

14. रसनाग्राथो गुणो रसः। स च मधुराम्भ-वचन-कदु-कषाय-तिकामेदातू पञ्चं। प्रथिती-जलवाति। तत्र प्रथित्वा श्रीमं। जले मधुर एव॥

15. भ्राणभ्राभो गुणो गन्धः। स द्विविधः, सुलभः। अनुमयिकः। प्रथितीमात्रेवति॥

16. वणिनिर्माणाभ्राभ्राभो गुणः स्वर्णः। स च त्रिविधः। शीतोष्णाणुष्णासीतामेदातू। प्रथित्वपूणे-वायुव्रति। तत्र शीतः। जले। उष्णः तेजसः। अनुष्णासीतः। प्रथित्ववायृऽ॥

17. रूपादिचतुष्यैं प्रथित्यां पाकজननित्यं च। अन्यत्र अपाकं नित्यमनित्यं च। नित्यगतं नित्यम्। अनित्यगतम-नित्यम्॥

18. एकत्रादिविद्यवर्देतः। संख्या। सा नवद्रृवति।। एकत्रादिपरार्थपर्यं। एकन नित्यमनित्यं च। नित्यगतं नित्यम्। अनित्यगतमनित्यम्। द्रित्वादिकं तु सर्वेत्र सर्वमेव॥

19. मानविवहारकारणं परिमाणम्। नवद्रवति।। तत्तुर्विधः। अष्ट महतु दीर्घ हृदं चेति॥

20. पृथ्विवहारकारणं पृथ्वक्ष्मा। सर्वद्रव्यदृष्टि॥

15. **Ghrāṇagrāhyo guṇo gandhah.** Sa dvividhaḥ, surabhīḥ asurabhīśca. *Prthivimātravṛttīḥ.*


19. **Māṇavyaḥahāraḥāraṇam parimāṇam, Navadṛavyavrṛttī.** Taccaturvidham, anu, mahat, dirgham, hrasvam ceti.

20. **Prthagvyavahāraḥāraṇam prthaktvam. Sarvadravyavrṛttī.**
21. संयुक्तव्यवहारस्तः संयोगः। सर्वेद्वय्वृतिः ॥

22. संयोगनाशको गुणो विभागः। सर्वेद्वय्वृतिः ॥

23. परापरव्यवहारासाधारणकारणे परत्वारते । पृथिव्याख्यत्तुष्ठयमनोत्तरतिनी । ते द्विविषेन दिक्षृते काल्कृते । दूसर्षेन दिक्षृतं परत्वम् । समीपस्ये दिक्षृतम् अपरत्वम् । द्वेषेन काल्कृतं परत्वम् । काल्कृतम् अपरत्वम् ॥

24. आधपतनासमवाचारकारणं गुरुवाम्, पृथिवी-जलवृति ॥

25. आधस्यन्दनासमवाचारकारणं द्रवत्वम्, पृथिवी-द्रेष्ट्रोवृति । तद्द्विविषयम्, सांसिद्धिकं नैमितिकं च । सांसिद्धिकं जले । नैमितिकं भूत्वादामनि संयोगं द्रवत्वम् । तेजसं सुवर्णाद्वै ॥

26. चूणिदिपिण्डीतावहेतु: गुण: स्तेहः, ज्ञानत्रृति: ॥

27. शोभग्राहो गुणः शब्दः, धाक्षणयात्रचृतिः । स द्विविषेन, ध्वन्यात्मकः वर्णात्मकः । तत् ध्वन्यात्मकः वर्णात्मकः संस्कृतभाषादिरूपः ॥


24. Ādyapatanāsamavāyikāraṇanīm gurutvam, prthivijalavrtti.


28. (a) सर्वभवारहेतु: ज्ञानं बुद्धिः । सा द्विविधा, स्मृति: अनुमवश ॥

(b) संस्काराश्राङ्गं ज्ञानं स्मृति: ॥

(c) तत्त्वज्ञं ज्ञानमतुभवः । स द्विविधः, यथार्थः अवधार्थः ॥

(d) तद्वित तत्त्वकारकः अनुभवः यथार्थः । सैव प्रभा इत्युच्यते ॥

(e) तदभववति तत्त्वकारकः अनुभवः अवधार्थः ॥

(f) यथार्थानुभवः चतुर्विधः, प्रत्यक्षातुमित्य-प्रमितशाब्देदात ॥

(g) तत्करणमपि चतुर्विधम, प्रत्यक्षातुमानो-प्रमाणशब्देदात ॥

29. (a) असाधारण कारणं कारणम ॥

(b) कार्यनियतपूर्वेत्रुति कारणम ॥

(c) कार्य प्रागाधायपातियोगः ॥

(d) कारणं त्रिविधम, समवायसमवायिनिनिमित-मेदात ॥

(e) यत्समवेतं कार्यसुतृप्तेत् तत् समवायकारणम; यथा तन्तवः पटस्य, पटस्थ स्वगतत्रुप्तादेः ॥
28. (a) Sarvavyavahārahetuh jñānam buddhīḥ. Sa dvividhā, smṛtih, anubhavaśca.

(b) Samskāramātra jñānam smṛtih.

(c) Tadbhinnani jñānam anubhavaḥ. Sa dvividhāḥ, yathārthaḥ, ayathārthasca.

(d) Tadvati tatprakārakah anubhavaḥ yathārthaḥ. Saiva pramā ityucyate.

(e) Tadabhāvavati tatprakārakah anubhavaḥ ayathārthaḥ.

(f) Yathārthānubhavaḥ caturvidhāḥ, pratyaśa-anumiti-upamiti-śābdabhedāt.

(g) Tatkarāṇam api caturvidham, pratyaśa-anumāna-upamāna-śābdabhedāt.

29. (a) Asādhāraṇam kāraṇam kāraṇam.

(b) Kāryaniyatapurvavṛtti kāraṇam.

(c) Kāryam prāgabhāvopratīyogī.

(d) Kāraṇam trividham, samavāyī-asaṃavāyīnimīttabhedāt.

(e) Yatsamavetam kāryam utpadyate tat samavāyī-kāraṇam; yathā tantavāḥ paṭasya; paṭaśca svagatārūpādeḥ.
(f) कार्यम नार्यम वा सह एकसिनार्ये समवेतं सत्त्व कारणमसमवाचिकारणस्; यथा तन्तुसंयोगः पदस्य, 
तन्तुहृढः पदहृझ्य।

(g) तदुपवयमित्रभ कारणं निमित्तकारणस्; यथा 
तुरीयमादिकं पदस्य।

(h) तदेदत्रिविषकारणमध्ये यदसाधारणं कारणं 
तदेदेव कारणम्।

30. (a) तत्त्र प्रत्यक्षव्याख्यानकरणं प्रत्यक्षम्।

(b) इन्द्रियार्थसाधिकरणिन्यं ज्ञानं प्रत्यक्षम्। तत्त्र 
द्विविधम्, निर्विकल्पकं सविकल्पकं चेति।

(c) तत्त्र निष्प्रकारकं ज्ञानं निर्विकल्पकम्।

(d) सप्रकारकं ज्ञानं सविकल्पकम्। यथा ‘हितः 
अयम्', ‘श्रावण: अयम्', ‘स्यामः अयम्', ‘पाचक: अयम्' 
इति।

(e) प्रत्यक्षमान्द्रतु: इन्द्रियार्थसाधिकर्ष: पद्धितः 
—संयोगः, संयुक्तसमवायः, संयुक्तसमवेतसमवायः, समवायः, 
समवेतसमवायः; विशेषणविशेष्यवह्यावः इति।
(f) Kāryeṇa kāraṇena vā saha ekasmin arthe samavetam sat kāraṇam asamavāyikāraṇam; yathā tantusaṁyogah paṭasya, tanturūpam paṭarūpasya.

(g) Tadubhayabhinnam kāraṇam nimitakāraṇam; yathā turivemādikam paṭasya.

(h) Tadetattrividhakāraṇamadhye yadasādhāraṇam kāraṇam tadeva karaṇam.

30. (a) Tatra pratyakṣajñānakaraṇam pratyakṣam.

(b) Indriyārthasannikarṣajanyam jñānam pratyakṣam. Tat dvividham, nirvikalpakaṁ savikalpakam ceti.

(c) Tatra nisprakārakaṁ jñānam nirvikalpakam.


(e) Pratyakṣajñānahetuh indriyārthasannikarṣaḥ sadvidhaḥ—saṁyogah, saṁyuktasamavāyah, saṁyuktasamavetāsamavāyah, samavāyah, samavetasaṁvāyah, viśeṣaṇaviśeṣayabhāvaśca iti.
A PRIMER OF INDIAN LOGIC

शब्दत्वसामान्यप्रलयक्षे संयुक्तसमवेतसमवायः
साभ्रिकृत: च शब्दसंयुक्ते गर्ते रूपं समवेतम्, तत्र रूपत्वस्य समवायात्।

श्रेण शब्दसाभ्राट्तारे समवायः साभ्रिकृतः
कर्णविवेकव्याकारस्य श्रेणत्वात्, शब्दस्य बाकाशगुणत्वात्,
गुणगुणिणोऽभि साभ्रायात्। शब्दत्वसाभ्राट्तारे समवेतसमवायः
साभ्रिकृतः, श्रेणसमवेते शब्दे शब्दत्वस्य साभ्रायात्।

अभावप्रलयक्षे विशेषणविशेष्यभावः साभ्रिकृतः—
‘घटमभावतू मूलदम’ इत्यत्र च शब्दसंयुक्ते भूते घटमाभवस्य
विशेषणत्वात्।

एवं साभ्रिकृतत्वस्तुजन्यं ज्ञानं प्रत्यक्षस्य, तत्करण-
मिन्द्रयम्। तस्मादिन्द्रियं प्रत्यक्षसामान्यं इति सिद्धम्।

इति प्रत्यक्षपरिभेदः।
PRATYAKŞA-PARICCHEDAḥ 17


Rūpatvasāmānyapratyakṣe saṃyuktasamaevata- samavāyaḥ sannikarṣaḥ, cakṣusamanyukte ghaṭe rūpaṁ samavelam, tatra rūpatvasya samavāyāt.

Śrotreṇa śabdāsākṣātkāre samavāyaḥ sannikarṣaḥ, karṇavivaravartyākāśasya śrotaravat, śabdaśa ākāśa- guṇatvāt, guṇaguninośca samavāyāt. Śabdavasāk- śātkāre samavetasaṃvāyaḥ sannikarṣaḥ, śrotra- samavete śabde śabdavasya samavāyāt.

Abhāvapratyakṣe śīṣṭaḥ śīṣṭaḥ sannikarṣaḥ—ghaṭabhāvavat bhūtalam ityatra cakṣuḥsan- yukte bhūtale ghaṭabhāvasya viśeṣaṇatvāt.

Evam sannikarṣasaṭkajanyam jñānam pratyakṣam, taikaraṇam indriyam. Tasmād indriyam pratyakṣa-pra- māṇam iti siddham.

Iti pratyakṣa-paricchedaḥ.

—:o:—
31. (a) अनुमितिकरणमनुमानस्।

(b) परामर्शं ज्ञानमुलिति:।

(c) व्याप्तिविशिष्टपश्चात्ताज्ञानं परामर्शं। यथा 'विशिष्टपश्चात् अथ वर्णतः' इति ज्ञानं परामर्शं। तत्र ज्ञानं 'पर्वते विशिष्ट' इति ज्ञानमुलिति:।

(d) 'यत्र यत्र धूमः तत्रासि:' इति साहचर्यनियमो व्यासि:।

(e) व्याप्तिस्य पर्वतादिवृत्तितं पश्चात्ताज्ञानं।

32. (a) अनुमानं द्विविधस्, स्वार्थं परार्थं च।

(b) स्वार्थं स्वानुमितिहेतु:। तथा हि—स्वयमेव भूयोद्भवनेन 'यत्र यत्र धूमः तत्र असि:' इति महानसादौ व्यस्ति गुणथ्वा पर्वनपमीपं गतः, तदनं च अत्र सत्तद्वानं पर्वते धूमं पर्वनं व्यास्तिः स्मरति—'यत्र यत्र धूमः तत्र असि:' इति। तदनन्तरं 'विशिष्टपश्चात्ताज्ञानेः अथ वर्णतः' इति ज्ञानमुलः अथेत। अयमेव छोपारामेव इत्युत्त्थते। तस्मात्
31. (a) Anumitikaraṇam anumānam.

(b) Parāmarśajanyāni jñānam anumitiḥ.

(c) Vyāptiviśīṣṭapaķśadharmatājñānam parāmarśaḥ. Yathā 'Vahnivyāpyadhūmavān ayam parvataḥ' iti jñānam parāmarśaḥ. Tadjanyāni 'parvato vahni-mān' iti jñānam anumitiḥ.

(d) 'Yatra yatra dhūmah tatrāgniḥ' iti sāhacaryaniyam vyāptiḥ.

(e) Vyāpyasya parvatādīvṛttitvam paķśadharmaṇaḥ.

32. (a) Anumānam dvividham, svārtham parārtham ca.

(b) Svārtham svānumitihetuḥ. Tathā hi—svayameva bhūyodarśanena 'yatra yatra dhūmah tatra agniḥ' iti mahānasādau vyāptiṁ gṛhitvā parvatasaṁpam gataḥ, tadgate ca agnau sandihānaḥ parvate dhūmam paśyan vyāptiṁ sāmarati—'yatra yatra dhūmah tatra agniḥ' iti. Tadanantaram 'vahnivyāpyadhūmavān ayam parvataḥ' iti jñānam utpadyate. Ayam eva lingaparāmarṣa ityucyate. Tasmāt 'parvato vahnimān'
‘पञ्चतो वहिमान्’ इति ज्ञानमनुष्टिः उत्पन्ने। तदेतत् स्वार्थोत्तमाः।

(c) यदृ स्वच्छ धूमात् अस्मिस्म अनुमाय परं प्रति बोधयिरुं पञ्चावयवायकं प्रयुज्यये ततृ परार्थोत्तमाः। यथा—

पञ्चतो वहिमान्।

धूमवत्तात्।

यो यो धूमवान स वहिमान्, यथा महानसः।

तथा च अयम्।

तस्मात् तथा—इति।

अनेन प्रतिपदितात् विष्णुपश्च परोषपि अर्थं प्रतिपबते।

33 (a) प्रतिद्वाहेतुदाहरणोपनयनिगमनानि पञ्चवायवायः।

‘पञ्चतो वहिमान्’ इति प्रतिज्ञ।

‘धूमवत्तात्’ इति हेतु।

‘यो यो धूमवान स वहिमान्, यथा महानसः’

इति उदाहरणम्।
iti jñānam anumātiḥ utpadyate. Tadetat svārthānumānam.

(c) Yattu svayam dhūmāt agnim anumāya param prati bodhayitum pañcāvayavavākyam prayujyate tat parārthānumānam. Yathā—

Parvato vahnimān.

Dhūmavattvāt.

Yo yo dhūmavān sa vahnimān, yathā mahānasaḥ.

Tathā ca ayaṃ.

Tasmāt tathā—iti.

Anena pratipāditāt liṅgāt paro’pi agnim prati-padyate.

33. (a) Pratijñā-hetu-udāharaṇa-uptanaya—niganānāni pañcāvayavāh.

‘Parvato vahnimān’ iti pratijñā.

‘Dhūmavattvāt’ iti hetuḥ.

‘Yo yo dhūmavān sa vahnimān, yathā mahānasah’ iti udāharaṇam.
34. (a) छिम्मं छिविधम्, अन्वयव्यतिरिक्त, केवलन्वयिः, केवलव्यतिरिक्त च इति ।

(b) अन्वयेन व्यतिरिक्ते च व्यासितमिद् अन्वय-व्यतिरिक्ते ; यथा—वही साध्ये धूमवत्तम्यं । ‘यद्र धूमः तत्र अशिषः, यथा महानसे’ इति अन्वयव्यतिः । ‘यद्र वहीः नासित तत्र धूमोऽपि नासित, यथा हुदे’ इति व्यतिरिक्तव्यतिः ॥

(c) अन्वयमात्रव्यतिः केवलन्वयिः ; यथा—‘यतः अभिधयः प्रमेयतवात्, पटवत्‘। अत्र प्रमेयवाभिधय-त्योः व्यतिरिक्तव्यतिः नासित, सर्वस्यापि प्रमेयतवात् अभिधेयतवाच ॥

(d) व्यतिरिक्तमात्रव्यतिः केवलव्यतिः ; यथा—पृथवी इतरेम्यो भिधते गन्धवत्तवात् ; यतृ इतरेम्यो न भिधते न ततृ गन्धवत्तृ, यथा जलम; न च इत्यं तथा ; तस्मात् न तथा—इति । अत्र ‘यतृ गन्धवत्तृ ततृ इतरंभिन्म्’ इत्यल्यवाश्चाति नासित, पृथिवीमात्रस्य पश्चलवात् ॥
‘Tathā ca ayaṁ’ iti upanayaḥ.

‘Tasmāt tathā’ iti nigamanam.

(b) Svārthānumiti-parārthānumityoḥ linga-parāmarṣa eva karaṇam. Tasmāt lingāparāmarṣaḥ anumāṇam.

34. (a) Lingam trividham, avyaṣṭaḥ satireṣvāḥ, kevalānvayi, kevalāvyatireki ca iti.

(b) Anvayena vyatirekena ca vyāptimāt anvayavyatireki; yathā—vahnaṃ sūdhya dhumavattvam ‘Yatra dhumah tatra agnīḥ, yathā mahānase’ iti anvayavyāptiḥ. ‘Yatra vahniḥ nāsti tatra dhumo’pi nāsti, yathā hrade’ iti vyatirekavyāptiḥ.

(c) Anvayamātravyāptikam kevalānvayi; yathā—‘ghaṭaḥ abhidheyah prameyatvāt, patavat.’ Atra prameyatva-abhidheyatvayoḥ vyatirekavyāptiḥ nāsti, sarvasyāpi prameyatvād abhidheyatvāccā.

(d) Vyatirekamātravyāptikam kevalavyatireki; yathā—prthivī itarebhyo bhidyate, gandhavattvāt; yad itarebhyo na bhidyate na tad gandhavat, yathā jalam; na ca iyaṁ tathā; tasmāt na tathā iti. Atra ‘yat gandhavat tad itarabhinnam’ ityanvayadrśśāntaḥ nāsti, prthivīmātrasya paksatvāt.
35. (a) सन्दिग्धसाध्यवान् पक्षः, यथा धूमवस्ते हैं तौ पवेत: ॥

(b) निष्ठितसाध्यवान् सपक्षः, यथा तत्तैव महानसः ॥

(c) निष्ठितसाध्यामाववान् विपक्षः, यथा तत्तैव हृदः ॥

36. (a) सव्यभिचारविन्दस्थप्रतिपक्षासिद्धार्थित: पक्ष हेतुमासा: ॥

(b) सव्यभिचार: अनैकान्तिक: ॥ स त्रिविधः—
साधारणसाधारणादुपसंहारिपेदात् ॥ तव साध्यामाववद्रुतिः:
साधारण: अनैकान्तिक:, यथा ‘पवेते वहिमानु प्रमेयत्वात्’
इति; प्रमेयत्वस्य वहिमाबाववति हृदे विषमानत्वात् ॥

सर्वसप्क्षविपक्षत्वात्: पक्षमात्रत्वतिः: असाधारणः; यथा ‘शब्दो निल्य: शब्दलात्’ इति । शब्दलों सर्वेभ्य: नित्येम्य: अनित्येम्यश्रेण्य व्यायात्वं शब्दमात्रत्वतिः ॥

अन्वयव्यतिरिक्तद्यान्तरिहित: अनुपसंहारी; यथा ‘सर्वमनिल्य प्रमेयत्वात्’ इति । अन्त सर्वेस्यापि पक्षत्वात्
द्विन्तो नातिः ॥
35. (a) Sandigdhasādhyavān paksah, yathā dhūmavattve hetau parvatah

(b) Niścitasādhyavān sapaksah, yathā tatraiva mahānasah.

(c) Niścitasādhyābhāvavān vipaksah, yathā tatraiva hradah.

36. (a) Savyabhicāra-viruddha-satpratipaksasiddha-bādhitah paṇca hetvābhāsah.

(d) Savyabhicāraḥ anāikāntikah. Sa trividhah—sādhāraṇa-asādhāraṇa-anupasamhāriḥbhedaḥ. Tatra sādhyābhāvavadavṛttiḥ sādhāraṇaḥ anāikāntikah, yathā ‘parvato vahnimān, prameyatvāt’ iti; prameyatvasya vahnyabhāvavati hradā vidyāmānatvāt.

Sarvasaṃpratipakṣavipakṣavṛttāḥ paksamātravṛttīḥ asādhyāraṇaḥ; yathā ‘śabdo nityaḥ, śabdatvāt’ iti. Śabdamātravṛttīḥ sarvebhyah nityebhyah anityebhyaḥ anityebhyaḥ; vyāvṛttam śabdamātravṛttī.

Anvavyatirekadṛṣṭāntaraḥ itah anupasamārthiḥ; yathā ‘sarvam anityam, prameyatvāt’ iti. Atra sarva-syāpi paksatvāt dṛṣṭānto nāsti.
(c) साध्यामावन्यासो हेतु: विरूढः; यथा 'शब्द: नित्य: कृतकत्वात्' इति। कृतकत्वं हि नित्याभावेन अनियत्वे व्यासम्।

(d) साध्यामावसाधकं हेतुन्तरं यथं स सततिपश्चः; यथा 'शब्दे नित्य: श्रवणत्वात् शब्दत्वत्', 'शब्द: अनित्य: कार्यत्वात् घटत्वत्'।

(e) असिद्ध: त्रिविधः—आश्रयासिद्धः, स्वरुपसिद्धः, व्याप्तवासिद्धः इति।

आश्रयासिद्धः यथा 'गगनाविन्दं सुरभि, अरविन्दत्वात्, सरोजाविन्दतवत्'। अतः गगनाविन्दमाश्रयः, सच नास्त्येव।

स्वरुपसिद्धः यथा 'शब्दं गुणं: चाशुष्ठत्वात्, रूपतवत्'। अतः चाशुष्ठत्वं शब्दं नास्ति, शब्दस्य श्रवणत्वात्।

सोपाधिको हेतुः व्याप्तवासिद्धः। साध्यवापकत्वे सति साधनाव्याक्तसुपाधिः। साध्यसमानाधिरणाल्यन्ताभावायपितं साध्यव्यापकत्वम्। साधनविभिन्नाल्यन्ताभावश्रावित्योगितं साधनाव्यापकत्वम्। पर्वतं धूमवानं, चहिमत्वात्' हत्य आद्रैग्नसंयोगः उपाधि:। 'यत्र धूमः तत्र आद्रैग्नसंयोगः' इति साध्यव्यापकता। 'यत्र बह्दः: तत्र
(c) Sādhyābhāvavṛtyāpto hetuḥ viruddhah; yathā ‘sabdah nityah kr̥taḥkṛtvat’ iti. Kr̥taḥkṛtvam hi nityatvābhāvena anityatvena vyāptam.

(d) Sādhyābhāvasādhakaṁ hetvāntaraṁ yasya sa satpratipaśaḥ; yathā ‘sabdo nityah, śr̥vaṇaḥkṛtvat sabdatvavat’, ‘sabdah anityah, kāryaḥkṛtvat ghatavat’.

(e) Asiddhaḥ trividhah—āśrayāsiddhaḥ, svārūpāsiddhaḥ vyāpyatvāsiddhaḥca iti.

Āśrayāsiddhaḥ yathā ‘gaganāraṇāvindam surabhī, aravindatvāt, sarōjāraṇāvindavat’. Atra gaganāraṇāvindam āśrayaḥ, sa ca nāstyeva.

Svārūpāsiddhaḥ yathā ‘sabdo guṇaḥ cākṣuṣaḥkṛtvat, rūpatvāt’. Atra cākṣuṣatvam sabde nāsti, sabdasya śr̥vaṇaḥkṛtvat.

Sopādhiko hetuḥ vyāpyatvāsiddhaḥ. Sādhyāvyāpakaḥ sāti sādhanaḥvyāpakaḥ kṛtvam upādhiḥ. Sādhyāsamanāndhikaraṇa-atyantābhāva-apraṇaḥvyāpakaḥ sādhyāvyāpakaḥ kṛtvam. Sādhanaṃvāniviṭha-atyantābhāva- pratiyogitaḥvam sādhanāvyāpakaḥ kṛtvam. ‘Pāvato dhūma- vān, vahnimattvāl’ ityatra ārdrendhasaṁyogah upādhiḥ.’ Yatra dhūmaḥ tatra ārdrendhasaṁyogah
आदृत्तनसंयोगो नासि, अयोगोऽके आदृत्तनसंयोगाभावात्
इति साधानान्यापकताः। एवं साधानान्यापकते सति साधनान्यापकताः
हतात् आदृत्तनसंयोगः उपाधिः। सोपाधिकत्वात् वहिमत्वं
न्याय्यत्वासिद्धम्॥

(f) यस्य साध्याभावः प्रमाणान्तरेण निष्क्रियः स
बाधितः—यथा ‘वहिः अनुष्ठः द्रव्यत्वात्’ इति। अतः
अनुष्ठावं साध्यं, तद्भवः उद्धतं स्पर्शनस्वक्षेण गृह्यते
इति बाधितत्वम्॥

इति अनुमानपरिभेदः।

उपमानपरिभेदः

37. उपाधिकरणं उपमानम्। संज्ञासंज्ञिसंबन्धः
न्यायमुपमितः, तत्करणं साध्यन्यानम्। तथा हि—कश्चितः
गवयपदार्थमज्ञानं कुत्तितः आरणकपुरुषात् ‘गोपदशः
गवयः’ इति श्रुतः वनं गतः वाक्यार्थं स्मरन् गोपदशं
पिण्डं पश्यति। तदनन्तरम् ‘असौ गवयपदवाचः’ इत्युपमितः
उत्पच्छते॥

इति उपमानपरिभेदः।
iti sādhyavyāpakaṭa. Yatra vahniḥ tatra ārdrendhana-
samyogō māsti, ayogolake ārdrendhanasamyogā-
bhāvāt iti sādhanāvyāpakaṭa. Evam sādhyaya-
vyāpakaṭve sati sādhanāvyāpakaṭvāt ārdrendhanasam-
yogah upādhiḥ. Sopādhikatvāt vahnimatvam vyāpya-
tvāsiddham.

(f) Yasya sādhyābhāvah pramāṇaṁantareṇa
niścitaḥ sa bādhitaḥ—yathā 'vahniḥ anuṣṭhah, dravya-
vāt' iti. Atra anuṣṭhavam sādhyam, tadabhāvah
uṣṭhavam spārśanapratyakṣena grhyate iti bādhitaḥvam.

Iti anumānaparicchedaḥ.

UPAMĀNA-PARICCHEDAḥ

37. Upamitikaraṇaṁ upamānaṁ. Sāmijñā-
samijñāsambandhajñānam upamitiḥ, tatkaraṇam sād-
śyaśajñānam. Tathā hi—kāṣcit gavayapadārthamajñānan
kutāṣcit āranyaka-puruṣāt 'gosadṛśaḥ gavayaḥ' iti śrutvā
vanam gataḥ vākyārtham smaran gosadṛśam pīṇḍam
pasyati. Tadanantaram 'asau gavayapadavācyah' ityupamitiḥ utpadyate.

Iti upamānaparicchedaḥ
38. (a) आपवाक्यं शब्दं । आकस्तु यथार्थवक्ता ।
वाक्यं पदसूहः—यथा ‘गामान्य’ इति ॥
(b) शंकं पदम् । ‘अस्मात् पदात् अयमर्थः
बोद्व्व्वः’ इति ईश्वरसशेषं शक्तिः ॥
39. (a) आकाश्च योग्यता सन्निधिश्च वाक्यार्थाने
हेतुः ॥
(b) पदस्य पदान्तरव्यतिरिक्तमेकाण्वानुभावे
कल्पमाकाश्च ॥
(c) अर्थोत्पादः योग्यता ।
(d) पदानाम् अविभाषेन उचारणं सन्निधिः ॥
(e) तथा च आकाशादिरिहिं वाक्यम् अप्रमाणम् ।
यथा ‘गौः अशो पुरुषः हस्ती’ इति न प्रमाणम्,
आकाशाविरहात् । ‘वहिना सिस्तेत्’ इति न प्रमाणं,
योग्यताविरहात् । प्रहो श्रद्धे असदोषार्थितानि,’गाम् आनय’
इत्यादिपदानि न प्रमाणं, सन्निध्यभावात् ॥
40. (a) वाक्यं द्विधिष्ठु, वैदिकं लोकिकं च ।
वैदिकम् ईश्वरोक्तत्वात् सर्वेऽव प्रमाणम् । लोकिकं तु आशोकं
प्रमाणम्, अन्यदप्रमाणम् ॥
38. (a) Āptavākyam sabdah. Āpastu yathārthavakta. Vākyam padasamūhaḥ—yathā ‘gām ānaya’ iti.

(b) Saktani padam. ‘Ismāt padāt ayam arthaḥ boddhavyaḥ’ iti īśvarasāṅketaḥ saktiḥ.

39. (a) Ākāṅkṣā, yogyatā, sannidhiśca vākyārthaḥ jñānāne hetuḥ.

(b) Padasya padāntaraavyatirekaḥ prayuktānuyaya-ānuyaya-ānūbhāvavatvam ākāṅkṣā.

(c) Arthābādho yogyatā.

(d) Padānāṁ avilambena uccāraṇam sannidhiḥ.

(e) Tathā ca ākāṅkṣādirahitam vākyam apramāṇam. Yathā ‘gauḥ asvāḥ puruṣāḥ hasti’ iti na pramāṇam, ākāṅkṣāvāraḥāt. ‘Vahinā siṁcet’ iti na pramāṇam, yogyatāvāraḥāt. Prahaire praḥare asahoccāritāṁ ‘gām ānaya’ ityādipadaṁ na pramāṇam, sannidhyaḥvāvat.

40. (a) Vākyam dvīvidham, vaidikam laukikam ca. Vaidikam īśvaroktatvāt sarvameva pramāṇam. Laukikam tu āptoktam pramāṇam, anyat apramāṇam.
41. (a) अय्यार्थांतुब्धवः त्रिविधः, संशयविपर्ययः
तक्केतदातः॥

(b) एकस्मिन्न धर्मिणि विरुद्धनानात्मवैशिष्ट्यवाव
गाढ़ि ज्ञानं संशयः—यथा स्थाणवर्ग पुरुषो वा इति॥

(c) भिद्याज्ञानं विपर्ययः—यथा शुक्ली 'इदं
रजतसः' इति॥

(d) व्याप्यारोपेण व्याप्कारोपः तर्कः—यथा
'यदि वाहिः न स्थात् तहि धूमोधिः न स्थात्' इति॥

42. स्मृतिरिपी द्विविधा, यथार्थो अयथार्थो च
प्रमाणन्या यथार्थो। अप्रमाणन्या अयथार्थो॥

43. (a) सर्वेषाम् अनुकूलतया वेदनीयं सुखसू॥

(b) प्रतिकूलतया वेदनीयं हुःसू॥

(c) इच्छा काम॥

(d) कोशो द्वेष॥
(b) Vākyārtha-jñānam śabdajñānam. Tat-karaṇam śabdāḥ.

Iti śabdaparicchedāḥ.

Evam yathārthānubhavo nirūpitaḥ.

41. (a) Ayathārthānubhavāḥ trividhāḥ, saṃ-saya-viparyaya-tarkabhedāḥ.

(b) Ekasmin dharminī viruddhanādharma-

(c) Mithyajñānam viparyayaḥ—yathā suktaw 'idam rajatam' īti.

(d) Vyāpyāropeṇa vyāpakāro'phāh tarkāḥ—
yathā 'yadi vahniḥ na syāt tarhi dhūmo'pi na syāt' īti.

42. Smṛtirapi dvividhā, yathārthā ayathārthā ca. Pramājanyā yathārthā. Apramājanyā ayathārthā.

43. (a) Sarveṣām anukūlatayā vedanīyam sukham.

(b) Pratikūlatayā vedanīyam duḥkham.

(c) Icchā kāmaḥ.

(d) Krodho dveṣaḥ.
(c) कृति: प्रयज़।

(f) विद्वितकर्मजन्य: धर्मः।

(g) निषिद्धकर्मजन्यस्तु अर्थमः।

(h) बुद्धचारण: अष्ट्रो आत्ममात्रविशेषगुणः।

बुद्धीचारणः नित्यः अनिलः। नित्यः ईश्वरः।

अनिलः: जीवस्य।

(i) संस्कारः त्रिविधः:—वेगः, भावना, स्थितिः

स्थापकः इति।

वेगः: प्रविध्यादिचतुष्यमनोवृत्ति:।

अनुभवजन्या स्मृतिहेतु: भावना आत्मात्रवृत्ति:।

अन्यथाकृतस्तु पुनः तादवस्थापादकः स्थितिः

स्थापकः कठादिपिक्षीमात्रवृत्ति:॥

इति गुणः।

44. चतुर्नामकं कर्म। ऊर्ध्वदेशसंयोगेहतु: उत्क्षेपणम्।

अधोदेशसंयोगेहतु: अवश्वेषणम्। शरीरस्य सात्रवृत्तिः

आकुलनम्। विस्तृतीकृतसंयोगेहतु: प्रसारणम्। अन्यत्तरं

गमनम्॥

45. निलमेकमनेकानुगतं सामान्यम्। द्रव्यगुणकर्म-वृत्ति। परं सता। अपरं द्रव्यतवादि॥
(e) Kṛtih prayatnāh.
(f) Viḥitakarmajanyah dharmaḥ.
(g) Niśiddhakarmajanyastu adharmaḥ.
(i) Sanskāraḥ trividhaḥ—vegaḥ, bhāvanā, sthitasthāpakaśca iti.

Vegaḥ prthivyādiciatuṣṭāyamanyorītīh.

Anubhavajanyā smṛtihetuh bhāvanā ātmamātravrītīh.

Anyathākṛtasya punah tādavasthyāpādakah sthitasthāpakāḥ katādiriṣṭhivāmātravrītīh.

Iti guṇāh.


A PRIMER OF INDIAN LOGIC

46. नियाद्रव्यव्रुत्तयं व्यावर्तकाः विशेषाः॥

47. नियासंबन्धः समवायः, अयुतसिद्धवृत्ति: । ययोः
द्वयोः मध्ये एकमविनियदवस्थमु अपराधितमेवावतिष्ठे तौ
अयुतसिद्धाः—यथा अवयवायविणो, गुणगुणिणो, क्रिया-
क्रियाववन्तो, जातिव्यक्ती, विशेषनियदवर्ये च इति॥

48. (a) अनादि: सान्तः प्रागामाः, उत्पत्ते: पूर्व
कार्येः॥

(b) सार्व: अनतः प्रधिपाः, उत्तरत्नन्तरं
कार्येः।

(c) तैकालिकसंस्थार्ववचित्तरप्रतिपिताकः अवन्ता�-
भवः—यथा 'भूतले घट: नास्ति' इति॥

(d) तादार्स्यसम्भन्वावचित्तरप्रतिपिताकः अन्यो-
न्याभवः—यथा 'घट: पटो न' इति॥

49. सर्वेः पदार्थानां यथायथमु उक्तव्यत्वावात्
ससैव पदार्थाः इति सिद्धम्॥

50. कणादन्यायमत्यत्रोः वाल्यत्तितिसिद्धेः।
अवसम्भैन विद्वार रचितस्तर्कसंग्रहः॥

इति तर्कसंग्रहः समासः॥
46. *Nityadra vyavṛttayāḥ* vyāvartakāḥ viśeśāḥ.

47. *Nityasambandhāḥ* samavāyāḥ, ayutasaiddhavṛttāḥ. Yayoh dvayoḥ madhye ekamavināşyadavastham, aparāśritam evāvatisṭhate taṁ ayutasaiddhau—yathā avayavāvayavainau, gunaguninau, kriyākriyāvantau, pātīvyaktī, viśeṣanitāyadraṣṭe ca iti.

48. (a) *Anādiḥ sāntaḥ* prāgabhāvāḥ, utpattēḥ pūrvam kāryasya.

(b) *Śādiḥ anantaḥ* pradhvamśaḥ, utpattya-nantaram kāryasya.

(c) *Traikālikasamsargāvacchinnapratiyogitākāḥ* atyaṁabhāvāḥ—yathā ‘bhūtale ghaṭah nāsti’ iti.

(d) *Tādātmyasambandhāvacchinnapratiyogitākāḥ* anyonyabhāvāḥ—yathā ‘ghaṭah pāto na’ iti.

49. Sarveśāṁ ṣadārthaṁ yathāyatham ukteś-vantarbhāvat saptaiwa ṣadārthāḥ iti siddham.

50. *Kāṇḍānyāyamatayoḥ bālayupattisiddhaṁ Annambhāṭtena viduṣā racitāstarkasamgrahāḥ||

**ITI TARKASAMGRAHAH SAMĀPTĀH**
A PRIMER OF INDIAN LOGIC

PART III

TRANSLATION AND EXPOSITION
CHAPTER I
PERCEPTION

1

T—In my heart, I devoutly cherish the Lord of the universe; my teacher, I respectfully greet; and I proceed to write this Primer of Indian Logic, called Tarka-Saṅgraha, with a view to beginners gaining knowledge easily.

Following the time-honoured practice of orthodox Sanskrit writers, Annambhatta begins his Primer with an appropriate maṅgala, which consists, here, in paying devout homage to his God and to his teacher. The expression Viśveśa—the Lord of the universe—is suggestive of the central argument of the Nyāya theism—the creationistic argument. The four preambulatory factors, constituting what is known as anubandha-catuṣṭaya, are also indicated in the second line of the introductory verse. They are subject-matter (viśaya), the chief aim (prayojana), relation (sambandha) and the persons for whom the work is specially designed (adhikārin). Such preambulatory details are usually incorporated in modern books in a separate preface prefixed to the work in question, while they are briefly set forth in the opening verses in śāstra treatises in Sanskrit. The elements of the Nyāya-Vāiśeṣika system
in its syncretist form constitute the subject-matter of this Primer and its aim is to enable beginners to understand them easily. It follows from this that this Primer is intended for the beginners. Pratipādyapratipādaka-bhāva—the relation of treated and treatise—is generally stated to form the sambandha in almost all śāstra works. This would be useless information, when understood literally. It would acquire special significance if it should be interpreted as holding out an assurance, that the author can be trusted to treat well in his treatise, the subject in hand.

The name Tarka-saṅgraha is interpreted by Annambhaṭṭa himself as a compendious elucidation of the nature of substance, qualities and such other ontological categories of the Vaiśeṣika system, that are accepted by Nyāya. The term tarka is thus taken by the author in a somewhat unusual sense. The usual meanings, however, of the word tarka are logic, reasoning, reductio ad absurdum and discussion. Putting all these ideas together, it would be easy to see how the title Tarka-saṅgraha may be taken to be equivalent to 'A Primer of the Nyāya-Vaiśeṣika system in its syncretist form'.

2

T—Substance, quality, activity, generality, particularity, inherence and non-existence are the seven categories (padārthāh).

A padārtha is literally a nameable or denotable thing or a thing which corresponds to a word. Kaṇāda,
in his Vaiśeṣika-sūtras, gives the name *artha* to substance (*dravya*), quality (*guna*) and activity (*karṇa*). Praśastapāda, the author of the Vaiśeṣika-bhāṣya called *Padārtha-dharma-saṅgraha* enumerates the first six *padārthas* out of the seven mentioned above. Later Vaiśeṣikas add non-existence (*abhāva*) to Praśastapāda’s list of six *padārthas*. Gautama, the author of the Nyāya Sūtras, Vātsyāyana, the author of Nyāya-bhāṣya and later Naiyāyikas recognize all these seven *padārthas*.

What is a *padārtha* or category as understood in the above text—2. T.? A *padārtha* is usually defined as a knowable thing (*jñeya*) or as a validly cognisable thing (*prameya*), or as a nameable or denotable thing (*abhidheya*). The Nyāya-Vaiśeṣika system maintains that its scheme of seven *padārthas* represents a satisfactory classification of all the knowable or nameable things. The first six are called *bhāva-padārthas* or existent entities and are thus contrasted, in a marked way, with *abhāva*, which amounts to non-existence. Though Kaṇāda speaks of *abhāva*, he does not include it in his list of *arthas* for the reason that he understands by *artha* an entity in which existence or *sattā*, in the Vaiśeṣika sense, inheres. Praśastapāda does not mention *abhāva* in his scheme of six *padārthas*, since this scheme confines itself to *bhāvas*. But a complete scheme of all the knowable or validly cognisable or nameable things must not omit *abhāva*; for it is maintained in the Nyāya-Vaiśeṣika system that we know *abhāva*, know it correctly and the negative terms in language denote it.
It would be useful to compare in this connection the above scheme of seven padārthas with Gautama’s scheme of sixteen padārthas and with the corresponding schemes adopted in certain other systems of Indian philosophy. In the first Sūtra of the Nyāya-darśana, Gautama enumerates sixteen padārthas—means of valid knowledge (pramāṇa), objects of valid knowledge (prameya), doubt (samsaya), purpose (prayojana), instances (drṣṭānta), established conclusions (siddhānta), members of syllogism (avaya), reductio ad absurdum (tarka), decisive knowledge (nirṇaya), arguing for truth (vāda), arguing constructively as well as destructively for victory (jalpa), merely destructive argument (vitanḍa), fallacious reasons (hetvābhāsa), quibbling (chala), specious and unavailing objections (jāti), and vulnerable points (nigrahaṣṭhāna). These sixteen are not metaphysical categories similar to those of the Vaiśeṣikas; but they are merely sixteen topics which one should study in order to master the details of the Nyāya dialectics. The Mimāṃsakas of the Bhaṭṭa school recognise five padārthas—substance, generality, quality, activity and non-existence. The Prabhākaras recognise eight—the five bhāvas of the Nyāya-system (omitting viśeṣa) and potency (sakti), similarity (sādṛśya) and number (saṅkhya), non-existence not being accepted as a distinct category. The Sāmkhyas accept two ultimate padārthas: primordial matter (prakṛti) and spirit (puruṣa). Among the Vedāntins, the Advaitins maintain that there is one ultimate reality—Brahman and there are only two padārthas—spirit (cit) and non-spirit (acit), or soul (ātman) and non-soul
(anātman); the Viśiṣṭādvaita school recognises three—spirit (cit), non-spirit (acit), and God (Īśvara); and the Dvaitins reduce all the padārthas to two main categories—independent and dependent. Among the older Vaiśeṣikas, we find some, like the author of the Daśapadārtha-sāstra, who would recognise ten padārthas in all—the six bhāvas of the later Vaiśeṣikas, potentiality (śakti), inability (a-śakti), generic differentia (sāmānyavīśeṣa) and non-existence (abhāva). Except Gautama's list of sixteen padārthas, all these schemes of categories attempt, with a large measure of success, at a sound metaphysical classification of all nameable or knowable things; and none of these Indian schemes can justly be said to exhibit the logical defects that we notice in similar schemes of categories known to Western logic such as the somewhat arbitrary scheme of ten categories or predicates given by Aristotle, and the schemes of four or three or seven categories put forward by the Stoics, Descartes, Spinoza, Locke, Mill and other philosophers.

In most of the syncretist works dealing with the tenets of the Nyāya-Vaiśeṣika system, the arguments advanced by the Bhāṭṭas as well as the Prabhākaras to establish the existence of potentiality (śakti) as a distinct entity (quality or category) and the view upheld by the latter school of Mimāṁsakas that similarity (sādṛśya) should be given a distinct place in the list of categories are refuted. Counter-agents (pratibandhaka) counteract the operation of causes and causes turn out to be unavailing. The counteraction that we experience in such
cases cannot be explained otherwise than as consisting in the destruction of the causal efficacy or śakti of the causes. Thus according to Mīmāṃsakas, the existence of śakti as a distinct category must necessarily be recognised. The Naiyāyikas argue that counteraction consists merely in the presence of counter-agents, the total non-existence of which is one of the elements constituting the full compliment of the causal apparatus (sāmagrī). Thus they disprove the necessity for recognising śakti as a distinct category. Similarity, according to Prabhākaras, does not consist merely in the possession of parts or qualities or features of the same kind as the Naiyāyikas urge; but it is revealed in experience as a distinct category. The Naiyāyikas contend that a careful analysis of experience would show that similarity consists merely in the possession of parts or qualities or features of the same kind.

3 (a) T—Of them (the seven categories), the Substances are only nine—viz.: earth, water, light, air, ether, time, space, soul and mind.

The word ‘only’ in this text is intended to exclude ‘darkness’, which according to Mīmāṃsakas, is a distinct substance. The Mīmāṃsakas argue that on the strength of the experience which associates blue colour and movement with darkness, it should be regarded as a substance; and it cannot be any of the nine substances mentioned above. So, it should be given a distinct
place as the tenth substance in the list of substances. The Naiyāyikas point out that the experience which associates colour and movement with darkness is erroneous. For, a substance having colour can be seen only in the presence of light; and darkness, which is seen in the absence of light, cannot be a substance having colour. In fact, darkness, according to Naiyāyikas, is nothing but the total absence of such light as is effectual in normal perception.

In the text under consideration, substances are divided into nine classes. This may be taken to be a definition of substances from the point of view of extension. But the Nyāya method of exposition, according to Vātsyāyana (Nyāya-Bhāṣya—1-2-3, Avatārikā) recognises that expository scheme to be perfect which consists of uddeśa (enumeration accompanied by vibhāga or division), lakṣaṇa (definition) and parikṣā (investigation). Thus a mere enumeration or division of substances will not do and they should be defined. A substance is usually defined as that which possesses the jāti (generic attribute) called dravyatva (substance-ness); or as that in which a quality (guna) or activity (kriyā) inheres; or that which is fit to be treated as the inherent cause (samavāyi-kāraṇa) of some effect. Of these alternatives, the second and third, based on quality and activity, are not applicable to substances in the first moments of their creation; for, according to the Naiyāyika theory of causation, every cause should necessarily precede its effect, and qualities and activities, which are the effects of sub-
stances, require at least one moment before they could come into being. If the function of definition should be to provide a valid reason (hetu) for inferring difference from others and if inference should be of something which is not already comprised in the connotation of the minor term (pakṣa), substance-ness (dravyatva), which is connoted by the term dravya, would not form a satisfactory definition. In such circumstances, by using quality or activity and without directly using dravyatva, a substance is defined as a thing possessing a jāti (generic attribute), which is not sattā (existence) and is co-existent with a quality or activity. This kind of ingenious device, which is commonly adopted by the Naiyāyikas, is known as jāti-ghaṭita-laksana.

In this connection, it would be of advantage to elucidate briefly the Naiyāyika’s view of definitions and their functions. A definition in Nyāya is not merely an explication of the connotation of a term; but it is a proposition specifying the differentia or the differentiating feature of the species or the thing defined. A laksana is a specific feature or asādhāraṇa-dharma. The term asādhāraṇa means that which is free from the three faults of a definition—viz: over-applicability (ātīvyāpti), partial inapplicability (avyāpti) and total inapplicability (asambhava). A definition, that is too wide and that consists of an attribute which is present in things sought to be defined as well as those not intended to be defined, has the defect of ātīvyāpti; while a definition which does not
apply to some of the things defined has the defect of \textit{avyāpti}; and one which is wholly inapplicable to any of the things defined has the defect of \textit{asambhava}. Such a specific feature (\textit{asādha raṇadharma}) is reciprocally co-extensive with the adjunct that delimits the scope of \textit{lakṣyata} (being sought to be defined); in other words, wherever that feature is, \textit{lakṣyatavācchedaka} or the delimiting adjunct of \textit{lakṣyata} is, and wherever the latter is, the former is. In the case of a cow or an ox (\textit{gauḥ}), for instance, \textit{gotva} or boviness is the \textit{lakṣyatavācchedaka}, when all the quadrupeds of the bovine species, and none else, are sought to be defined. In this case, brown colour or unclenched hoof would be too narrow to constitute a definition, the former, which is applicable only to some of the \textit{lakṣyas}, being vitiated by the fault of \textit{avyāpti} (partial inapplicability), and the latter, which is applicable to none of them, being vitiated by \textit{asambhava} (total inapplicability), while having horns would be too wide and therefore vitiated by the fault of \textit{ativyāpti}. It will be seen, from this, that the Nyāya view of the function of a definition is primarily differentiation, and incidentally, designation also, while the latter is the only conceivable function in certain cases. “\textit{Vyāvṛttir vyavahāro vā lakṣaṇasya prayojanam}” is an oft-quoted dictum in Nyāya literature. \textit{Vyāvṛtti} or differentiation consists in the inference of difference from the other things. Smell in the case of earth or rationality in the case of a man forms a differentiating \textit{lakṣaṇa} and serves as a valid reason leading to the inference of difference from \textit{not-earth} in the former case, and from \textit{not-man} in the latter. What
helps in differentiation also helps in specific designation. All *vyāvartakalaksanās* are thus *vyāvahārikalaksanās* also. In certain cases like nameability (*abhidhe-yatva*), all things (*padārtha*) are intended to be covered by the definition; but no differentiation is possible, as nothing can be said to be other than a *thing* (*padārtha*); and in such cases the only function of *lakṣanā* is designation (*vyavahāra*).

It would be interesting to observe here that *lakṣanās* or definitions are as important on the positive side in the *pluralistic realism* of the Nyāya-Vaiśeṣika system, as they are on the negative side in the *monistic phenomenalism* of the Advaita Vedānta. In the former system, *lakṣanās* are helpful in arriving at, and maintaining the reality of, several self-contained and mutually exclusive units, which, according to the Advaitic monist are but fragmentary appearances of the *one absolute*; while, in the latter system, *lakṣanās* are but so many unsustainable stunts demonstrating the futility of the efforts of the fissiparous phase of human intellect and the soundness of the doctrine of indefinability (*anirvacanīyatā*) which the Advaitins seek to uphold.

It may also be useful to remember here that the conception of substance (*dravya*) as the substratum of qualities and movements is the bed-rock of the realism of Nyāya; and one has only to show the hollowness of the Nyāya distinctions of substance (*dravya*), quality (*guna*) and movement (*karmāṇa* or *kriyā*), in order to knock off the bottom of the Nyāya realism.
3 (b)

_T_—Colour, taste, smell, touch, number, size, separateness, conjunction, disjunction, remoteness, proximity, weight, fluidity, viscosity, sound, cognition, pleasure, pain, desire, dislike, volition, merit, demerit, tendency—these are the twenty-four qualities.

Patañjali, in his Mahābhāṣya, describes a _guna_ as something which inheres only in a substance, and, under certain circumstances, ceases to be there; which is found in different species of substances but eternal in some cases and non-eternal in other cases.

"Sātve niviśatc'paiti pṛthajātiṣu vartate
Adheyaścākriyājaśca so' sattva'prakṛṭirīguneḥ."

This is Patañjali's definition of a _guna_. It is generally adopted by all the grammarians (_Vaiyākaraṇas_) and it amounts to this in plain language: a _guna_ may be eternal or non-eternal and inheres in a substance; but it is neither a substance nor an activity. The Vaiyākaraṇa's conception of a _guna_, for all practical purposes, is the same as the Naiyāyika's conception of it. The Mīmāṁsakas sometimes use the term _guna_ in the sense of a quality and sometimes in the general sense of something that is ancillary and comparatively unimportant. The term _guna_ is sometimes used in the sense of literary merit and also in the general sense of a good feature. The Sāṁkhya sense of the word is the com-
ponent strands of the composite primordial matter called *prakṛti* which consists of the three *gunas*—goodness (*sattva*), passion (*rajas*) and darkness (*tamas*). The Vedāntins generally use the word *guna* in the sense of an attribute or *dharma*. Though the term *guna* is thus greatly ambiguous in Sanskrit philosophical literature, the Naiyāyika’s technical use of this term is sufficiently precise and does not admit of confusion.

It would be difficult to justify the need for giving a distinct place in the Naiyāyika’s list of *gunas*, to *prthaktva*, *vibhāga*, *paratva* and *aparatva*. *Prthaktva* (separateness) is not materially different from *difference* which, according to Naiyāyikas, is *anyonyā-bhāva* or reciprocal negation—a species of non-existence. *Vibhāga* (disjunction) could hardly be distinguished from *Samyoganāśa* (loss of contact). What are remoteness and proximity (*paratva* and *aparatva*) but space-relation or time-relation, the former consisting in a larger number of intervening *samyogas* (contacts) or *viprakṛṣṭatva* and the latter in a smaller number of intervening *samyogas* or *sannikṛṣṭatva*? In fact, some Navya-Naiyāyikas are prepared to discard these *gunas*, on the grounds indicated. The realistic obsession of the Nyāya-Vaiśeṣika writers, who often go to the length of finding in the external world an objective reality corresponding to every thought and every word, is mainly responsible for the retention of these qualities in the traditional list of *gunas*.

It would be useful to note here that the Nyāya system draws a distinction between *viśeṣa-gunas* and
sāmānya-gunas. Colour, smell, taste, touch, viscidity, natural fluidity, cognition, pleasure, pain, desire, hatred, effort, merit, demerit, reminiscent impressions and sound—these are viṣeṣa-gunas; and the rest are sāmānya-gunas. The former are special qualities, as the name viṣeṣa-guna signifies; and they are special qualities in the sense that they are never found to be common to two classes of substances, or to be more accurate, that a viṣeṣa-guna, in the specific form in which it is actually found, has a jāti which is not present in any quality co-existing with two classifying attributes (vibhājakopādhi) of substances. It is easy to see how the rest are sāmānya-gunas or general qualities.

3 (c)

T—Activity or motion is of five kinds: upward motion, downward motion, contraction, expansion and going or movement from one place to another.

Kaṇḍāda’s traditional classification of karma (activity) is here followed, though the classification is unsatisfactory, as pointed out by Niłakaṇṭha in his Prakāśikā and by several others. It is obvious that gamana in a broad sense would include all other varieties of activity. In common parlance, karma, kriyā and kṛti are used as synonyms. In śastraic terminology, kṛti is equivalent to yatna, which is the inner volitional process immediately and invariably preceding a voluntary activity. In this sense kṛti should not be confounded with kriyā or karma. The
Nyāya-Vaiśeṣika system distinguishes between voluntary activity (yatna-पुर्वाकार्याः or, as it is sometimes called, ceṣṭā) and involuntary activity (a-yatna-pūrva-kāriyā). The term karma used in the sense of kriyā should be distinguished from the syntactic karma (object); and it should be also differentiated from karma, used in the sense of the unseen impression or vestige which every work leaves behind it and which shadows the doer. It is in this latter sense that the word karma should be understood in phrases like the ‘Karma theory’ and ‘prārabdha-karma.’

According to Vaiśeṣikas and Naiyāyikas, the essential feature of every activity is to bring about disjunction (विभाग), then the destruction of conjunction with a previous spot (पूर्वदेशसाम्योगानासा) and lastly conjunction with a further spot (उत्तरदेशसाम्योग). The origin of a kriyā occupies one moment (क्षण); and the three factors that follow its origin—separation, loss of prior contact and further contact—occupy each one moment. An activity, thus, fulfils its purpose completely in the fourth moment (क्षण), as soon as the further contact (उत्तरदेशसाम्योग) arises and comes to an end in the fifth kṣaṇa. Every activity lasts only for four kṣaṇas. An important corollary, deducible from these facts is that one karma can never cause another karma; for, an activity cannot be said to be caused in the second or third or fourth kṣaṇa of a prior activity, the prior contact being destroyed by the disjunction resulting from the prior activity, the later activity having no purpose to serve in the second or
third or fourth \textit{kṣaṇa} of the prior activity, and the fifth \textit{kṣaṇa} being one in which the prior activity comes to an end and cannot, therefore, be associated with the later activity as its cause. In this connection, it should be remembered that a \textit{kriyā} cannot be conceived of otherwise than as direct and independent cause of disjunction and as leading to further contact, through loss of prior contact; for, according to Kaṇḍāda and Gautama, to go to is to forego, or, in other words, to quit, to sunder and touch further on. (\textit{Kriyā, tato vibhāgaḥ, tataḥ pūrveśasainyogaṇāśaḥ, tataḥ uttaradeśa-sainyogaḥ, tataḥ kriyānāśaḥ}). It may also be noted here that the Vaiśeṣikas and Naiyāyikas use any one of these five factors, from the origin of \textit{kriyā} down to its cessation, as the delimiting condition (\textit{upādhi}) of a \textit{kṣaṇa}, which is regarded as the smallest unit of time.

The Nyāya-Vaiśeṣika conception of \textit{kriyā} stands in sharp contrast with the Vaiyākaraṇa view of this category. According to the Vaiyākaraṇas a \textit{kriyā} is what is usually denoted by a verbal root (\textit{dhātu}) and it is ordinarily a process consisting of many activities (\textit{vyāpāraḥ}) arising in succession. In its fully accomplished state (\textit{siddhāvasthā}), a \textit{kriyā} is denoted by a substantive like \textit{pāka}; and when it is being done or in its \textit{sādhyāvasthā}, it is denoted by the radical element in a finite or infinitival verb.

It would be worthy of notice here that the Naiyāyikas and the Bhāṭṭa-mīmāṁsakas maintain that a \textit{kriyā} is perceptible and may be visualised under cer-
tain conditions; whereas, the Prābhākaras hold that it falls beyond the scope of the senses and it comes to be known only through inference from further contact preceded by disjunction (vibhāgāpārvaka-sāmīyoya). It should also be remembered that Indian philosophers, like Śaṅkara, draw pointed attention to the fundamental difference between a kriyā and a jñāna, which consists in the former being such as directly falls within the scope of the will (puruṣatāntra) and the latter never coming within the scope of the will but having its nature determined by its object (vāstutāntra).

3 (d)

T—Generality is of two kinds—the more comprehensive and the less comprehensive.

3 (c)

T—Particularities, on the other hand, abide in eternal substances and are innumerable.

3 (f)

T—Whereas, inherence is merely one.

In common speech, sāmānysa means a common feature; but, in the technical language of Nyāya, it is equivalent to jāti and is understood to stand for a generic feature which inheres in all the individuals constituting a class and is eternal. The individual units (vyakti) of a class may come and go, but the generic attribute common to the whole class exists for ever.
Humanity, or more literally man-ness (manusyatva), which is common to all mankind, is eternal and it existed before the origin of man and will continue to exist even after the annihilation of all mankind. A jāti, in this technical sense, is connected with a vyakti through the intimate relation known as samavāya or inherence. An attribute may be common to several individuals and connected with them either through the direct relation of svarūpa-sambandha, the related object itself being looked upon as relation, or through some indirect relation (parampara-sambandha); such an attribute is called upādhi and should not be confounded with a jāti. Murtatva, for instance, is not a jāti; and it amounts to “being the seat of all activity” (kriyāsrayatva). It is sometimes called sakhandopādhi—a feature which admits of being defined and stands in need of the help of a definitive expression for its definite comprehension; and in this sense, a sakhandopādhi is said to be nirvacaniya. A jāti like pot-ness (ghaṭatva) is anirvacaniya—does not stand in need of the help of a definitive expression for its comprehension. The Naiyāyikas recognise certain generic attributes called akhandopādhis, which are not jātis but similar to them in all respects except that the relation of the former to their abodes is self-link (svarūpa-sambandha)—the related thing itself constituting its own relation—and that it is not inherence (samavāya) as in the case of jāti. Viśaya is object; viśayatā is object-ness; viśayatātva is being object-ness and is an akhandopādhi. Pratiyogin is correlative; pratiyogitā is correlative; pratiyogitātva is being correlative and is an
akhañḍopādhi. Under which of the seven categories should an akhañḍopādhi be brought? In reply to this question, a Naiyāyika would say that it could be brought under sāmānyya, if that term should be understood to mean all generic attributes—jāti and akhañḍopādhis. Or, if the term sāmānyya should be restricted to a jāti, an akhañḍopādhi could not be brought under any of the seven categories. It should be remembered in this connection that these two kinds of generic attributes (jāti and akhañḍopādhi) are the only things that are presented in thought, by themselves, without the help or mediation of their attributes (svarūpaḥbhāṇa-jogyāḥ); and that thought grasps other things only under the aspect of, or only through the mediation of, a qualifying attribute (kiñcitprakāra-ākyatvābhāṇayogāḥ). In Nyāya terminology, a distinction is sometimes made between akhañḍa-sāmānyya and sakhañḍa-sāmānyya, the former being a jāti directly connected with a vyakti and the latter being a generic attribute which is reducible to a jāti connected with a vyakti through some indirect relation (paramparāsambandha). For instance, kriyātva (motion-ness) is an akhañḍa-sāmānyya; while mūrtatva is a sakhañḍa-sāmānyya, as it is equivalent to kriyāśrayatva (possessing an activity), which is a generic attribute common to all the mūrtas—earth, water, fire, air and mind, and may be said to consist in the jāti—kriyātva—being present through the indirect relation—svasamavāyi-samavāyitva (being the intimate substratum of its own intimate substratum).
How do the Naiyāyikas show that it is necessary to recognise sāmāṇya or jāti as a distinct category? Our experience, in several cases where it relates to diverse objects, exhibits a certain degree of uniformity. When we see a human being or a beast, our experience howsoever it may differ in other respects, invariably takes the form—‘this is a man’ (ayam manusyaḥ) or ‘this is a beast’ (ayam mṛyaḥ). The uniformity that we thus observe in our experience cannot be accounted for otherwise than through the assumption of a generic feature common to all mankind or all the beasts. This generic feature is called manusyaṭva (humanity) in the case of human beings and mṛgatva (beasthood) in the case of beasts. Parsimony in thought is relied upon by the Naiyāyikas as a criterion of soundness, when it does not clash with any other criterion which is stronger or more reliable. The principle of economy, or the law of parsimony or the lāghava-nyāya determines the nature of many a hypothesis in Nyāya and other systems of Indian thought. According to this principle, a generic feature like manusyaṭva or mṛgatva should be taken to be eternal, one, and connected with men or beasts through the intimate and eternal relation called samavāya (inherence). In one word, it should be taken to be a jāti in the technical sense, in the interest of lāghava, so long as there is nothing preventing the hypothesis of jāti being put forward in the case under consideration. Thus, through perceptual experience, one might arrive at a jāti, in order to account for uniformity in such experience. There are several cases in which perceptual experience of a whole class
is impossible or it happens to be restricted to a few and not accessible to all. For instance, in the case of substances (dravya), only three of them—earth, water and fire—are perceptible to the external senses, some of their varieties being imperceptible. Though ātman (spirit or soul) is perceptible to the inner sense called manas (mind), its existence as a dravya cannot be taken for granted at the stage at which the jāti—dravyatva (substantiality) is yet to be established. In such circumstances, the Naiyāyikas maintain the necessity for recognising a jāti by means of inference (anumāna) aided by the principle of parsimony (lāghava). By way of illustration, their argument to establish dravyatva may be set forth here. Only a substance can be samārāyikārana (intimate cause or inherent cause). Human thought, in respect of causality (kāraṇatā) as in other respects, shows a habitual preference for compactness and unity. The conception of kāraṇatā could serve some useful purpose in life, only when it takes a definite and comprehensive form; and it cannot take a form which is at once definite and comprehensive, so long as it is not specifically delimited in its scope by a comprehensive and definite adjunct. In other words, a suitable delimiting adjunct of kāraṇatā (kāraṇatavacchedaka), besides a similar delimiting adjunct of kāryatā or effectness (kāryatavacchedaka) should be thought of in the case of every comprehensive and definite statement of causal relation (kārya-kāraṇa-bhāva). The need for such a statement being taken for granted in the case of the samavāyi-kāraṇatā belonging to substances as a class, it follows that this
kāraṇatā is definitely determined in its scope by a delimiting adjunct which is common to all the substances. Such a delimiting adjunct in the case of samavāyi-kāraṇa (samavāyi-kāraṇatāsvacchedaka) is called dravyatva. Economy in thought, in the absence of any outweighing disadvantage or difficulty, would necessarily lead to dravyatva (substanceness) being assumed to be eternal (nitya), one (eka) and connected with all the substances through samavāya, i.e., a jāti in the technical sense. This argument is usually stated in Sanskrit thus:

"Dravyanisṭhā samavāyikāraṇatā (gunaṁ, sam-yogam, vibhāgam vā prati), yatkiñcidanugata-dharmāracchinnā, kāraṇatātvāt, daṇḍaniṣṭha-ghaṭakāraṇatāvat."

Some jātis like dravyatva (substanceness) are more comprehensive (para) as compared with prthivītva (earthness) and less comprehensive as compared with sattā (existence); while ghaṭatva (potness) is the least comprehensive (apara) of all the jātis in the series of jātis—sattā, dravyatva, prthivītva, ghaṭatva. In every series of jātis, it will be seen that sattā is the most comprehensive jāti and is the generic attribute characterising the one sumnum genus recognised in the Nyāya-Vaiśeṣika system, which may be called sat and to which Kaṇāda gives the technical name artha. Every series of jātis ends with its own antya-jāti, which characterises its infima species. Thus in the Nyāya-Vaiśeṣika system, while there are several antya-jātis and diverse infimoe species, there is only one higher
jāti, viz., sattā and one summum genus. Jātis, including sattā, can inhere only in substances, qualities and activities (dravya, guṇa and karma) and cannot inhere in any other category. The predication, of sattā with reference to the remaining positive categories, sāmānya, viśeṣa and samavāya, is explained away by the Naiyāyikas, on the basis of co-inherence, and not on the basis of inherence. Propositions like 'dravyam sat', 'guṇah san', 'karma sat' convey that sattā inhere in a dravya or guṇa or karma; whereas the propositions—'sāmānyam sat', 'viśeṣāh santah', 'samavāyah san'—should be interpreted as referring to the co-inherence of sāmānya, viśeṣa and samavāya with sattā in the same place.

In his Sūtra, "Sāmānyam viśeṣa iti buddhyāpekṣam" (ch. I-āh-2-sū 3), Kaṇāda observes that 'generality and speciality are dependent upon the nature of the view-point'. Some modern writers on Indian logic, more especially some writers in English, are misled by this Sūtra into the belief that Kaṇāda was in favour of a conceptualist view of sāmānya and would reduce it to a conceptual factor existing only in thought. This misapprehension results from an imperfect knowledge of Kaṇāda's position. Kaṇāda maintains, partly in an explicit way and implicitly in part, that jātis are eternal universals, existing outside the sphere of thought in the same sense in which other realities exist; and that a jāti is looked upon as a generic feature (sāmānya) or a specific differentia (viśeṣa), according as it is conceived of as a unifying or differentiating factor. For
instance, substanteness (dravyatva) is a sāmānya, when it is looked upon as a generic feature common to all the substances; but it is a vīśeṣa when it is looked upon as the differentia of substances, by means of which they are distinguished from other things like qualities and activities. One could clearly see how solicitous Kaṇāda really is to establish the reality of jātis, from the significant way in which he uses the phrase antya-vīśeṣa to designate the distinct category known as vīśeṣah, so that they may not be confounded with jātis looked upon as differentia.

To philosophise, according to the exponents of the Nyāya-Vaiṣeṣika system, is to unify, wherever possible, through universals arrived at on the basis of observed similarities or uniformities, and to ramify and differentiate, wherever fidelity to experience requires it, through differentiating features arrived at from observed dissimilarities. This process, in the direction of generalisation, has led to several jātis being recognised, and in the direction of differentiation, has resulted in the hypothesis that a unique, self-differentiated and everlasting feature called 'particularity' (vīśeṣa) should be attributed to every everlasting substance that could not be otherwise distinguished from similar everlasting substances. Composite substances like a jar or a cloth, made of component parts, can easily be distinguished from each other by means of the different parts constituting them. Eternal substances, which are alike in respect of guṇa, karma and jāti, like the eternal atoms of earth, water, fire or air, cannot be
distinguished from similar substances of the same class without ascribing to them some unique feature called *viśeṣa*. In our perceptual experience, one thing is differentiated from another thing through a distinctive feature. As a matter of fact, in the supernormal perceptual experience (*alaukika-pratyakṣa*) of seers and Yogins, one atom of earth is distinguished from another atom of earth; in such cases, there must be a differentiating feature; no *guna*, *karma* or *jāti* can be relied upon as a distinguishing feature, for in those respects, all atoms of earth are alike; even the supernormal perception of a Yōgin cannot change the fundamental nature of things (*vastu-svabhāva*) and cannot see a man as a beast or a horse as an ass; it is the fundamental nature of perception, both normal and super-normal, that it distinguishes one object from another through a distinguishing feature; and thus, the perception of one atom of earth as distinct from another atom of the same kind, super-normal as it happens to be, should be accounted for by ascribing to each atom of earth a unique feature called *viśeṣa*. By following the same line of argument, it would be necessary to ascribe a *viśeṣa* to each of the atoms constituting producible substances (*janya-draṣṭya*).

These *viśeṣas* should be taken to be self-discriminating (*svatovyāvartaka*) or self-differentiated (*svato vyāvṛtta*). If a *viśeṣa* were to be differentiated from another *viśeṣa* or from any other object through some distinctive feature other than *itself* or its own *svārūpa*, it would lead to an endless
assumption of distinctive features and this line of thought cannot be sound as it is vitiated by anavasthā or endless regression. It follows necessarily that each viśeṣa stands isolated and unique; and ex hypothesi, even a jāti called viśeṣatva, common to all the viśeṣas, becomes inadmissible for the reason that a viśeṣa would cease to be self-discriminating were it to be associated with a jāti, every jāti—including sattā—turning out to be a differentia in cases of contrast with things devoid of that jāti.

All the Vaiśeṣikas and Naiyāyikas agree that each atom should be taken to have a unique viśeṣa inherent in it, that the relation between a viśeṣa and its abode is inherence (samarāgya) and that viśeṣas are eternal. There is, however, some difference of opinion as to whether every eternal substance should be taken to have a viśeṣa. It is necessary that each jīva (individual soul) and each manas should be assumed to have a unique viśeṣa; for, though, when a jīva is in a state of bondage (baddha), he and his mind could be shown to have distinctive features in the form of distinctive experiences and such other characteristics, yet neither a liberated (mukta) jīva nor his mind could be differentiated from other liberated jīvas and their minds, without ascribing to each of them a unique viśeṣa; and there can be no difference of opinion about this matter among the Naiyāyikas. With regard to ether (ākāśa), while some Naiyāyikas hold that a viśeṣa should be ascribed to it as the delimiting determinant of its causality of sound (sabda-sāmavāyikāraṇa-tāvacchedaka),
others hold this is unnecessary. In the case of spatial direction (*dik*) and time (*kāla*), if they are recognised to be distinct substances, they should be taken to have distinctive *viṣeṣas*; but, while the earlier Naiyāyikas recognise *dik* and *kāla* to be eternal substances, distinct from others, the later Naiyāyikas, like Raghunātha Siromaṇi, would bring *dik* and *kāla* under God (*Īśvara*), uncommon attributes like eternal omniscience being quite adequate to distinguish God from the rest without the help of a *viṣeṣa* of His own. It should be remembered in this connection that, when the term *viṣeṣa* is taken in its usual sense of *differentia*, the phrase *anta-viṣeṣa* is used to describe the unique category known as *viṣeṣa*, it being said to be *anta* for the reason that it stands at the end of all differentiating features, or for the reason that it inheres in eternal substances which transcend creation and destruction and are, therefore, denoted by the word *anta*.

When two substances come into contact with each other, their relation is called *saṁyoga*; and this relation is not of an intimate character and is separable. There is another type of relation which determines determinate cognitions of objects as associated with certain attributes (*viśiṣṭa-pratīti*); and this relation when it happens to connect two things of which one, as long as it does not become moribund or cease to exist, is always associated with the other—two things which are technically called *ayuta-siddha*—is known as *saṁavāya*. This is an intimate type of relation recognised as subsisting between component parts and composite wholes.
(avayāra and avayārin), qualities and substances (guna and dravya), movements and moving substances (kriyā and dravya), generic attributes and the individuals forming a class (jāti and vyakti), and particularities and eternal substances (viśeṣa and nityadraya). The intimate relation of saṃavāya stands in marked contrast with contact (sāmyoga) which is not an indissoluble relation and is easily lost. With some effort the Naiyāyikas distinguish saṃavāya from another type of relation recognised by them, which is known as svarūpa-sambandha or self-relation and which consists in one of the related things being looked upon as comprising a relational phase forming a connecting link. For instance, time-relation (kālika-sambandha) is time (kāla) itself looked upon as a connecting link between time and things limited in time. Numerous varieties of svarūpa-sambandha are recognised by the Naiyāyikas in all cases where cognition of an object with its adjunct (viśiṣṭa-pratiti), the configuration of which involves three cognised factors—an adjunct (viśeṣaṇa), an object qualified by it (viśeṣya) and their relation, has to be accounted for through some relation and where that relation cannot be contact or inherence (sāmyoga or saṃavāya). The conception of svarūpa-sambandha is pressed into service too much by the Naiyāyikas and is pushed too far in their view regarding the relation of tādātmya (complete identity), which forms the relation underlying cognitions like this—'a jar exists in itself'. It is maintained by the Naiyāyikas that, though a relation ordinarily implies difference,
the relation of identity should be considered an exception and cannot be ignored since it is presented in valid experience.

The Nyāya conception of jāti may, with advantage, be compared with the views held by the Vaiyākaraṇas (Grammarians), Bhāṭṭas, Prābhākaras, Baudhānas and Advaitins on this subject. The term jāti, according to Indian Grammarians, primarily denotes class-attributes in the Nyāya sense; and terms denoting caste, lineage and followers of a Vedic school are also treated as terms denoting a jāti for purposes of the application of certain grammatical rules framed with reference to terms denoting jāti (jātivāci). The Bhāṭṭa-mīmāṁsakas hold that a jāti like cowness (gotva), horsemess (aśvatva) is eternal, omnipresent and perceptible; that, though present everywhere, it is manifested only in and through the individual objects comprising a class and that such objects are called vyaktis chiefly for the reason that they serve to manifest jāti; and that their relation to vyaktis is not inherence (samaṇa) but relative identity or identity compatible with difference (tādātmya). The relation of tādātmya, according to the Bhāṭtas, is not absolute identity, as the Naiyāyikas take it to be; but it is identity in a relative sense—i.e. identity (abheda) compatible with difference (bheda-sahīṣnu). Though difference and identity are ordinarily opposed to each other, yet they are taken by the Bhāṭtas to be compatible with each other, on the ground that it is experience, after all, that determines the compatibility or incompatibility of two
things and that experience warrants the recognition of difference, associated with identity, as forming the relation between jāti and vyakti. In the proposition—'this is a horse' (ayam aśvah), for instance, 'this' refers to a particular vyakti and 'horse', according to the Bhāṭṭas, primarily refers to horseness (aśvatva), which is a jāti. According to this view, in the judgment embodied in this proposition, a jāti is equated with a vyakti. But this equation cannot be absolute as, in that case, the two words 'this' and 'horse' would turn out to be synonyms. Therefore, the Bhāṭṭas argue that, on the strength of what is presented in cognition, a peculiar relation in difference-cum-identity (bhedābhedaṃ), should be recognised in the case of jāti and vyakti. While Naiyāyikas restrict jātis to the first three categories—substances, qualities and activities, the Bhāṭṭas ascribe the highest or the most comprehensive jāti called existence (sattā) to those three categories and also to the fourth category, generality (sāmānya). The Prābhākaras, on the other hand, contend that a jāti or generic attribute can be recognised only in perceptible substances, and any common attribute which cannot be perceived alike by the learned and illiterate in vyaktis should not be regarded as a jāti. It would follow from this that cowness (gotva) and such other attributes may be regarded as jātis, while existence (sattā), substanteness (dravyatva), and such other attributes are not jātis. According to these philosophers, the relation between a jāti and vyakti is inheritance (samavāya), as in the Nyāya system, the re-
The Buddhistic idealists would reduce all *jātis* to the negative form of 'difference from the rest' (*svetara-bheda*), cowness (*gotva*), for instance, being no more than difference from things other than a cow (*yavetarabheda*). They ridicule the Nyāya doctrine of *jāti* in this strain:—"Eternal cowness, dogness, assness, and such other *jātis*—where do they exist, after all the cows, dogs and asses cease to exist at the time of universal dissolution (*pralaya*)? Do they exist in God? To say so would be blasphemy. When a dog or an ass or a cow dies, does its *jāti* leave it? It cannot do so, for the reason that only substances can move. When a cow is just born, how does it come to have cowness? It cannot be said that cowness is produced in a new-born calf, for *jāti* is eternal and has no origin. Nor can it be said that a *jāti* loses some of its parts when a *vyakti* ceases to exist, and acquires additional parts as new *vyaktis* are produced; for eternal *jātis* can have no parts. Indeed, in your doctrine of *jāti*, you have brought a hornet's nest to your ears." The Advaitic monists of the *post-Saṅkara* and *pre-Saṅkara* stages in the history of Indian monism cleverly use the Nyāya theory of *jāti* to their profit, by showing that the highest *jāti*, existence (*sattā*), is the grand generality (*mahāsāmānyā*), which represents the only absolute reality called *Brahman*, and that the various *vyaktis* and smaller *jātis* like *gotva* and *aśvatva*
are but appearances super-imposed upon the absolute sattā.

Inherence (samaṇāya) is recognised by Prābhākaras in cases where two inseparable things (ayuta-siddha) are intimately connected with each other; but it is taken to be eternal in cases where both the related objects are eternal, and non-eternal in other cases. It is the obsession of economy (lāghava) that has led the Naiyāyikas to hold that inherence is eternal and one. In the place of samaṇāya, the Bhāttas and Advaitins recognize the relation of difference-cum-identity (tādātmya). Viśeṣas, in the sense in which the Vaiśeṣikas and Naiyāyikas recognize them, are not recognized by other Indian philosophers, who find it easy to disprove the necessity for recognizing viśeṣas by pointing out that the self-discriminating capacity ascribed to viśeṣas might be attributed, with advantage, to eternal substances themselves.

In order to completely understand the Nyāya doctrine of jāti, it is necessary to pay some attention to the principles which Udayanācārya, one of the greatest exponents of Nyāya in the tenth century, laid down for determining which of the numerous common attributes presented in one's experience should be treated as jātis and which should not be. These principles are six:—(1) the individuals in question being only one (vyakttyabheda); (2) the individuals in question being the same—neither more nor less (tulyatva); (3) attributes which exclude each other in some places being found together elsewhere (sanīkara); (4) endless regression
(anavasthā); (5) giving up the distinctive feature made out ex hypothesi (rupahāni); and (6) the absence of the necessary relation (asambandha). In his Kiraṇāvali, Udayana sums up these six principles in this verse:—

"Vyakterabhedastulyatvam saṁkaro'thanavasthitih;
Rupahānirasambandho jātibādhakasamgrahah."

Etherness (ākāśatva) cannot be a jāti, for the obvious reason that, according to Naiyāyikas, ether is eternal and one and that there is no question of forming a class consisting of several similar individuals. There can be no distinction between jarness and potness (kalaśatva and ghātatva), as the jars or pots, which form the class in view and to which the generic attribute in question is ascribed, happen to be the same. Senseness (indriyatva) co-exists with elementness (bhūtatva) in the external senses like the visual sense constituted by fire; indriyatva is dissociated from bhūtatva in the mind (manas), which is not a bhūta; bhūtatva alone exists in a jar, which is made of earth and not a sense; the only possible relations that are warranted by experience, between two attributes recognized to be jātis, are inclusiveness and mutual exclusiveness; for instance the sphere of dravyatva includes that of ghātatva, while ghātatva and paṭatva (jarness and clothness) are mutually exclusive; so, neither indriyatva nor bhūtatva can be regarded as a jāti, on the ground of unwarranted blend (sāṁkarya). If all the jātis were to be supposed as having a jāti common to them there would be endless regression in this way.
Suppose the jātis we start with are three—\textit{a}, \textit{b} and \textit{c}; if we assume that these three jātis have a jāti common to them called \textit{x}, the total number of jātis would become four—\textit{o}, \textit{b}, \textit{c} and \textit{x}; and having committed ourselves to the position that there should be a jāti common to all jātis, the meaning of the word \textit{all} will increase at every step by one more jāti being added to the list and we should go on assuming an endless series of jātis common to all jātis, like \textit{x}, \textit{x^1}, \textit{x^2}, \textit{x^3}. Thus, on the ground of endless regression (\textit{anavasthā}), a jāti called jātitva, common to all jātis, cannot be recognized. To say that viśeṣatva is a jāti common to all the viśeṣas would be fatal to the distinctive feature of self-differentiation (\textit{svato-vyāvartakatva}), which is ascribed \textit{ex-hypothesi} to viśeṣas. The hypothesis of \textit{antya-viśeṣas} (ultimate particularities) is put forward for differentiating eternal substances which could not be otherwise differentiated. If the \textit{antya-viśeṣas} were to have a jāti—viśeṣatva common to them, they would cease to be self-differentiating; for in the case of objects having jātis fit to be treated as differentiae, it is a well-established habit of thought to rely upon such generic differentiae for purposes of differentiation and not upon the things themselves that have to be differentiated. Thus viśeṣatva cannot be treated as a jāti, since it would jeopardise the distinctive feature of viśeṣas—\textit{svato-vyāvartakatva} and thus involve rūpahāṇī. Negation-ness (\textit{abhāvatva}) is a feature common to all the varieties of non-existence (\textit{abhāva}); but this common feature cannot be regarded as a jāti, for the reason that there is difficulty in recognizing the relation of inheritance (\textit{samāvāya}) as a link.
serving to make *abhāva* the substratum of any attribute or the attribute of any substratum. In cases like this, the *jātibādhaka* is called *asambandha*, the required relation of inherence being impossible.

*Sāmānya* and *viśeṣa* may appropriately be described as the two poles of the pluralistic realism of the Nyāya-Vaiśeṣika system. *Sattā*, the highest *sāmānyā*, to which the Naiyāyikas rise with a true philosophic instinct, is not allowed to exhibit itself in its full glory as the all-comprehending absolute reality. Between the two poles of *sāmānyā* and *viśeṣa*, the pluralistic universe of Nyāya is sought to be fitted to a threefold scheme of external relations—contact (*sāmyoṣa*), self-linking relation (*svaṃpa-sambandha*) and inherence (*samavāya*)—a scheme which, with the eternal and intimate relation of *samavāya*, turns out to be the Procrustean bed of Nyāya thought. The Nyāya doctrines of *sāmānyā*, *viśeṣa* and *samavāya* exhibit fatal weaknesses. If uniformity of experience should necessitate the assumption of *sāmānyā* and if the principle of parsimony (*lāghava*) should lead to a *sāmānyā* being taken to be eternal, strict consistency in thought would necessarily result in one absolute all-comprehending reality in the shape of *sattā* being recognized and thus the Advaitic monist would find it easy to demolish the pluralistic realism of Nyāya. If *antya-viśeṣas* should be taken to be self-discriminating to avoid *anavasthā*, why should not the self-discriminating capacity, ascribed to them, be attributed to such eternal substances as could not be otherwise distinguished and thus save the Nyāya thought from the cumbersome
The Nyāya philosopher, who takes samavāya to be eternal and one and yet seeks to avoid inherence of colour (rūpa-samavāya) being absurdly jumbled together with the inherence of touch (sparśa-samavāya) in air, which is a colourless substance, is only swallowing a camel but straining at an ant, when he refuses to accept the relation of relative identity (tādātmya = bhedaabheda) in the place of inherence on the ground that bheda and abheda are incompatible.

3 (g)

T—Non-existence is of four kinds:—antecedent non-existence, annihilative non-existence, absolute non-existence and mutual non-existence.

In rendering the term abhāva, the two terms non-existence and negation are commonly used. Of these two, the former term is nearer to the Sanskrit word abhāva; and the latter term is likely to prove somewhat misleading, as it primarily refers to negative expression rather than to the negative category denoted by such expression. In the previous section, it was pointed out that abhāvatva could not be treated as a jāti. Some Naiyāyikas take abhāvatva to be an akhando-pādhi, while others describe it as consisting in the negation of sattā (existence) through the relation of inherence (samavāya) as well as its negation through co-inherence (ekārtha-samavāya). Abhāva is defined as a thing which neither has samavāya nor is samavāya.
Things which are yet to be produced are referred to as non-existent prior to their production. When threads are ready and a cloth awaits production, it is said "Here, a cloth will come into being" (atra pāto lha.िशyati). Such expressions conveying the non-existence of a product prior to its creation should be relied upon as evidence of antecedent non-existence (prāgabhāva). According to the Naiyāyikas, every producible object (kārya) is invariably preceded by its own antecedent non-existence (prāgabhāva), which is also regarded as a necessary part of the causal machinery required for producing an effect. This forms an important element in the creationistic theory of causation upheld by the Naiyāyikas. They maintain that a prāgabhāva has no beginning but comes to an end at the moment of the creation of its counter-correlative (pratīyojīna)—which is the product in question; that its abode is invariably the intimate or material cause (samaṇyikāraṇa); that it is destroyed by the complete causal apparatus which immediately produces the effect in question; and that it is usually referred to by an expression which, though affirmative in form, conveys an implied negation—such as “Here the jar will come into being” (atra ṣhāto bhaviṣyati). The Nyāya theory of creationism (ārambha-vāda) is as inseparably bound up with the view that what is destroyed is annihilated completely and can never arise again, as, on the other side, with the view that what is created is produced for the first time and never existed before. Every created bhāva (positive entity) is, therefore, hemmed in between two kinds of non-existence, ante-
cedent and annihilative (prāgabhāva and dhvanīsa). Pradhvanīsa is thus produced; and it can never come to an end, since the end of dhvanīsa would mean the regeneration of what is once annihilated—which, according to Naiyāyikas, is impossible. Dhvanīsa, like prātābhāṣa, abides in the intimate or inherent cause of what is destroyed and it is presented in experiences, such as 'the jar is annihilated' and 'the annihilation of the jar is produced' (ghato dhvastah, ghata dhvanīso jatah). Some Naiyāyikas of the Nuddlea school, like Raghunātha Śiromaṇi, hold that, though it is clearly necessary to recognize dhvanīsa on the strength of certain experiences common to all, it cannot be said that prāgabhāva is supported by any such experience and antecedent negation may well be explained as no more than complete non-existence (atyantābhāva) viewed particularly in association with the time preceding the creation of the effect in question. The earlier school of Nyāya, however, argues that, if the prior non-existence of a cloth (pāṭa-prāgabhāva) were not recognized as a special type of non-existence, having no beginning but coming to an end at the moment at which the cloth comes into being, the absurd result that the same cloth is produced again and again in an endless series of successive moments (pāṭadhārāpatti) would follow; and that, if the prior non-existence of a cloth be recognized as a special type of non-existence forming one of the factors constituting the causal apparatus of the cloth, no such absurd result would follow, one of the causes of the cloth, viz. its own prāgabhāva, ceasing to exist at the first moment of the creation of
the cloth. ‘On this spot there is no jar’ (*atra bhūtale ghaṭo nāsti*)—expressions like this, and experiences corresponding to, and embodied in them, refer to a certain type of non-existence which is not restricted to the past, present or future but has reference to all time. In this respect, this variety of *abhāva* stands out in sharp contrast to the two varieties, already mentioned—*prāgabhāva* and *dhvamsa* and is called *atyantābhāva*, absolute non-existence, its presence being entirely independent of its counter-correlative (*pratiyogin*) being produced or destroyed. Absolute non-existence (*atyantābhāva*) is eternal and the pluralistic universe of Nyāya is wide enough to accommodate innumerable such *atyantābhāvas*.

The concept of *abhāva* is complex and involves several factors. In order to encompass completely an *abhāva* in thought, one has to think of it in association with five factors—viz., counter-correlative (*pratiyogin*), correlated substratum (*anuyogin*), the determining adjunct of the former which delimits the scope of counter-correlativeness (*pratiyogitāvacchedakadharma*), the adjunct delimiting the scope of the substratumness (*anuyogitā*), and the relation which determines the counter-correlativeness of an object (*pratiyogitāvacchedakasambandha*). Taking a specific instance of *atyantābhāva*, such as is embodied in the proposition—‘On this spot there is no jar’ (*atra bhūtale ghaṭo nāsti*), these five factors may be illustrated. What is intended to be denied, or that object the non-existence of which is referred to here, is not a particular jar
but the whole class of jars. What is sought to be conveyed is that no jar is present here, not even a single jar. In this case, jar, in general, is the pratiyogin and the sphere of its pratiyogitā is delimited by jarness (ghaṭatva), i.e.—it is found wherever jarness is found or in every jar. In other words, in this case jarness (ghaṭatva) is said to be the pratiyogitāvacchedakadharma. A reference to the non-existence of an object amounts to a denial of its existence. When one thinks of the existence of an object, one has to think of its presence in a certain place through some relation. This relation which is intended to be brought within the scope of the denial kept in view is known as the relation determining the pratiyogitā (pratiyogitāvacchedakasambandha). In other words, it is the relation through which the counter-correlative is intended to be conceived of as present, in the particular place, if it were present there. The intended relation may vary in different cases. In the case of the abhāva referred to in the proposition ‘There is no jar in contact with this place’ (atra samyogena ghaṭo nāsti), the relation kept in view as determining the presence of the object denied (pratiyogitāvacchedakasambandha) is contact (samyoga). On the other hand, in the case of the abhāva referred to in the proposition—‘There is no jar inherent in this place’ (atra samavāyena ghaṭo nāsti), inherence (samavāya) constitutes such a relation. The former of these two propositions may be true where the non-existence of a jar is predicated as present in the component part of a jar (kapāla);
while in that case the latter proposition would not be true. For a *kapāla* may not have any jar in contact with it; but a *kapāla* must have inherent in it the jar of which it is a component part. The place in which the non-existence of an object is said to be present is *anuyogin* and its adjunct which delimits the scope of the substratumness (*anuyogitā*) is called the *anuyogindhyā*. A specific reference to this is necessary. To say 'there is no jar on the earth,' is altogether different. In the former case, *this-spotness* (*etadhūtatalatva*) is the *anuyogitāvacchedaka-dharma*; and in the latter case it is earthness (*bhūtalatva*)—a feature common to the whole of this world. For the reason that the cognition of *abhāva* is so complex as to comprise these five factors, it is placed on a par with a cognition of an object associated with an adjunct (*viśīstabuddhi*), the *abhāva* itself being treated as the chief object (*viśeṣya*) and the remaining factors set forth above being regarded as adjuncts (*viśeṣana*). In the case of *prāyabhāvas* and *dhwam-sas* also, to know them definitely would be to cognise them in association with these five factors, the containing correlative or correlated substratum (*anuyogin*) of these two varieties of *abhāva* being the respective inherent cause (*samavāyikarana*) and the relation determining their *pratityogitā* being inherence (*samavāya*). These three *abhāvas*—*prāyabhāva*, *dhwam-sa* and *atyantabhāva*—are otherwise known as *abhāva*, varieties of non-existence, the *pratityogitā* of which is delimited by some relation other than complete identity (*tādātmaya*). Mutual negation or differen-
tative non-existence \( (\text{anyonyābhāva}=\text{bheda}) \) amounts to difference; and it is a variety of non-existence, the \( \text{pratiyogita} \) of which is determined by identity \( (\text{tādātmya}=\text{aikya}) \). ‘A jar is not a cloth’ \( (\text{gyatah pato na}) \) —in propositions like this, difference \( (\text{anyonyābhāva} \), mutual non-existence) is referred to. In this case, the presence of a jar in a cloth, or of a cloth in a jar, through the relation of complete identity, is denied; or, for all practical purposes, the identity of the two objects referred to is denied. It should be borne in mind that \( \text{tādātmya} \), in the Nyāya sense, is absolute identity and that \( \text{tādātmya} \), in the Bhatta sense, is relative identity or difference-cum-identity. The variety of \( \text{abhāva} \) is eternal in the case of eternal objects and non-eternal in other cases. Some old Naiyāyikas speak of a certain type of \( \text{abhāva} \) called \( \text{sāmayikābhāva} \), which, according to them, is a temporary variety of non-existence cognized, for instance, in the place from which a jar is removed for a time and to which it is re-introduced afterwards. But the general sense of the Naiyāyikas is in favour of equating \( \text{sāmayikābhāva} \) with ever-lasting \( \text{atyantābhāva} \), which may be cognized for a time and may not be presented in certain forms of thought, owing to the absence of the relation determining the presence of \( \text{abhāva} \) in a certain place. In the case of an \( \text{abhāva} \), the relation which determines its presence in a certain place, or its being contained \( (\text{ādheya}) \) in a container \( (\text{adhi-karaṇa}) \) is known as \( \text{vaiśiṣṭya} \). This is but a variety of self-linking relation \( (\text{svarūpa-sambandha}) \) and consists in the particular container itself viewed in asso-
ciation with the particular moment at which the counter-correlative in question (*pratiyogin*) is not present on that spot; in other words, the particular container, as such, constitutes the *vaiśīṣṭya*.

It is noteworthy here that, according to the Naiyāyikas of the older school, total non-existence is never cognised in the substratum of antecedent or annihilative non-existence. (*Dhvamsapraṇāgabhāvādhisāram atantabhāvo nāṅgikriyate*). This is not accepted by the later Naiyāyikas. Some Naiyāyikas hold that the delimiting adjunct of *pratiyogita*, in the case of an *atyantābhāva*, may be an attribute which never belongs to the particular *pratiyogin*. For instance, in the proposition—'A jar does not exist as determined by clothness' (*ghatāḥ pataṭvena nāsti*)—jar is the *pratiyogin* and clothness (*pataṭva*) is the *pratiyogitañcchedakadharma*. This type of *atyantābhāva* is known as *vyadhičaraṇadharmañcchedinapraṇitiyogitākābhāva*—a form of non-existence whose counter-correlativeness is determined by a delimiting adjunct which is never co-existent with what is delimited by it. This form of non-existence is omnipresent (*kevalānāvayi*) and is co-existent even with its own *pratiyogin*—which is not ordinarily possible. Several later Naiyāyikas reject this view and explain cases like 'gatiḥ pataṭvena nāsti', by taking the total non-existence of clothness (*pataṭvātyantābhāva*) to be referred to. Advanced students of Advaita would be able to see how the theory of 'non-existence delimited by an incompatible adjunct' (*vyadhičaraṇadharmañcchedinapraṇitiyogitākā-
bhāva) turns out to be a treacherous device which Advaitins could conveniently use in proving the unreality of the world.

There is much divergence among the different schools of Indian philosophy in this matter. A student of Nyāya should be able to contrast the Nyāya view of abhāva with the views of the Bhāṭṭas and Prābhākaras about abhāva. Like the Naiyāyikas the Bhāṭṭas also hold that abhāva is a distinct category. The latter maintain that every reality has a positive side consisting of positive attributes, and a negative side represented by non-existence (abhāva). Thus abhāva is an attribute of reality—a bhāvadharma or vastudharma. According to the Bhāṭṭas, abhāva is cognised by a special instrument of cognition, which is called non-cognition (anupalabdhi) and which consists in the non-cognition of an object when all the conditions necessary for its cognition are present. In the Bhāṭṭa scheme of pramāṇas (instruments of valid cognition), anupalabdhi is given the sixth place and it is known as the ṣaṭṭhapramāṇa and it is itself sometimes called abhāva. The term abhāva used in the sense of anupalabdhi, should not be confounded with the abhāva which is the object of this pramāṇa (prameyā). The Naiyāyikas, on the other hand, consider that abhāva is known through one or the other, as the case may be, of the pramāṇas recognized by them. In fact, of the four pramāṇas recognized by them—viz.: pratyakṣa (perception), anumāna (inference), upamāna (comparison) and śabda (verbal
testimony)—abhāva may come within the scope of the first, second or the fourth, as the case may be. The Naiyāyikas contend that non-cognition, or strictly speaking, effectual non-cognition (yogyānupalabdhi), serves as a necessary accessory to pratyakṣa, in cognizing abhāva. In the case of a saṁsaryābhāva, it can be perceived only when its pratiyogin happens to be perceptible; while in the case of anyonyābhāva, it can be perceived only when its anuyogin is perceptible. For instance, one would be able to perceive the non-existence of a jar on a certain spot, but not the non-existence of air in a place; whereas, one could perceive the difference from ether (ākāśa-bhedā) in a jar. The Naiyāyikas further explain that the effectuality (yogyatā) of non-cognition (anupalabdhi) when it helps a pramāṇa in . . . abhāva, consists in there being no cognition when all the conditions required for it are present.

The Prābhākaras refute the theories that abhāva is a distinct category and that anupalabdhi is a distinct pramāṇa. They contend that the basis of negative propositions is the mere container (kevalādhikaraṇa). For instance, in the proposition “Here, on this spot, there is no jar”, the only thing which, in fact, is referred to is the empty floor (kevala-bhūtala). If abhāva should thus be equated with the empty container (kevalādhikaraṇa), it might easily be argued from the opposite camp that this is an evasive trick of the Prābhākaras which could be easily seen through and that the concept of the ‘emptiness of the container’ inevitably presupposes non-existence. The Prābhākaras,
however, meet this difficulty by explaining that the phrase 'empty container' is only a description of the form of the cognition underlying negative statements and that *abhāva*, strictly speaking, is the cognition of the container, and of nothing else, in such circumstances as would necessarily lead to the missing object (*pratiyogin*) being cognized, were it present. One of the greatest Prābhākaras—Śālikanātha—describes *abhāva* thus in the Prakaraṇapañcikā:—"*Abhāva* is the cognition of that (container) alone, when the *pratiyogin* (the thing denied in negative statements) ought to have been perceived were it present" (dṛṣye *pratiyogini* yā tadekavisayā buddhiḥ sā tadabhāvo vyapadiśyate). This view shows a clear idealistic leaning. The weak spot in this theory is that it fails to account adequately for the specific reference to *pratiyogin* in negative propositions, since it would be fatal to the Prābhākara view to connect the cognitions underlying them with anything other than the container and it has to be necessarily said that emptiness is not presented as an adjunct in such cognitions.

In order to avoid needless complications and also endless regression in some cases, *abhāvabhāva* is equated by the Naiyāyikas with the corresponding *bhāva* (positive entity), on the ground that a denial of the non-existence of a thing amounts to an affirmation of the corresponding positive entity. Where one *abhāva* is said to be present in another *abhāva*, some Naiyāyikas equate the contained *abhāva* with the other *abhāva* which represents the *adhikaranā*; substratum (adhisthātanā). It would be useful to note here that
difference from a certain object is reciprocally co-extensive with the absolute negation of the differentia of that object. Difference from a jar (ghaṭabheda) is mutually co-extensive with the absolute non-existence of jarness (ghaṭatvātyantābhāva).

Abhāva is one of the realities recognized by the Naiyāyikas. In a sense, it might be said that it is the reality of the greatest moment in the pluralistic universe of Nyāya. Final emancipation (mukti or apavarga) is the highest aim of spiritual life in Nyāya as well as in other systems of Indian philosophy. In Nyāya, mukti consists in the annihilation of all evils (duḥkhas), the term duḥkha in this context comprising everything connected with voluntary activity and leading directly or indirectly to the cycle of death and birth (pratya-bhāva) and including in this manner every form of pleasure (sukha). In the language of Nyāya, mukti is ātyantikaduḥkhadhvanīsa. It would be a mistake to suppose that the Naiyāyikas are pessimists. In fact, no system of Indian philosophy can be said to be pessimistic; for pessimism, in a strict sense, affords no hope or solace, but every system of Indian philosophy aims at the attainment of what it believes to be the highest good and expects its adherents to find comfort in the sumnum bonum it offers to them. One can easily see why Naiyāyikas attach so much importance to abhāva, having due regard to its close relation to the Nyāya conception of mukti.

At this stage, it would be useful to consider the Nyāya conception of sambandha (relation), with pa...
cular reference to the Nyāya theory of difference (anyonyābhāva). The Naiyāyikas maintain that relation always presupposes difference and that difference invariably involves total exclusion of identity. According to this view of sambandha, it may be said that relation in the Nyāya system is wholly external, and in no case internal. Bearing this in mind, one cannot easily understand the rationale of the way in which the Nyāya realists bring relations under different categories—contact (sanyoga) being brought under quality (guna), inherence (samavāya) representing a distinct category, and self-relation (svarūpa-sambandha) being reducible to the form of one or the other of the seven categories, as the case may be. The Naiyāyikas hold that not only the simples which unite into complex wholes, but the complex wholes also, exist as independent entities and that neither the simples nor the wholes, when they happen to be the relata of some relation, lose their independence. In Western philosophical literature those relations are said to be external which bring the relata together without unifying them, and internal relations are said to be rooted in the very nature of things and serve to transform and to unify, though in varying degrees. In Indian philosophy, the relation of difference-cum-identity (tādātmya) is essentially an internal relation, according to the Sāmkhya, Bhāṭṭa and Advaita systems. In these systems, where difference is not wholly incompatible with identity, where causation is not new creation, but transformation to some extent, and where all relations may be said to involve difference and identity in some sense and no relation
can be recognised in cases of absolute difference, it can be easily seen that no relation is strictly external and nothing which does not unify, in some sense, can be considered a relation. In the Nyāya-Vaiśeṣika system, difference is uncompromising and amounts to a total negation of tādātmya in the sense of complete identity; it is an external reality and not a mere conceptual product; it is presupposed by every relation, and every relation is thus external. It may be asked whether complete identity (atyantābheda = tādātmya), which is treated as a sambandha by the Naiyāyikas in all cases where a thing is equated with itself, is also an external relation. To this question, a Naiyāyika would reply that nothing can be said to be rooted in the nature of a thing, in view of the fact that an attribute (dharma) is wholly different from a qualified thing (dharmin), a composite whole (avayavin) is totally different from its component parts (avayava), jāti is totally different from vyāki, and that in all cases of relation, the relata, as such are different from each other. Even in cases where complete identity (aikya = tādātmya) is recognized to serve as relation, though the relation amounts to a negation of difference (bhedābhāva), yet there would be no inconsistency in recognizing difference between the relata as such; for, where a jar is conceived of as existing in a jar through the relation of identity, what is denied is the difference between a jar and itself, as determined by jariness (ghatatva), the difference presupposed by the sambandha, in that case, having reference to the relata as such—i.e. as determined by relatedness (sambandhitva). The opponents of Nyāya
realism point out that the conception of relation, which is based upon uncompromising difference incompatible with identity, is unsustainable, in as much as the fundamental function of every relation is to unify, in however small a measure it may be, and for the reason that it would be absurd to speak of any relation of proximity or distance between entirely different things such as Madras and Monday or Vāraṇasi and Friday. A Naiyāyika would meet this kind of objection by saying that the fundamental function of relation is to bring together and not to unify—to glue and not to weld or solder or fuse, and that any two things can be brought together or glued together through a relation. With an unyielding pertinacity, the Nyāya realism clings to the conception of uncompromising difference and seeks to represent that all relations must be taken to be external. Nevertheless the philosophical integrity of Nyāya thought pulls in the opposite direction and inevitably leads to compromises with the philosophical systems recognising internal relations; and such compromises are to be found in samyoga—the most prominent type of external relation which is possible only between independent substances (dravya)—being regarded as a quality (guna) which, along with the related elements (samyukta) where it inheres, forms pairs of inseparables (ayutasiddha); in samavāya being regarded as an intimate relation and in the somewhat clumsy efforts made to save its externality by making it eternal and one and by letting it survive its relata in several cases; and in the very conception of self-rela-
tion (*svārūpa-sambandha*), more especially in the conception of complete identity (*abheda*) as a variety of self-relation. These compromises are indeed the weak spots in the walls of the realistic fortress of Nyāya, at which the opponents of Nyāya, like the Bhāṭtas and Advaitins, find it easy to effect convenient breaches.

4

T—Of them, earth is that which has smell. It is of two kinds—eternal and non-eternal. Its eternal variety consists of atoms. Its non-eternal variety consists of its products. Again, it is of three kinds—the three varieties being the body (*sarīra*), the sense (*indriya*) and other objects (*viṣaya*). The earthen body is the body that belongs to the beings of our class. The earthen sense is the olfactory sense by which one perceives smell; and that sense finds its abode in the tip of the nose. The earthen objects (*viṣaya*) are clay, stones and such other things.

5

T—Water is that which has cold touch. It is of two kinds—eternal and non-eternal. The
eternal variety consists of atoms. The non-eternal variety consists of its products. Again, it is of three kinds—the three varieties being the body, the sense and other objects. The body made of water is found in the world of the Water-God. The sense made of water is the gustatory sense by which one perceives taste; and that sense resides in the tip of the tongue. The objects made of water are rivers, ocean and such others.

6

Fire is that which has hot touch. It is of two kinds—eternal and non-eternal. Its eternal variety consists of atoms. Its non-eternal variety consists of its products. Again, it is of three kinds—the three varieties being the body, the sense, and other objects. The body made of fire is in the world of Sun. The sense made of fire is the visual sense by which one perceives colour; and that sense resides in the foremost part of the dark pupil of the eye. The objects
made of fire are of four kinds, the four varieties being the light of the earth, that of the sky, that of the stomach and that of the mine. The common fire which people use and its varieties belong to the earth. Lightning and such other varieties, with water as fuel, belong to the sky. The gastric variety is what digests the food. Gold and such other lustrous metals form the variety which is dug out of a mine.

7

T—The air is that which has touch but no colour. It is of two kinds—eternal and non-eternal. Its eternal variety consists of atoms. Its non-eternal variety consists of its products. Again, it is of three kinds—the three varieties being the body, the sense and other objects. The body made of air is found in the world of the Wind-God. The sense made of air is the tactus by which one perceives touch; and that sense is found all over the body. The object made of air is the air that shakes trees
and such other things. The air that moves about within the body is the vital air, which, though one in itself, is called differently as **prāṇa, apaṇa,** etc., according as its abodes in the body differ.

8

T—Ether is that which has sound as its quality. That is one, all-pervasive and eternal.

In the texts given above, the first five substances are defined and classified. These definitions, with the required amplification, are faultless, according to the requirements of what a Naiyāyika would consider a valid definition. In these five definitions, the relation connecting the respective qualities with the respective substances is inherence (**samavāya**). In order to make the first four definitions quite accurate so as to cover cases of earth, water, fire and air in the first moments of their creation (**upātti-kṣaṇa**), the device of **jātīgha-śītalakṣaṇa,** already referred to on page 10 supra, is adopted. In the definition of ether (**ākāśa**), the word quality (**guṇa**) is intended to indicate that sound is the only **viśeṣaguṇa** of this substance. In the Nyāya system, as in the other systems of Indian philosophy, the five substances—earth, water, fire, air and ether—are said to be the five elemental beings (**bhūta**). The Naiyāyikas define a bhūta as a substance having a special quality which may be perceived by one or the
other of the external senses (*bahirindriyagrāhāya-viśeṣagunavat*); and the *bhūtas* are contrasted with what are called *mūrtas* in Nyāya. There are five *mūrta* substances—earth, water, fire, air and mind (*manas*). A *mūrta* is a moving substance (*kriyā-śraya*).

In the case of earth, water, fire and air, two varieties are spoken of—the eternal and the non-eternal. The eternal variety in each case is said to be represented by atoms (*paramāṇu*). This leads to a consideration of the atomic hypothesis of the Nyāya-Vaiśeṣika system. This hypothesis is closely connected with the Nyāya-Vaiśeṣika theory of causation and it forms the pivotal part of the Nyāya-Vaiśeṣika cosmogony. Though it had its origin mainly in the speculative thought of Nyāya metaphysics, it exercised a profound influence over many a doctrine of the pluralistic realism of Nyāya and it is in no sense less worthy of consideration than the corresponding atomism which, till recently, swayed scientific thought in the Western world, until it came to be replaced by the theory reducing every atom to a miniature solar system consisting of numerous small electrons gyrating round a sun in the centre. The course of speculative reasoning which led the exponents of the Nyāya-Vaiśeṣika system to formulate the atomic hypothesis should receive due attention here. All visible substances are composite structures consisting of component parts joined together and are large, *i.e.* have the size (*parimāṇa*) called largeness (*mahattva*). Largeness (*mahattva*) and
smallness (anutva) are the two main varieties of size recognized by the Naiyāyikas and they vary between two extreme limits, the highest and the lowest. The highest limit of mahattva is called paramamahattva and is ascribed to all-pervasive substances (vibhudravya). The lowest limit of mahattva belongs to the smallest visible substance—say a mote floating in a sunbeam, one of the conditions of visual preception being association with the size, mahattva, to the minimum degree at least. The highest limit of smallness (anutva) is the smallest conceivable size (anutarānutva=parimāṇḍalaya), which is attributed to atoms (paramānu). Even the smallest visible substance is a composite structure consisting of component parts (sāvayava), because it is a visible substance (cākṣuṣadravya). We know this from our observation of the nature of visible substances like a jar. We know also from our observation of the nature of the component parts of visible substances that such parts produce discrete wholes possessing mahattva (largeness) and are themselves discrete wholes consisting of distinct parts. In other words, from our observation, we arrive at the generalisation—whichever forms a part of a large substance (mahadārāmbhaka) is itself a discrete whole made up of parts (sāvayava). So, even the constituent part of the smallest visible substance—say the smallest mote seen floating in a sunbeam is a discrete whole made up of parts (sāvayava). An endless assumption of parts would involve the defect of endless regression (anavasthā), which is generally regarded in Indian philosophy as a fatal objection to
the recognition of causal relation or to explanation. It would, therefore, be necessary that the process of division should stop at some point and the point at which it stops is the last conceivable part (anayava). It would be most reasonable to recognize that as the last conceivable part, beyond which no kind of argument constrains us to recognize further parts. Beyond the parts constituting the component elements of the smallest visible motes, there is no necessity to recognize further parts, the reason constraining the recognition of parts in the smallest visible substances being that the latter are visible and, likewise, the recognition of parts in the constituents of the smallest visible substances being that those constituents cause a composite whole which is large (mahadārambhaka), and there being no such compelling reason in the case of the component parts of such constituents, since those parts are neither visible nor members of a large substance. The whole argument is usually stated thus in the form of two syllogisms in Sanskrit:

"Jālasūryamāricistham yat sūkṣmatamam dṛṣyate tat sāvayavam, cāksuṣadraṇyayatvāt, ghaṭavat. Tadava-
vaṇo'pi sāvayavah, mahadārambhakatvāt, kapālavat."

The smallest visible substance forming the minor term (pakṣa) in the first of these two syllogisms is called truti or trasarenu and is regarded as a triad or ternary product. Its component part forming the minor term (pakṣa) of the second syllogism is called anu or dvyanuka, which is a dyad or binary product. The smallest conceivable unit forming a dyad is called an
atom (\(\text{param\text{\^{a}}nus}\)). The component part of a truti is not visible and does not possess even the minimum mahattva (largeness); and it is, therefore, said to be a minute part (anu). This minute part forms a member (avayava) of the smallest visible substance called truti which has the minimum mahattva; and it is thus maha-d\(\text{\^{a}}\)arambhaka and, for that reason, consists of parts. The parts of each component element in a truti must be at least two and need not be more than two and they are therefore taken to be two; and these two parts are the smallest conceivable units which are taken to be the smallest ultimates not admitting of further sub-division and are called atoms (param\text{\^{a}}nus). It is now apparent why each component element of a truti is called a dyad (dvya\(\text{\^{a}}\)nuka = a binary product of atoms). For obvious reasons the component elements of a truti itself cannot be less than two; and they are taken to be three in the Ny\(\text{\^{a}}\)ya-Vai\(\text{\^{a}}\)s\(\text{\^{a}}\)ika system. In other words, a truti or trasarenu is made up of three dyads (dvya\(\text{\^{a}}\)nuka). For this reason, it is also called trya\(\text{\^{a}}\)nuka. The reason why the number of parts in a truti is fixed at three requires explanation. In our experience, we see that the size (parim\text{\^{a}}na) of the parts gives rise invariably to an increased size of the same kind in the composite whole and that this increase is only an increase in degree. Our observation is restricted to substances having mahattva (largeness). This observation leads to the generalisation that, if a size should serve as the non-intimate cause (asamav\(\text{\^{a}}\)yik\(\text{\^{a}}\)ra\(\text{\^{a}}\)na) of another size, both of them, the size that causes and the size that is caused, belong to the same variety of size, and the size
that is caused represents a higher type of the same variety, as compared with the size that causes. (Parī-
māṇānāṁ svasaḻtiyasyavotkṛṣṭaparimāṇārakhabhakatva-
niyamaḥ). A strict application of this rule to anutva would make it clear that, if the anutva (smallness) of atoms (paramāṇu) or dyads (dvyanuka) were to be taken as the non-intimate cause (asamavāyikārana) of dyads or triads (tryaṇuka), the size of the dyads and triads should represent a higher degree of smallness (anutarataiva). This is an obviously absurd result, for the reason that tryaṇuka must necessarily have the minimum mahattva at least, since it is the smallest visible substance. So, from the scope of the rule set forth above, the sizes of dyads and triads should be taken away; and this is done by assuming that, in the case of dyads and triads, the size of the composite product (avayavin) is caused, not by the size of the component parts but by their number (saṁkhyā). In such circumstances, unless the number of the component parts of a dyad differs from that of the component parts of a triad, the difference between a triad and a dyad in respect of size cannot be accounted for. The size of a triad is mahattva; the size of a dyad is anutva; the number that causes mahattva must be larger than two, which is the number causing the anutva of the dyads. The simplest thing to do here is to assume the next higher integer—three—as the number of the component parts of a triad. Those who closely follow the Nyāya-Vaiśeṣika tradition hold that, in the atomic theory, there is clear justification for some restriction regarding the nature and number of the com-
ponent parts in the case of dyads and triads and there is no necessity for recognising any such restriction in the case of composite products (avayavins) beyond the stage of triads. It is maintained that the parts of a triad (tryanuka) are composite structures (sāvayava), and they cannot be less than three and need not be more than three and therefore must be three in number. The constituent elements of the composite products beyond the stage of triads may be four dyads or five dyads and so on, or four triads or five triads and so on, according to the varying circumstances in each case.

It should also be borne in mind that atoms and dyads are never presented in normal perception and that they are capable of combining with each other. In the atomic theory of the Nyāya-Vaiśeṣika system, it is assumed that the fiat of the omnipotent God, in conjunction with the inevitable vestiges of the works done by embodied souls (jīvāḥ), causes concretive activities of various kinds in various atoms; and as a result of such activities, they come into contact with each other and composite products in the shape of dyads, triads, and so on, arise. Thus creation (sṛṣṭi) takes place. The Nyāya theory of dissolution involves what would appear to be an unnatural assumption. Disintegration or dissolution (pralaya) begins not from the top, but from the root—not in the whole, but in the parts. The fiat of the omnipotent God, again, in the absence of any demand for creation on behalf of jīvas, causes descretive activities of various kinds in atoms, with the result that the contacts (samyogāḥ)
by which two atoms are held together in dyads are destroyed and all the composite products, beginning from dyads, crumble to pieces.

The opponents of the atomic hypothesis of the Nyāya-Vaiśeṣika system draw pointed attention to its weak points. In the first place, it is difficult to determine which is the smallest visible substance. The motes in the sunbeam are not all of a uniform size. What happens to be the smallest visible substance to the naked eye would not be such to the visual sense aided by a powerful microscope. Even to the naked eye, the smallest visible substance would not be the same, as visual power varies in different individuals. In cases where the size of a composite product is the effect of the size of its component parts, each component part is a composite product. Where, however, the size of the composite product is regarded as resulting from the number of its component parts, one may very well stop with the members of the smallest visible substance and take these members to be two in number. The arguments of anavasthā and lāghavā, if pushed a bit further, would knock off dyads and atoms and would lead to the smallest visible substances themselves being regarded as the indivisible ultimates of composite matter. Further, how can atoms come together? How can contact (saṁyoga) arise between two atoms? In our experience, contact (saṁyoga) is possible ordinarily between two composite substances (sāravya) or, in some cases, between one composite substance and another all-pervasive substance (vibhudravya). Con-
tact is by its very nature spatially non-pervasive \((\text{avyāpyavṛtti})\); if it is present in one part of a thing it is missing in another part of the same thing; and it can never be said to completely pervade its relata. Such being the case, it is hardly conceivable how an indivisible atom can come into contact with another atom. These are the more important defects in the atomic theory and pointed out by anti-creationistic philosophers like the Advaitins, the Sāmkhyas and the Mīmāṃsakas.

A disingenuous attempt is made by some writer to ascribe the origin of the atomic theory of Kanāda and Gautama to Hellenic influence. Luckily and justly, that attempt has failed. In the first place, it has to be remembered that, though Kanāda might have been the earliest complete and systematic exponent of the atomic theory, he cannot be said to be its discoverer and it might have been one of the floating theories of the pre-Kanāda period of Indian thought. Further a comparison of Kanāda’s atomic theory with Greek atomism would show that the divergences between them are more numerous and striking than similarities. In fact, the only noteworthy similarity between the Indian and Greek theories is that both consider atoms imperceptible. On the contrary, the Greek conception of atoms recognizes quantitative differences in them and totally dissociates them from qualities; while, in the Nyāya-Vaiśeṣika system, atoms are of uniform size, their size representing the extreme limit of minuteness called \(\text{pārimāṇḍalya or paramāṇuparimāṇa}\), and they have
qualities, which are non-eternal in the case of colour, taste, smell and touch in the atoms of earth, and eternal in other cases. Another important difference is that the integration of atoms according to the Nyāya theory is the result of the deliberate design of the omnipotent and omniscient God; while atoms in the Greek theory are wholly subject to chance drifts and aggregations of various types. Professor Keith and those who agree with him are at liberty to think that these divergences, however fundamental they may be, need not be taken to shut out all possibility of Greek influence. It must, however, be remembered that any suspicion of Greek influence has to rest almost entirely on the slender basis of temporal proximity or synchronism and that even this flimsy ground is shattered by the evidences in the early philosophical literature of India in favour of the view that atomic theory might have gained currency in India, in some form, perhaps long before the age of Kaṇāda and Gautama.

The first three of the five elements (bhūta)—earth, water and fire—are defined through their characteristic qualities; and the fourth element, air, is defined through the quality of touch in association with the negative adjunct of colourlessness (rūpabhāva). The eternal varieties are represented by the atoms whose nature is described above. In the textual sections relating to earth, water, fire and air, the threefold classification, which follows the twofold classification into eternal and non-eternal, divides each of these substances again into body (sārīra), sense-organ (indriya) and object (viśaya). Sārīra (body), in
Nyāya, is the field within whose bounds, the soul (ātman) has its experiences (bhogāyatanam); or it is antyāvaṅgavē or a composite whole which never forms the component part of another composite whole and it serves as the seat of voluntary activity. In the Nyāya-Vaiśeṣika system, a body is constituted wholly by earth, water, fire or air; and it is not made up of five elements (pañcabhuṭuṭika) as admitted in the Śāmkhya and Vedānta systems. A body made of earth, for instance, is constituted entirely by earth which forms its material cause (samavāyikāraṇa), the remaining elements forming merely supportive (upāśambhaka), not constitutive (samavāyi), factors. This is the case also in the bodies made of water, fire and air. The belief that these three varieties of bodies (jāliyaśarīra, tājasaśarīra, vāyaśasaśarīra) are ultramundane existences and are found in the worlds of Varuṇa, Āditya and Vāyu is based on Purāṇic cosmology and does not require any discussion here. A sense-organ (indriya) is defined in Nyāya as the seat of such contact with manas as causes a cognition, there being in it no special quality which shows (udbhaṭāvīśesaguna), except sound (śabda). The Sanskrit definition of a sense-organ runs thus:—“Sabdetarodbhaṭāvīśesagunānāśrayatve sati jñānakāraṇaṃ manasāṃ nyogāśrayatvam indriyatvam.” It may be noted here that perceptible qualities like colour, touch, etc., may be present in a substance either in a condition in which it shows (udbhaṭāvasthā) or in a sub-perceptional condition in which it does not show (anudbhaṭāvasthā). Colour in the former condition, for instance, is visible and
actually visualised when all the circumstances necessary for visual perception are present and it is present in all visible substances; while, colour in a sub-perceptual condition (anudbhātavasthā) though not inherently invisible, is never actually visualised. The term viśaya in the threefold classification of earth, water, fire and air turns out to be somewhat misleading in the case of some people. Professor Keith, for instance, takes this term to mean ‘an object of sense-perception’ and accuses Annambhaṭṭa of inadvertence for having brought atoms under viśaya. It will be seen that there is no inadvertence on the part of Annambhaṭṭa though some of his readers may lose sight of certain matters in their bumptious presumption. The term viśaya here means object of cognition (jñānaviśaya); and in the classification of earth, etc., what is referred to is ‘a variety of earth which is neither body (śarīra) nor sense-organ (indriya)’. In other words though śarīra and indriya are also viśaya in the sense of object, it is obvious that, in the classification referred to in the text, they are not intended to be denoted by the term viśaya. Intelligent students of philosophy would not find it difficult to appreciate the ontological and epistemological significance of this threefold classification. The knowing souls (jīvāḥ) form the fulcra of the pluralistic universe of the Nyāya realist, in whose philosophical setting all the things would fall most naturally into three groups—the cognitional group comprising various forms of cognition, their instruments and their field (bhogāyatana), the group of knowing souls, and the objective group comprising
cognised objects. The Nyāya realist would thus like to fancy the universe as a bunch of three distinct flowers fastened together by some kind of external relation; while monistic philosophers would feel sorry that the pluralism of Nyāya mistakes an integral three-petalled flower for a motley cluster.

In the textual section dealing with fire (tejās), gold and such other valuable metals are said to come under the mine-born (ākarastra) variety of fire. Through speculative reasoning, the Naiyāyikas seek to maintain that gold is light. The yellow metal that we see and handle has some weight. Yellow colour belongs to earth and weightiness to earth and water. So, the metal which has these two properties—yellow colour and weightiness, should be taken to be a variety of earth. However, the yellow and weighty substance that we see and handle and commonly regard as gold cannot all be earth; for, however much you may heat it, it does not completely lose its fluidity (dravatva), and any variety of earth, which preserves its fluidity under heat, does so only when it is associated with a substance which is not earth and has fluidity and is capable of counteracting the effect of heat on fluidity. This may be seen in certain varieties of earth, like ghee, placed in water. Thus the yellow substance referred to, though it is itself a variety of earth, should be taken to preserve its fluidity for the reason that it is associated with some other substance which is not earth and has fluidity and counteracts the destruction of fluidity by heat. The latter substance which counteracts and which has occasional fluidity (naimittika-
dravatva) cannot be brought under water characterised by natural fluidity (sāmsiddhikadra\textit{\textipa{v}}\text{\textipa{t}}va); nor can it be brought under any of the colourless substances, since it has colour. So, the counteracting substance associated with the yellow lump of earth should be a variety of fire or light (\textit{tej\textipa{s}}). This reasoning has got merely an antiquarian interest and rests upon premises involving pre-scientific notions about solidity and fluidity. Even the old-world physical science of India, as known to ancient Āyurvedic writers, would not accept the assumption that gold never loses its fluidity.

With regard to air, there is some difference of opinion between the earlier and later Naiyāyikas about its perceptibility. The former hold that air is inferred as the substratum of touch which is neither hot nor cold. The latter maintain that air is perceived by the sense of touch. Though it is the same throughout, it comes to have different names as \textit{prāṇa}, \textit{apāṇa}, \textit{vyāṇa}, \textit{udāṇa} and \textit{samāṇa}, when it passes through the body, the heart, the anus, the whole body, the throat and the navel. These five aspects of the air are known as the vital airs.

The senses of sight, taste, smell and touch are respectively constituted by light (\textit{tej\textipa{s}}), water (\textit{jala}), earth (\textit{prthiv\textipa{i}}) and air (\textit{vāyu}). They are all large enough (\textit{mahat}), the senses of sight, taste and smell (\textit{caksus}, \textit{rasana} and \textit{ghrāṇa}) being triads of the respective elements (\textit{bhūt\textipa{a}}) and the sense of touch (\textit{tvak}) spreading all over the body. Though they are large enough, they fall outside the range of external sense-
perception, for the reason that their qualities are sub-perceptional (anudbhūta), or to be more accurate, for the reason that they are not associated with perceptible colour (udbhūtarūpa).

Ether (Ākāśa) is inferred as the eternal and all-pervasive substratum in which sound inheres. According to the Sāmkhyas and Advaitins, it is an element produced and destroyed in the same way as other elements. In Nyāya, the sense of hearing is represented by ether delimited by the orifice of the ear. Ether is all-pervasive (tībhū) in the sense that it comes into contact with all the movable (mūrta) substances of finite size (paricchinnaparimāṇa). An all-pervasive substance does not admit of any movement and is one and eternal, divisibility and non-eternity being incompatible with all-pervasiveness. The sense of hearing is equated with space (dīk = spatial direction) by the Mīmāṃsakas. It should be remembered that the term ether is the nearest approximation to ākāśa as understood in Nyāya and that the function of serving as the medium of light and heat, which modern science ascribes so ether, does not belong to ākāśa.

9

T—Time is the (distinctive) cause of expressions involving the terms past, etc. It is one, all-pervasive and eternal.

10

T—Direction (in space) is the distinctive cause of expres-
sions involving the terms east, etc. It is one, all-pervasive and eternal.

The above definitions of time and space, or direction in space, indicate in simple and clear language, the way in which the exponents of the Nyāya-Vaiśeṣika realism arrive at the two substances known as kāla and dik. One of the firmest convictions of the Nyāya realist is that there are objective realities exactly corresponding to the elements constituting the subjective form of every valid experience (anubhava) and that propositions and expressions recognised to be correct should be relied upon as the unmistakable indexes of the forms of experience which they are intended to express. The Naiyāyikas argue that events are referred to as past, present or future, anterior or posterior, simultaneous or occurring in succession, slow or quick, and that such references cannot be accounted for except by the hypothesis that there is a distinct substance (dravya) known as kāla (time). ‘Now the jar is’ (idānim ghaṭaḥ)—such propositions are understood by the Naiyāyikas as referring to some relation between the jar and the sun’s motion, on the basis of the old-world astronomical theory that the sun moves on the sky without ever coming to rest. The Naiyāyikas believe that the sun’s motion can be ascertained through perception as well as inference. The common-sense view of men connects the concept of now (idānim) with the sun’s motion (sūryaparispanda), brought into relation with the thing denoted by the word collocated with idānim in expressions like ‘idānim ghaṭaḥ’. The
sun's motion is directly related only with the sun, such direct relation being inherence (samavāya) in this case. A jar can be connected with the sun's motion only through some indirect relation. The principle of economy (lāghava) makes it necessary that the simplest conceivable relation of an indirect nature should be thought of as connecting the sun's motion with a jar. The simplest form of indirect relation that may be conceived of in this case is 'contact with the thing which is in contact with the intimate substratum of the motion in question—viz., the sun' (svasamavāyisam-yuktasamīyoga). In this chain of indirect relation the two extreme ends are the two relata—viz., motion on the one side and jar on the other. The sun is the intimate substratum of the motion (svasamavāyī); the thing in direct contact with it is not the jar, as we know, but something else; and that something should be taken to be in contact with the jar. The relation of contact being possible only in the case of two substances, the something, which forms the intermediate link between kṛti (the sun) on the one side and contact with the jar (ghatasya) on the other, must be a substance (dravya). This substance is called time (kāla).

How are we to know that this intermediate substance that bridges over the gulf between the sun and a jar, is one, eternal and all-pervasive, and does not come under any of the other substances? It is presented in every experience or expression, explicitly or implicitly, as substratum of other objects; it is not perceptible, nor has it the qualities of colour, touch and
sound; so, it must be different from the five bhūtas; it would be reasonable to suppose that it is of infinite magnitude (paramamahattva), since it is taken to be one and eternal for the sake of economy (lāghava); and in view of the distinct cognitions we have of the past, present and future, as compared with the east, west, north and south, we should take time (kāla) to be different from space (dik). In a similar manner space (dik) is also inferred by the Naiyāyikas as the substratum of the contact which serves as the non-inherent (asamavāyi) cause of spatial proximity and distance (aparatva and paratva), referred to in statements like ‘This lies farther’, ‘This lies near’. Both time and space (kāla and dik) are imperceptible according to the Naiyāyikas and are all-pervading substances in which all the things in the Universe may be said to be present through the self-relation of time or space (kālikasambandha or daśikasambandha). While time or space taken by itself (mahākāla or akhaṇḍadik) is regarded as the containing substratum (adhiḥkaraṇa) of every thing in the world, eternal or non-eternal, only non-eternal objects, among the rest, may be regarded as container (adhiḥkaraṇa) of other objects through time-relation (kālikasambandha). This is embodied in the oft-quoted dictum of Nyāya—“nityeṣu kālikāyogah.”

Any producible thing may serve as the conditioning adjunct of mahākāla (the immense and indivisible time), and anything of limited size as the conditioning adjunct of akhaṇḍadesa (the immense and indivisible space). The Naiyāyikas say—‘Janyamātram
kālopaṇḍhiḥ, mūrtamātram digupaṇḍhiḥ." Though time and space are indivisible and all-pervasive, temporal and spatial divisions are conceived of through association with delimiting adjuncts in the form of some producible thing (janya) or of something limited in size (mūrta). In this way, divisions of time to a moment (kṣaṇa) downward and divisions of space are arrived at.

The Vaiyākaraṇa philosophers speak of time and space as modifications of the subtle sound (śabdatanmātra), which is a substance (dravya) according to them. The Buddhist idealists regard time and space as merely forms of momentary and fleeting consciousness (vijñāna). The Advaitic monists look upon time and space as phenomenal appearances super-imposed upon the absolute Brahman, which is the only reality transcending them. The Sāṅkhya would bring both time and space under the elemental evolute (bhūta) called ākāśa. Modern Naiyāyikas like Raghunātha Siromāṇi bring time and space under God (Īśvara) and regard them as phases of the omnipotent and omnipresent Lord. In Chapter II, āhnika I, sūtras 40 to 44, of the Nyāyasūtrabhāṣya, Gautama and Vātsyāyana elucidate the conceptions of the present, past and future. Vātsyāyana points out that time is presented in our experience mainly through the help of motion and not through association with distance. The Bhāṣyakāra observes under 11—1—41,—"Nādhvavyaṅghah kālah, kim tarhi kriyāvyāṅghah". A kriyā, as understood by Vātsyāyana in this context, is not a single activity but
a series of activities. The conception of a *kriyā* or *karma*, even in its strict sense, is inseparably bound up with the conception of duration, every *kriyā* lasting for four *kṣaṇas* (moments) as already explained in page 16, part III, supra. In this connection, it should be remembered that though there can be no contact between two all-pervasive substances (*vibhudraṃya*), there is contact between one such substance and another substance limited in size; for contact presupposes movement, and in the case of a substance limited in size, movement is possible, though it is not possible in the case of an all-pervasive substance.

11

T—The substratum in which cognition inheres is the soul (*ātman*). It is of two kinds—the supreme Soul and the individual soul. Of these two, the supreme Soul is one and is the omniscient Lord. The individual soul, on the other hand, is different in association with different organisms or bodies, though it is all-pervasive and eternal.

12

T—Mind (*manas*) is the sense by means of which pleasure and such other (perceptible qualities of the soul) are direct-
ly apprehended. There are innumerable minds (manāmsi), since they are specifically linked up with each soul and they are atomic and eternal.

Ātman (soul) is the substratum in which knowledge inhere. This definition is quite adequate to indicate that the soul is a substance (dravya) and to differentiate it from other substances. One’s own soul or self is, i.e.: lic to Nyāya, revealed in one’s inner perceptual experience arising through the inner sense of mind, independently of the external senses, i.e., in one’s mānasa-pratyakṣa which takes the forms —‘I know’, ‘I will’, ‘I feel’, ‘I wish’ (‘aham jānāmi’, ‘aham yate’, ‘aham sukhi’, ‘aham icchāmi’). It should be noted that, even in such inner experiences, it is never presented by itself, but it is presented only as the substratum of knowledge or consciousness (jñāna), volitional effort (kṛti=yatna), pleasure and pain (sukha, duḥkha) and desire (icchā). For this reason, the Naiyāyikas hold that one’s own soul or self is revealed in mental perception (mānasapratyakṣa), only in association with one or the other of its perceptible special qualities (yogavrīṣeṣa-guṇayogenaiva). It is believed by some that the Vaiśeṣikas hold that ātman is imperceptible and that they differ from the Naiyāyikas in this respect. The authority of Kaṇḍa’s sūtra VIII—2 (tatrātmā manaścāpratyakṣe) is also invoked in this connection. Praśastapāda also seems to support this view in his statement that, though ātman is subtle
and imperceptible, he is inferred as the conscious agent who uses the senses as instruments in producing cognitions:—Cf.—

"Tasya saukṣmyāt apratyakṣatve'pi karaṇaṁ śabdādyupalabdhyamanumitaṁ śrotrādibhiḥ samadhi-gamaṁ kriyate" (Praśastapādabhāṣya—Viz. S. S. page 69). This belief is based on a misapprehension which threatens to become a permanent feature of many an English treatise dealing with Indian logic. The fact, however, seems to be that both Kaṇāda (Cf.—Vaiś. Śū. III—ii—9 and 10) and Praśastapāda (Cf. Bhāṣya—Viz. S. S., pages 70 187) admit that one's own ātman is revealed in one's own mental perception. Śrīdhara also draws attention to this in his Kandali (Viz. S. S. page 71) when he observes that, though ātman is directly perceived by the manas, as agent or owner through association with the body and senses with which he came to be invested as a result of his own deeds, yet imperceptibility (apratyakṣatva) happens to be predicated with reference to ātman, merely in view of the soul falling outside the range of the external senses. The leading exponents of the Nyāya-Vaiśeṣika system are, however, agreed that one person's soul cannot be perceived by the manas of another person and that, even in the case of one's own soul, mental perception (mānasapratyakṣa) is misleading since it often lumps up ātman and body into one jumble. For this reason, in order to prove the existence of soul as a distinct entity and to differentiate it from the body, the senses, the vital airs and such other things, it would
be necessary to resort to inference. Two typical arguments adduced by the Vaiśeṣikas and Naiyāyikas in this connection are worthy of consideration. From the movement of a chariot, one ordinarily infers the presence of a charioteer who drives it; even so, one infers an individual soul who drives a body, from its various activities. Knowledge and such other qualities, normally perceived only by the inner sense *manas*, require an intimately related substratum in which they inhere, for the reason that qualities invariably inhere in substances; all other substances being eliminated, a distinct substance, in which knowledge and such other qualities inhere, should be recognised; and that substance is called *ātman*. Since individual experiences vary in a definite manner, the individual *ātman* associated with one body should be taken to be different from the individual *ātman* associated with another body. At the same time, in order to account for remembrance of previous experiences and for the first instinctive effort which a newborn baby, immediately after its birth, puts forth to preserve its life by means of the usual suck, it would be necessary to assume that every individual soul is permanent and eternal. It is an accepted principle that everybody reaps as he sows and never reaps what he does not sow; and in order to avoid conflict with this principle, it would be necessary to ascribe to every *jīva*, pre-natal existence and persistence after death. The soul cannot be atomic in size; for, cognition and such other special qualities are perceived by the inner sense—*manas*, while the qualities of atoms can never be perceived. Nor can the soul be of medium
size (madhyamaparimāṇa); for, anything which has the size called mahattva (largeness) and which is not all-pervasive (vibhu), is non-eternal and therefore comes to an end; but ātman cannot come to an end as already explained. On these grounds, the Nyāya-Vaiśeṣika system maintains that there are innumerable souls and every ātman is eternal (nitya) and all-pervasive (vibhu). Though the soul is present everywhere, consciousness and other special qualities attributed to it are produced within the sphere delimited by body (ṣarīra); and this is the reason why body is described as the field of ātman’s experience—(ātmano bhogāyatānam ṣarīram).

According to Nyāya, ātman is of two kinds—the individual soul (jīva) and the supreme Soul (paramātman). Fourteen qualities are ascribed to the former—viz. :—number, size, contact, disjunction, separateness, cognition, pleasure, pain, desire, dislike, volitional effort, merit, demerit and reminiscent impressions; and eight qualities are ascribed to the latter—viz. :—number, size, contact, disjunction, separateness, cognition, desire, and volitional effort. The Naiyāyikas accept the supreme authority and infallibility of revealed texts (śruti) and recognise, on the authority of those texts, the existence of omnipotent and omniscient God. He should be brought under the class of substances called ātman, for the reason that he is the intimate substratum (samavāyin) of eternal knowledge. With a view to removing such doubts, misapprehensions and difficulties as may arise in this connection, the Naiyāyikas seek to
support their theistic doctrine, ultimately based on śruti, by means of syllogistic arguments. Udayanācārya of the tenth century A. D., who is the greatest champion of Nyāya theism, suggests no less than eight syllogistic arguments in support of the Nyāya view that the whole creation is made by God who is omniscient, omnipotent and eternal. Earth and such other products (kārya) constituting the created world should have been created by a conscious agent having a full and definite knowledge of all the details relating to the required causal apparatus; and such an agent in the case of the whole creation cannot conceivably be a jīva (individual soul) and should therefore be the supreme Soul (Paramātman = Īśvara). At the beginning of creation (srṣṭi), the volitional effort (yātana) leading to the concretive activity (āyojana), which produced contact between two atoms, should be taken to inhere in a conscious being; and the conscious being cannot be jīva and should be Īśvara. The various planets are sustained in their position and do not sink down or dash against each other; this should be due to the sustaining effort (dhṛti) of some conscious being, who is Īśvara. The intelligent being, who is originally responsible for the first introduction (pada) into the world of certain indispensable crafts and arts like weaving and pot-making, cannot be jīva and should be taken to be Īśvara. The infallibility of the Vedas depends on the unfailing validity of the knowledge derived from them; that knowledge is always valid on account of the eternal purity of the source from which the Vedas originated; and that source is the omniscient God. The
vedic texts consisting of sentences should have been composed by some intelligent author; and that author of supreme intelligence is the omniscient God. The number 'two' (*dvitvasamkhyā*), belonging to two atoms, is the cause of the size of dyads (*dvyanuka*); two and the higher numbers are all products resulting from the enumerative cognition (*apekṣābuddhi*) of the person who counts; and at the beginning of creation, such enumerative cognition could be attributed only to the omniscient God and to none else. All these eight arguments are summed up by Udayana in this verse (*Kusumāñjali* V. 1):—"*Kāryāyojanadhrtyādeḥ padat pratyayataḥ śrutēḥ; Vākyāt samkhyaaviśeṣācca sādhyo viśvavidavyayah."

It would be useful to compare the Nyāya view of ātman with the corresponding theories in other systems of Indian philosophy. In the Śāmkhya-Yoga system, there are innumerable souls (*puruṣāḥ*) and every *puruṣa* is an unrelated, attributeless, self-luminous, eternal and omnipresent being who is identical with consciousness (*cit*). In the Yoga system, in addition to the ordinary *puruṣa*, God is recognised as a special type of *puruṣa* (*puruṣaviśeṣa*), who is not affected by any of the defects by which the ordinary *puruṣa* is affected and who is pre-eminently and eternally omniscient and functions as the first teacher of all the ancient teachers. The Bhattas and Prabhakaras, for all ostensible purposes, banished God from their system, for fear lest the sovereign authority and supreme pre-eminence of the Veda might be detracted from. The soul in the Bhatta system is the substratum
of consciousness and the object of inner perception (mānasapratyakṣa), though cognition itself is only inferred and not perceived by the manas; and in each body a different soul which is eternal and all-pervasive, is embodied. The Prābhākaras also recognise different, eternal and all-pervasive souls in different bodies; and the soul, however, is not the object of mental perception (mānasapratyakṣa), according to their system. Expressions like 'I cognize myself' (mām jānāmi) are understood to refer to ātman, not as the object (karma) of cognition, but merely as coming within the scope of cognition. The Prābhākara school holds that in every cognition, three factors are invariably presented—viz., the object (viśaya), the soul as knower or the substratum of cognition (jñātā), and the cognition itself (jñāna-svarūpa). The followers of Śrī Rāmānuja and certain other Vaiṣṇavas hold that the individual soul (jīva) is different in different bodies and is atomic in size (anuparimāṇa). The Bauddha idealists would not recognise a permanent soul and would reduce it to momentary consciousness (ksanikavijnāna); while the Jaina realists would make the soul commensurate with the body. The Advaitic monists hold that the individual soul (jīva), which appears to vary in association with mind (antahkarana) and to partake of the latter's vicissitudes, is in fact identical with the immutable and absolute reality called  
Brahman.

Mind (manas) is described by the Naiyāyikas as the inner sense which directly apprehends pleasure,
pain, cognition and such other perceptible qualities of the soul. To avoid confusion of one's experiences with those of another, it should be taken to be different in different individuals. On the ground that a perceptual experience can arise only through some sense (indriya) being brought into relation with what is perceived, an inner sense (antarindriya) is inferred to account for the inner perception of pleasure, pain etc. One can have only one cognition at a time; to the Naiyāyikas, more than one cognition cannot arise simultaneously. This fact (yugapajjñānānutpatti) is relied upon by Gautama as the chief argument to prove the existence of manas an an atomic substance. ātman is all-pervasive (vibhu) and comes into relation with all the senses and their objects at the same time. How are we then to account for the fact that two or more cognitions never arise simultaneously but come into being one after another? This has to be explained through the assumption of a substance which can come into relation with only one of the external senses at a time; and this substance is the atomic manas (paramāṇuparimāṇam manah). The Nyāya-Vaiśeṣika system ascribes eight qualities to manas—number, atomic size, separateness, contact, disjunction, remoteness, proximity and rapidity. The Prābhākaraśas agree with the Naiyāyikas in the view that manas is an eternal atomic substance, but would not accept the view that ātman is the object of mental perception (mānasapratyakṣa). The Bhāṭṭas maintain that manas is all-pervasive and is in eternal contact with the all-pervasive ātman; that ātman and manas, in contact with
each other, function only within the sphere of the body (sarīra) with which they happen to be associated; and that our experience is inconclusive and cannot be said to be such as would rule out the possibility of several cognitions arising at the same time. The Advaitins regard antahkarana or the inner instrument of knowledge as a substance constituted by light (tejas) and maintain that it is not a sense (indriya) in the strict sense of the term and that its modifications (vṛttayah) may assume a cognitive, volitional or emotional form according as circumstances vary.

The unswerving fidelity of the Naiyāyikas to realism in a strict sense is mainly responsible for the somewhat extreme views which they have chosen to adopt in regard to ātman and manas. It would appear that the fundamental distinction between spirit and matter is either missed or ignored in the Nyāya theory, which reduces ātman to a mere substance and places it on a par with forms of dead matter like a stone, and which treats consciousness as a quality arising in ātman under certain conditions. The Nyāya realist, however, would point out that his theory of ātman is free from the weak holes through which the idealistic inundation may sweep away everything, such as, for instance, a shrewd mind might easily notice in the Sāṁkhya view that the soul (puruṣa) is identical with the self-luminous consciousness. It should be remembered that the Naiyāyikas have provided adequate safeguards against the materialist (cārvāka) fraternising with them, in the facts that ātman is always the seat of reminiscent
impressions (bhāvanā), merit (dharma) and demerit (adharma) till the moment of final release and that, even after final release, ātman is the seat of the annihilation of all evils (ātyantikaduhkhadhvamisa) and not reduced to the form of an eternal stone, as some critics may fancy. Manas, in the Nyāya theory, is in no way better than any form of dead matter, except in respect of its fitness for a special kind of activity and of contact with ātman; and it is so in most of the other systems of Indian philosophy. It is, however, where the Nyāya theorist endeavours to maintain the eternity of ātman by making it all-pervasive (vibhu), that he allows himself to be tripped up by the Advaitic monist, who would triumphantly draw attention to the ultimate merger which the recognition of innumerable all-pervasive souls might inevitably result in. It is here that the Nyāya theory of ātman stands foredoomed.

It is suggested by some writers that neither Kaṇāda nor Gautama could be said to have intended to give a place in their systems to the conception of God. But it would be difficult to believe that Kaṇāda, who believed in seers and the immense scope and capacity of their knowledge (ārṣajñāna), did not believe in the existence of the omniscient God. There are good reasons to believe that Gautama, who would ascribe the authorship of the Veda, to the Greatest Āpta (truth-speaker), took God for granted and that Uddyotakara, Vācaspatimiśra and others were right in suggesting that the refutation of God’s causality in the fourth chapter of Gautama’s sūtras should
be understood to have reference to the relation of material cause (*upādānakārana*) and effect, and not to that of the agent, an instrumental cause (*nimittakārana*). It is also worthy of notice, in this connection, that the Nyāya theory of creationistic causation (*ārambhavāda*) and the atomic theory would be incomplete and unintelligible in certain respects, without explaining, as Udayana points out, the first concretive activities of pairs of atoms to form dyads, by attributing them to the volitional effort of the omniscient Creator. If the Naiyāyikas had confined themselves to the creationistic argument to prove the existence of God, their God would be reduced to a ‘demiurgic potter of the macrocosmic pot’ (*Brahmāṇda-kulāla*). But luckily for the Nyāya theism, Udayanācārya based many a theistic argument in his *Kusumānjali* on the moral values recognised in the Hindu society. In the history of Indian theism, that Udayana’s theistic contribution is of particular value in demonstrating the extent to which theism may press reason into service where revelation fails, as in the case of anti-Vedic Buddhists, is a fact which every student of Nyāya should remember. It is this fact that emboldened Udayana to claim to be the saviour of the world’s Saviour in the following verse which tradition attributes to Udayana:—

"Aiśvaryamadamatto’si māmavajñāya vartase |
"Upasthiteṣu bauddheṣu madadhinā tava sthītiḥ||"

In Thy almighty power, inebriate thou art and thou dost not care for me. But Thy very existence depends upon me, when the Bauddhas approach.
13

Colour is the quality which is perceived only by the sense of vision. It is of seven kinds—the seven varieties being white, blue, yellow, red, green, brown and variegated. It is found in earth, water and light. Of these three, in earth, all the seven varieties are found. White colour, which is not brilliant, belongs to water. White colour, which is brilliant, belongs to light.

14

Taste is the quality which is perceived by the sense of taste. It is of six kinds, the six varieties being sweet, acid, salt, pungent, astringent and bitter. It is found in earth and water. Of these two, in earth, all the six varieties are found; while the sweet only belongs to water.

15

Smell is the quality which is perceived by the sense of smell. It is of two kinds—
the fragrant and the non-fragrant. It is found in earth only.

16

T—Touch is the quality which can be perceived only by the sense of touch. It is of three kinds—the three varieties being cool, hot and lukewarm. It is found in earth, water and fire. Of these three, to water belong the cool touch, to fire, and the lukewarm touch to earth and air.

17

T—The four qualities beginning with colour are produced in earth through the application of heat and are not eternal. In the case of other substances, they are eternal in such of them as are eternal and they are not eternal in such of them as are not eternal.

The word ‘only’ in the definition of colour excludes the sense of touch. Thus the definition amounts to this:—that colour is quality which is perceived in the normal way by the sense of vision and does not come within the range of the normal perception arising from the sense of touch. In this definition it is necessary to refer to ‘normal visual perception’,
since even smell and such other qualities may, according to the Naiyāyikas, be brought within the range of the super-normal perception arising from the sense of vision. The word quality (guna) in the definition is necessary and it excludes the jāti, colourlessness (rupatva), common to all the colours and the total negation of colour (rupabhāva); for, a sense which perceives an object perceives also its jāti and abhāva under normal conditions and rupatva and rupabhāva can thus be normally perceived by the sense of sight. The definition of colour, as explained above, is not satisfactory; it is applicable to contact between a ray of light and a wall (prabhābhītisamānyoṣṭ}, the contact in such cases being visible, though not tangible. To obviate this ativyāpti, the definition of colour has to be modified in this manner:—‘Colour has the differentia of a species of gunas, which is normally visible but not tangible’—("Tvagagrahyacakṣurgrāhyagunavibhājakopādhati").

The definitions of taste, smell and touch set forth above have to be understood in a similar way. These pre-scientific classifications of colour and other qualities have only some historical and speculative interest. In the list of colours, the Naiyāyikas have included the variegated colour (citrarūpa) as a distinct variety. The reason why they have done so is to be found in their theory of avayavān (composite structure), which is ultimately attributable to their creationistic view of causation. In the Nyāya theory, a composite product (avayavān) is entirely different from its component parts (avaya); a cloth which is made up of threads of different colours, is seen as having a variegated
colour; the different colours belonging to the threads cannot be said to produce the corresponding colours in the single composite whole, for the reason that colour is a pervasive (vyāpyavṛtti) quality, unlike the non-pervasive (avyāpyavṛtti) contact, which may be at once present and not present in a composite unit, and for the reason that one composite unit can thus have only one colour; were it true that the cloth of variegated colour has no colour apart from those of the component threads, the composite cloth itself would be devoid of any colour and would therefore become normally invisible, visual perception ordinarily depending upon the presence of colour which is not sub-perceptional (anudbhūta) but perceptible (udbhūta); and on these grounds, in order to account for the visual perception of a variegated cloth, it becomes necessary to recognize variegated colour (citrarūpa) as a distinct variety of colour. In cases where a composite product is made up of component parts having different tastes or different smells, the avayavas itself has no taste or smell and the different tastes or smells that may be perceived belong to the avayavas. In such cases, there is no necessity for postulating any distinct variety of taste or smell known as citrarasa (varied taste) or citrayandha (varied smell).

Colour, taste, smell and touch admit of change in earth through baking (pāka), which is explained by the Naiyāyikas as amounting to contact of a special kind with fire (vijātiyatejassāmyoga). The Vaiśeṣika theorists hold that, when a pot is baked or when a mango ripens through heat, the composite products get
disintegrated down to the stage of atoms; the qualities of colour, taste, smell and touch in those atoms are destroyed by heat; and a different colour, taste, smell and touch are produced; and then integration takes place, new dyads, triads and other composite products being formed in accordance with the adṛṣṭas of the individual souls concerned with such products. This theory of pāka is known as pilupākavāda or 'the theory of atoms being burnt'. The Nyāya theorists, on the other hand, hold that composite products are left intact in pāka and are not disintegrated and that their colour and such other qualities are replaced by corresponding qualities of different species. This theory of pāka maintained by the Naiyāyikas is known as pitharaṇāpakavāda or 'the theory of composite wholes being burnt.' It should be remembered, in this connection, that in the Nyāya-Vaiśeṣika system, earth is the only substance which admits of the special process of burning called pāka, though contact with fire is quite possible in the case of any other substance.

T—Number is the special cause of enumerative expressions, such as one, two and so on. It is present in all the nine substances and it is represented by numbers beginning from one and ending with parārdha (one thousand crores of crores). Number one may be everlasting
or non-eternal—everlasting in everlasting substances and non-eternal in non-eternal substances. Number two and the higher numbers are non-eternal everywhere.

The Nyāya-Vaiśeṣika theory of ‘number’ is one of the instances of the realistic excesses of the Nyāya-Vaiśeṣika ontology. Number is a quality (gañā) according to this system and is an objective reality. Number being a quality, how would the Naiyāyikas account for propositions like ‘there are twenty-four qualities’ (caturviniśatirgunāḥ)? They would explain such propositions as referring to numbers co-existent with qualities in substances or as referring to the relation of objectness (viṣayatā) between qualities and peculiar type of cognition known as enumerative cognition (apekṣābuddhi). According to the Nyāya-Vaiśeṣika theory, two (dvitva) and the higher numbers are produced in the substances which are counted and come within the scope of enumerative cognition (apekṣābuddhi). Apekṣābuddhi in this system is the cognition involved in the process of counting and it takes the form ‘This is one; this is one; and thus these are two’ (ayam ekaḥ, ayam ekaḥ, āhatya, dvau). Though a cognition lasts only for two moments (kṣaṇa) and comes to an end in the third moment from its origin, apekṣābuddhi lasts three moments from its origin and comes to an end in the fourth moment. Why the exponents of the Nyāya-Vaiśeṣika system
allow a longer lease of life to apeksābuddhi than to other varieties of cognition requires some explanation. Apeksābuddhi is the cause of ‘two’ (dvitva) and the higher numbers. If apeksābuddhi were to come to an end at the third moment from its origin, dvitva would come to an end at the fourth moment of apeksābuddhi. Apeksābuddhi arises at a particular moment; at the next moment, dvitva arises, and may come into relation with an external sense—say sight—at that moment; the indeterminate perception of dvitvatva (dvitvatvanirvīkālpaka) comes into being at the third moment and the determinate perception of dvitva arises at the fourth moment; if apeksābuddhi were to come to an end at its third moment, dvitva would cease to exist at the fourth moment, when it is actually seen; and to say that a thing is seen at the moment at which it ceases to exist is obviously absurd. In order to avoid this absurd result, the Nyāya-Vaiśeṣika hypothesis of apeksābuddhi allows to it a life of three moments, its end taking place at the fourth moment from its origin and being followed at its fifth moment by the end of dvitva, which continues to exist and comes to be seen at the fourth moment. In Nyāya terminology ekatva, dvitva and such other terms ordinarily denote number (saṁkhyā), and may, in certain cases, denote the relation of being the object of a particular enumerative cognition (apeksābuddhi-viśeṣa-viśayatva). Ekatva may also be taken occasionally in a negative sense, when it is understood to mean uniqueness or ‘being not seconded by another thing of the same species’ (svasa-jātiyadvitīyarāhityam). In Vaiśeṣika treatises like
Samkaramiśra's Sūtropaskāra, the process by which apeksābuddhi originates and functions is described thus: "The sense concerned comes into relation with the thing in which dvitva is to be produced; then the indeterminate perception of ekatvatva, common to all the numbers called ekatva, arises; then the co-ordinating group-cognition (samūhālambana) of two units of ekatva arises; then dvitva itself comes into being; then the indeterminate perception of dvitvatva, the jāti common to all the numbers called dvitva, arises; then follows the determinate perception of dvitva; then the two substances having dvitva are cognized; and lastly such a cognition produces the corresponding impression (saṃskāra) in the soul." While ekatva is completely contained in a single container (pratyekaparyāpta), dvitva and the higher numbers are partially contained (vyāsajayārtti) in each of the containers and completely contained only in groups of two and so on.

The Nyāya conception of number—more especially of two and the higher numbers—as qualities inhering in substance may be described by the opponents of the Nyāya-Vaiśeṣika realism and pluralism, as well as by the exponents of the modern school of Nyāya (navyānyāya), as specimens of the warty overgrowths disfiguring the complexion of Nyāya realism. But shrewd critics who can probe into the heart of Nyāya may be able to find in it an effective check to monistic thought which seeks to efface completely all the numbers and their metaphysical implications holding together the component parts of the social fabric.
19

T—Size is the special cause of expressions pertaining to measurement. It is found in all the nine substances. It is of four kinds—atomic, large, long and short.

20

T—Separateness is the special cause of expressions such as 'this is separate from that'. It is found in all the substances.

21

T—Contact is the special cause of expressions such as 'these are in contact with each other.' It is found in all the substances.

22

T—Disjunction is the quality which destroys contact. It is found in all the substances.

23

T—Remoteness and proximity are the special causes of expressions such as 'this is remote,' 'this is near'. They are found in the four substances.
beginning with earth and in manas. They are of two kinds, those that are due to time and those due to space. In a remote substance, spatial remoteness is found; and in a substance lying near, spatial proximity is found. In an older person, temporal remoteness is found; and in a younger person, temporal proximity is found.

It will be seen that sections 18 to 21 and section 23 in the text define number, size, contact, remoteness and proximity as special causes of the respective expressions which refer to them. The term vyavahāra is used in the text and is usually understood in the sense of 'expression in words' or 'putting into words' (sabda-prayoga). One cannot say 'this is one' (ayamekāḥ) or 'this is large' (ayam mahān), unless the thing referred to has the attribute connoted by the words 'one' (eka) or large (mahat). By elimination, the attribute ekatva or mahattva can be shown to be distinct qualities. In the case of the expressions referred to, our experience enables us to establish the relation of causality between them and the qualities connoted by the expressions used. God, time, space and adṛṣṭa (the unseen impressions resulting from good or bad deeds) are believed by the Naiyāyikas to be common causes of all products; and to exclude these common causes (sādhāraṇakāraṇā), the phrase asādhāraṇa-
kāraṇa (special causes) is used in the definitions of number, size, contact etc. All these definitions are based on the supposition that the expressions referred to are all correct and should be taken in their popular sense.

In the Nyāya-Vaiśeṣika system, the size of the atoms—called pārimāṇḍalya and the size of all-pervasive substances (vibhu)—called paramamahattva are eternal. The cause which produces a size is the corresponding size of the component parts, as in the case of all the degrees of mahattva above that of a triad and below that of an all-pervasive substance; or it is the number (saṁkhya) of the component parts, as in the case of the sizes of a triad and a dyad; or it is loose contact (pracaya) of the component parts as in the case of a ball of cotton. The two sizes denoted by the words 'long' and 'short' (dirghatva and hrasvatva) may well be brought under mahattva and ānuvatva and need not be recognised to be distinct varieties of size.

The distinct position which separateness (prthaktva) occupies in the list of qualities recognised by the Vaiśeṣikas is dependent chiefly upon the view that the experience embodied in the proposition 'A jar stands out separate from a cloth' (ghaṭah pāṭat prthak) should be distinguished from the experience embodied in the proposition 'A jar is not a cloth' (ghaṭah pato na) and that the former should be interpreted as an affirmative proposition referring to the positive entity called prthaktva and the latter as a negative proposition referring to the negative category of reciprocal non-existence called anyonyabhava. Though the older Naiyāyikas
support this view, some of the Naiyāyikas like Raghuñātha Siromāṇi shrewdly see that this way of differentiating \textit{prthaktva} from \textit{anyonyābhāva} would only amount to the recognition of some useless distinction without any real difference and they discard \textit{prthaktva} along with similar useless qualities like remoteness and distance, which are merely temporal and spatial relations involving a larger or smaller number of intervening contacts (\textit{Vide} part III—p. 14).

It would be useful to refer again, in this connection, to the remarks at pages 51 and 52 of part III, about the Nyāya conception of contact (\textit{sanyyoga}) as a quality and as an external relation possible only between two substances. The Nyāya theorists would not recognize contact between two all-pervasive substances. Contact may arise from activity (\textit{kriyā}) or from another contact. The latter variety is to be found in the contact which arises between one’s body taken as a whole and a book, when the book is held in one’s hand; and this variety of \textit{sanyyoga} called \textit{sanyogaja-sanyyoga} is an inevitable result of the Nyāya view that a composite whole (\textit{avayavin}) is totally different from its component parts. The contact which arises when one hits with force is called \textit{abhīghāta} (striking) and it causes sound or some activity resulting in disjunction between the things joined by such contact; and a contact which does not cause sound or does not cause some activity of the kind described is called \textit{nodana} (pushing). In the Nyāya system, contact is a typical instance of a non-pervasive object (\textit{avyāpyavṛtti}). Certain
things are spatially non-pervasive (*daisikāvya pūya vṛtti*); for instance, contact with a monkey (*kapi sāmyoga*) is spatially non-pervasive in the sense that it may be said to be present and not present in the same tree at the same time, with reference to its top and foot. In a similar way, all the producible things (*jānyapadārtha*) are temporally non-pervasive in the sense that they may be said to be present and not present in undivided time (*mahākāla*), with reference to the periods preceding and following their production. Advanced students of Advaita may realise that the conception of *avāpya vṛtti*va developed by the Naiyāyikas is, indeed, used by them as their life-belt when they have to save their realism from being drowned in the Advaitic deluge in which everything other than the absolute Brahman sinks down to the level of *mūlīya* (unreal) and turns out to be relatively real in the sense that it co-exists with its own non-existence.

The Vaiśeṣika theorists argue that disjunction (*vibhāga*) should not be equated with the negation of contact in any form; and the older Naiyāyikas support them. Disjunction cannot be the antecedent negation of contact (*sāmyoga pṛāgabhaśa*); for, in cases where we have the experience 'these are disunited' (*imāu vibhaktau*), we do not have the experience 'these will come into contact with each other' (*imāu sāmyuktā bhaviṣyataḥ*). Disjunction cannot be the total negation of contact (*sāmyogātya antābhāva*); for, in that case, one should have the experience 'these two qualities are disunited' (*imāu guṇau vibhaktau*), but one never has
such experience of vibhāga in the case of qualities. In every case of disjunction, one invariably realizes that contact is destroyed; but disjunction itself cannot be identified with loss of contact (saṁyoganāśa), for the reason that contact is also lost when one of the substances in contact with each other happens to be destroyed and that, in such cases, one does not speak of disjunction (vibhāga). Loss of contact between two substances which continue to exist has to be accounted for. It cannot be the direct result of discretive movement (kriyā). For, in a case where a particular finger, as a result of its activity, comes into contact with a tree and the hand likewise comes into contact with the same tree as a result of its movement, the finger may be moved away from the tree and thus lose its contact with the tree; in that case, one speaks of the hand also losing contact with the same tree; the movement of the finger may cause the loss of contact between the finger and the tree; and this movement does not belong to the hand and cannot, therefore, have anything to do with the loss of contact between the hand and the tree. In such instances, the loss of saṁyoga should be attributed to a cause other than movement (karma) and this cause is called vibhāga or disjunction. By a process of elimination, disjunction is brought under the category called guna. This argument set forth by the Vaiśeṣikas to maintain that vibhāga is a distinct quality involves many an assumption which cannot be satisfactorily sustained. The later Naiyāyikas realize the weak points in this argument and bring vibhāga under loss of contact (saṁyoganāśa).
The qualities mentioned above, viz.—number, size, separateness, contact, disjunction, remoteness and proximity, and fluidity and viscosity are capable, of being perceived by two of the external senses—the sight and the touch. Sections 25 and 26 in the following text deal with fluidity and viscosity.

24

T—Weight is the non-intimate cause of the first downward motion (of a falling substance). It is found in earth and water.

25

T—Fluidity is the non-intimate cause of the first flow (of a fluid substance). It is found in earth, water and light. It is of two kinds—natural fluidity and artificial fluidity. Natural fluidity is found in water. Artificial fluidity is found in earth and light. In certain varieties of earth like ghee, etc., fluidity of the artificial variety is brought about through contact with fire; and it is also found in gold and such other varieties of light.

26

T—Viscosity is the quality which causes the lumping up of
The above definitions of *gurutva, dravatva* and *sneha* have hardly any scientific value and they are based wholly on speculation resting upon certain popular notions. It should be noted that *gurutva* (weight), according to Nyāya theorists, is beyond the range of sense-perception (*atindriya*). The Naiyāyikas maintain that, though oil and such other substances appear to have viscosity (*sneha*), it really belongs to water which forms part of those substances.

27

\[ T \]—Sound is a quality which is perceived by the ear. It belongs only to the ether. It is of two kinds —viz., noise and alphabetic sound. Noise is found in a drum and alphabetic sounds form languages like Sanskrit.

The Nyāya-Vaiśeṣika theorists distinguish between inarticulate noise called *dhvani* and articulate alphabetic sounds called *varṇa*. They further distinguish three varieties of sounds, in view of the three kinds of causes which may produce them. These three varieties are:—(1) the sound caused by contact (*saṃyogajā*), (2) the sound caused by disjunction (*vibhāgajā*), and (3) the sound caused by another sound itself (*śabdajā*). The first variety arises when a drum is beaten by a stick; the second variety arises when a bamboo is split;
and the third variety is to be found in the series of sounds successively arising in the ākāśa intervening between a drum, for instance, and the sense of hearing. In Indian philosophy, a considerable measure of speculative value is attached to the Nyāya theory of śabda-śabda or series of successive and exactly similar sounds arising in a continuous chain, beginning with the first sound caused in the portion of ether delimited by the substance that is struck, such as a drum, and ending with the last sound that is caused in the portion of ether representing the sense of hearing and is actually heard. The Naiyāyikas explain the way in which a sound-series is produced in auditory perception, by means of two illustrations—viz., the illustration of ‘little wave and big wave’ (vičitāraṅgaṇyāya) and the illustration of kadamba buds. These two illustrations suggest two ways of explaining how a sound comes to be heard on all sides and in all the ten directions, including the intermediate points and up and down. A little circular wave springs up; around it a bigger wave arises; around it a still bigger wave and so on; in this way, a circular wave of sound is caused, around it a bigger sound-wave and so on, until at last a certain sound-wave is produced in such a way that it reaches the senses of hearing which may be fit and ready to hear in all the ten directions. In this explanation, there is only one series consisting of several circular sound-waves, each coming into relation with all the ten directions. One kadamba filament—which first shoots up, causes several kadamba filaments to shoot up simultaneously in all the parts of a kadamba flower; in the
same way, the first sound, produced at some point, causes ten sounds to spring up simultaneously in all the ten directions; and they cause ten other sounds to spring up in all the ten directions and so on; and thus the sound in question comes to be heard on all sides. In this explanation, the series of śabda-śabdās consists of several groups of sounds, each group being taken to be a ten. In the illustration of kadamba bud, it should be remembered that each bud-like filament of a kadamba flower is described as a bud in the phrases kadamba-mukulanyāya and kadambakorakanyāya. The explanation suggested by the second illustration is considered unsatisfactory and cumbrous.

The Bhāṭṭas and Prābhākaras hold that alphabetic or articulate sounds (varṇātmakaśabda) are eternal. The former maintain that varṇa is an all-pervasive eternal substance (nityam vibhu dravyam); while the latter hold that varṇa is an eternal quality (nityaguna). The Mimāṃsakas seek to support their view that varṇa is eternal by referring to the recognition which we are conscious of in the case of the same varṇa and which takes a form like this:—'This sound g which I now hear is the same as that g which I heard several times before' (So’yam gakāraḥ). One can easily see the reason why the Mimāṃsakas are particularly solicitous to maintain the theory of the eternity of varṇas if one remembers that the Mimāṃsā theory of the eternity of the Vedas rests upon the eternity of varṇas. The Vaiyākaraṇas hold that the transcendental substratum of varṇas called sphota is real and permanent and that
varṇas themselves are not permanent. The Nyāya-Vaiśeṣika system maintains that every varṇa is caused and the Vedas themselves were produced by God, the recognition of the same varṇa like ‘This g is that’ (So’yam gaŚkārah) being interpreted as referring to the permanent jāti called gatva and not to the same g-sound (ga-vyakti).

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T—(a) Buddhi and Jñāna are the same thing, and stand for cognition which is the cause of all verbal expressions. It is of two kinds—recollection and experience.

(b) Recollection is the cognition which is caused only by reminiscent impression.

(c) All cognitions other than recollection come under experience. There are two kinds of experiences, real and erroneous.

(d) The experience which cognizes an attribute as belonging to a thing which really has it, is real; and this is known as pramā (valid knowledge).

(e) The experience which cognizes an attribute as belonging to a thing in which it is not present, is erroneous.
(f)—Valid experience is of four kinds—viz., perception, inference, assimilative experience and verbal experience.

(g)—The instrument of valid experience is also of four kinds—the perceptive instrument, the instrument of inference, assimilation, and sentence or proposition.

Buddhi is an ambiguous term and it is used in various senses in Sanskrit philosophical literature. Sometimes it is used in the sense of antahkaran—a—the inner organ of knowledge. It is also used in the sense of determination (nisaya), which is an aspect or modification of antahkaraṇa, according to the Sāmkhyas and Advaitins: and the connected words mati and manas are contrasted with buddhi in this sense, the word mati being used in the sense of imagination or imaginative cognition of something yet to come about (matiṣṭhāmiṣṭocarā) and the word manas in the sense of a dubitative activity of antahkaraṇa which corresponds to doubt (vimarsālmaṇam manah). The Naiyāyikas are quite consistent and definite in their use of the term buddhi, and they always take it to be synonymous with mati, upalabdhi and jñaṇa; and they take manas to be equivalent to antahkaraṇa.

In the text, Ānambhaṭṭa’s definition of buddhi can be explained in two ways. The former part of the text—sarvavyavahāraḥ hetuḥ—may be taken to form
the definition with the addition of the word *guna* (quality) and the term *jñāna* in the text may be understood as merely emphasizing the idea that there is no difference between *jñāna* (knowledge) and *buddhi* (cognition). Or the latter part of the text—*jñānam buddhīḥ*—may be taken to constitute a satisfactory definition of *buddhi* and may also be understood as incidentally emphasizing the idea that *buddhi* and *jñāna* are identical. According to the first explanation, the definition of *buddhi* amounts to this—"Cognition or knowledge is a quality which is the cause of all intercommunication through language." As the oft-quoted dictum—"artham buddhvā sabdaracanā" puts it, collocation of suitable words always follows ideas of things; and from this point of view, it is obvious that cognition is the invariable and indispensable antecedent of intercommunication through speech. But this mode of defining cognition is defective for the reason that it does not cover cases of a peculiar type of cognition called indeterminate cognition (*nirvikalpakajñāna*), which does not involve any kind of relation and which can only be inferred and can never be embodied in any proposition. *Nirvikalpakajñāna* is called *avyapadeśya* and it does not admit of being embodied in words; so, it cannot be regarded as the cause of intercommunication through expression; and thus the definition "*sarvavyavahārahah**ḥ*" is vitiated by the defect of *avyāpti* (partial inapplicability or narrowness). In order to remove this defect, the usual device of *jāti-ghāṭitalakṣāna* is resorted to and the scope of the definition is increased in this modified form—"Knowledge
or cognition has a \textit{jāti} which is not found in colour and such other qualities and which is co-existent with the causality of intercommunication through speech". This is indeed a clumsy definition. Annambhaṭṭa himself sees this and suggests in his \textit{Dīpikā} that the former part of the text \textit{"sarva-vyavahāraḥ hetuḥ"} may be taken to be merely explanatory and the latter part \textit{"jñānam buddhiḥ"} as the definition. In the \textit{Dīpikā}, Annambhaṭṭa says \textit{"Jānāmiḥ yanyanu- vyavasāya yānam jñānatva- mevā laksanam—iti bhāvaḥ."} Thus according to him, \textit{Jñānatva} (cognition), which is the generic attribute \textit{(jāti) }, all cognitions, is the distinctive feature \textit{(asūdhāraṇadharma) of cognition}. He also suggests that the \textit{jāti}, called \textit{jñānatva}, is arrived at through the uniform experience of a cognition which invariably assumes a form like this—'I cognise a jar' \textit{(ghaṭam aham jānāmi)}, or 'I cognise a cloth' \textit{(paṭam aham jānāmi)}. In such cases, the speaker is aware of the fact that he is cognising a jar; or, in other words, he has the \textit{anuvyavasāya} of his \textit{vyavasāya}, his cognition of a jar being called \textit{vyavasāya} and his awareness or consciousness of such cognition being called \textit{anuvyavasāya}. It is only by assuming a generic attribute \textit{(jāti)}, called \textit{jñānatva}, as the common characteristic of all cognitions, that the uniformity in the \textit{anuvyavasāya referred to} can be satisfactorily accounted for. And this \textit{jāti} may, with advantage, be taken to represent the distinctive feature of cognition.

The phrase \textit{"jñānam buddhiḥ"}, in the text under consideration is also to be understood as implying a refutation of the Sāṁkhya view that \textit{buddhi, upalabdhi}...
and *jñāna* denote different things. In 1—1—15, Gautama, the author of the Nyāya-sūtras, says that the terms *buddhi* (cognition), *upalabdhi* (apprehension), and *jñāna* (knowledge) should be understood to signify the same thing (*buddhirupalabdhirjñānamityanartathāntaram*). Vātsyāyana, Vācaspati and Udayana interpret this *sūtra* as refuting the Sāmkhya view that these three terms denote entirely different things. In the Sāmkhya system, the term *buddhi* stands for the first evolute called *mahattattva*, the etymological meaning of the word *buddhi* being that which first springs up (*v/ būdh= v/ udbhūdi= to spring up) and that of the word *mahat* being that which grows out of, and into something else (*v/ māh= to grow or evolve*). This principle called *buddhi* is the first evolute evolved out of the primordial matter, called *mūlaprakṛti*, and is, in itself, but a form of dead matter. However, through proximity to the self-luminous consciousness (*cit*), called *puruṣa*, the material evolute, *buddhi*, comes to be enlivened, as it were, by consciousness (*caitanya*) and undergoes various transformations, of which one of the most important is called *adyavasāya* (determinative cognition). *Adhyavasāya*, in the Sāmkhya sense, usually takes the form “This should be done by me” (*idam kartavyam mayā*). The Sāmkhyas describe *buddhi*, in its *adyavasāya* phase, as consisting of three constituent factors (*aṁśatrayavatī buddhiḥ*). These three factors are the eγγolic element (*madamśah*), the element of voluntary decision (*kartavyamiti vyāpārāṁśah*), and the objective element of ‘this’ (*idamamśah*).
The egoic element or *madanîśa*, in the Sāmkhya terminology, is said to represent what is called *puruṣoparāga*, which is an unreal element consisting in the reflection of the absolutely passive and self-luminous cit called *puruṣa*, in the reflectory, mirror-like, matter called *buddhi*, or which is the result of the erroneous identification of *puruṣa* with *buddhi*. The element of voluntary decision is a real factor and represents a real modification of *buddhi*. The objective element of 'this' (*idamaniśa*) is but an objective modification of *buddhi* unfolding itself through the sense-organs; and this element is known as knowledge or cognition (*jñāna*) and is real. Apprehension or *upalabdhi* is the relation between the objective factor, called *viṣayoparāga* and represented by *idamaniśa* and equated with *jñāna*, on the one hand, and the absolute *puruṣa*, on the other; and *upalabdhi* is thus an unreal factor, for the reason that *puruṣa*, according to the Sāmkhyas, cannot be conceived of as having any real relation. The well-known illustration of a mirror being held before a person’s face is used in this connection by the Sāmkhyas to explain these distinctions. When a mirror is held before the face of a person, the reflection of the face is seen through the mirror. If that person happens to breathe out on the surface of the mirror, the surface looks dim and the reflected image of the face also looks dim. One may fancy, in these circumstances, that the face also is dim. In this illustration, the dimness caused on the surface of the mirror is real and the fancied relation between this dimness and the face itself that is reflected in the mirror is unreal. Similarly, *jñāna* which is the cogni-
tive modification of the first evolute (buddhi), is a real factor; and it comes to have a false relation with puruṣa through his reflection in buddhi, in the same way as the dimness of the mirror comes to have a false relation with the real face through its reflection. This false relation is called upalabdhi (apprehension). It will be seen that, in the Sāmkhya theory, jñāna is entirely material in its nature and origin and becomes apparently spiritualised to some extent when it comes to have a false relation with puruṣa; and this false relation with the spirit is called upalabdhi and is presented in experiences like 'I apprehend' (aham upalabhe). The Naiyāyikas contend that the substratum of voluntary decision (kṛti) ought to be regarded as the substratum also of knowledge or cognition (jñāna) which there is hardly adequate reason to distinguish from consciousness (caitanya) or apprehension (upalabdhi). This contention is embodied in Gautama's sūtra "buddhirupalabdhirjñānamityanarthāntaram"; and students of Nyāya are reminded of the view embodied in this sūtra, when they consider Annambhaṭṭa's statement "jñānam buddhiḥ".

Cognition is first divided into two main heads—recollection (smṛti) and experience (anubhava). Annambhaṭṭa defines recollection as a cognition caused solely by impressions. The impressions referred to here are reminiscent impressions (bhāvanā) derived from prior cognitions. In this definition, the word 'solely' (mātra) is intended to exclude recognition (pratyabhijñā), which is a perceptual experience (pratyakṣa) arising through the relation of a sense-
organ with some object (*indriyārthasarnikarsa*) and through reminiscent impressions derived from a prior cognition of the same object. ‘This is that person’ (*so’yan puruṣah*)—cognitions of this type are instances of recognition and should not be confounded with cases of recollection. While the Advaitins and Bhāṭṭas would explain recognition (*pratyabhijñā*) as a cognitive complex consisting of two parts, one representing perceptual experience (*pratyakṣa*) and the other recollection (*smarana*), the Naiyāyikas, as champions of consistency, would not accept such explanations and would banish from their world all such centaurian and monstrous complexes. Thus, in the Nyāya theory, it has become necessary to bring recognition under perceptual experience of a special type and to exclude it from the scope of the definition of recollection (*smṛti*). The Nyāya theory of *smṛti* is that certain kinds of cognition, which are different from indifference (*upeksā*), invariably leave reminiscent impressions (*bhāvanārāpasaṁskāra*) in *ātman* and that these impressions are kindled up under certain conditions and cause recollection. Every group of reminiscent impressions causing a recollection comes to an end immediately after its effect is produced. But this would not mean that after once recollecting something, it would no longer be possible to recall it again to memory; for, every recollection would, in its turn, cause a reminiscent impression. Thus, according to the older Nyāya theory, every recollection, even when it relates to the same object, is caused by a different set of reminiscent impressions. Later Naiyāyikas and
Advaitins, on the other hand, hold that the recollections of the same object are all produced by the same set of reminiscent impressions, which merely acquire enhanced intensity through every recollection. Cognitions which admit of being reproduced in memory through reminiscent impressions are classified under three heads by the Vaiśeṣikas and Naiyāyikas of the older school:—*patupratyaya*, *abhyaṣapratyaya* and *ādarapratyaya*. The normal type of cognition which involves the minimum degree of attention sufficient to ensure reproduction in memory is called ‘vivid cognition’ (*patupratyaya*). By repeatedly revolving a certain idea in one’s mind, one comes to have what may be called ‘repetitional cognition’ (*abhyaṣapratyaya*). When one’s mind gets riveted to a wonderful or extraordinary object, the cognition that arises is known as ‘regardful cognition’ (*ādarapratyaya*). All the cognitions other than recollection (*smṛti*) are technically known as *anubhava*. This technical use of the term *anubhava* is common in śāstraic literature and it has to be rendered by the English equivalent ‘experience’. In its technical sense, as used in Nyāya-Vaiśeṣika literature, it may denote any kind of experience direct or indirect, perceptual (*pratyakṣa*), or inferential (*ānumāṇika*), or verbal (*śabda*). In some places, the word *anubhava* is somewhat loosely used in the sense of direct experience or direct realization. Students of Nyāya should take care to avoid confusion between these two uses of word *anubhava*.

*Anubhava* is divided in Nyāya literature into real (*yathārtha*) and unreal (*ayathārtha*). The first variety
is also called pramā and the second variety is also called bhrama. The etymology of the term pramā draws attention to the fact that the experience denoted by that term is sound or valid, as the prefix pra indicates. The etymology of the term bhrama draws attention to the fact that the thinker’s mind goes astray in every case of erroneous experience. The term yathārtha means exactly corresponding to the object; and the definition of valid experience, that it cognises an attribute as belonging to an object which really has it, is directly based on the meaning of the term yathārtha; and likewise, the definition of erroneous experience, that it cognizes an attribute as belonging to an object which, in fact, does not have it, is based on the meaning of the term ayathārtha. To cognize a piece of silver lying before one as a piece of silver (purovartini rajate ‘idam rajatam’ iti pratitiḥ) is valid experience; and to cognize a shell, or mother of pearl, or nacre as it is called, as a piece of silver (suktau ‘idam rajatam’ iti pratitiḥ) is erroneous experience.

In order to understand correctly the definitions of valid and erroneous experiences, as given in the text, it is necessary to acquire some knowledge of the terminology by which the Naiyāyikas indicate the content of a cognition, with a measure of quantitative precision which is not ordinarily achieved through English expression. Every determinate experience involves an objective complex as representing its objective content. The objective content of cognition is called viśaya (objective); the cognition itself is known as viśayin (subject); and the relation between a cognition
and its object is known as \textit{visayavisayibhāva} (subject-object-relation). In the Nyāya-Vaiśeṣika system, this is conceived of as an external relation between two distinct relata which are two realities connected with each other for the time being. The problem of the relation between the subject (\textit{viṣayin}=\textit{jñāna}) and object (\textit{viṣaya}) is solved by the Naiyāyikas in this way. Objects like a jar or a piece of cloth exist outside the sphere of cognition (\textit{jñāna}) as realities independent of cognition. Through \textit{viṣayatā} (objectness), which is a kind of self-linking relation (\textit{svarūpasam-bandha}) and is merely a phase of the object cognized, an object comes into relation with cognition, which has the correlated counterpart of \textit{viṣayatā} known as \textit{viṣayitā} (subjectness). \textit{Viṣayitā} is also a kind of self-linking relation and is merely a phase of the \textit{viṣayin} which cognizes. The Naiyāyikas hold that, while several realities may exist independently of cognition, the latter never exists independently of, and as dissociated from, the objects that are cognized; and this is regarded by the Nyāya theorists as a state of things fatal to idealism. They forget, however, that their realism ultimately rests upon experience and what is relied upon as the only guarantee of the objective reality of the external world is the content or form which is involved in experience, and which idealism or subjectivism can easily merge in cognition.

The Nyāya relation of \textit{visayavisiṣayibhāva} involves two correlated parts known as \textit{viṣayatā} (objectness) and \textit{viṣayitā} (subjectness) and the correlation of these two parts is denoted by the word \textit{nirūpita}. The
objective content of a determinate cognition or judgment is constituted by three parts,—vis., the principal or leading concept called \textit{viśeṣya} (substantive), one or more subordinate concepts called \textit{viśeṣaṇa} or \textit{prakāra} (adjunct), and a relation (\textit{samsarga}) connecting the \textit{viśeṣaṇa} and \textit{viśeṣya}. These three parts form the complex object (\textit{viśayya}) of a judgment; the aspect of \textit{viśayatā} which belongs to the \textit{viśeṣya} is called \textit{viśeṣyatā} (substantiveness); that which belongs to the \textit{viśeṣaṇa} is called \textit{viśeṣaṇatā} (adjunctness); and that which belongs to \textit{samsarga} is called \textit{samsaṅgaśatā} (relation-ness). In the judgment 'the cloth is red' (\textit{raktaḥ pataḥ}), cloth is the \textit{viśeṣya}, red colour is presented as the \textit{viśeṣaṇa}, and the relation between the redness and cloth is inherence (\textit{samavāya}) and that is presented as the \textit{samsarga}. The \textit{viśayatā} which belongs to these three things is presented in three forms, \textit{viz.},—\textit{viśeṣyatā}, \textit{viśeṣaṇatā} or \textit{prakāratā} and \textit{samsaṅgaśatā}. These three aspects of \textit{viśayatā} are correlated to each other and to the \textit{viśayatā} (subjectness) which belongs to the cognition in which they are presented. The correlation of these factors is expressed in Sanskrit by the symbolic terms \textit{nirūpaka} and \textit{nirūpya}. The boundary of each of the objective factors is exactly defined by a reference to the delimiting feature which is also presented in the cognition under consideration. In the example referred to, cloth is presented as \textit{viśeṣya}, not under the aspect of \textit{dravyatva} (substantiveness), but under the specific aspect of \textit{pañcatva} (clothness); red colour is presented as \textit{viśeṣaṇa} or \textit{prakāra}, not under the aspect of \textit{gunaṭva} (qualityness), but under the specific aspect of \textit{raktaṭva}
(red-colourness); and samavāya (inherence) is presented as samsarga, not under the aspect of sambandhatva (relationness), but under the specific aspect of samavāyatva (inherenceness). The required specifications in these cases are made by referring to patatva, raktatva and samavāyatva as the delimiting adjuncts (avacchedaka) respectively of the viśeṣyatā in the cloth, the prakāratā in the red-colour and the samsargatā in inherence. Thus by a clever use of the terms avacchedaka (delimiting), avacchedya or avacchinna (delimited), and nirūpaka or nirūpta (correlating or correlated), in the instance taken for illustration, viz.,—the judgment ‘raktah patah’ (the cloth is red), the objective content may be described in the following way, with a considerable measure of quantitative precision:—“It is a cognition whose viṣayitā (subjectness) is correlated to the viśeṣyatā (substantiveness) delimited by clothness (patatva), the viśeṣyatā in its turn being correlated to the prakāratā (adjunctness) delimited by red-colourness (rakta-rūpatva), and the samsargatā (relationness) correlated to the said prakāratā and viśeṣyatā being delimited by inherenceness (samavāyatva). The Sanskrit expression which exactly describes the objective content of the judgment, ‘the cloth is red’ (raktah patah), may be set forth thus:—“raktatvāvacchinnaparakaratānirūpita—patatvāvacchinnaviśeṣyatānirūpita—samavāyatvāvacchinna-samsargatānirūpita—viṣayitāsāh jñānam”. In this way the disposition of the component factors of the objective content of a cognition is exactly indicated by means of the symbolic words avacchedaka and nirūpta.
The definitions of *pramā* and *bhrama*, as given in the text, are somewhat defective, since they do not indicate correctly the correlation between the *viśeṣyatā* and *prakāratā*. In the definition of *pramā*, for instance, as given in the text, the substantive having a certain attribute is referred to as *viśeṣya* and the particular attribute as *prakāra*. This amounts to saying that in *pramā*, if silverness is presented as *prakāra*, silver having silverness (*rajatatva*) in it is also presented as *viśeṣya*. Though, for all practical purposes, this looks like a correct definition of *pramā*, it would break down when considered in the light of certain group-cognitions (*samūḥālambana*), in which two or more substantive factors (*viśeṣya*) are presented as co-ordinate objects associated with certain adjuncts. Nacre and silver (*śukti* and *rajata*) may both be present in a certain place; a group-cognition, which at once mistakes nacre for silver and silver for nacre, may arise; it is a *samūḥālambanabhrama* which takes the form.—“These are silver and nacre” (*ime rajataśukti*); the definition of *pramā* as given in the text would be applicable to this case of *bhrama* for the reason that silverness (*rajatatva*) and nacreness (*śuktitva*) are presented as attributes (*prakāra*) and the two things, nacre and silver, which really have the two attributes mentioned, are presented as leading concepts (*viśeṣya*). There is nothing in the definition of *pramā*, as given in the text, which would exclude such cases of *samūḥālambanabhrama*. To exclude such cases, it is necessary to point out that the adjunctness (*prakāratā*) of the attribute presented in a valid cognition is correlated with the
substantiveness (vīṣeṣyatā) of the thing really having that attribute. In the erroneous group-cognition (sāmūhālambana) above referred to, the substantiveness of nacre is not rightly correlated with the adjunctness of nacreness but wrongly correlated with the adjunctness of silverness; and similarly the adjunctness of nacreness and the substantiveness of silverness are wrongly correlated with each other. A correct description of this erroneous group-cognition in accordance with the technical terminology of the Naiyāyikas would facilitate a correct appreciation of these remarks. This sāmūhālambana may be described thus in Sanskrit:

"rajaṭatvanivāṣṭha-prakāratānirūpita-śuktiniṣṭhavīṣeṣyatā cēkā, śuktivanivāṣṭha-prakāratānirūpita-rajaṭatonisvīṣeṣyatā aparā, etādṛśaviṣeṣyātādvāvanirūpita-viṣayitāśāli ‘ime śuktirajate’ iti sāmūhālambananam."

Thus it will be seen that the correct and complete definition of pramā or valid cognition is that it is a cognition in which the thing that is presented as substantive (vīṣeṣya) has the attribute which is presented as adjunct (prakāra) and the substantiveness (vīṣeṣyatā) of the former is presented as correlated with the adjunctness (prakāratā) of the latter. For a similar reason, the definition of bhrama, as given in the text, should be amplified with a view to securing greater precision. A bhrama is an erroneous cognition in which the thing that is presented as substantive (vīṣeṣya) does not have the attribute presented as adjunct (prakāra), though the substantiveness (vīṣeṣyatā) of the former is presented as correlated
with the adjunctness (prakāratā) of the latter. This definition would be applicable to cases of erroneous cognition like ‘this is silver’ (idam rajatam), where nacre is mistaken for silver; and it also excludes cases of valid group-cognition (samāhālambanapramā) like ‘these are silver and nacre’ (ime rajatasukti), where both silver and nacre are seen as such and not confounded with each other.

In this connection, it is desirable to say a few words about the way in which the Nyāya theorist solves the problem of knowledge and the connected questions of truth and error. The realism of Nyāya, which recognizes complete difference (bheda) between the object (visaya) and subject (visayin) or between the known object (jñeya) and the cognizing knowledge (jñāna) has inevitably to face the problem of truth and error and to suggest some solution which may be consistent with the Nyāya theory. If the jñeya should be wholly different from jñāna, how is the gulf between these two real factors to be bridged over, seeing that they are fundamentally different? How is knowledge possible at all? Knowledge is a real factor and its object is also a real factor existing independently of knowledge. To a Naiyāyika, esse can never be percipi. If it is the nature of knowledge, as the Naiyāyika contends, to come into relation with a real object existing outside knowledge, what is it that bridges over the gulf between these two factors? The Nyāya theorist who recognizes a scheme of external relations finds it easy to point out that through the self-linking
relation (*svarūpasambandha*) of subject and object (*viśayaviśayabhava*), the cognized reality (*jñeya*) and the cognizing reality (*jñāna*) can be brought together. The secret of the Nyāya conception of *svarūpasambandha* is that relation is but a phase of reality and every real object involves that phase. From the Nyāya point of view, it is perfectly intelligible that knowledge is knowledge of a real object external to it and is not simply knowledge of ideas which are only copies of objects. It is one of the advantages of the Nyāya conception of relation being wholly external that the Naiyāyikas can account for cognition without the mediation of ideas as idealists and subjectivists find it necessary to do. So, in Nyāya epistemology, it may be said that the Naiyāyika has no difficulty in solving the problem of knowledge, the term knowledge being understood as cognition of objective reality, while there is real difficulty in the difference between truth and error, or valid cognition and erroneous cognition, consistently with the realistic standpoint of Nyāya metaphysics, not to speak of the difficulties involved in the Nyāya theory of external relation. In a valid cognition like ‘this is silver’ (*idam rajatam*), where silver is seen correctly as silver, the Naiyāyika contends that its objective content exactly corresponds to the external realities represented by the attribute ‘silverness’, the thing possessing that attribute, viz., silver, and their relation of inherence (*samarāya*). It should be remembered here that according to Nyāya epistemology, the objective content of a cognition is not contained in cognition but exists outside it and it is called ‘content’
only in the sense that the relation of object and subject (visaya and visayin) connects it with jñāna. In a valid cognition, the exact correspondence between jñāna and jñecya, as already explained, consists in the correct correlation of the phases of visayavisayibhāva, viz., adjunctness (prakāratā), substantiveness (vīšeṣyatā) and relationness (saṁsargatā). In an erroneous cognition like ‘this is silver’ (idam rajatam), where nacre (ṣu ti=mother of pearl) is mistaken for silver, the objective content does not exactly correspond to the external realities represented by silverness, silver and their relation; and the lack of correspondence in such cases is due to a wrong correlation of the phases of visayavisayibhāva, the adjunctness (prakāratā) of the real silverness which belongs to the real silver existing elsewhere being erroneously correlated with the substantiveness (vīšeṣyatā) which belongs to the nacre presented as idam (this). Thus, a careful analysis of the Nyāya definition of pramāṇa and bhrama would make it clear that the Naiyāyikas are prepared to regard truth and error as consisting in correspondence and lack of correspondence with objective reality.

The Nyāya theory of bhrama is known as anyathākhyaṭvāda or the theory which explains erroneous cognition as misapprehension of one thing as another thing. In the phrase anyathākhyaṭi, the term khyāti means ‘cognition’ and anyathā means ‘otherwise than what it is’. When nacre is wrongly seen as silver, the erroneous cognition that arises takes the form ‘this is silver’ (idam rajatam). Here, ‘this’ stands for nacre
lying in front of the knower; and it is first seen as a white piece and not as nacre, the distinctive feature of nacre being missed either through some defect in sight or in the particular situation in which the visual perception arises. The visual perception of nacre as 'this' (idam) arises in the ordinary way, through laukikasannikarśa or through the normal sense-relation of contact between the sense and the object seen. The real silverness (rajatatva), which belongs to the real silver existing elsewhere, is presented in this visual perception as the attribute of nacre seen as 'idam' in a general form; neither the real rajata nor the real rajatatva could be said to be connected with the sense of sight through normal sense-relation (laukikasannikarśa); and without sannikarśa (sense-relation) being established between the sense-organ concerned and the object to be perceived, perception cannot arise. So, the Naiyāyikas hold that the real silver and silverness come to be connected with the sense of sight through an extra-normal type of sense-relation (alaukikasannikarśa) which is called jñānalaksanaprātyāsatti (sense-relation represented by cognition). The details relating to the different kinds of extra-normal sense-relation causing extra-normal perception will be fully explained under section 30, infra. In the present instance of erroneous cognition, features like white colour and brightness, which nacre possesses in common with silver, are noticed; they remind the knower of the real silver and silverness which he might have seen elsewhere; and the recollection (smṛti) of the real silverness (rajatatva) constitutes the extra-normal relation
represented by cognition (jñānalakṣaṇapratyāsati), which brings silverness within the scope of the visual sense seeing nacre as 'this' (idam) in the ordinary way. Thus, according to the Naiyāyikas, the visual mis-apprehension of nacre as silver is an extra-normal variety of visual perception (aloukikacākṣuṣa). It may be noted here that the proposition 'One thing is mistaken for another' (anyat anyathā grhyate), which brings out the meaning of the technical phrase anyathā-khyāti, is interpreted in two ways in Nyāya literature. The earlier Naiyāyikas like Vācaspatimiśra would take this proposition to mean 'One reality is mistaken for another reality' (sadantaram sadantarātmanā grhyate); while later Naiyāyikas like Gaṅgeśopādhyāya would take it to mean, 'A real object which does not have a certain attribute is mistaken in an extra-normal perception as having that attribute, which exists elsewhere' (tadabhāvavat vastu tudvat ānāyate).

Students of Nyāya epistemology cannot adequately estimate the philosophical value of the Nyāya theory of anyathā-khyāti without comparing it to some extent with the theories of bhrama (khyātiivāda) propounded by the other schools of Indian philosophy. There are five theories of bhrama; viz., the theory of self-apprehension (ātmakhyāti), the theory of non-being's apprehension (asatkhyāti), the theory of non-apprehension (akhyāti), the theory of misapprehension (anyathā-khyāti), and the theory of indefinable's apprehension (anirvacanīyakyāti). The Yogācāra school of Buddhism, otherwise known as the Vijñānavāda school, explains erroneous cognition as consisting in the 'self'
which is identical with consciousness, externalising itself in the form of objects like silver; all determinate cognitions of objects, according to the Yogācāra subjectivists, are erroneous; this theory of bhrama is called ātmakhyātivāda (theory of self-apprehension). The nihilistic school of Buddhists, otherwise known as the Mādhyamaka school, explains bhrama as consisting in the cognition of a non-being (asat); in the case of the erroneous cognition 'this is silver' which arises where there is no silver, the object of the cognition is a non-being (asat); on the strength of experience, even non-being should be taken to admit of being cognized; this theory of bhrama is known as asatkhyātivāda. The Prabhākara school of Mīmāṃsakas explains all cases of bhrama as cases of non-apprehension. They contend that, in the cognition of silver where only nacre is seen, two cognitions arise in fact, one cognition being the perception of nacre in a general way as this (idam) and not as ; ..., the distinctive feature of nacreness, and the other cognition being the recollection of silver previously cognized elsewhere. The recollection of silver in this case is not identified by the knower as recollection, but is cognized by him merely as cognition, since the object of recollection—viz., silver is thought of merely as silver, stripped of its association with past time and the particular place where it was seen. The Prabhākaras describe such recollection by the phrase pramūṣiyatattākasmarana or 'recollection of an object robbed of its that-ness.' In certain other cases of bhrama like 'the conch is yellow' (pitāḥ
sāṅkhār), the Prābhākara theorist explains that two imperfect perceptions arise, one being the visual perception of a conch as such, its real colour being missed, and the other being the visual perception of the yellow colour of the bilious matter which causes jaundice (pitādṛavyapitīmā), the relation of the yellow colour to the bilious substance being missed. Thus in all cases of bhrama, two distinct cognitions—either a perception and a recollection or two perceptions—arise; their distinction is missed; and the difference between objects comes to be missed for the time being; as a result of such non-discrimination, volitional decision (pravṛtti or yatnā) leading to voluntary activity arises; a voluntary activity with a view to seizing the object of bhrama, such as silver, follows; the knower in such cases, acting on his knowledge, realises through his experience that his activity has become futile, as he finds only nacre on the particular spot and no silver at all; and in those cases, in view of the fact that the volitional decision (pravṛtti) of the knower concerned leads to a futile activity, the cognitive antecedent of such a futile pravṛtti is technically called bhrama. It will be seen that, while the Prābhākaras are prepared to give a place to the term bhrama in their vocabulary, they maintain that all experiences are valid (anubhūtiḥ pramā) and that the so-called cases of bhrama are only undiscriminated jumbles of cognitions whose objects also happen to be undiscriminated for the time being (jñānayoḥ viṣayayoṣcā vivekāgrahāt bhramaḥ). In other words, according to the Prābhākaras, to experience is to experience validly and to err in experience is to experi-
ence imperfectly, though validly, the imperfection consisting merely in non-discrimination and not in misapprehension. The Nyāya theory of anyathākhyāti has already been explained. The Bhāṭṭas, for all practical purposes, adopt the Nyāya theory of bhrama, with this difference—that they describe a bhrama as viparitakhyāti or contrary experience; that they do not account for bhrama through extra-normal sense-relation; and that the relation (sānīsarga) between nacre and silverness (rajatātva) or 'idam and rajatam' ('this' and 'silver'), in the case of the misapprehension of nacre as silver, is a non-being (asat). Among the Vedāntins, those of the dualistic school (dvaitināḥ) maintain what they call their own version of anyathākhyāti and contend that, in cases of erroneous experience like suktirajatabhrama, the silver which is presented in bhrama is non-being out-and-out (atyantāsat) within the sphere of nacre, though it is real elsewhere; and the chief argument in support of this view is that the sublating cognition (bādhaka-pratiti), which arises later takes the form—"There was no silver at all here in the past; it is not here now; and it will never be here in the future" (nātra rajatam āsit, asti, bhaviṣyati), and it totally denies the existence of silver within the sphere of nacre in the past, the present and the future. The Vedāntins of the Viśiṣṭādvaita school adopt the Prābhākara theory of akhyāti with certain modifications and their version of akhyāti is known as 'non-apprehension cum apprehension of reality' (akhyātisamvalita-satkhyāti). Śrī Rāmānuja and his followers hold that the object of bhrama is
always real and there is strictly speaking no invalid cognition at all. In the perception of nacre as silver, it is the silver which is included among the component parts of nacre that is seen. They assume that substances which are similar must have some component parts in common, that silver is made up of parts of nacre and parts of silver and is called silver because the constituent parts represented by silver predominate; that in the constitution of nacre, likewise, the predominating part is represented by nacre and there is a small portion of silver; and that this small portion of silver it is, that happens to be seen when nacre is seen as silver. Thus according to the school of Śrī Rāmānuja, a person who errs in cognition really blunders into a subtle truth which, under normal conditions, is missed or ignored.

A critical student of Indian philosophy would find reason to be dissatisfied with every one of these theories of bhrama. The non-existent or non-existing (asat) is an absolute zero and cannot be presented in any experience, though the Mādhyamakas insist that we are helpless in the matter and have to recognize the possibility of asat being presented in experience on the strength of experience itself. The Yogācāra idealist endeavours to improve upon the nothingistic explanation of the Mādhyamakas by saying that consciousness comprises its configuration (sākāram vijnānam), and in its externalised form, it is presented in itself as its object. But one can easily see that this explanation involves a number of inconsistencies. The Nyāya realist realizes that nothing but reality (sat) admits of being
presented in experience; he explains that error consists in confusing one reality with another reality and complicates his theory by trying to bring the absent reality within the range of the sense-organ concerned through the extra-normal relation (a'aukikasannikarṣa) represented by some form of cognition itself (jñāna- lakṣaṇapratyāsatti). The Bhāṭṭa realists, while adopting the theory of anyathākhyāti, find it necessary to accommodate themselves to the asatkhyāti theory, in holding that the samsarga element in the apprehension of nacre as silver and in such other cases is a non-being (asat). The Prabhākara realist sees the danger of compromise with the asatkhyāti on the one side, and on the other side, sees how the Nyāya theory that one reality is presented as another reality (sadantaram sadantarātmanā grhyate) would inevitably reduce itself to a variety of asatkhyāti for the obvious reason that one reality never exists (is asat) in the form of another reality. In order to avoid these difficulties the Prabhākara realist adopts the extreme theory of akhyāti. Though this is the only theory which could be said to be perfectly consistent with realism, it is not adequate to account for the volitional decision (pravṛtti) and the further activity that follows a bhrama. As Vācaspatimiśra points out in his Tātparya- tiśkā and Bhāmati, (in the akhyātivāda) one could find as much justification in non-identification (abhedā- grāha), for the two cognitions in cases of bhrama appearing as two cognitive units and consequently for the two objects in such cases appearing as different, as in non-discrimination (bhedāgrāha), for the two-
cognitions and their two objects in such cases appearing as one and the same; and as a result, if there should be volitional decision in the direction of activity on the latter ground, there should be volitional decision in the opposite direction of abstention on the former ground and the knower should hang between *pravṛtti* and *nivṛtti*. These difficulties, the Advaitins endeavour to meet by propounding the theory of *anirvacaniyakhyāti* and explaining *bhrama* as experience of a relatively real object, which is neither absolute being (*sat*), nor absolute non-being (*asat*), nor both. According to the Advaitins, when nacre is seen as silver, for instance, what happens is this:—over the real substratum (*adhiśṭhāna*) represented by a nacre, or more correctly, nacre-delimited spirit (*suktyavacchinnacoitanya*) the beginningless positive mist of nescience (*anādibhāva-rūpājñāna*) happens to be thrown; when the sense of sight comes into relation with nacre in a general way, the mist is partly dispelled by the cognitive modification of *antarākaraṇa* which takes the form ‘this’ (*idamākāravṛtti*); the mist of nescience, however, continues to veil the nacreness of what is seen as this (*idam*) and, reinforced by the prepossessions of the knower’s mind and by the similarity between the object seen as ‘this’ and silver, undergoes transformation, with the result that silver comes into being also with the cognition of silver, which is but a cognitive modification of nescience (*suktyavacchinnacoitanyadhiśṭhitāvidyā rajata-rūpeṇa rajatakāravṛttirūpeṇa ca parinamate*); silver which thus comes into being has relative reality; it is said to be *anirvacaniya* in the sense that it does not
admit of being definitely described as *sat* (being), or *asat* (non-being) or both; and it is also said to be *pratibhasika* in the sense that it is coterminous with its presentation in cognition. It will thus be seen that the Advaitin's theory of *bhrama* regards it as a cognitive complex consisting of two cognitive factors, one of them being a *vrtti* of *antaḥkaraṇa* and the other being a *vrtti* of *avidyā*. According to this theory, the object of a *bhrama* is real in a relative sense and comes into being along with the *bhrama* and lasts as long as the *bhrama* lasts; and there is no need for accommodation to *asatkhyāti* or for any complication in the form of extra-normal (*alaukika*) sense-relation. That the Advaitins have no particular animus against the advocates of *anyathākhyātivāda* is evident from the way in which they are readily willing to accept the explanation of *anyathākhyāti* in the case of what is known as *sopādhikabhrama*, where the object of *bhrama* happens to be within the normal scope of the sense-organ, as, for instance in the erroneous perception of a crystal (*sphatika*) as red-coloured when a *japā* (China rose) is seen to be in its vicinity. Such students of Indian philosophy as are capable of critically reviewing the five 'theories' of *bhrama* (*khyātivāda*) set forth here would not find it difficult to conceive of an appropriate graph by means of which the epistemological inter-relation of these theories may be exhibited and comprehended. If one could imagine that epistemological thought starts with *asatkhyāti* as centre and, in its endeavour to escape from it, swings forcibly between the two diametrical termini of *anyathākhyāti* and
akhyāti, it would not be difficult to imagine that such thought inevitably describes a comprehensive epistemological circle in the form of anirvacanīyakhyāti, which easily accommodates itself to akhyāti in respect of the non-discrimination of the two vṛttis constituting a bhrama and to anyathākhyāti by complete surrender in the case of sopādhikabhrama.

It would be quite appropriate to consider here the Nyāya view regarding the way in which the validity and invalidity of a cognition, or truth and error, or prāmāṇya and aprāmāṇya have to be accounted for and ascertained. The Naiyāyikas hold that validity and invalidity of cognitions are made out through extrinsic considerations and are brought about by extrinsic circumstances. In other words, according to the Naiyāyikas, validity and invalidity cannot be said to be intrinsically made out (svatogrāhya) or intrinsically brought about (svatojanya). Intrinsicality (svatāstva) in respect of the knowledge of reality consists in reality being made out by every means by which the cognition having it is ascertained but not ascertained to be invalid. This definition of svatogrāhyatva is expressed thus in the technical language of Nyāya:—“prāmāṇyasya jñāptau svaśāstvam ‘a!prāmāṇyasya jñāptau svaśāstvam.” Whenever a person knows that he cognizes and does not know for the moment that he errs, he also knows that he validly cognizes:—this is the contention of the advocates of svatogrāhyatva or the theory that validity is intrinsically made out. Thus, if a person could become aware of the existence of a cognition in him in a hundred ways
without becoming aware that that cognition is erroneous and in any one of those cases he becomes aware of the cognition only without becoming aware of its validity, the definition of *svatogrāhīyatva* would not hold good and the view that validity is made out extrinsically (*paratogrāhya*) has inevitably to be accepted. The Naiyāyikas explain their position thus in regard to this question. A determinate cognition like “this is silver” (*idam rajatam*) is called *vyavasāya* and it is presented first in the *anuvyavasāya* (after-cognition or consciousness of a cognition) which takes a form like this—“I cognize this silver” (*idam rajatam jānāmi*), and in this *anuvyavasāya*, the validity of the cognition referred to is not presented. If such *anuvyavasāya* were to invariably take cognizance of the validity of such *vyavasāya*, it would not be possible to account for the doubt which an inexperienced person feels regarding the validity of such *vyavasāya*. So, in such cases, the validity of the *vyavasāya* “this is silver” should be ascertained through the practical result to which it leads. - If the voluntary decision and activity following such *vyavasāya* should turn out to be fruitful and if the knower should actually find himself in a position to get the silver which he wanted, such *vyavasāya* (cognition) is recognized to be valid. The process of inference through which one’s mind may pass in such cases is usually put in this form: “This cognition is valid, because it leads to a fruitful effort; any cognition that leads to a fruitful effort is valid, as another valid cognition already realized to be such in experience, (*idam jñānam pramā; saphalapraṇavṛttijanakaivaṭ; vadyat saphala-
pravṛttijanakam tat jñānam pramā; yathā pramāṇ-
taram). It should be borne in mind, in this connection, that causing fruitful effort is, according to Nyāya the ground of inferring validity, while validity itself consists in the cognition in question cognizing a thing as possessing an attribute which it really has. In that the Naiyāyikas make the ascertainment of the truth of a cognition dependent upon its agreement with its expected workings or, in other words, with the consequences which are expected to arise from it in the experience of the active subject, their view would appear to be closely similar to that of the modern pragmatist. However, they do not lose sight of the fact that pragmatism is only a method of ascertaining truth, that this method itself presupposes truth whose nature has to be explained independently of agreement with practical workings and that, if the truth presupposed by the pragmatic argument were itself to be ascertained pragmatically, through inference, the fault of regressus ad infinitum would inevitably follow. Having due regard to such difficulties, the Naiyāyikas define truth as consisting in correspondence with reality and thus combine their pragmatic theory with a theory which has much in common with what is known as the correspondence notion of truth in western philosophical literature. The Nyāya definition of validity (pramāṇa) makes it clear that truth consists in correspondence with reality. The Naiyāyikas also point out that, only in cases where a cognition leads to effort in practical experience or it happens to be pravartaka, it becomes necessary to ascertain the validity of such cognition in order to
ensure unfaltering effort (*niskampapra\vrtti*); and that, on the first occasion of halting effort (*sakampapra\vrtti*), it is not necessary that the cognition leading to such effort should have been definitely made out to be valid and it would do if such cognition should not have been definitely ascertained to be invalid. It can be easily seen from this that there is no room for any fear of *anavasthā* (endless regression) or *ātmāsrāya* (self-dependence) in the pragmatic method of inferring truth as employed by the Naiyāyikas. In respect of the question how validity and invalidity are brought about, the Nyāya theory is that they are brought about by certain extrinsic circumstances which, for the sake of convenience, are called *guṇas* (good features) and *doṣas* (defects); in other words the Nyāya theorists maintain *paratāstva* (extrinsicality) in respect of the *utpatti* (production) of validity and invalidity of a cognition as well as in respect of their *jñāpti* (knowledge). For instance the validity of a perception is secured by the good feature (*guṇa*) consisting in the adequacy of the contact between the sense-organ concerned and its object; and its invalidity is the result of defects such as distance and some disease affecting the sense-organ.

It would be interesting to contrast the Nyāya theory of truth and error with the epistemological theories put forward by other schools of Indian philosophy about truth and error. The Sāmkhyas maintain that both validity and invalidity are intrinsically made out in the sense that it is by virtue of the reflection or proximity of the same *cit* (self-luminous conscious-
ness), that the existence of a cognitive vṛtti and its validity or invalidity are illuminated. Prābhākaras make no difference between vyavasāya and anuvyavasāya and maintain that, in every cognition, the knower, the known object, and knowledge itself, along with its validity, are presented. They advocate the theory of intrinsicality (svatāstvapakṣa), in so far as validity (pramātva) is concerned; and there is no question of error (aprāmatva) in their theory, since they maintain that all experiences are valid (anubhūtiḥ pramā). The Bhāṭṭas contend that cognition is to be inferred through its effect, called jñātatā or prākatya, which consists in what some of them describe as a temporary luminosity (prakāśa) arising in known objects and referred to in propositions like ‘this is known’ (ayam jñātah); and that in such inference the cognition which has caused jñātatā, and its validity are presented. The validity which is thus intrinsically made out may be stultified by a subsequent sublating cognition; and thus, in the Bhāṭṭa theory, invalidity (aprāmatva) is extrinsically made out. The Bhāṭṭas are, therefore, to be taken to advocate svatāstva in the case of validity and paratāstva in the case of invalidity. Murārimitra, who does not go the whole hog either as a Prābhākara or as a Bhāṭṭa, but who is undoubtedly a Nāmāmsaka, recognizes, like a Naiyāyika, that a cognition (vyavasāya) is cognized by its after-cognition (anuvyavasāya), but maintains, unlike a Naiyāyika, that the validity of vyavasāya is also presented in the same anuvyavasāya. It will thus be seen that Murārimitra is an advocate of the theory of the intrinsicality of validity (pramā-
tvam svato grhyate). The Bauddhas, on the other hand, hold that all determinate knowledge (savikalpaka), in so far as one is conscious of it, is erroneous (apramā) and its apramātva is intrinsically made out; while, through inference, the validity (pramātva) of indeterminate cognition (nirvikalpaka) is extrinsically made out. The Buddhists thus advocate the theory of extrinsicality (paratāstvapakṣa) in regard to validity and intrinsicality (svatāstvapakṣa) in regard to invalidity. According to the Advaitins, the validity of a cognition is intrinsically made out in the sense that the witnessing inner spirit (sāksicaitanyā), which illumines the valid cognitive vṛtti, also illuminates its validity (pramātva); and the invalidity (apramātva) of a cognitive vṛtti is inferred extrinsically, through the resultant effort becoming futile. In order to evaluate adequately the different theories of pramātva and apramātva set forth here, it is necessary to note that the Naiyāyikas would answer in the affirmative, the question—'Is error possible in realism?'—and would explain the possibility of error by showing how a real substantive (viśeṣya) and a real attribute (prakāra) may be erroneously correlated when they are presented in cognition and thus save realism itself from being ruined by conceding the possibility of error. The Prābhākara realists think that any concession of the possibility of error (bhrama) would spell the ruin of realism and insist that all experiences are valid (anubhūtiḥ pramā) and that the so-called bhramas involve an element of non-discrimination (aviveka). The Bhāṭṭa realists adopt the anyathākhyāti of Nyāya
with suitable modifications; and in order to preserve realism effectively, they would make the knowledge of cognition (jñāna) dependent upon the knownness (jñātatā) of the object (jñeya) and thus provide an effective counterblast to idealism which seeks to merge all jñeya in jñāna. The Buddhist idealist rules out truth and considers all determinate knowledge (savikalpaka) erroneous. The advocates of the theory of intrinsicality of validity (pramāṇyasvastavatvavādinoh), more especially the Bhāṭṭas and the Advaitins, would generally emphasise the ideas that, in a valid cognition, the object is not stultified by a subsequent sublating cognition and is not merely re-exhibited through a reminiscent impression, the former of these two features being stressed in particular; and this way of looking at pramātva would be quite in accord with the view that apramātva is made out extrinsically and pramātva intrinsically. It may also be noted, with advantage, that, in the Nyāya theory, anuvyavasāya (the subject-centred after-cognition) is regarded as self-luminous (svaprakāśa) in the sense that it reveals itself along with the vyavasāya (the object-centred cognition in which the knower and knowledge are not presented); and that, in this respect, the Nyāya realist seeks to combine in a way his objectivism with an aspect of subjectivistic thought which is not incompatible with his realism. In this kind of compromise, a danger is lurking, as students of Advaita may easily see, and this danger consists in the manner in which the Nyāya view lends itself to anuvyavasāya being treated as a fragmentary appearance of the absolute
reality represented by the absolute, self-luminous consciousness called *cit*.

An intelligent attempt to review synthetically all the theories of *bhrama* known to Indian philosophy will bring to light the fact that, in some manner or other, a negative element is involved in every one of the five *khyātivādas* (theories explaining the nature of *bhrama*). In the *asatkhyāti* doctrine, the negative element is obvious; and in *ātmakhyāti* doctrine, it is obvious in so far as objective externality is concerned. In the *anyathākhyāti* view, the negative element is to be found in the *samsarga* part or in the idea that one reality is presented as another reality which it is not or that a real substantive is presented as having a real attribute which it has not; and in the *akhyāti* doctrine, one can easily detect the negative element in the idea of non-discrimination (*aviveka*). The *anirvacaniyakhyāti* doctrine appears on the surface to eschew the negative element from the conception of *bhrama*; but, in fact, the negative element is replaced by *relativity* which implies a negative element and transfers the negative element from the side of object to the side of definite predications (*nirvacana*) with reference to the object. A careful investigation of the Advaitin’s *anirvacaniyakhyāti*, as compared with the other theories of *bhrama*, would lead to the mystery of *error* being unravelled through the disentanglement of *negativity*, which is the inner core of *bhrama*. But this would not amount to all the theories of *bhrama* being reduced to the level of *asatkhyāti*; for, it should be remembered that *negativity* is only the other side of *relativity* and an aspect of
reality. If one might be permitted here to indulge for a while in epigrammatising, one might well say that *yes* (*sat*) and *no* (*asat*) are the fulcra of all epistemology as they are of all metaphysics; that *yes* and *no* are but phases of the same reality; that all appearances are the offspring of a cross between *yes* and *no*; that it will be evident through the gemination of *yes* and *no*, that *yes* is *no* and *no* is *yes*; and that error (*bhrama*) is the antechamber of truth (*pramā*).

In subsections (f) and (g) of section 28 of the text, valid experience (*pramāṇa*) and its instrument are each divided into four kinds. The term *pramāṇa* is used in this section in the sense of the efficient special cause or instrument (*karana*) of valid experience. The word *pramāṇa* is sometimes used in the sense of valid experience (*pramā*), as for instance in the proposition ‘*idam rajatam iti jñānam pramā*’ (this is siver—this is valid experience). In the word *pramāṇa*, the suffix *ana* denotes an instrument in the former case; and in the latter case, it denotes *bhāva* (the meaning of the root itself). The Indian materialists, called Cārvākas, recognize only one *pramāṇa*, viz., perception: the Bauddhas and the Vaiśeṣikas recognize two *pramāṇas*, viz., perception and inference; the Sāmkhyas recognize three, viz., perception, inference and verbal testimony; the Naiyāyikas recognize four, viz., perception, inference, assimilation and verbal testimony; the Prabhākaras recognize five, viz., the above four *pramāṇas* and presumptive testimony (*arthāpatti*); the Bhāṭṭas and Advaitins recognize these five *pramāṇas* and non-cognition (*anupalabdhi*) as the sixth *pramāṇa*;
and the Paurāṇikas recognise these six pramāṇas and, in addition, recognize necessary inclusion (sambhava) and traditional hearsay (aṅīhyā) as the seventh and the eight pramāṇa. The leading exponents of Indian philosophy are unanimous in discarding the last two, sambhava and aṅīhyā, the reason is obvious; the former which enables one, for instance, to be sure of fifty when hundred are guaranteed is nothing more than a plain case of immediate inference; and the latter, which consists in traditional hearsay like ‘a spirit dwells in this banyan tree’ (śha vate yaṅṣastīṣṭhati), is no pramāṇa at all until it is verified, and when verified, it comes under verbal testimony. The arguments advanced by Čārvākas to reject even anumāna and the grounds on which the Vaiśeṣikas and Baudhāyas would bring upamāṇa (comparison or assimilation) and sabda (verbal testimony) under inference will be considered under appropriate heads in chapters II, III and IV, infra. The Naiyāyikas would bring presumptive testimony (arthāpatti) under anumāna (inference), and in some cases, under sabda (verbal testimony). A reference to pages 44 to 47 supra would show how the Nyāyaikas and Prabhākaras discard anupalabdhi (non-cognition) as a distinct pramāṇa and how the former reduce it to the level of a necessary accessory to pratyakṣa, in perceiving non-existence (abhāva). From chapter III it will be seen that the Nyāya view of upamāṇa is different in several respects from the Māṁśaka’s view of that pramāṇa.

It would be useful to consider here how the chief champions of arthāpatti, the Bhaṭṭas and Prabhākaras,
maintain that it is a distinct pramāṇa and should not be brought under anumāṇa or sabda and on what grounds the Naiyāyikas refuse to recognize it as a distinct pramāṇa. According to the Bhāṭṭas, a knowledge of some fact which is unaccountable otherwise than by presumptively granting another fact is the instrument in the case of arthāpatti and the knowledge presumptively arrived at of the explanatory fact is the resultant cognition (upapādyajñānam karanam, upapādakajñānam phalam). For instance, Devadatta is alive and not present in his house; this fact has to be accounted for (upapādyya), and cannot be accounted for otherwise than by presumptively granting that he must be present in some place outside his house (bahissadbhāvakalpānam vinā nopapadyate). In the Bhāṭṭa view, the etymology of the word arthāpatti should be explained in two ways according as the word is taken in the sense of the instrumental cognition (karanibhūtajñāna) or resultant cognition (phalibhūtajñāna). In the former case, the word is to be explained as denoting the knowledge of the fact which has to be accounted for and is otherwise unaccountable—the knowledge through which the needed explanatory fact is presumptively arrived at (arthasya upapādakasya kalpanā yasyāḥ anyathānupapannasya upapādyasya pratīteḥ sā). In the latter case, the word denotes the presumptive knowledge of the required explanatory circumstance (arthasya upapādakasya kalpanā). The Bhāṭṭas define arthāpatti to be a pramāṇa which consists in such a conflict between two valid cognitions, of which one takes a general form and the other takes a specific form.
of a conflicting character, as necessarily leads to the presumptive knowledge of a fact which removes the conflict. One of the stock examples given by them may be set forth thus:—It is known for certain that Caitra is alive; he must be present in some particular place; he is not present in his house; so, he is presumably present elsewhere. That Caitra is alive and present in some particular place is an established fact which is presented in the valid cognition taking a general form (sādhāraṇa-pramāṇa). That he is not present in his house is also an established fact which is presented in the valid cognition taking a specific form (asādhāraṇa-pramāṇa). The conflict between these two pramāṇas is not of the nature of the irreconcilable conflict which one notices between two contradictories; but it is of the nature of the conflict between a general affirmation and specific exclusion or between a general rule and an exception (sāmānya and viśeṣa). The Naiyāyikas contend that, in such cases, there is no real conflict at all since both the general affirmation and the specific exclusion may be true. The Bhāṭṭas point out in reply that conflict need not always be thoroughgoing as in the case of two contradictories, and that partial conflict is quite conceivable. In instances like the one cited above, there is real conflict, though of a partial nature and there is a stage in the process of thought, at which the validity of the general affirmation is about to be completely imperilled. Caitra is alive and must be present somewhere; he is not present in his house; between this stage in thought and the final stage of presuming Caitra’s presence out-
side his house, the truth of the pre-established fact of his being alive stands imperilled; thus, just at this intervening stage, there is the possibility of the knowledge that Caitra is alive being falsified; and the knower’s conviction that this knowledge is true induces him to presume that Caitra is present outside his house and to prevent the possibility of falsification from becoming actualised. The Bhattas maintain in this manner that arthāpatti, as an instrument of valid cognition, is represented by a kind of conflict between a sādhrānapramāṇa and asādhrānapramāṇa (a valid cognition in the form of a general affirmation and a valid cognition in the form of a specific denial or exclusion), and that the resultant pramāṇa arising from a consciousness of such a conflict is a presumptive type of knowledge. If the essential element in arthāpatti is that a certain fact like Caitra’s being alive and not being present in his house is unaccountable without presuming another fact like Caitra’s being outside his house, could not arthāpatti be reduced to inference based on negative concomitance (vyatirekyanumāṇa)? This is what the Naiyāyikas ask. To get over this difficulty and to prevent arthāpatti being reduced to anumāṇa, the Prabhakaras urge that, in the example above referred to, it is not the possible falsification of the knowledge of Caitra being alive that constitutes the pramāṇa called arthāpatti; but it is the doubt regarding Caitra being alive (jivanasamśaya), which arises from the conflict indicated above, that serves as the means of the resultant cognition which consists in the presumptive knowledge of Caitra being outside his house.
While the strong point in the Prabhakara view of arthāpatti is that by treating doubt as the means of presumption, the pramāṇa in question is redeemed from the grip of anumāṇa, the weak spot in that view is that it exalts doubt to the rank of a pramāṇa; but the Prabhakaras, who hold that all experience is valid, would be quite willing to take this criticism as a compliment. The Bhattas meet the difficulty raised by the Naiyāyikas, by pointing out that the fundamental element in the mental process involved in arthāpatti is presumption through negative concomitance (vyatirekavyāpti) while the fundamental element in the mental process called anumāṇa is subsumption under positive concomitance (anvayavyāpti); and that presumptive knowledge is cognition of a distinct type belonging more to the side of imagination than to inference—belonging more to the sphere of hypothesis than to the sphere of inferentially established thesis, and it is articulated through propositions like 'I presume' and not through propositions like 'I infer'. The Bhattas do not approve of the way in which the Prabhakaras have exalted doubt in this connection to the rank of a pramāṇa. It is also pointed out by the Bhattas that there are certain cases of presumptive knowledge which do not admit of being reduced to inference. For instance, Devadatta is known to be present in the third house from mine; it is presumed that he is not present in any other house; this presumptive knowledge refuses to be reduced to inference; it would not be a sound argument to say that any place other than the third house from mine is not a place.
Devadatta is, on the ground that such a place happens to be different from the third house from mine and on the analogy of the second house from mine; for with equal force it might be argued that any place other than the three houses which have come within the scope of my observation is the place where Devadatta is present, on the ground that such a place is different from the two houses adjacent to the third house in which he is present and on the analogy of that third house. The Naiyāyikas would, however, explain their attitude in the matter by pointing out that, where one has to rely exclusively on negative concomitance (vyātirekavyāpti), one's mind has to pass inevitably through a stage of positive concomitance (anvayavyāpti) before it arrives at the resultant cognition; that presumptive knowledge (kalpaṇā) is really the anticipatory forestalling by the imaginative side of one's mind of what its somewhat slower ratiocinative side arrives at through inference; and that such foreshadowings through negative concomitance (vyātirekavyāpti) may well be brought under anumāna as a distinct variety of it and need not be exalted to the rank of a distinct pramāṇa. It should be remembered in this connection that the Bhāṭṭas maintain that what the Naiyāyikas would treat as inference based exclusively on negative examples and negative concomitance (kevalavyātirekpyanumāna) is really no inference at all and demands a distinct place as pramāṇa, since it lacks the essential feature of inference—viz., direct subsumption to positive concomitance. The Bhāṭṭas realize the danger that this
way of merging *vyatirekin* in *arthāpatti* may lead to the entire province of *anumāna* being swallowed up by the latter; and this fear they remove, by drawing attention to the fact that the inference of fire in a mountain from smoke, for instance, through the concomitance of fire and smoke in all observed cases, may be reduced to *arthāpatti*, and that the universal concomitance of all smokes and all fires, including the few observed and many unobserved cases, is a clear case of inference which cannot be accounted for by any *pramāṇa* other than *anumāna*. The Bhāṭṭas speak of two kinds of *arthāpatti*, *śrutārthāpatti* and *dṛṣṭārthāpatti*, according as the *upapādyā* (the fact requiring explanation) is made out through perception or through verbal testimony.

In section 28 of the text, four kinds of *pramāṇas* are referred to by Annambhaṭṭa. A *pramāṇa* is a *karaṇa* of a valid cognition (*pramaṇa*). The concept of *karaṇa* has to be elucidated. The author proceeds to define *karaṇa* in section 29 (a) and this leads on to a detailed consideration of the Nyāya view of causation.

29

T—(a) *Karaṇa* (efficient or instrumental cause) is a *special* cause.

(b)—The invariable antecedent of an effect is its cause.

(c)—An effect is the counter-correlative of its antecedent non-existence.
(d)—Cause is of three kinds, the three varieties being *inherent* cause, *non-inherent* cause, and *occasioning* cause.

(e)—That is called *inherent* cause, in which the effect *inheres* when it is produced. For instance, threads are the *inherent* cause of a cloth, and a cloth of its colour and such other qualities.

(f)—That is called *non-inherent* cause, which serves as a cause, while co-inhering with its effect, or with the inherent cause of its effect. For instance, contact between threads is the *non-inherent* cause of cloth; and the colour of the threads is the non-inherent cause of the colour of the cloth.

(g)—*Occasioning* cause is a cause not coming under either of the above-mentioned kinds. For instance, the shuttle, the loom and such other things are the occasioning causes of cloth.

(h)—Of these three varieties of causes, only that is called
an efficient or instrumental cause (karaṇa), which operates as special cause.

Annambhaṭṭa’s definition of karaṇa uses the phrase asādhāraṇa-kāraṇa. The terms sādhāraṇa (general) and asādhāraṇa (special) are vague and have to be interpreted in relation to the context in which they are used. In the present context, sādhāraṇa-kāraṇa should be understood as a cause which is believed to be the common cause of all the conceivable effects in the world; and in this sense, according to the Nyāya theorists, God, time, space and such other things are general or common causes. Asādhāraṇa-kāraṇa should be understood as a cause which is not common to all the effects but is the special cause of particular effects or classes of effects; and in this sense, the component parts of a pot called kapāla (potsherd), the potter’s stick and such other antecedents of a pot are its special causes. The Naiyāyikas of the older school would define a karaṇa as a special and mediate cause (asādhāraṇa-kāraṇa), its mediacy consisting in its causal operation depending upon the co-operation of its intermediate effect in producing its final result. The intermediate factor which a karaṇa causes and which, in its turn, co-operates with the karaṇa in producing the final result is technically called vyāpāra. The term vyāpāra, in this restricted sense, should not be confounded with the same term used in the general sense of activity. In the restricted sense of the intermediate accessory of a karaṇa, a vyāpāra is defined in Sanskrit in this way—tajjanyāḥ tajjanyajanakaśca vyāpāraḥ.
(A vyāpāra is caused by a karaṇa, and in association with it, causes its final effect). The full definition of a karaṇa, according to the older Naiyāyikas, is this:—vyāpāratvād asādhāraṇakāraṇam karaṇam. Annambhaṭṭa considers it expedient to adopt this definition. A potter’s stick (daṇḍa) is karaṇa in the sense that he uses it in revolving his wheel and it causes the pot through the rotation of the wheel (cakrabhrāmanā). A sense-organ is pramākaraṇa in the sense that in association with its intermediate vyāpāra, which consists in its relation with the object (sannikāraṇa), it produces a valid perception (pratyakṣaśaḥprāmāṇa). The Nyāyānaiyāyikas are not in favour of this definition of karaṇa. They would define it as a cause which is felt to be most necessary for having the effect, or for want of which it is believed that the effect is not produced though all the other causes are duly present—(phalāyoga-vyavacchinnam kāraṇam karaṇam). Understood in this way, a potter’s stick may be looked upon as karaṇa; and likewise the rotation of the potter’s wheel or even the contact between the component parts of a pot; in other words, according as the view-point varies, one may refer to an instrument or to its intermediate function or even to asamavāyikāraṇa as karaṇa. The view of the later Naiyāyikas thus agrees with that of the Vaiyākaraṇas in respect of karaṇatva, the Pāṇinīyan conception of a karaṇa being that it is most efficient of all the causes (sādhakatamam karaṇam).

The Nyāya theorists define a cause (karaṇa) as an invariable, immediate and indispensable antecedent of an effect. In Sanskrit, the full definition of a karaṇa
is set forth thus:—kāryaniyatāvyavahitapūrva-vṛtti ananyathāsiddham ca kāraṇam. This definition insists upon three conditions being satisfied before an antecedent and a consequent could be connected as cause and effect. The antecedent should immediately precede the consequent; the two should be invariably co-existent with each other; and the antecedent in question should not be made out to be otherwise than indispensable. Mere co-existence or even invariable co-existence, as in the case of a pot and threads which may be found in the same place, or of earthness (prthivītva) and smell, is not causality. Immediate sequence is one of the essential elements in causality. The adjunct ananyathā-siddha, introduced in the definition of a cause, literally means 'not made out to be otherwise than indispensable'. Anyathā means otherwise; siddha means made out; otherwise, in the context of causation, means otherwise than indispensable; ananyathā-siddha, as an adjunct to an antecedent factor, thus means 'not made out to be otherwise than indispensable' or 'not made out to be such as one can do without'. This use of the word ananyathā-siddha should not be confounded with its use as an adjunct with reference to the result kept in view (prayojana). In phrases like ananyathā-siddham prayojanam, the result kept in view is described as something which cannot be accomplished otherwise than by particular means. With reference to a cause, ananyathā-siddha means, as already explained, an antecedent which is not made out to be otherwise than indispensable. A may be seen to be an invariable antecedent of B; still, one may be justified in thinking
that it is not indispensable; in that case, A should not be regarded as cause of B. The Naiyāyikas have made an attempt to classify all the conceivable varieties of dispensable antecedents (anyathāsiddha) and usually recognize five classes of dispensable antecedents. A thing is made out to be invariable antecedent, only as determined by a delimiting adjunct; for instance, thread (tantu) is an invariable antecedent of cloth, under the aspect of threadiness (tantutva); this delimiting adjunct, though it finds a place in a definite conception of the causality referred to, does not participate in the creative process involved in such causality and is therefore felt to be dispensable in the sense that the causal process does not depend upon it; all such delimiting adjuncts of causeness (kāranatāvacchedaka) form the first class of anyathāsiddha. Invariable sequence between an antecedent and a consequent is generally made out through a knowledge of invariable concomitance between these two factors and between their negations—in other words, through a knowledge of anvaya and vyatireka; the colour of thread may be made out to be an invariable antecedent of cloth; but in this case, the anvaya and vyatireka, with reference to the colour of thread and cloth, cannot be made out independently of the invariable concomitance between thread and cloth on the positive and negative sides; the colour of thread is therefore anyathāsiddha with reference to cloth and is typical of the second class of dispensable antecedents. The third class of dispensable antecedents is represented by ether (ākāśa) in relation to a cloth; in this case, ether being eternal, it may be
easily shown to precede every effect; but it has to be conceived of as cause through the delimiting adjunct, 

etherness (ākāśatva), which involves causal relation with sound; a thing which cannot be specifically thought of except as the cause of a certain effect may well be imagined to be a thing whose causal efficacy is completely pre-occupied in the direction of that effect and is no longer available in any other direction; and the feeling, therefore, in the case of ākāśa, is that it may may be dispensed with in producing a cloth. The fourth variety of anyathāsiddha is represented by instances like the weaver’s father with reference to a cloth woven by his son; only as the weaver’s father, he is made out to be the invariable antecedent of the cloth, and not in his own right; and the feeling in that case is that one can do without the weaver’s father in accounting for the production of a cloth. The fifth variety is represented by instances like an ass; it may so happen that in the case of an individual cloth, a certain ass precedes it; the particular ass necessarily turns out to be the invariable antecedent of the particular cloth; but it is felt that certain antecedents, other than the ass, which are known to be quite adequate to account for the production of similar cloths, must be adequate in the case also of the particular cloth under reference; and so, the ass, in that case, is anyathāsiddha. Annambhaṭṭa, following Gaṅgeśopādhyāya, would combine the first two varieties into one, and likewise the third and fourth varieties, and would thus recognise only three classes of dispensable antecedents. In fact, later Naiyāyikas show that all these five varieties may
be brought under the fifth variety; the principle underlying the fifth variety may be stated thus; while other invariable antecedents are made out to be quite necessary and adequate for producing similar effect belonging to the same class, or to be more accurate, while invariable antecedents of a relatively simpler type are made out to be quite necessary and adequate for producing such effects, in the case also of the effect in question, an invariable antecedent, which is not one of such antecedents felt to be necessary in the case of similar effects belonging to the same class, and which is less simple than such antecedents in respect of form (śarīra) or thought (upasthitī) or relation (sambandha) as the case may be, should be eliminated as a dispensable antecedent (anyathāsiddha); this principle holds good in all the five varieties of anyathāsiddha. Thus all the five varieties may be brought under the comprehensive formula that invariable antecedents of a simpler type being quite adequate to account for the effect under reference, another antecedent, though invariable, has to be discarded as a dispensable antecedent (anyathāsiddha). This formula is expressed in this way in Nyāya literature—"laghuniyatapūrvavartinaiva kāryasambhave tadbhinnam anyathāsiddham." The adjunct ananyathāsiddha in the definition of a cause is intended to eliminate all such antecedents as one can reasonably feel one may well do without. After introducing the qualification ‘not made out to be otherwise than indispensable’ (anayathāsiddha), it has to be considered whether the adjunct ‘invariable’ (niyata) is necessary. It would appear that most of
the antecedents which are not invariably concomitant with the consequents in question can easily be eliminated as dispensable antecedents; for instance, an ass is neither an invariable nor an indispensable antecedent of a certain cloth. However, when the whole species of effects represented by cloth is sought to be connected as effect with some species as cause, the general formula of anyathāsiddha does not hold good; for, one can never say that the antecedents recognized as causing another species of effects, like a jar, would be adequate to produce the species under reference, viz., cloth; and in such cases, the only way in which accidental antecedents like an ass can be eliminated would be through the adjunct 'invariable' (niyata).

The conception of a kārya or an effect involves, according to the Nyāya theory of causation, the idea that the effect is invariably preceded by its antecedent non-existence. To say that a jar is produced means, in the Nyāya theory, that it is created for the first time and that it never existed before. Consistently with the creationistic view of causation (ārambhavāda), Annambhaṭṭa defines an effect as the counter-correlative of antecedent non-existence. In this connection students are advised to consider again the remarks about prāgabhāva in pages 37 to 40, part III, supra. Positive product (bhāvakārya) has three kinds of causes; the first being of the nature of component parts or of the nature of the substratum in which the effectuated quality or activity inheres and called 'inherent cause' (samavāyikāraṇa); the second being of the nature of the conjunction of parts producing the whole or of the nature of the
quality or activity inhering in the component parts or a substratum and producing a corresponding quality in the whole or disjunction in the same substratum, and called non-inherent cause (asamavāyikāraṇa); and the third being of the nature of agent and such other causes, not falling under either of the first two heads, and being called occasioning cause (nimittakāraṇa). It would be a mistake to suppose that all the nimittas are less important than the other two varieties. For, kartā or the intelligent agent, in whose absence the other causes become ineffectual, is technically a nimitta, but is, in a sense, the most important of all the varieties of causes.

That is a samavāyikāraṇa in which the effect inheres as it comes into being. The component parts (avayavāḥ), like threads, thus form the inherent cause of a composite substance (avayavin), like a cloth; and likewise a substance, of the quality or activity which is produced in it. To secure precision and avoid confusion, the delimiting adjuncts of effectiveness (kāryatā) and causeness (kāraṇatā)—kāryatāvacchedakadharma and kāraṇatāvacchedakadharma—should be specified in defining the relation of cause and effect in every case, as also the relations which determine the co-existence of the antecedent and the consequent in question—kāryatāvacchedakasambandha and kāraṇatāvacchedakasambandha. Causality involves invariable co-existence between an antecedent and a consequent; their co-existence (sāmānādhikaraṇya) is their presence in the same place; when they are present in the same place they should each be connected with the common sub-
stratum through a relation; the relation which connects the antecedent with the common substratum (samānādhikarana) is known as the determining relation of causeness (kāraṇatāvacchedakasambandha); and the relation which connects the consequent with the same substratum is called the determining relation of effectness (kāryatāvacchedakasambandha). The exponents of the Nyāya-Vaiśeṣika doctrine of causation contend that, by a careful observation of the invariable concomitance between an antecedent and a consequent, as determined by particular delimiting adjuncts and relations, as also of the invariable concomitance between the negations of such antecedent and consequent—of anvayasahacāra and vyatirekāsahacāra—the causal relation in every case can be accurately defined so as to obviate every conceivable hitch. In the case of a samavāyikāraṇa, like threads in relation to a cloth (tantavah paśasya), the simplest and the most accurate way in which the causal relation may be defined is this: 'the causeness delimited by threadness and by the relation of identity (tantutvāvacchinnā tādātmyasambandhāvacchinnā ca kāraṇatā) is correlated to the effectness delimited by clothness and by the relation of inherence (paṭatvāvacchinnasamavāyasambandhāvacchinnakāryatānirūpītā). It will be seen here that, in every case of samavāyikāraṇa, the simplest way of defining the causal relation (kāryakāraṇāḥhāva) would be by referring to the cause itself as the common substratum (samānādhikarana) in which the antecedent and the consequent under reference co-exist. In Nyāya definitions of causality, the common substratum kept
in view is generally suppressed; and the student of Nyāya has to find it out first before trying to interpret such definitions. It should be noted here that the Nyāya conception of *samavāyikāraṇa*, while it includes what the Vedāntins call the *upādānakāraṇa* (material cause), is not exactly parallel to it; because, *upādāna* (material cause) is the substance which enters into the make-up of its product and this is true, in the Nyāya theory, only in the case of the component parts and their composite product, and not in the case of a substance and the quality or activity arising in it, the cause and effect in the latter case representing fundamentally different categories. It should also be observed here that the phrase *inherent cause, samavāyikāraṇa*, is somewhat misleading, in that it may lead one to suppose wrongly that it is the cause that inheres in the effect but the fact is that the phrase here means ‘a cause which is capable of producing an effect that inheres in it’. It may appear at first view that the phrase ‘intimate cause’ is a better equivalent; but it turns out to be more misleading when the corresponding phrase non-intimate cause comes to be used as the equivalent of *asamavāyikāraṇa*, as may be seen presently from the next para.

The phrase *asama: avikāraṇa* means a cause which, under no circumstance whatever, could be treated as a *samavāyikāraṇa* (inherent cause). Substances only can be treated as *samavāyikāraṇa* and they can never be treated as *asamavāyikāraṇa*. Qualities and activities only can be treated as *asamavāyikāraṇa*.
While the two kinds of causes—inhent cause (samāvāyi) and non-inherent cause (asamāvāyi)—are absolutely exclusive of each other, the third kind—viz., occasioning cause (nimittakāraṇa) includes causal factors which, while being the nimitta of certain effects may well be the inherent or non-inherent causes of certain other effects, as the case may be. The phrase non-inherent cause used as the equivalent of asama-vāyikāraṇa should not be taken to mean that the cause referred to does not inhere in any substratum, since every non-inherent cause, on the contrary, inheres somewhere; but this phrase should be understood to stand for, like its Sanskrit equivalent, a cause which, under no circumstance whatever, could be treated as inherent cause. In defining the causality of a non-inherent cause, the inherent cause of the effect in question should be kept in view as the common substratum (samānādhikāraṇa), inherence (samāvāya) should be referred to as the relation determining the presence of the effect in question in the common substratum (kāryatāvacchedakasambandha), and either inherence or co-inherence (samāvāya or ekārtha-samāvāya) should be referred to as the relation determining the presence of the cause in question in the common substratum (kāraṇatāvacchedakasambandha). The conjunction of threads (tantusāmyoga) is the non-inherent cause of cloth; and in that case, the common substratum is thread; the relation connecting cloth with such substratum is inherence; and likewise, the relation connecting the conjunction of threads with such substratum is inherence; this is one type of non-in-
Another type of non-inherent cause is to be found in the colour of the threads forming the component parts of a cloth; in this case, the colour of the threads is the non-inherent cause of the colour of the cloth; the common substratum is the cloth; the relation connecting the effect with such substratum is inherence and the relation connecting the cause with it is co-inherence. It should be remembered here that, according to the Nyāya-Vaiśeṣika system, the special qualities (viṣeṣagunāḥ) of soul (ātman) should not be treated as non-inherent cause in the case of any effect, though the general definition of such cause holds good in the case of knowledge in relation to desire, of desire in relation to voluntary decision or effort (yatna) and in such other cases. The chief reason why the special qualities of soul should not be treated as non-inherent cause in the case of any effect is that, in all such cases, it would be simpler to treat the contact between the soul and the mind (ātmananassamyoga) as non-inherent cause and in the case of any effect, more than one non-inherent cause need not be recognized. In view of this, in the general definition of non-inherent cause given in the text, it is necessary to introduce the qualification that such cause is different from the special qualities of soul (ātma viṣeṣagunabhinnam).

The atomic hypothesis of the Nyāya-Vaiśeṣika system and the creationistic view of causation maintained in that system are closely bound up with each other. The Nyāya-Vaiśeṣika theory of causation is known as ārambhavāda (creationism) as distinguished from the pariṇāmavāda (evolutionistic view of causa-
tion) of the Sāṃkhyas. In the Nyāya-Vaiśeṣika system, ‘to come into being’ means ‘to spring up at a certain point of time and not to have existed before’; for this reason, the Nyāya theory of causation is known as asatkāryavāda. The expression asatkāryavāda, according to Naiyāyikas, means ‘the view that every effect is invariably preceded by its antecedent non-existence’ and it should not be understood to imply that an effect arises out of nothing. On the contrary, according to the Nyāya theory, a positive product (bhāvakārya) is invariably preceded by a causal machinery, the full complement of which includes several positive antecedents and two negative antecedents, viz., the antecedent negation of the effect in question (kāryaprāgabhāva) and the absence of counter-acting causes (pratibandhaḥkābhāva). The Naiyāyikas are anxious to repudiate the suggestion that their theory of asatkāryavāda implies that an effect may arise out of nothing; and they point out that antecedent negation (prāgabhāva) would be inconceivable without thinking of a suitable anuyogin (correlated substratum) and pratiyogin (counter-correlative), and that in the case of prāgabhāva, as in the case of annihilative negation (dhvamsa), while the effect itself represents the latter, the inherent cause (samavāyikāraṇa) represents the former. Invariable concomitance between an antecedent and a consequent (niyatapūrvavartitva) and absence of such circumstances as would justify the idea that the antecedent in question is not indispensable (ananyathāsiddhatva)—these are the two essential elements in the Nyāya con-
cept of causality. The former, according to the Naiyāyikas, is generally made out through a knowledge of the invariable sequence between two positive factors (anvayasahacāra) and of the invariable concomitance between the negations of those two factors (vyatirekasahacāra). The formula for anvayasahacāra is usually stated thus:—“Whenever C precedes, E follows”; and that for vyatirekasahacāra thus:—“Whenever C does not precede, E does not follow.” The latter formula is intended to serve as a corrective to the former and effectively eliminates the mistake which may arise through an exclusive adoption of the former formula and which consists in mere co-existence or sequence being taken for causality. There are certain cases where it is not possible to make out negative concomitance (vyatirekasahacāra); for instance, where a cause, like God, is ex hypothesi present everywhere and the invariable antecedent of every conceivable effect, the negative formula of vyatireka cannot possibly apply. In such cases, the affirmative formula of anvaya alone is available and depended upon. In all other cases, the Naiyāyikas insist that causality should be determined through an application of both the formulas of anvaya and vyatireka. Where these two formulas are applied to instances falling within the range of direct observation (pratyakṣa) and as a result causality is made out, it is said to be made out through pratyakṣa. Students of Western logic, who are familiar with the experimental methods formulated by Mill for determining causal relations, may be able to
find in the combination of the Nyāya formulas of *anvaya* and *vyatireka* a parallel to what is known as the *joint method of agreement and difference*. The Naiyāyikas are keenly alive of the difficulties in determining causality, which are brought about by cases of *plurality of causes* and *intermixture of effects*. They contend that, strictly speaking, there can be no plurality of causes or intermixture of effects. If fire appears to be the effect of straw (*trṇa*), or tinder-sticks (*arani*), or *lens* (*maṇi*), the fact is that the same effect is not produced from these three causes and the effect in each case has different properties. Such differences in effects may be apparent in certain cases and may be subtle and have to be noted with care in others. In a similar way, the effects of different causes may be mixed up; and in such cases, these effects should be carefully distinguished. The Naiyāyikas are never tired of reminding themselves and others of the need for carefully observing and making out the relation of invariable concomitance between particular classes of antecedents and consequents, as also between their negations. This need is embodied in Udayana’s dictum—“Concerning the truth about the affirmative and the negative concomitance, one should be particularly careful” (*tattvate yatnavatō bhāvyam anvayavyatirekayoh*). It is contended by the Naiyāyikas that our experience of several things as existing only during a particular period of time and never existing before that time—in other words, as being *kadāciika* in their nature—cannot be satisfactorily explained except by assuming causal relation between such things and certain antecedents. The
causal factors also—some of them at least—should themselves be occasional (kādacitka) and contingent, for the reason that, otherwise, the prior non-existence of the effects in question cannot be accounted for. This would mean that a beginningless chain of causes and effects should be admitted; and the Naiyāyikas do not hesitate to say that the stream of causes and effects is beginningless (kāryakāranapravāho’nādiḥ), for the simple reason that the starting point, if any, of the causal stream lies far beyond human ken.

30

T—(a) Of those pramāṇas, perceptive instrument (pratyakṣa) is the means of perception.

(b) Perception is the cognition which is produced through sense-organ coming into relation with an object. It is of two kinds:—indeterminate and determinate.

(c) Indeterminate perception is a cognition which does not involve any attribute or adjunct (prakāra).

(d) Determinate perception is cognition which involves an attribute or adjunct. It is embodied in propositions like “This is Pittha”, “This is a
The definition of perceptive instrument (pratyaksapramāṇa) is based on Gautama's sūtra I.1.4, which runs thus:—

\[ \text{indriyārthasannikārṣotpānam jñānam avyapadeśyam avyabhīcāri vyavaśāyātmakam pratyaksam} \]

This sūtra may be rendered thus:—“Perception is cognition which arises through sense-organ coming into relation with object, and which is non-verbal, unerring and of the nature of indubious knowledge”. The Śūtrakāra is evidently defining valid perception (pratyaksapramāṇa) in order to definitely indicate the nature of the instrument of valid perception (pratyaksapramāṇa). According to the earlier interpretation of this sūtra, as given in Vātsyāyana’s bhāṣya, the adjunct ‘unerring’ (avyabhīcāri) excludes erroneous perception; and the adjunct ‘indubious’ (vyavaśāyātmaka) excludes doubt. The adjunct ‘non-verbal’ (avyapadeśya) in the sūtra is understood in various ways by different scholiasts. Some of the old scholiasts take this adjunct to mean ‘not coming within the scope of expressions referring to objects’ (śabdakarmatāṁ āpannam na bhavati yat); and in this sense, it differentiates perception as described by the expressions referring to objects from perception as it arises, the former having become objectified as prameya and thus ceased to belong to the subjective sphere of pramāṇa (valid cognition). Some other Naiyāyikas of an early school would take the adjunct ‘non-verbal’ (avyapadeśya) in the sense of ‘not being caused by word
in association with sense-organ' (anubhayaja or śabdāksobhayajabhinna); and, in this sense, it should be understood as excluding cases where the meaning of a word is made out through the perceptual observation of the way in which an object is referred to by that word, or in other words, cases where a word is first made out to be significative of a certain object that is actually being perceived by a sense-organ. In such cases, they hold that the cognition in question should be brought under verbal cognition (śābda) and not under perception. Another set of early Naiyāyikas, (like Jayantabhaṭṭa) would take avyapadeśya in the sense of aśābda (non-verbal) and would explain its purpose as consisting in saving determinate perception (suvikalpaka) from being merged in verbal cognition (śābda) on the ground that the cognitive process involved in such perception invariably results through the operation of a sense-organ in association with the recollection of a scheme of words with which the knower happens to be familiar. Vācaspatimīśra and several others who follow him would take the word avyapadeśya (non-verbal) and vyavasāyātmaka (definite and determinate) as referring to the two kinds of perception—viz., indeterminate (nirvikalpaka) and determinate (savikalpaka). They maintain that the former adjunct (avyapadeśya) refutes the view of the grammatical philosophers who refuse to recognize nirvikalpaka and hold that knowledge is impossible except though some language and no object is cognized by itself and without being associated with the word signifying it. (Na so'sti pratyayo loke yatra śabdo na
bhāsate). The latter adjunct (vyavasāyātmaka), they further maintain, refutes the Buddhist doctrine that indeterminate perception (nirvikalpaka) is the only genuine type of valid perception and that all determinate cognitions (savikalpaka) are illusive. The last explanation given by Vācaspatimisra and his followers is generally accepted by later Naiyāyikas and Gautama’s sūtra dealing with perception (I. 1. 4) is believed to presuppose both the types of perception—determinate (savikalpaka) and indeterminate (nirvikalpaka).

What exactly is the nature of indeterminate perception and how does it differ from determinate perception? The answer suggested by Annambhaṭṭa’s definitions of nirvikalpaka and savikalpaka, which follow Gaṅgeśa’s view, may be explained in this way. In the first place, it should be remembered that the Nyāya distinction of erroneous cognition (bhrama) and valid cognition (pramā), which is intended to apply only to cognitions leading to some activity (pravartaka), holds good only in the case of determinate cognitions and cannot have any reference to indeterminate cognitions. The relation of object and subject (viśayaviśayibhāva) involved in a determinate cognition is a definite complex consisting of three correlated phases—adjunctness (prakārata), substantiveness (viśeṣyatā) and relationness (samsargata). In an indeterminate cognition, on the other hand, there is the relation of object and subject; and while a thing, its attribute such as a generic feature (jāti) and their relation are presented in it, they are not presented in a specific manner in their respective forms as a qualified substantive (viṣeṣya), as a qualify-
ing attribute (viśeṣāṇa) and as a relation of a definite
type (samsarga). Such indeterminate cognitions have
only to be inferentially arrived at through determinate
cognitions, on the basis of the observed causal relation
between a cognition of a certain attribute (viśeṣāṇa-
janā) and a complex cognition of a thing as having
that attribute (viśistajñāna). On this ground, the
determinate cognition of a jar, for instance, one cannot
possibly have without previously having an indeterminate
cognition in which the substance in question, its
generic attribute and even their relation are presented
in a vague and undifferentiated form. Indeterminate
cognitions are therefore said to be alindriya (beyond
the scope of any sense), while determinate cognitions
are generally perceived by mental perception (mānasā-
pratyakṣa) and presented in anuvyavasāya. It may
also be noted that a nirvikalpaka can never be directly
expressed in a proposition and that every proposition,
according to Naiyāyikas, embodies and conveys a deter-
minate cognition (samsargāvagāhijñāna or savikalpaka).

The grammatical philosophers (śābdikas) as
already stated, refuse to recognize nirvikalpaka. All
the other philosophers recognize the distinction between
nirvikalpaka and savikalpaka in one form or other. In
the first place, the Buddhists hold that the nirvikalpaka
is the only form of valid perception and it cognizes the
absolute, unrelated, momentary existence called svalak-
sha (the mere thing-in-itself); while the determinate
cognitions (savikalpaka) are illusive in that they
involve wholly fictitious fabrications (vikalpa or
kalpanā), which usually take the forms of a name (nāma), a generic attribute, (jāti), a quality (guna), an activity (kriyā) and a substance (dravya). The Advaitins hold that indeterminate cognition (nirvikalpaka) may arise from propositions like ‘This is that Devadatta’ (so’yam devadattaḥ) and ‘That thou art’ (tat tvam asi); and that the absolute existence alone (sanmātram), which is identical with Brahman, is presented in indeterminate cognitions (nirvikalpaka). The Mīmāṁsaka view of nirvikalpaka is that it is an indeterminate perception which consists in the direct and simple awareness of an individual object (vyakti) and its generic attribute (jāti) which arises immediately after the sense-organ comes into relation with them; and that it misses the definite feature of the jāti as being common to several individuals belonging to a particular class and the specific character of the vyakti as being different from others—i.e., the element of anuvṛtti in the former case and of vyāvṛtti in the latter case. This is closely similar to the old Vaiśeṣika view of nirvikalpaka. Prāśastapāda describes indeterminate perception as simple awareness (ālocanamātra) and Kumārila, in his description of it, uses the same expression and compares it to the unverbalised dumb experience of a child or a dumb person. Indeterminate perception is only to be inferred like any other cognition, in the view of Bhāṭṭas; while it is presented in itself along with the knower and the known object, as in the case of other cognitions, according to the Prābhākaras. The Vedāntins of the Viśiṣṭādvaita school adopt the Prābhākara view of indeterminate perception and main-
tain that every cognition, however simple it may be, involves a substantive, an attribute and their relation; that both sāmānya (generic attribute) and viśeṣa (the individual vyakti) are presented in nirvikalpaka along with difference in the form of the individual object (vyaktisvarūpa); and that, at the stage of nirvikalpaka, the knower does not realize that the generic attribute presented in his knowledge is common to all the individuals belonging to the same class and that these individuals are different from the individuals belonging to a different class, and he is not, therefore, in a position to articulate his indeterminate perception through verbal expression.

The Advaitic view of nirvikalpaka—that the absolute existent (Sattā=Brahman) is the only thing which is presented in it and that the highest form of truth-realization which leads to final emancipation is a nirvikalpaka—is an inevitable development of the doctrine of nirvikalpaka as adopted by the exponents of the Nyāya-Vaiśeṣika system. The Nyāya-Vaiśeṣika realists have shown how a permanent reality, and not a momentary isolated 'this' (svalakṣaṇa or thing-in-itself) as in the case of the Buddhist theory of nirvikalpaka, may be presented in indeterminate perception; and it has thus become easy for the Advaitins to push the Nyāya theory of nirvikalpaka to its logical conclusion and to maintain that the true nirvikalpaka is one in which Brahman, the only absolute and permanent reality, is presented. This is, indeed, one of the several instances in which the Advaitic Monist effectively uses a weapon made in
the Nyāya forge against its maker himself to annihilate his pluralistic universe. Jayantabhaṭṭa, an authoritative exponent of Nyāya, observes in a significant manner that the only way in which one may get out of the mess which various Indian theorists have made of the content of nirvikalpaka would be by adopting the view that the same reality that is presented in savikalpaka is presented in the nirvikalpaka, the only difference between them being that the former is invariably bound up with a linguistic scheme or verbal image while the latter is not and cannot be specifically articulated through any verbal expression. The sub-joined extracts from the Nyāyamañjūri (Viz. S. S. page 99) deserve a careful consideration in this connection:

"Tasmad ya eva vastvātmā savikalpasya gocaraḥ;  
Sa eva nirvikalpasya śabdolleckhavivarjitaḥ.  
Kimātmakośaviti ced yad yada pratiḥāsate;  
Vastupramitayaścaiva praśṭavyā na tu vādinah.  
Kvacijjātiḥ kvaciddravyam kvacitkarma kvacid guṇah;  

Yadeva savikalpena tadevānena grhyate.  
Iha śabdānusandhānamātramabhāyadhikām param."

The Nyāya-Vaiśeṣika definition of pratyakṣa (sense-perception) generally insists that sense-data form its essential feature and that it is invariably the result of a special type of relation called saṃnikarṣa between a sense and an object. This definition takes into account only perceptual experiences which are produced from certain causes and does not hold good in the case of the eternal omniscience which is also called
pratyakṣa and which is ascribed to God. Strictly speaking, the etymology of the word pratyakṣa would support its application only to perceptual experiences arising from the senses. However, usage has extended the term to all cognitions which are characterised by immediacy. God’s omniscience has the highest degree of immediacy conceivable. So, in order to cover nityapratyakṣa, also, perception is defined as a cognition which does not arise through the instrumentality of another cognition; (jñānākaraṇakam jñānam pratyakṣam). It should be remembered that, though a determinate perception arises from an indeterminate perception, the latter does not operate as karāṇa (efficient instrument).

It would be desirable to consider here whether perception, in the sense in which it is used in the Nyāya-Vaiśeṣika system, may correctly be called intuition. Without misapprehension, the term intuition may be used with reference to perception (pratyakṣa), only in the sense that it possesses a comparatively greater degree of immediacy, as compared with non-perceptual cognitions. If intuition should be taken to exclude absolutely mediacy of any kind whatever, the pratyakṣa of the Nyāya system, which arises through a special kind of relation between an object and a sense-organ, cannot be called intuition. In the strict sense of the term intuition, it may be proper to use it only with reference to what is sometimes called pratibhā or the innate capacity of the mind to immediately perceive certain things; and it may also be appropriate to describe the Advaitic realisation of the one absolute
reality as *intuition*, in view of the fact that it results from the intuitive faculty of mind to perceive reality coming to have a full, free and efficient play after the required preliminary discipline of studying and understanding (*śravaṇa*), reflective thinking (*manana*) and constant meditation (*nididhyāsana*). In fact, in the Nyāya system, all knowledge is mediate in a sense, except the eternal knowledge ascribed to God, even indeterminate perception depending upon the mediation of a special kind of relation between sense-organ and object (*indriyārthasannikarṣa*).

The Bhāṭṭa Mīmāṁsakas adopt, for all practical purposes, the Nyāya definition of perception and would, like Naiyāyikas, lay special stress on *indriyārthasannikarṣa*. The Prābhākaras, on the other hand, define perception as 'direct awareness' (*sākṣat prātītiḥ*); and according to them, even recollection, inference and such other cognitions, usually considered non-perceptual in their character, are really perceptual on the subjective side, in so far as they themselves and the knower are concerned (*svāṁśe jñātramśe ca*), though they are non-perceptual on the objective side, in so far as their objects are concerned (*viṣayāṁśe*). The Advaitic theory of perception rightly points out that the Nyāya view gives undue prominence to *indriyārthasannikarṣa* and belittles the importance of the element of immediacy which ought to be treated as the essential element in *pratyakṣa*. The Advaitins seek to remedy this defect by treating sense-relation as an antecedent necessary only for certain kinds of percep-
tion and by insisting that immediacy consisting in subject-object-unity is the essential feature of all perceptual forms of experience, and not sense-relation. Consistently with usage in language, the Advaitins distinguish the pratyakṣa (perceptuality) of a cognition from the pratyakṣa (perceivedness) of an object. They describe cognition (jñāna) as pratyakṣa (perceptual experience), when it comes to be unified for the time being with its object, in the sense that consciousness as conditioned by cognition (pramāṇa-caitanya or vṛttayavacchinnacaitanya) becomes equated with consciousness as conditioned by object (visaya-caitanya). In a similar way, they describe an object (visaya) as pratyakṣa (perceived), when the knower (pramātra-caitanya) becomes equated with object or consciousness as conditioned by object (visayacaitanya). It may be noticed here that the idea that immediacy in the sense of subject-object-unity forms the essential element in pratyakṣa has turned out to be wholly foreign to Nyāya realism, mainly because the relational scheme on which the realistic edifice of Nyāya is erected consists entirely of external relations, and because the object-subject-relation (visaya:isayiḥbhāva), in particular, is conceived of as being entirely external in its character, chiefly with a view to keeping the dangerous idealist always at a safe distance.

30 (e).  
T—The sense-relation (san-nikarṣa) which causes a perceptual cognition is of six kinds—viz., contact, inherence in what
has come into contact, inherence in what is inherent in a thing which has come into contact, inherence, inherence in an inherent thing and adjunct-substantive relation.

When a jar is perceived by the sense of sight, the sense-relation is ‘contact’. When the colour of a jar is seen, the sense-relation is ‘inherence in a thing which has come into contact’, the jar, in that case, having come into contact with the visual sense and colour being connected with the jar through the relation of inherence. When colourness (rūpātva) in the colour of a jar is seen, the sense-relation is ‘inherence in what is inherent in a thing which has come into contact’; for, in that case, the jar has come into contact with the visual sense, the colour of the jar inheres in it and colourness inheres in colour.

When sound is perceived by the sense of hearing, ‘inherence’ is the sense-relation; for, the ether bound within the auricular orifice is the auditory sense,
sound is a quality of ether, and the relation between a quality and its substratum is inherence. When soundness (śabdatva) is perceived by the auditory sense, the sense-relation is 'inherence in a thing which inheres'; for, soundness inheres in sound which inheres in the auditory sense.

In the perception of non-existence, the adjunct-substantive-relation is the sense-relation; for in the case of the visual perception which takes the form—"The seat of the non-existence of jar is floor", the 'non-existence of jar' is an adjunct to the floor with which the visual sense has come into contact.

Thus the cognition which arises from one or the other of these six sense-relations is perception; and sense-organ is its efficient instrument (karaṇa). Therefore, the senses constitute the efficient instrument of perceptual experience (pratyakṣa-pramāṇa).

[THUS ENDS THE CHAPTER ON PERCEPTION]
In the foregoing portion of the text, the scheme of sannikarṣa adopted by the Naiyāyikas is set forth. The term sannikarṣa is used in a technical sense; it is not a mere relation, nor is it exactly contact, for the word ‘contact’ is generally taken to be equivalent to saṁyoga. It would be correct to describe sannikarṣa as a special type sense-relation which determines and constitutes the extent of the perceptive reach or range of the sense-organs. In Nyāya literature, the term sannikarṣa is generally used in this technical sense. The scheme of sannikarṣa set forth above relates to normal perception (laukikapratyakṣa) and comprises normal sense-relations (laukikasannikarṣa). The Nyāya-Vaiśeṣika theory regarding the nature and constitution of the sense-organs (indriya) is already set forth on pages 65, 66 and 68 supra. According to the Naiyāyikas, the visual sense (cakṣuḥ), constituted as it is by light, travels to the spot where the visible objects happen to be and visualize them and it is therefore said to be prāpyakārin; the remaining senses are said be aprāpyakārin, in the sense that they do not leave their place but, remaining where they are, they perceive the objects which come within their reach. Some early exponents of the Nyāya-Vaiśeṣika system, like Jayantabhaṭṭa and Śrīdhara, hold that all the senses are prāpyakārin, in the sense that they function with reference to objects within their reach, it being immaterial whether a sense reaches an object or an object reaches a sense. Samavāya (inheritance) is
recognized as a distinct type of sannikarṣa in order to account for the auditory perception of sound. The Nyāya theory of the perception of sound (sabdāpratītyakṣa) is already set forth and explained on pages 101 to 104 supra. The Nyāya view regarding the perception of non-existence is that, through the help of effectual non-cognition (niyānapalādhi), a sense-organ perceives the non-existence of an object which is perceptible to it. As a rule, a sense-organ which perceives an object can also perceive its jāti (generic attribute) and its abhāva (non-existence). The Nyāya view regarding this matter is usually expressed in this Sanskrit dictum—“yenendriyena yā vyaktīḥ grhyate, tanniṣṭhā jātiḥ tadabhāvasca tenendriyenaiva grhyate”. It is necessary, in this connection again, to refer to pages 45 and 46 supra. The relation of višeṣāṇa-višeṣyabhāva, which is recognized as the sannikarṣa connecting non-existence with a sense-organ, is, in fact, an indirect relation involving one or the other of the other sannikarṣas. For instance, in the visual perception of the non-existence of jar (ghatābhāva) as adjunct of the empty floor (bhūtala), the visual sense comes into contact (samyoga) with the empty floor with which the non-existence of jar is connected as adjunct; so, the complete chain of sannikarṣa, in this case, is not mere višeṣāṇata, but caksussamyuktavišeṣāṇata (being adjunct to a thing with which the visual sense has come into contact).

In the case of inner perception through the inner sense (antarindriya) called manas, it is necessary to
recognize three distinct sense-relations;—viz., samyoga, samyuktasamavāya and samyuktasamavetasamavāya, in order to account respectively for the mental perception (mānasaprātyakṣa) of the soul (ātman), of the cognition in it and of cognitionness (jnānatva). In connection with the auditory perception of sound (śabda) and soundness (śabdatva), it is necessary to recognize two distinct sense-relations:—viz., samavāya and samavetasamavāya. The sense relation of viśeṣanaviśeṣyabhāva is necessary to account for the perception of non-existence. Would it be necessary to use the first three sense-relations (samyoga etc.) in accounting for external perception through the external senses other than the auditory sense? No substance which does not possess at least the minimum degree of mahattva (largeness) can be perceived by an external sense; and in the case of every external perception of substance or quality other than sound, association with mahattva is a necessary condition. So, in all cases of external perception, except auditory perception, one has to take into account only composite substances (avayavin), from a triad (tryāṇuka) upward. It would appear that, in such cases, the first two sense-relations may be dispensed with, and the third—samyuktasamavetasamavāya—would be quite adequate to account for any perception. For instance, the visual perception of a triad of earth (prāthiviṇyāṣya) or its colour (rūpa) or its colourlessness (rūpatva) can easily be accounted for by taking samyuktasamavetasamavāya as the sense-relation; this chain should be understood in the first case (tryāṇuka) as consisting of contact between the visual
sense and the atoms, the inherence of dyads in those atoms and the inherence of the triad in those dyads; the first link in this chain in the second case (rūpa) is contact between dyads and the visual sense; and in the third case (rūpatva), the first link in this chain is contact between the triad and the visual sense. To the above question, the Nyāya theorists reply that the first three sense-relations are indispensable and explain their necessity in this way. Take, for instance, visual perception; the conditions of visual perception such as udbhūtarūpa (perceptible colour) and mahattva (largeness) should be regarded as the co-existing determinants (avacchedaka) of contact with the visual sense (indriya-samyoga); it would not do if they are associated in some manner with the object visualized; otherwise, the earthness (prthivītva) in the atoms of earth and the blueness (nilatva) in the blue colour, to an atom of earth should be visualized, the former (prthivītva) being associated with largeness (mahattva) in a jar and the latter (nilatva) being associated in some manner with largeness through the blue colour of a jar; or otherwise, as a result of indirect association with mahattva and udbhūtarūpa in a jar, the jāti called sattā should be visualized in air (vāyu) as well as its touch (sparśa); in order to avoid these absurdities, mahattva and such other conditions in the case of visual perception should be referred to as avacchedaka (co-existing determinant) of contact with the visual sense (cakṣussamyoga), in all cases of visual perception; In these circumstances, it becomes necessary to leave entirely out of account contact between the visual sense and atoms or dyads;
thus, samyoga, samyuktasamavaya and samyuktasamavayapetasamavaya are shown to be indispensable in accounting for external perception of a substance (dravya), its quality (guna) and the generic attribute (jati) in the quality.

The scheme of six sense-relations explained above relates only to cases of normal perception (laukikapratyaksa) and these sense-relations are called laukikasannikarsah (normal sense-relations). In the case of perception through the external senses, the complete scheme of relation necessary to bring about perceptual experience consists of contact between soul and mind, mind and sense-organ and sense-organ and object (atma manasa samyujyate, mana indriyena, indriyam arthena). The first of these three factors—viz., contact between mind and soul (atmamanassamyoga)—is a general condition of knowledge (ijnanasamanya). In cases of manasapratyaksa (inner perception through the internal sense-organ manas), this general condition itself (atmamanassamyoga) assumes the specific form of sense-relation (indriyarthasannikarsa).

The Naiyayikas also recognize three types of super-normal perception (alaukikapratyaksa), as arising from three kinds of super-normal sense relations (alaukikasannikarsa), viz.,—the relation of sense-bound generality (samyanyakshaapasannikarsa), the relation of sense-bound cognition (ijnanalakshanapasannikarsa) and the relation of yogic power (yogajasannikarsa). In Nyaya literature, the word pratyikasatti is also used in this context, as the equivalent of sanni-
The co-existence of smoke and fire is seen in a hearth; this visual perception relates only to the particular smoke and particular fire; a doubt arises as to whether the co-existence between smoke and fire is invariable or not, and takes the form "Is smoke co-existent with the non-existence of fire anywhere or not?" (dhūmo vahniyabhicārī na vā); such a doubt relates to all smokes and all fires; only a particular smoke and a particular fire happen to be seen in the hearth; the perceptual doubt referred to arises through the visual sense and presupposes the visual perception of all smokes—past, present and future, in the hearth and elsewhere (dhūmasāmānyacāksuṣām); the normal sense-relations of contact (saṃyoga) and inherence in the thing in contact (saṃyuktasamavāya) are established between the visual sense on the one side, and on the other side, the particular smoke and smokeness (dhūmatva) in it; no normal sense-relation can be shown to connect the visual sense with all the smokes; in this situation what happens is that the visual perception of the generic feature, smokeness (dhūmatva) which is present in the particular smoke normally connected with the visual sense and which is common to all smokes, serves as the super-normal link (alaukikasannī-karṣa) through which all the unobserved smokes are, in the first instance, connected with the particular smoke actually observed, and through the latter with the visual sense which has already come into relation with it in a normal way. Thus sāmānyalakṣānasannīkarṣa is a super-normal sense-relation which immensely extends the perceptive reach of sense-organ and brings whole
classes of perceptible objects within its scope when only particular individuals of a class have actually come within its reach. The word *sāmānya* in this context means any common attribute (*sāmānadharma*) and not necessarily a *jāti*; even a jar, for instance, may be treated as the *sāmānya* of all the places having a jar. The earlier view is that the phrase *sāmānyalakṣaṇa* should be understood in the sense ‘consisting in *sāmānya*’ (*sāmānyasvarūpa*) and that this variety of super-normal sense-relation consists in the common attribute presented as adjunct (*prakāra*) in the cognition of a substantive (*viśeṣya*) which has come into normal relation with the sense-organ. (*Indriyasambad-āhaviśeṣyakajñānaprakāribhūtam sāmānyam sannikarṣaḥ*). This view is defective; for, it does not cover, for instance, the super-normal perception of all the places having a particular jar which has ceased to exist and which is remembered as the common attribute (*sāmānadharma*) of all such places. In that case, one visualizes through the super-normal (*sāmānyalakṣaṇa*) sense-relation all the places having the particular jar which no longer exists (*tadghaṭavataḥ sarvān pradeśān*), while seeing in the normal way only one of such places without the jar and while recollecting the particular jar previously seen in that place in the normal way. *Tadghaṭa* (the particular jar) is the common feature in that instance; if *sāmānya* itself were to be understood as constituting the needed sense-relation, *sāmānyalakṣaṇasannikarṣa* would not be available there, for the reason that the particular jar representing the *sāmānya* no longer exists; but if
cognition of sāmānya (sāmānyajñāna) should be treated as sannikarṣa, the required sense relation in the form of recollection (sāmānyasmarana) would be available. For these reasons, Naiyāyikas of the later school take the phrase sāmānyalakṣaṇa to mean 'having sāmānya as object', the word lakṣaṇa being taken in the sense of object (viṣayā); and they hold that it is cognition of sāmānya (sāmānyajñāna) that constitutes the super-normal relation in question. It should be remembered in this connection that while (sāmānyajñāna) avails as super-normal sense-relation in internal perception (viññānasapratyakṣa) under all circumstances, it avails as such in external perception (bāhyapratyakṣa) only when the conditions necessary for bringing about the normal perception of the sāmānya in question are present. (Tadindriyajataddharmabodhasāmānagratmāpekṣitā.) For instance, one can have a super-normal inner perception (alaukikamānasapratyakṣa) of all smokes through the recollection of smokeness (dhūmatva), even in darkness; but, in darkness, one can never have a super-normal visual perception (alaukikacākṣuṣa) of all smokes through the sāmānyajñāna consisting in the recollection of smokeness (dhūmatva-smarana). It may also be stated here that one could not become omniscient (sarvajña) for the mere reason that one could have super-normal perception of all knowable things (prameya) through the cognition of their common feature knowableness (prameyatva), since omniscience (sārvajñya) consists in a detailed and full knowledge of all things and not in a general knowledge of them.
A person sees sandal; his sense of smell does not function for the moment and his sense of sight alone functions; he sees not only sandal but also its fragrance; his visual perception assumes the form "the sandal is fragrant" (sūrabhi candanam), and he is conscious of the fact that he is seeing the fragrant sandal. In cases like this, no normal sense-relation (laukikasannikarṣa) between the visual sense and fragrance can be recognized and the presentation of fragrance (saurabha) in visual perception as an adjunct of sandal has to be accounted for by means of the super-normal sense-relation (alaukikasannikarṣa), which consists in the recollection of fragrance smelt in the sandal on a previous occasion. This variety of super-normal sense-relation is called jñānalaksānasannikarṣa. By means of sāmānyajñāna (cognition of a common attribute) representing sāmānyalakṣānasannikarṣa, it would be possible to account for fragrance being brought within the scope of the visual perception of sandal, the required sense-relation being found in the cognition of fragranceness (saurabhatva)—the generic feature of fragrance. But the presentation of saurabhatva in the visual perception of sandal cannot be accounted for by means of sāmānyalakṣānasannikarṣa, since saurabhatva is a jāti and is therefore presented in cognition as adjunct by itself (svarūpatah) and not as delimited by any attribute. In this case, it becomes unavoidably necessary to recognize jñānalaksānasannikarṣa as distinct from sāmānyalakṣāna. Further, where a person mistakes nacre for silver in visual perception and has the anuvyavasāya—'I see silver', silverness
(tajātātva) is presented in the inner consciousness of visual perception through jñānalakṣaṇa, and not through sāmānyalakṣaṇa; for, in the latter case, the generic attribute, whose cognition is proposed to be treated as sannikārṣa, should be present in the substantive (viśeṣya) actually perceived, and in the present instance, silverness is not present in the nacre which is seen. On these grounds, the Naiyāyikas maintain that jñānalakṣaṇa should be taken to form a distinct type of super-normal sannikārṣa. They also hold, on the strength of the evidence furnished by the Yogaśāstra, that the super-normal capacity, which the mind (manas) acquires through the yogic practice, constitutes the third variety of alaukikasannikārṣa described as yogajadharmalakṣaṇa. This variety of super-normal sense-relation enables any sense to reach any object.

The Nyāya theory of alaukikasannikārṣa seeks to account for certain cognitions which really stand on the border line between ordinary perceptual cognitions and non-perceptual cognitions and would appear to be more akin to the former than to the latter. The Mīmāṃsakas and the Advaitins are not in favour of this theory and refuse to recognize any special type of pratyakṣa known as alaukikapratyakṣa. These opponents of the Nyāya theory argue thus. Universal judgments relating to smokes and fires in general terms are the result of the synthesis which a thinker's mind is capable of making; this synthesis is sometimes effected through a negative process and sometimes through a positive process; in the case of a negative synthesis, particular individuals only are observed and brought
into relation with each other as determined by certain generic features, the individualities of the individuals being entirely ignored for the moment; such a negative synthesis may well be brought under normal perceptual process \( laukikaprataykṣa \). In positive synthesis, a generalisation of all the conceivable individuals, without ignoring their individualities, is definitely contemplated and is effectuated by the thinker's mind passing from particulars to universals; the mental process involved in such a positive synthesis is essentially one of inference. In cases like the visual perception of sandal as fragrant \( (surabhi candanam) \), one may see easily a jumble of visual perception of sandal and recollection of fragrance through association of ideas. Even in the case of yogic perception, what happens, in fact, is that the normal reach of the mind comes to be immensely extended by yogic powers through the great potentialities of the mind becoming actualised in experience; and all instances of yogic perception may be accounted for, without the help of the theory of super-normal sense-relation, either as \( mānasapratyakṣa \) (inner perception) or as vivid recollection of the past, or as vivid imagination of future possibilities. Mīmāṁsā theorists discard the doctrine of yogic perception altogether.

However, it should be observed here that the Nyāya theory of \( alaukikapratyakṣa \) (super-normal perception) rests on reasons which should not be lightly brushed aside and which are worthy of very careful consideration. In the first place, it may be noted that, in every case which a Naïyāyika would bring under the
super-normal variety of perception, the mediacy which
is characteristic of non-perceptual cognitions is entirely
missing and the immediacy— which is characteristic of
perceptual cognitions is invariably felt to be present.
In cases of external perception, where cognition of a
sāmānya or cognition of some other kind is treated as
sannikarṣa, the mind is entirely subordinated to a sense
and if certain impressions derived from previous ex-
perience get mixed up with perceptual elements, such
impressions come to be divested, for the time being, of
their non-perceptual character and invested with a
sense-bound, perceptual garb. The inner consciousness
(anuvyavasāya) of disciplined minds, which takes a
form like this “I see a fragrant sandal” (surabhi caṇ-
danam pāṣyāmi), is certainly an evidence which the
Naiyāyikas feel bound to respect and rely upon, in this
connection.
(a) Anumāna (Inference) is the efficient instrument (karaṇa) of inferential cognition.

(b) Inferential cognition is a cognition which arises from subsumptive reflection (paramāra).  

(c) Paramāra (subsumptive reflection) is a cognition which cognizes the presence of the invariably concomitant factor denoted by the middle term (probans) in the thing denoted by the minor term. For instance, the cognition, “This mountain has smoke which is invariably concomitant with fire” is a subsumptive reflection; and the cognition resulting from it and taking the form “mountain has fire” is inferential cognition.
(d) “Wherever there is smoke there is fire”—This type of invariable concomitance is *vyāpti* (co-extension).

(e) Subject - adjunctness (*pakṣadharmaṭa*) consists in the invariable concomitant (*vyāpya*) being present in things like a mountain (denoted by *pakṣa* or the minor term).

Anumāna, as its etymological sense indicates is after-proof. It is after-proof in the sense that it uses the knowledge derived from perception (*pratyakṣa*) or verbal testimony (*āgama*) and helps the mind to march on further and add to its knowledge. As Vātsyāyana puts it, it is equivalent to *anvikṣa;* and the Nyāya system is called *ānvikṣikī,* for the reason that its immediate and chief aim is to elucidate the nature of anumāna or anvikṣa as a *pramāṇa.* (*Pratyakṣa-āga-māśritam anumānam; sa anvikṣa; tayo pravartata ityānvikṣikī nyāyavidyā nyāyaśāstram.*) Seeing that verbal testimony is not recognized as a distinct *pramāṇa* by the Bauddhas and the Vaiśeṣikas, the Nyāya writers prefer to consider *sabda* at the end and rightly proceed to consider *anumāna* immediately after *pratyakṣa.*

It would be interesting to note here how the Nyāya realist deals with the criticism that all knowledge may, in a sense, be brought under inference and that even perceptual experience may be brought under inference. It may well be contended that, in the visual experience
of a composite structure like a horse, only certain parts of the animal come into relation with the sense of sight and several parts do not, in fact, come into relation with the sense; and that in such cases, the experience of the whole, of which we become conscious, must be taken as inference. Gautama himself refers to this contention in II—1—31 and indicates how this difficulty may be met by using the Nyāya theory that the composite whole (avayavin) is entirely different from its parts (avayavāh). The Nyāya theorists claim that their conception of parts and whole as entirely different entities has as its chief advantage the preservation of the province of pratyakṣa from being wholly swallowed up in the province of anumāna.

In the case of every pramāṇa, the karana (special or efficient instrument), the vyāpāra (intermediate cause) and the phala (final result) should be carefully distinguished. In the case of anumāna (instrument of inferential experience) the knowledge of co-extension (vyāptijñāna) is karana; subsumptive reflection (parāmarśa) is vyāpāra; and inferential experience (anumiti) is phala.

Students of Nyāya, before they proceed to study the Chapter on anumāna, should start with a clear conception of the meanings of the technical terms pakṣa, sādhya and hetu or sādhana. They are usually rendered respectively by the English equivalents—minor term, major term and middle term. But it should be remembered here that these English terms have primary reference to certain terms constituting syllogistic
expression; whereas, in Sanskrit Nyāya, the term denoting pakṣa corresponds to the minor term, the term pakṣa itself standing for the substantive with reference to which something has to be inferred or inferentially predicated; the term denoting sādhyā corresponds to the major term, the term sādhyā itself standing for the thing that is sought to be inferred or inferentially predicated with reference to pakṣa; and the term denoting hetu or sādhanā corresponds to the middle term, the term hetu or sādhanā itself standing for the reason or ground which is invariably concomitant with what is sought to be inferred and whose knowledge leads to inference. Thus, one may see in the Indian terminology itself evidence of a fundamental difference in the way in which the topic of inference is treated in Indian logic as compared with the way in which European tradition deals with that topic—such difference consisting in greater stress being laid on the material aspects of inference by the exponents of the Nyāya-Vaiśeṣika system and undue stress being laid by European tradition on the formal side of syllogistic expression.

Annambhaṭṭa defines anumīti as a cognition produced by subsumptive reflection (parāmarśa). This definition, as it is, may be applied even to a perceptual experience following a doubt and arising from a subsumptive reflection. With reference to a man standing at a distance, a doubt may arise in twilight, as to whether he is a man or a post. As one approaches the object, the cognition “This object has hands and such other features as are found invariably associated with
humanity" (purusatvo vyapyakaradim an yam) arises; and immediately follows the perceptual experience "This is a man" (ayam puruṣah). Such cases of saṁśayottarapratyakṣa (perceptual decision following a doubt) and arising from the reflective perception of certain particulars (vīṣeṣaparāmarśa) are not instances of anumiti and have to be excluded by the adjunct 'in association with the pakṣata' (pakṣatāsahakrta) so that the complete definition of anumiti will be this—"Anumiti is a cognition which is produced by subsumptive reflection in association with subjectness (pakṣatā)".

What is pakṣatā (subjectness)? The earlier school of Nyāya understood subjectness as consisting in 'doubt regarding the presence of probandum' (sādhyasandeha)—or, in other words, understood a pakṣa to be the substantive with reference to which one doubts whether one may correctly predicate something or not. This view of pakṣatā ignores the fact that sādhyasandeha (doubt regarding probandum) is not a necessary condition of inference and that a person who has actually seen clouds on the sky may also infer their presence from their peal of thunder. The later Naiyāyikas seek to remove this defect in the earlier definition of pakṣatā and suggest a modified definition which may be stated thus:—"Pakṣatā (subjectness) amounts to the absence of such indubious knowledge of the probandum as is associated with the absence of a desire to establish the probandum" (siṣādhyayisāvirahaviśiṣṭasiddhyabhāvaḥ pakṣatā). In experience, it is
found that indubious knowledge of the probandum (sādhyasiddhi) prevents inference unless there is a positive desire to arrive at the same result through inference. Sādhyasiddhi is thus a counteracting agent preventing anumiti (anumiti pratibandhaka) and sīṣādhayiṣṭā neutralises the influence of the counter-acting agent and is therefore uttejaka. Pakṣatā thus reduces itself to non-existence of such counteracting agent as is associated with the absence of the neutralising agent (uttejakābhāvavisṣṭam yat prati- bandhakam tadabhāvaḥ). When the Naiyāyikas include pakṣatā in the causal equipment necessary for anumiti, they do not assume anything unusual, but are simply applying to the specific effect, anumiti, the general principle that uttejakābhāvavisṣṭa pratibandhakābhāva is one of the things making up the causal complement of an effect. It must be remembered that universal sādhyasiddhi in every conceivable instance of pakṣa prevents the inference of the same sādhyya in some of the pakṣas as also in all pakṣas; whereas partial sādhyasiddhi in some pakṣas prevents only the inference of the same sādhyya in some pakṣas. Universal sādhyasiddhi is technically described as pakṣatāvacchedakāvacchedena sādhyasiddhi and may be embodied in a proposition like this—“All S is P”. Inference of the same sādhyya in all pakṣas is likewise described as pakṣatāvacchedakāvacchedena anumiti and embodied in a proposition like this—“All S is P”. “Some S is P”—a proposition of this type embodies partial sādhyasiddhi, which is technically described as pakṣatāvacchedakasāmāndhikaranayena sādhyasiddhi.
An inference which may be embodied in a proposition like "Some S is P" is prevented by any sadhyasiddhi, universal or partial, while the inference in the form "All S is P" is prevented only by universal sadhyasiddhi. It should also be remembered that, when the conditions necessary for having the perception of a certain object are present along with those necessary for inferring the same object, only the perception of that object arises and not its inference; but in cases where the conditions necessary for perceiving an object are present along with those required for inferring another object, inference would arise and not perception.

The Naiyāyikas insist that, in every case of inference, quick or slow, inference for oneself or inference for others, subsumptive reflection (parāmarśa) is an indispensable antecedent and should, therefore, be treated as cause of anumiti. Parāmarśa is a complex cognition which arises from a combination of the knowledge of invariable concomitance (vyāptijñāna) and that of the presence of the reason (hetu) in the subject (pākṣa)—technically known as pāksadharmaṭa-jñāna. In the stock example of inference—"The hill has fire; because it has smoke", the parāmarśa takes the form—"The hill has smoke, which is invariably concomitant with fire" (vahnivyāpyadhūmaṇavaṇ parvataḥ); and it is contended by the Naiyāyikas that, in the absence of such a parāmarśa, anumiti does not arise. This cognitive complex called parāmarśa is also known as lingaparāmarśa or trītyalīṅgaparāmarśa (the third cognition of the reason). The cognition of the presence
of the *linga* (reason) in the subject (*pakṣa*) may be said to be the first *lingaparāmarśa*; the cognition of the invariable relation between *linga* and *sādhyā* is the second *lingaparāmarśa*; and the complex cognition which arises from these two cognitions is the third *lingaparāmarśa*.

The Mīmāṃsakas and the Vedāntins who follow them hold that the complex cognition called *parāmarśa* is not indispensable for *anumiti*, though it may actually arise just before *anumiti* in many cases. In our experience, we are conscious of having *anumiti* directly after becoming aware of the presence of the *hetu* (reason) in the *pakṣa* (subject) and remembering *vyāpti* (invariable concomitance) and without any intervening *parāmarśa*. In such cases, the Naiyāyikas also cannot help recognizing causal relation (*kārya-kāraṇabhāva*) between *anumiti* on the one side and the two referred to on the other side (*vyāptijñāna* and *pakṣadharmanatājñāna*); and in cases where *parāmarśa* intervenes, they should recognize another causal relation (*kāryakāraṇabhāva*) between *parāmarśa* and *anumiti*. Thus the Mīmāṃsakas argue and maintain that, in order to avoid this difficulty, it would be necessary to treat *anumiti* as the effect of *vyāptijñāna* and *pakṣadharmanatājñāna* and to exclude *parāmarśa* from the causal complement of *anumiti*. The Naiyāyikas, however, point out that it would be much simpler to connect every case of *anumiti* with *parāmarśa* as its cause and to assume that, even in cases where *anumiti* appears to arise directly from *vyāptijñāna* and *pakṣadharmanatājñāna*, there is an intervening *parāmarśa* though one may not be conscious of it on account of the
quick passage of the mind from the stage of *pākṣa-dharmatājñāna* to the stage of inference. The controversy between the Mīmāṃsakas and Naiyāyikas, as to whether *anumiti* should be taken as the effect of the two cognitions—*vyāptijñāna* and *pākṣadharmaṭajñāna* or as the effect of the complex cognition called *parā-marśa*, appears to hinge on the principle of parsimony (*lāghava*) and turns out to be a consideration of the greater or smaller degree of cumbersomeness which one might notice in the Mīmāṃsaka’s or the Naiyāyika’s way of defining the causal relation between *anumiti* and its cause. However, a careful estimation of the arguments advanced by the Mīmāṃsakas and the Naiyāyikas would reveal the significance of the insistence in Nyāya on *parā-marśa* being treated as indispensable. If *subsumption* to a generalisation be the essential element in inference, it is obvious that inference of fire in a hill cannot arise from the perception of smoke in it, until the particular smoke in the hill is *subsumed* under the generalisation involving *vyāpti* between smoke and fire; and the Naiyāyikas insist that subsumption is the essential feature of inference and insist therefore that every *anumiti* should be taken to be preceded by *parā-marśa*, which is but a subsumptive reflection subsuming the smoke in the hill under the pre-established *vyāpti*. The Bhāṭṭa Mīmāṃsakas, on the other hand, hold that it is the *subsultive*, rather than the *subsumptive*, passage of the mind from the observed relation of particulars to a certain unobserved particular, that characterises the inferential process of thought; and this view accounts for their attitude
towards paramārśa. From the following exposition of vyāpti, the difference between the views of the Mīmāṃsakas and the Naiyāyikas would become further clarified.

What is vyāpti? Annambhaṭṭa’s definition of vyāpti is that it consists in the hetu (reason or probans) being co-existent with the sādhyā (probandum or the thing to be inferentially established), which is pervasive of the hetu (hetuvyāpaka). To be pervasive (vyāpaka), in the context of anumiti, means ‘never being the counter-correlative (pratiyogin) of a negation (abhāva) which is co-existent with hetu.’ In an inference, where smoke is the hetu and fire is the sādhyā to say that there is vyāpti (invariable concomitance) between smoke and fire implies the following things, according to this definition. Firstly, it implies that fire and smoke co-exist in the particular form and through the particular relation, with reference to which they are intended to be treated as hetu and sādhyā respectively, the particular form of hetu and sādhyā being technically called hetutāvacchedakadharma and sādhyatāvacchedakadharma and the particular relations intended to determine the co-existence of hetu and sādhyā being technically known as hetutāvacchedakasambandha and sādhyatāvacchedakasambandha. Secondly, it implies that, with reference to the same hetutāvacchedakadharma, sādhyatāvacchedakadharma, hetutāvacchedakasambandha and sādhyatāvacchedakasambandha, fire is never the counter-correlative (pratiyogin) of any negation which co-exists with smoke. Where fire in a hill is inferred from smoke, fire is sādhyā, fireness
(vahnitva) is said to be sādhyatāvccchedadharma in the sense that fire is proposed to be treated as sādhya in its general and universal form as fire, and not in any other form such as that of a substance (dravya); smokeness (dhūmatva) is said to be hetutāvccchedadharma in the sense that smoke is proposed to be treated as hetu in its general and universal form as smoke, and not in any other form; and conjunction or contact (saṁyoga) is said to be sādhyatāvccchedakasambandha, as also hetutāvccchedakasambandha, in the sense that fire and smoke, in their respective form as sādhya and hetu, are proposed to be treated as connected with pakṣa (subject), through the relation of contact, and not through any other relation such as inherence (saṁavāya) or self-linking relation (sva-rūpa).

In later Nyāya literature, based on Gaṅgeśopādhyāya’s Tattvacintāmaṇi, two types of definitions of vyāpti are distinguished, one type being called siddhāntalakṣaṇa and the other type being called pūrvapakṣa-lakṣaṇa or pūrvapakṣavyāpti. The definition explained in the preceding para represents the former type and is briefly set forth in this Sanskrit formula:—Hetuvyāpakasādhyasāmānādhiyakaranyam vyāptih. This definition, when fully amplified, comes to include the hetutāvccchedakadharma, sādhyatāvccchedakadharma, hetutāvccchedakasambandha and sādhyatāvccchedakasambandha. It is affirmative in its main form, the latter half being affirmative, though the adjunct hetuvyāpaka reduces itself to the negative form hetu-samānādhiyakarāntābhāvāpratiyogin (which is
never the counter-correlative of any negation co-existing with the reason).

The other type of definition of vyāpti is known as pūrvavapaksalakṣaṇa in the sense that it is provisional and prima facie satisfactory. It is generally put in a negative form. A typical instance of pūrvavapaksavyāpti is this:—Co-extension (vyāpti) consists in non-existence of the probans in every place where the probandum (sādhyā) does not exist (sādhyābhāvavadavṛttitvam). This definition also, when fully amplified, comes to include the hetutāvacchedakadharma, sādhyatāvacchedakadharma, hetutāvacchedakasambandha and sādhyatāvacchedakasambandha. This prima facie definition of vyāpti is negative in its main part and is a direct amplification of the conception of avinābhāva. The contrast between the two phrases avinābhāva and sāhacaryaniyama should be clearly understood. The former phrase is more commonly used in earlier Nyāya literature and the latter in later literature. Vinā means ‘without’; a-bhāva means non-existence; and a-vinā-bhāva means non-existence (of the probans or hetu) without or in the absence (of the probandum or sādhyā). This is the basis of pūrvavapaksavyāpti which is generally negative in its form. The other phrase sāhacaryaniyama which is used by Annambhaṭṭa is equivalent to niyatasaḥacaryya, which means invariable co-existence. This forms the basis of what is referred to above as siddhāntavyāpti. The prima facie definition of vyāpti set forth above is defective. It does not hold good in cases where the sādhyā happens to be a.
thing whose non-existence anywhere is inconceivable (kevalanvayī), like abhideyatva (namableness); nor does it apply to the hetū in syllogisms like:—"A quality (guna) has existence (sattā), because it has a generic attribute (jāti)". It will be seen that non-existence of the probans in a place where the probandum does not exist can be conceived of only when its existence in such a place through the specific relation in view (hetutāvacehedakasambandha) is conceivable and that, in the latter instance referred to, the presence of the probans, jāti, through the relation of inherence, which is the specific relation in view, in a place like sāmānya where the probandum (sattā) is not present, is inconceivable. In order to get over difficulties of this kind, the siddhāntalakṣāna or conclusive definition of vyāpti is put forward.

The term vyāpti literally means pervasion and lays stress on the universal character of the relation kept in view. The phrase 'universal connection' brings out exactly the meaning of the term vyāpti. In early Nyāya literature, the term avinābhāva is frequently used as the equivalent of vyāpti. It should be observed that this term, avinābhāva, brings into prominence the invariable character of the relation kept in view. The two concepts, universality and invariableness, imply each other; but they are not identical. A careful examination of early Nyāya literature would show that, from Kaṇāda and Gautama downward, all the leading exponents of the Nyāya-Vaiśeṣika system were quite familiar with the ideas of universality and invariable-
ness as forming the essential elements in the conception of *vyāpti*. Vātsyāyana, who preceded Dignāga, definitely makes use of the conception of *avīnābhāva* in his *Bhāṣya* on the sūtras 2-2-1, 2-2-2 and 2-2-61. The very conception of *vyabhicāra* as a fallacy (*hetvābhāsa*) presupposes the invariableness of the relation called *avīnābhāva* or *vyāpti*. Patañjali, in his *Mahābhāṣya* (on 3—2—124), shows a definite knowledge of the universal character of the relation called *vyāpti*. In the face of these facts, it would be unreasonable to hold, as Professor Keith does, that the doctrine of indissoluble or invariable relation (*avīnābhāva*) is Dignāga's special contribution to Indian logic and that Praśastapāda and others borrowed this idea from Dignāga and developed it. In this connection, attention is invited to the article on “The evolution of *vyāpti*” contributed by one of my former pupils, Mr. A. S. Krishna Rao, M.A., in part I Volume I, (1927) of the *Journal of Oriental Research*, Madras.

What is the exact nature of the relation of *vyāpti*, or *avīnābhāva*? How is it arrived at? Is it arrived at through perceptual experience? Or does it represent itself the result of an inferential process? If *vyāpti* in its universal form is the basis of inferential reasoning, does it not already contain in itself the result of the inferential process and does it not render inference wholly superfluous? Questions like these were raised and answered both by Naiyāyikas and Mimāṃsakas of the early and later schools. It would be of great value to students of Indian logic to pay some attention to
these questions. Vātsyāyana remarks in his Bhāṣya on 1-1-37, that the parallelism between the probans as found in the pakṣa and the probans as found in the example (udāharana), on which the probative character of the probans rests, is very subtle and difficult to explain and can be well understood only by men of great learning. (Tadidam hetudāharaṇayoh sādhar- myam paramasūksnam duḥkhabodham pāṇḍitarūpa- vedanīyamiti). The Bhāṣyakāra says this, not because he was quite innocent of the nature of the invariable or universal relation called avinābhāra or vyāpti, as Professor Keith and some others may fancy, but because, perhaps, he was keenly alive to the difficulty in satisfactorily answering the questions raised at the beginning of this para and to the snares and pitfalls in the way of generalisation.

Uddyotakara, Vācaspatimiśra, Jayanta and some other early writers on Nyāya describe vyāpti as an unconditioned or necessary relation which is not brought about by any adventitious circumstance—anaupādhikah sambandhah. For instance, that smoke is pervaded by fire, i.e., that dhūma is vahnivyāpya is a necessary and unconditioned relation and does not depend upon any adventitious circumstance; whereas, the relation of vyāpti embodied in the proposition—‘Wherever there is fire, there is smoke’—is not a necessary and unconditioned relation and depends upon the association of fire with the adventitious contact of wet fuel with fire (ārdren- dhanasamāyoga). Such adventitious circumstances are called upādhayah. An upādhi is an adventitious factor which is invariabily concomitant with the probandum
(sādhyavyāpaka) and not so with the probans (sādhanavyāpaka). It is called upādhi because as Udayana explains, its invariable concomitance with the probandum comes to be erroneously associated with the probans, just in the same way as the redness of a japā (China rose) is erroneously associated with a crystal (sphatika) in its vicinity. To define vyāpti as anau-pādhikasambandha is significant in several ways. In the first place, it shows that the earlier schools of Indian logic, which adopted this definition, do not definitely insist upon any conscious process of generalisation or universalisation preceding inference. Secondly, according to the early schools, it should be made out that the connection between the probans (hetu) and probandum (sādhyā) is necessary. Thirdly, in order to satisfy oneself that the connection in question involves necessity, one should know that it is not due to association with any adventitious circumstance, i.e., that it is svābhāvika and not aupādhika. Further, this definition clearly lays greater stress on the element of necessity in the relation between the hetu and sādhyā than on the element of invariableness. It should, however, be remembered, in this connection, that Gautama who recognised vyabhicāra or absence of invariableness as a fallacy, and Vātsyāyana and Praśastapāda who definitely referred in their works to the concept of avinābhāva as an essential element in anumāna, were fully alive to the importance of the idea of invariableness in vyāpti.

What is the form in which the relation of vyāpti comes to be known and leads to inference? How does
it come to be known? According to Annambhaṭṭa, who follows Gaṅgēśopādhyāya in this as in several other matters, the cognition of vyāpti (vyāptijñāna) arises in the form of a universal generalisation which is usually embodied in the proposition—“Wherever there is smoke there is fire” (yatrayatra dhumah tatra vahniḥ), or in the proposition—“Whatever has smoke, has fire” (yo yo dhūmavān so’gnimān); in a statement of vyāpti, the vyāpya (pervaded) should be first referred to and the vyāpaka should be the principal predicate; and the cognition of vyāpti arises usually from the observation of the co-existence of smoke and fire in one or more instances, in the absence of any knowledge of a place where the hetu is present and the sādhyā is not present. Annambhaṭṭa criticises the view that the relation of invariable concomitance is known through bhūyodarśana or repeated observation. As Nīlakanṭha points out, the Sanskrit phrase bhūyodarśana is ambiguous. It may refer to the frequent repetition of the same observation or to observation of several instances of the sādhyā and hetu or to observation of the co-existence of the sādhyā and hetu in several places. In any of these senses, though the observation of the co-existence of hetu and sādhyā may be repeated a thousand times, vyāpti cannot be made out, if, even in a single instance, the hetu is known to be present in the absence of the sādhyā. So, following the Maṇikāra, Annambhaṭṭa points out that a knowledge of the co-existence of the hetu and sādhyā in association with the absence of a knowledge of the presence of the hetu where the sādhyā is not present (vyabhicāra jñānavirahahasakṛtam saha-
ca®rajñānam) causes vyāptijñāna. Knowledge of vyabhicāra may arise in the form of a doubt or one may be sure of the presence of this defect. In the latter case, unless it is shown that such knowledge is erroneous, one cannot make out the relation of vyāpti. In the former case, any doubt, of vyabhicāra, which is otherwise technically known as apraya jatakātvaśaṅkā and which is usually expressed in the form “Let there be the hetu; the sādhyā need not be present” (heturastu sādhyam māstu), is removed by an indirect type of reasoning known as tarka. The indirect argument called tarka corresponds to reductio ad absurdum and consists in showing how the assumption of the opposite leads to an absurd result by coming into conflict with some established truth. In the case of invariable concomitance between smoke and fire, for instance, if one should doubt that smoke may be present somewhere in the absence of fire, the indirect argument of tarka may be put forward in this form:—‘If smoke were present in the absence of fire, smoke could not be produced by fire. But the causal relation between fire and smoke is a well-recognized fact’. Thus according to later Naiyāyikas, vyāpti is a universal type of generalisation covering all conceivable cases, both observed and unobserved. The element of invariableness is of greater value than the element of necessity, in ensuring the safe passage of inferential thought from the known to the unknown, though these two elements—invariableness and necessity—imply each other. The element of necessity looms large only at the stage at which the
element of invariableness happens to be challenged and comes to be maintained by a suitable tarka.

In several instances the universal relation of vyāpti is felt to be arrived at as perceptual experience (pratyakṣa) through some sense-organ. Perceptual experience presupposes some sannikarṣa (sense-relation) between the sense concerned and the objects coming within the scope of the experience in question. When, for instance, one comes to have visual perception of the relation of invariable concomitance between all smokes and all fires, it is through the super-normal sense-relation (alaukika-sannikarṣa) called sāmānyalakṣañā-pratyāsattī that all the smokes and fires are brought within the reach of the visual sense. The nature of this super-normal sense-relation is explained in pages 180 to 184 of Chapter I, supra. Thus, according to later Naiyāyikas, the knowledge of vyāpti arises in several cases as super-normal perception through the super-normal sense-relation of sense-bound generality (sāmānyalakṣañāsannikarṣa). Jayantabhaṭṭa discusses the nature of vyāptijñāna in pages 121 to 123 of his Nyāyamañjarī (Viz. S. S.) and arrives at the conclusion that it arises through the inner sense, manas, as mental perception (mānasapratyakṣa), when co-existence is observed and no hitch in such co-existence is seen. Evidently, Jayantabhaṭṭa is inclined to think that manas, though it cannot directly reach external objects (bahirasvatantram manah) under ordinary circumstances, is resourceful enough to reach all the smokes and fires, both observed and unobserved, in the
absence of definite obstacles in the way. Jayanta, however, does not account for the mind's resourcefulness in this direction and seems to be inclined to attribute it to its nature and not to the aid of any super-normal sense-relation known as \textit{sāmānyalakṣaṇasannikarṣa}. The nature of this \textit{sannikarṣa} has been explained in detail on pages 180 to 184, in Chapter I, \textit{supra}.

Buddhist logicians like Dignāga and Dharmakīrti lay particular stress on the negative phase of \textit{vyāpti}—\textit{viz.}, non-existence of the \textit{probans} in the absence of the \textit{probandum} (\textit{avinābhāva}). They hold that every case of \textit{avinābhāva} involves a \textit{necessary} and \textit{indissoluble} connection between the \textit{hetu} and the \textit{sādhyā} and that this connection is based upon identity (\textit{tādātmya}) or causality (\textit{tadutpatti}). The Naiyāyikas rightly criticise this view as ignoring such cases of invariable concomitance as do not rest upon identity or causality—cases like a blind man's inference of colour (\textit{rūpa}) from taste (\textit{rasa}).

The Mīmāṃsakas of the Bhāṭṭa school maintain that \textit{vyāpti}, in the form of a universal generalisation, is not a necessary condition of inference. Fire is observed to be co-existent with smoke in two or three places; and smoke is never seen to be present in a place where fire is not present. When one comes to have this experience repeatedly within the sphere of one's observation, one finds oneself in a position to make out invariable connection between smoke and fire in the form in which they happen to be seen in the particular instances which have come within the scope of one's
observation. When one later on happens to see smoke in the same form in an unobserved place as in a place already observed, or even when one happens to see smoke again in the same form in an observed place as already observed there, one's mind comes to have a knowledge of the presence of fire in that place where smoke is seen for the moment. The knowledge of fire which thus arises cannot be regarded as perceptual experience as fire is not for the moment within the range of any of the senses; nor can it be regarded as reproduction in memory of a past experience, since the knowledge of fire which thus arises is felt to be experience having reference to the existence of fire in the present time. Thus, according to the Bhāṭṭas, the proposition 'Wherever there is smoke, there is fire' represents ordinarily a restricted form of synthesis which has reference only to the observed particulars and is quite adequate as a condition of inference; and anybody who is equipped with the knowledge embodied in this proposition would be able to infer the existence of fire on seeing smoke in any place, provided there is no suspicion of vyabhicāra (presence of hetu in the absence of sādhyā). At the same time it must be remembered that Bhāṭṭas do not deny that, not infrequently, in the course of inferential reasoning, one may arrive at a universal generalisation of the type recognised by the Naiyāyikas, which has reference to the invariable concomitance between all cases of hetu and sādhyā, including observed and unobserved instances in the present, past and future. The Bhāṭṭas, however, insist that such universal generalisations themselves are
cases of inference. Parthasarathimisra, one of the most reliable exponents of Kumārila’s views, explains the inferential process through which such universal generalizations are arrived at. In this connection, a reference to Pārthasārathi’s Nyāyaratnamālā (Chow-khamba edition—pages 69 and 70) would show how unobserved places, which have smoke, may be inferred to have fire, from the fact that smoke is predicated in those places, on the basis of observed cases. In the face of this, it would not be correct to suppose, as Professor Randle does in foot-note (1) to page 282 of his work—“Indian Logic in the Early Schools”, that “there is nowhere in Indian Logic the notion that Induction or generalization is an inferential process”.

The Prābhākaras hold that vyāpti is the invariable relation between hetu and sādhyā, which, when it is made out, happens to be free from temporal and spatial limitations and thus comes to assume the form of a universal generalization. In the hearth, for instance contact between smoke and fire is made out as the relation connecting the two substances—smoke and fire. In the cognition of such relation, the two relata are the two principal concepts. The relation on the one side and time and space (kāla and deśa) on the other are presented in that cognition only as adjuncts subsidiary to the two relata. While two subsidiaries agree to subordinate themselves to a common principal, one subsidiary does not ordinarily tolerate its subordination to the other subsidiary. This is as true in the sphere of thought as in the external world. Thus the knowledge of the relation between smoke and fire that
arises from the observation of their co-existence in particular instances takes a universal form, unhampere
d by the temporal and spatial limitations of the parti-
cular place and time actually coming within the scope of observation. With the help of such a universal generalization, when a person infers fire in a mountain on seeing smoke there, he is, in fact, cognizing again what has already been cognized and forms part of the content of the generalization at which he arrived as a result of his observation. Such inference is valid ex-
perience (pramā), though it cognizes something already cognized. According to the Prabhākaras, all cogni-
tions other than recollection are valid (pramā) and it is not necessary that a pramā should cognize something not already cognized. Thus, the Prabhākaras maintain that inferential experience is re-experience and does not involve the passage of the mind from the known to the unknown, as is commonly supposed to be the case; but it involves merely the passage of the mind from a known object to something that is already known to be invariably connected with it. In the Prabhākara scheme of inference, even a single observation (sakrd-
darśana) is enough for having a knowledge of vyāpti and repeated observation (bhūyodarśana) is, however, useful in showing that the relation observed between hetu and sadhya is not brought about by any adventi-
tious circumstance (upādhi).

From the foregoing account it will be seen that all the leading schools of Indian philosophy are agreed in a general way that generalization (vyāptijñāna) repre-
sents the ground-work of inference. The Naiyāyikas and the Prābhākaras take this generalization to be of a universal type and to have reference to all the conceivable particulars—unobserved as well as observed. The Bhāṭṭas look upon this generalization as a synthesis confined to the observed particulars, which is arrived at by sinking all incompatible differences. For instance, according to the former, the generalization, “Wherever there is smoke there is fire” has reference to every conceivable case of smoke and fire; while, according to the latter, this generalization represents a synthesis of all the observed cases and sinks such incompatible differences as are due merely to spatial and temporal limitations.

At a very early stage in the history of Indian logic, the Cārvāka materialist, who recognizes only one pramāṇa—viz., pratyakṣa, throws out against inference, the challenge that vyāpti cannot be relied upon as the basis of anumāṇa. The Cārvāka’s contention is that, if vyāpti were to be restricted to the known or observed particulars, it would be impossible to have any inference regarding unknown or unobserved particulars for the simple reason that the latter are wholly different from the former; and that, if vyāpti were to be looked upon as a universal generalization having reference to all the conceivable particulars, unobserved as well as observed, all that has to be known is already known and nothing remains to be known through inference. This objection is embodied in an old verse which is quoted by several old philosophical writers like Śārikanṭha and Jayanta and which runs thus:—

The Carvākas contend that Indian logicians are hopelessly caught between the two horns of the dilemma indicated—they hopelessly sink down in this slough in which anumāṇa is lost. Students of western philosophical literature are here likely to be reminded of the Empiricist's objection that any inference of a particular fact from a general principle already known and taken to be valid would amount to arguing in a circle. They may think in this connection of objections similar to what is put forward by Mill when he says "that no reasoning from generals to particulars can, as such, prove anything; since from a general principle, we cannot infer any particulars but those which the principle itself assumes as known."

To this kind of objection, the logic of the Bhāṭṭa school, as may be evident from their view set forth above, gives the answer that inference is really from particulars to particulars and that, in cases where it appears to be from a universal to particulars, the real cause of such appearance is to be found either in the fact that vyāpti, constituting the basis of inference, assumes a general form, since such differences as are immaterial, or incompatible, are left out for the time being; or it is to be found in the fact that a universal generalization interposes itself, though it does so as an intermediate inference. In this connection, a reference to Bradley's Principles of Logic (pages 323 to 326) would
be of great value. One may easily see that Bradley’s criticism of Mill’s view holds good as against the Bhāṭṭa view also, in a considerable measure. The Bhāṭṭa logic, where it insists upon a very close similarity between the probans in the pakṣa and the vyāpya in the sapakṣa (example), reduces inference to reasoning from resemblance. But where it insists upon differences being left out, the reasoning turns out to be one from identity. Is it not then palpable, one may ask in Bradley’s language, that, when the differences are disregarded, the residue is a universal? The strong point in the Bhāṭṭa view is that it shows how inference may really involve an advance in knowledge in two directions:—where one infers unknown particulars from known and where one inferentially arrives at a universal generalization from the observation of particular instances.

As already explained, the Prābhākaras get over the difficulty under consideration by saying that every experience (aiḥubhava) though it may not involve any new element or any advance in knowledge, is valid (pramāṇa). All that is required to show that anumāna is a pramāṇa is that inferential cognition (anumiti) resulting from it is an experience (anubhava), and not mere recollection (smṛti). The Prābhākaras do not consider it necessary to go beyond maintaining that anumiti, though it happens to be a re-experience (grhitagrāhi anubhavanaḥ), is a valid experience. It should, however, be remembered that, according to them, vyāpti assumes the form of a universal generalization; and this is not because every
conceivable particular is brought within the scope of a supernormal observation, as the Naiyáyikas contend, but because the elements of time and space do not enter into the scheme of relation represented by vyápti, for the reason already indicated.

The Naiyáyikas, who are the generally accredited exponents of the doctrines of Indian logic, maintain that inference is not from particulars to particulars but it is from universal to particulars. They hold that vyápti is a universal generalization which does not represent a mere summation of the observed instances. It has reference to the invariable concomitance between all conceivable cases of hetu and sádhyá. Such a generalization, though it involves a big leap from the few observed cases to immeasurable unobserved cases, is rendered possible through the supernormal sense-relation called sámiñyalaksanasaánníkarsa. Leaving out the technical concept of alaúkikasaánníkarsa, one might well say that such a big inductive leap is rendered possible by the immense resourcefulness of a disciplined mind in the direction of synthesis. The Nyáya theory of inference effectively exorcises the ghost of petitio principii, by drawing attention to the fact that inference helps one to see and understand more. One may be equipped with the universal generalization— "Wherever there is smoke there is fire" and yet may be quite unaware of the presence of fire in a particular mountain; and on seeing smoke in that mountain, the presence of fire may be inferred there. In such cases, inference leads to a distinct addition to knowledge and
helps one to see more. The Naiyāyikas also point out that, after acquiring definite knowledge of a certain thing in a certain place through observation or by some other means, the same thing may be inferred in the same place; and in such cases, inference helps one to understand more by enhancing the degree of clarity or certitude in the knowledge already got.

32—T

(a) Inference is of two kinds: inference for oneself and inference for others.

(b) Inference for oneself causes one's own inferential experience. For instance, a person may make out the relation of invariable concomitance between smoke and fire and arrive at the universal generalization—"Wherever there is smoke there is fire" from his repeated observation in the hearth and such other places and then approach a mountain. He may have doubt as to the presence of fire in that mountain. On seeing smoke there, he remembers the generalization—"Wherever there is smoke there is fire." Then, he comes to have the cognition—
"This mountain has smoke which is pervaded by (or invariably concomitant with) fire." It is this cognition that is called *linga-parāmarṣa* (the subsumptive reflection of the *probans*). From this cognition arises the inferential cognition—"The mountain has fire". This is what is called *inference for oneself*.

(c) *Inference for others* is the syllogistic expression which consists of five members and which a person employs after inferring for himself fire from smoke, with a view to enabling another person to have likewise the same kind of inferential cognition.

E.g.—"The mountain has fire; because it has smoke; whichever has smoke has fire, as a hearth; the mountain is such (has smoke which is invariably concomitant with fire); and therefore, it is such (has fire)." From this five-membered syllogism, the other person to whom it is addressed comes to know the *probans* (smoke) and infers fire from it.
Professor Keith and some others believe that the above distinction of inference into *inference for oneself* (svārtha) and *inference for others* (parārtha) was first introduced by Dignāga and borrowed from him by Praśastapāda. (Vide Professor Keith’s ‘Indian Logic and Atomism’, pages 106 to 108). A careful consideration, however, of what Vātsyāyana says in his Bhāṣya and Gautama in his Sūtras would clearly show that the distinction in question should be held to be at least as old as the Sūtrakāra himself. Vātsyāyana, where he speaks of anumāna as distinct from nyāya-prayoga, presupposes evidently the distinction of svārtha and parārtha. Gautama’s description of the five members of a complete syllogistic expression would be unintelligible, should it be assumed that he was not familiar with the substance of the distinction in question, though the terms parārtha and svārtha are not found used in his Sūtras.

The distinction of anumāna into svārtha and parārtha is not only as old as the Nyāyadārsana itself, but it is also one of the most vital topics in the Nyāya system. It is a natural result of one of the distinctive features of Indian logic and it enables intelligent critics to appreciate duly the pivotal idea on which Indian logic turns both in its scope and its development. It should be remembered here that Indian logic never allowed itself to be restricted in its scope and development to the exclusively formal side of ratiocination, but always kept in view as its constant, knowledge or, more accurately, knowledge of truth (tattvajñāna) in
relation to what is conceived of as the *sumnum bonum*. In this connection, it would be very interesting to consider what Benedetto Croce, one of the greatest contributors to contemporary philosophical thought, has chosen to observe concerning Indian logic, particularly the distinction of *svārthānumāna* and *parārthānumāna* recognised in Indian logic. Attention is invited to the subjoined extract from pages 583 to 585 of Benedetto Croce’s ‘Logic as the Science of Pure Concept’—rendered into English by Douglas Ainslie.

“This error, which appeared very early in our western world, has spread during the centuries and yet dominates many minds; so true is this that ‘logic’ is usually understood to mean ‘illogic’ or ‘formalist logic’. We say our western world, because if Greece created and passed on the doctrine of logical forms, which was a mixture of thoughts materialised in words and of words become rigid in thoughts, another logic is known which, as it seems, developed outside the influence of Greek thought and remained immune from the formalist error. This is Indian logic, which is notably antiverbalist . . . . . Indian logic studies the naturalistic syllogism *in itself*, as internal thought, distinguishing it from the syllogism *for others*, that is to say, from the more or less usual, but always extrinsic and accidental forms of communication and dispute. It has not even a suspicion of the extravagant idea (which still vitiates our treatises) of a truth which is merely syllogistic and formalist and which may be false in fact. It takes no account of the judgment, or rather it considers what is called judgment, and what is really
the proposition, as a verbal clothing of knowledge; it does not make the verbal distinction of subject, copula and predicate; it does not admit classes of categorical and hypothetical, of affirmative and negative judgments. All these are extraneous to logic, whose object is the constant, "knowledge considered in itself."

Students of philosophical literature in the west may find it easy to appreciate, in the light of the above extract, the significance of the distinction which Indian logic recognizes between 'inference for oneself' (svārtha) and 'inference for others' (parārtha). This distinction is not merely one of a formal kind. It is rooted firmly on the fundamental doctrine of Indian logic that syllogistic reasoning should be viewed, not apart from the inductive process of thinking, but merely as a continuation and methodical application of it. In Indian logic, deduction and induction do not represent two mutually exclusive types of inference but they should always be looked upon as inseparably connected parts of a complete process of thinking called inference (anumāna); and the chief function of anumāna, as a means of valid cognition, is to enable one to realize how certain facts are inseparably and necessarily connected with each other in accordance with a general principle. This view of inference influenced the development of Indian logic for good and saved it from falling into the grip of formalism which, till very recently, dominated logic in the west. One of the chief advantages which have accrued to Indian logic from this view is that it never makes the extravagant
claim that *formal validity* may be viewed apart from, and independently of, *material validity*.

A complete syllogistic expression is called *nyāya-prayoga* by Vātsyāyana and all the Naiyāyikas who followed him. It is a synthesis in expression (*mahā-vākya*) built up by five parts or members (*avayavāh*), each of which embodies a judgment forming a necessary part of a complete ratiocinative process, expressed in words in order to demonstrate a fact by bringing it into an established scheme of universal and invariable relation. The Nyāya doctrine of five-membered syllogism is at least as old as Gautama and accepted by Vātsyāyana and Praśastapāda, and almost all the later Naiyāyikas and Vaiśeṣikas. These five members are described in the following section of the text.

T—33

(a) The five members of a syllogism are:—(1) the thesis set down (*pratijñā*), (2) the reason (*hetu*), (3) the exemplification (*udāharana*), (4) the subsumptive correlation (*upa-naya*) and (5) conclusion (*nigamāṇa*); e.g.—"The mountain has fire"—this is the thesis. "For it has smoke"—this is the reason. "Whichever has smoke has fire, as a hearth"—this is the exemplification. "And so is this"—this is the subsumptive correla-
tion. “Therefore it is such”—this is the conclusion.

(6) In the case of inferential cognition for oneself as well as that for others, it is the subsumptive reflection of the reason (liṅgaparāmarṣa) that serves as the efficient and special cause (karaṇa). So, liṅgaparāmarṣa in this sense is the instrument of inferential cognition (anumāna).

Annambhaṭṭa's illustrative description of the five members of a syllogism set forth above, read together with the remarks in the dipikā, throws adequate light on the function of each of the members. A typical pratijñā is in the form of a proposition consisting of a subject (pakṣa), which is already known specifically to both the parties in a discussion, and a predicate which, in a specific form, is proposed to be established in the subject; in other words, it is in the form of a definite thesis to be maintained. Its chief purpose is to bring about a definite knowledge of the pakṣa as such or what is proposed to be proved as having the probandum (sādhya). The person to whom the pratijñā is addressed would naturally desire to know first the reason why the pakṣa is said to have the sādhya; and to satisfy this desire, the liṅga or the reason which serves to establish the sādhya in the pakṣa is indicated ordinarily by a term in the ablative case in Sanskrit. It would be possible to satisfy oneself that the reason
(liṅga) adduced is capable of proving the sādhyā, only after ascertaining that the former is invariably concomitant with the latter; and the needed knowledge of the invariable connection between the probans and the probandum (vyāptijñāna), on which the probative capacity of the probans depends, is derived from the statement of the example, which is usually in a form like this:—"Whichever has smoke has fire, as a hearth." The probans which is made out to be invariably concomitant with the probandum (sādhyavyāpya) should be specifically known to be present in the pakṣa; without such a knowledge, the subsumptive process of thought on which the conclusion rests would not be complete; and such a knowledge results from the member called subsumptive correlation (upanayā).

The final statement of the conclusion called nigamana is not a purposeless reiteration of the thesis, as proved. The purpose of the nigamana is to indicate that the probans is not vitiated by the presence of a counter-probans proving the contrary (asatpratipakṣi-tatva), nor stultified by a stronger proof (abādhitatva). According to Gautama and his followers, these five members are called avayavāḥ in the sense that they form the necessary parts of a complete syllogistic expression. Vātsyāyana, in his Bhāṣya, refers to and rightly discards an earlier view that the total number of avayavas is ten—viz., a desire to know the probandum (jñānasā), doubt regarding the probandum or its reverse (saṁśaya), belief in the probability of the probandum and in the probativeness of the proof (sakyaprāptiḥ), the object of discussion (prayojana)
and the removal of doubt on proving the *probandum* (samsayavyudāsa), in addition to the five members of the Nyāya syllogism already mentioned. Of these ten, the first five are only psychological conditions which lead to a discussion and they cannot, in any sense, be said to be logical propositions forming the parts which constitute a complete syllogistic expression. It may be noted here that the Vaiśeṣika tradition, as recorded by Praśastapāda uses the terms *pratijñā, apadeśa, nidarśana,anusandhāna* and *pratyāmnāya* as the respective equivalents of the Nyāya terms *pratijñā, hetu, udāharana, upanaya* and *nigamana*.

Vātsyāyana, the author of the Nyāyabhāṣya, in his Bhāṣya on the first Sūtra, equates *nyāya* with *anvīkṣā*, and explains it as amounting to a critical investigation of facts by means of instruments of valid cognition (*Pramāṇairarthaparikṣaṇam nyāyah*). When such investigation is carried on in a methodical way so as to convince another person of a fact, it is expressed in the form of five-membered syllogistic expression which is described as *nyāyapratyāyoga* or *pañcāvayavavākya*. Vātsyāyana further explains, in his Bhāṣya on 1-1-1 and 39, how all the four Pramāṇas accepted by the Naiyāyikas meet in the five-membered syllogism and tend to demonstrate a fact in a conclusive manner. The Bhāṣyakāra points out that the statement of the thesis (*pratijñā*) may be taken to stand for valid verbal testimony (*śabda*), the reason (*hetu*) for the instrument of inference (*anumāna*), the example (*udāharana*) for the instrument of perception (*pratyakṣa*) and the subsumptive correlation (*upanaya*) for analogy (*upa-****
māna). According to him, one should find in the conclusion (nigamana) the culminating stage of demonstrative expression for the reason that it is nigamana that shows how all the four pramāṇas have collaborated to maintain conclusively the fact in question; and on this ground, nigamana is described as the acme of logical demonstration (paramo nyāyah). In order to appreciate fully the significance of the Bhāṣyakāra's account of nyāyapraṇayoga as represented by the five-membered syllogistic expression described above, it should be remembered that the Naiyāyikas, from Gautama downward, look upon logic both as a science and art, that the function of logic, according to them, comprises both discovery and proof, induction and deduction, and lays adequate stress on the material and formal aspects of reasoning; and that logical debate, even in its apparently non-logical forms of jalpa (successful advocacy) and vitandā (destructive objection), is never allowed to stand completely divorced from the aim of nyāya, viz., conclusive determination of truth (tattvādhyavaśasāya). Remembering these facts, one may easily see that the structure of the five-membered syllogism is designed to meet in an adequate manner the requirements of logical demonstration, which seeks to convince another person by drawing his attention specifically to fact and by enabling his mind to pass through successive stages of thought which conclusively establish that fact. Professor Randle is inclined to believe that Vātsyāyana thinks of the five-membered syllogism "as more than inference or the expression in words of inference" and that "the five-membered formula was influenced by its historical
origin in a nyāya which was methodological rather than logical and its structure must be regarded as in part vestigial, rather than determined by the requirements of logical analysis." (Vide pages 165 to 167 of Professor Randle’s book ‘Indian Logic in the Early Schools’). The learned Professor’s estimate of the five-membered syllogism of Nyāya and his interpretation of Vātsyāyana’s remarks in this connection can hardly be said to have given due weight to the fact that Indian logic, particularly in its early stages as exhibited in the Sūtras of Gautama and the Bhāṣya of Vātsyāyana and in the connected early literature, never allowed valid anumāna (inference) to be divorced from other Pramāṇas, at any rate from the more important of them, viz., perceptual instrument (pratyakṣa) and credible verbal testimony (śabda), and that syllogistic formalism abstracted from induction is an aberration unthinkable to the Naiyāyikas. A careful consideration of these facts would show that the structure of the five-membered formula need not be regarded as in part vestigial. On the contrary, the considerations indicated above would show that this formula is based on an efficient and self-contained type of verbal apparatus which logical methodology has evolved for the purpose of demonstration. Professor Randle further observes that “either hetu or upanaya, and either pratijñā or nigamana are superfluous and this superfluity is inherited from the time when the Nyāya was a method of debate and not yet a syllogism: and in the case of the Nyāya school, the convention of five members may have been fixed by a desire to equate the four ‘premises’
with the four Pramāṇas.” If syllogistic expression, like any other expression, directly or indirectly presupposes a hearer to whom it is addressed, if nyāya-prayoga or syllogistic expression finds a place only in inference for others (parārthānumāna), and if the process of reasoning in inference for oneself (svārthānumāna) is not syllogising, a strictly logical debate, as recognized by Gautama and his followers, must involve a self-contained syllogistic expression as its main part. The aim of such a self-contained syllogism is to enable the hearer, first to specifically think of what has to be demonstrated, secondly to learn what the reason is, thirdly to understand how the universal and invariable relation which forms the basis of inference is arrived at through observation, fourthly how the reason actually relied upon is identical with what is known to be invariably concomitant with the probandum, and fifthly to realize that the probandum is conclusively proved by a probans which is not vitiated by a counter-probans or by a stultifying proof. As already indicated, these five requirements can be fully met by the five members of a syllogism, viz., pratiṣñā, hetu, udāharana, upanaya and nigamana. It will be seen from this that the five-membered syllogism of Gautama, far from comprising any superfluous member, is the only complete form of syllogistic expression which would enable a hearer’s mind to pass in a methodical way through each of the five stages of demonstrative reasoning, as indicated above.

The Nyāya theory of five-membered syllogism may here be compared with the theory of three members
(avayavāh) put forward by the Mīmāṃsakas and the Buddhist theory of two members. The Mīmāṃsakas maintain that either pratijñā, hetu and udāharana, or udāharana, upanaya and nigamana will do; for, the conclusion should be specifically stated and a knowledge of the general relation between the probans and the probandum and of the presence of the probans in the pākṣa (vyāpti and pākṣadharmaṭā) is necessary, and these requirements are fully met by the three members above-mentioned. The Buddhists hold that syllogistic expression is only an aid to reasoning and that it would be unreasonable to assume that any hearer endowed with the minimum capacity for reasoning would require more than the members conveying the needed information about vyāpti and pākṣadharmaṭā, and that the two members necessary for that purpose, viz., the example and the subsumptive correlation (udāharana and upanaya) would be quite adequate to form a syllogism. It may also be noted here that the three-membered syllogism of the Mīmāṃsakas, represented by the latter alternative, viz., udāharana, upanaya and nigamana, may be regarded as a close parallel to the Aristotelian syllogism of the Barbara mood. The Naiyāyikas would criticise the three-membered syllogism of the Mīmāṃsakas and the two-membered syllogism of the Bauddhas as incomplete and truncated, for the former, when it consists of pratijñā, hetu and udāharana omits to make provision for equating the probans in the pākṣa with the vyāpya and for obviating any possible suspicion of a counter-probans or a stultifying proof (satpratipakṣaṭva or bādha); while, in the form which consists of
udāharana, upanaya and nigamana, it startles the hearer by a generalization without adequately preparing him; and the latter adopted by the Bauddhas combines all these defects.

It may be noticed that all the schools of Indian logic—the Nyāya, Mīmāṃsā, Bauddha and the other schools—agree in regard to the importance and value of the example (udāharana) as a member of syllogistic expression. Ordinarily, udāharana is in a form like this—“Whichever has smoke, has fire, as the hearth.” Its aim, according to the Naiyāyikas, is to show how the generalization on which deduction rests is arrived at. Consistently with this aim, the former part refers to the universal connection between the probans and the probandum and the latter part refers to a typical instance in which the co-existence between the hetu and sādhyā may be observed. Nyāya tradition, which must have influenced Gautama’s mind when, in his Sūtra 1-1-5, he proceeds to give an account of the different classes of anumāna after referring to it as tatpūrvakam (presupposing or resting upon pratyakṣa), should have also left its stamp, in the shape of specific instance, on the pivotal part of the five-membered syllogism, viz., udāharana. Some writers on Indian logic, who lose sight of the distinctive features of the Nyāya doctrine of syllogism, regard the udāharana as a useless and clumsy excrescence. Some others would historically account for the present form of the udāharana by treating it as result of the portion expressing the generalization (vyāpi) coming to be combined at a later stage in the history of Nyāya with the latter portion referring
to a specific instance, the original form of *udāharana* being merely like this:—as a hearth (*yatha mahānasah*). It may, however, be pointed out here that if Gautama’s Sūtra defining *udāharana* (1-1-36) is correctly interpreted, it cannot be held to convey anything other than this:—that *udāharana* is a typical instance (*dṛṣṭānta*) which, on the strength of the invariable connection observed in it between the *probans* and the *probandum*, enables one’s mind to pass in the *pakṣa* from a similar case of the *probans* to a similar case of *probandum*. If it is true that, from the days of Gautama, the inductive basis of deductive reasoning has been treated by the Naiyāyikas as an integral part of a complete syllogism, it must be accepted that the *udāharana* as known to Gautama and his followers comprises both the parts, *viz.*, the part representing *vyāpti* and the part referring to a typical instance, and neither the former nor the latter of these two parts can be held to be a later addition. The logic of Nyāya seeks to combine discovery and proof; the Nyāya syllogism is such a harmonious blend of induction and deduction as ensures the safe progress of thinking on right lines; and if, sometimes, the syllogism of Nyāya is abused in Indian philosophical speculation, it is certainly due to the fact that the basis of syllogistic reasoning in such cases turns out to be a superficial or unsound induction and not to any defect in the scientific method of reasoning formulated by the Naiyāyikas.

Students of western logic, when they compare the Nyāya syllogism with Aristotelian syllogism, are not likely to miss the striking contrast between
them. This contrast consists in the Nyāya system not recognizing anything really corresponding to the syllogistic figures and moods known to western logic. Ordinarily, the generalization on which the typical Nyāya syllogism rests is a universal affirmative proposition, the proposition corresponding to the minor premise is usually stated in the form of A and the conclusion is also usually in A. So, it may be said that the typical Nyāya syllogism is of the Barbara type. In this connection, a student of Nyāya, familiar with the distinction made in Nyāya literature between paksatāvacchedakasāmanādhikaranyenānumitī and paksatāvacchedakāvacchedenānumitī may feel that there is some reason to find in the former case a conclusion in I and to connect such conclusions in I with a minor premise in I; thus, in such cases, he may feel inclined to find instances of the mood represented by Darśī. In the same way, one may be inclined to find an instance of the mood Camestres in a syllogism like this—"Whichever has negation of fire has negation of smoke. No tank has fire. No tank, therefore, has smoke". But a careful consideration of the Nyāya theory of syllogism in the light of the Nyāya view regarding the interpretation of propositions would make it clear that, strictly speaking, it would not be correct to find in any Nyāya syllogism, a parallel to any western figure or mood. The Nyāya conception of a typical syllogism is that it depends chiefly upon a proposition embodying vyaśti. Vyaśti is an invariable or universal generalization in the sense that it consists in unfailing connection between a probans and probandum
looked upon as attributes predicated of certain subjects rather than as things having such attributes. The Nyāya view is generally in favour of adopting the intensive or connotational method of interpreting propositions and mostly avoids the extensive or denotational method. When a proposition like “All S is P” has to be interpreted by a Naiyāyika, he would first think of the universal and invariable connection between the essential attribute connoted by S and that connoted by P and would not so readily think of all the individuals denoted by S and P. It would also be remembered in this connection that there is no fundamental difference between a vyāpti of two positive factors and that of two negative factors. In fact, the proposition “Wherever there is no fire, there is no smoke” is for all practical purposes taken by the Naiyāyikas to be equivalent to “Wherever there is negation of fire, there is negation of smoke”. A Naiyāyika would have as little hesitation in saying “Negation of fire is” (vahnyabhāvo’sti) as in saying “Fire is” (vahnirasti), abhāva or non-existence being as much a real category as a bhāva or positive entity. In these circumstances, one may easily see how Indian Nyāya did not attach much importance in syllogistic reasoning to the artificial distinctions of A, I, E and O propositions, though the Sanskrit language was quite capable of expressing such distinctions, and how the formalistic formulas of different figures and moods came to be almost completely eschewed in Indian logic.

34—T

(a) Probans (linga=literally, mark) is of three kinds—
concomitant in affirmation and
negation (anvayavyatireki), con-
comitant in affirmation alone
(kevalānvayi) and concomitant
in negation alone (kevalavyati-
reki).

(b) The anvayavyatireki type of probans is that which has affirmative concomitance (anvayavyāpti) and negative concomitance (vyatirekavyāpti) with the probandum; as smoke when fire is the probandum.

“Where there is smoke, there is fire, as in a hearth”—this is affirmative concomitance. “Where there is no fire, there is no smoke, as in a tank”—this is negative concomitance.

(c) The kevalānvayi probans has affirmative concomitance alone; as—“Jar is namable, because it is knowable, like a cloth”. In this instance, negative concomitance is impossible between knowability (prameyatva) and namability (abhidheyatva); for all things are knowable and namable.
(d) The kevalavyatireki probans has negative concomitance alone; as in the syllogism—“Earth is different from the rest (not-earth), for it has smell; whichever is not different from the rest (not-earth) has no smell, as water; this (earth) is not so—i.e., it does not have absence of smell or gandhabhava, with which the absence of difference from not-earth (prthivitarabhedabhava) is invariably concomitant (vyapyaya); therefore, it is not so—i.e., it is not devoid of difference from non-earth”. In cases like this, there is no example in which the affirmative concomitance “Whichever has smell, has difference from non-earth” may be made out; for all varieties of earth come under the pakṣa (subject).

35—T

(a) Pakṣa (subject) is that in which the presence of the probandum is not known for certain and is yet to be proved; as a mountain, when smoke is relied upon as the probans.
(b) *Sāpakṣa* is a similar instance, in which the *probandum* is known for certain; as a hearth, in the same case of inference.

(a) *Vipakṣa* is a counter-example in which the non-existence of the *probandum* is known for certain; as a tank, in the same case of inference.

In section 34 of the text given above Annambhaṭṭa explains the three types of *probands* recognized by the Naiyāyikas—viz., the affirmative-negative *probands* (*anvāya-vyātireki*), the exclusively affirmative (*kevalān-vayi*) and the exclusively negative (*kevalāvyatireki*). The Advaita-Vedāntins insist that there is only one type of *probands*, viz., *anvāyi* (*affirmative*) and that inference arises always through subsumption to an affirmative generalization. The Bhāṭṭas, though they are inclined to recognize the *anvāya-vyātireki* and *kevalān-vayi* types of *probands*, are generally in favour of bringing the *kevalāvyatireki* type under a distinct *pramāṇa* called *arthāpatti*. The Mīmāṁsakas maintain that a negative generalization (*vyātirekāvyāpti*) is fit to be treated as the basis of a presumptive conclusion (*arthāpatti*) and only an affirmative generalization admits of being treated as the basis of a subsumptive conclusion (*anumiti*). In this connection, it would be desirable to peruse again pages 140 to 146 (part III *supra*), which contain a full discussion of all the important questions relating to *arthāpatti* as a distinct *pramāṇa* and an
explanation of the chief reasons why Naiyāyikas would bring cases of *arthāpatti* under the *kevalavyatireki* type of reasoning.

36—T

(a) Fallacious reasons (*het-vābhāsāḥ* = literally, semblances of reason) are of five kinds:—viz., the reason that strays away (*savyabhicāra*), the adverse reason (*viruddha*), the opposable reason (*satpratipakṣa*), the unestablished reason (*asiddha*), and the stultified reason (*bādhita*).

(b) The straying reason (*savyabhicāra*) is otherwise known as *anaikāntika* (literally, not unfailing in its association with the *probandum*). It is of three kinds:—viz., common (*sādhāraṇa*), uncommon (*asādha-raṇa*) and non-conclusive (*anupa-saṁhārin*).

The common strayer (*sādhāraṇa*) is that variety of straying reason which is present in a place where the *probandum* (*sādhya*) is not present; as, in the argument—"The mountain has fire, because it is knowable". In this argument *knowability is
found in a tank where fire is not present. The uncommon strayer (asādhārana) is that reason which is present only in the subject (pakṣa) and not present in any similar example (sapakṣa) or counter-example (vipakṣa); as sound-ness (śabdatva), in the argument—“Sound is eternal, because it is sound”, śabdatva (sound-ness) being present only in sound, and nowhere else, eternal or non-eternal.

The non-conclusive strayer (anupasamhārin) is that reason which has no affirmative or negative example (anvayadrṣṭānta or vyatirekadrṣṭānta); as knowableness (prameyātva) in the argument—“All things are non-eternal, because they are knowable”. Here, no example is available since all things are treated as pakṣa.

(c) The adverse reason (viruddha) is one which is invariably concomitant with the non-existence of the probandum; as producibility (kṛtakatva), in the argument—“Sound is eter-
nal, because it is produced". Here producibility is invariably concomitant with non-eternity, which amounts to the non-existence of eternity.

(d) The opposable reason (satpratipakṣa) is one which admits of being counter-balanced by another reason that proves the non-existence of the probandum; as audibility in the argument—"Sound is eternal, because it is audible, like soundness (śabdatva)". The counter reason in this case is producibility (kāryatva) in the counter-argument—"Sound is non-eternal, because it is producible".

(e) The unestablished reason (asiddha) is of three kinds: viz., unestablished in respect of abode (āśrayāsiddha), unestablished in respect of itself (sva-rūpāsiddha) and unestablished in respect of its concomitance (vyāpyatvāsiddha).

The reason is āśrayāsiddha in the argument—"Sky-lotus is fragrant, because it is a lotus,
like the lotus of a pond”. Here, *sky-lotus* is the abode or subject and it never exists.

The reason is *svarūpasiddha* in the argument—“Sound is a quality, because it is *visible*, like colour”. Here, *visibility* cannot be predicated of sound, which is only audible.

The reason is said to be *vyāpyatavasiddha* when it is associated with an adventitious condition (*upādhi*). That is said to be an adventitious condition (*upādhi*), which is pervasive of the *probandum* but not pervasive of the *probans*. ‘To be pervasive of the *probandum*’ means ‘never to be the counter-correlative (*pratiyogin*) of non-existence (*abhāva*) which co-exists with the *probandum*. ‘Not to be pervasive of the *probans*’ means ‘being the counter-correlative of non-existence which co-exists with the *probans*.’ In the argument—“The mountain has smoke, because it has fire”, *contact with wet fuel* is the adventitious condition (*upādhi*). “Where there is smoke,
there is contact with wet fuel”—thus it is pervasive of the probandum. There is no contact with wet fuel in every place where there is fire; for instance, a red-hot iron ball has no contact with wet fuel; thus the upādhi is non-pervasive of the probans. In this manner, contact with wet fuel is the upādhi in the present instance, because it is pervasive of the probandum but not pervasive of the probans. And fire, in the argument under reference, is vyāpyatvāsiddha, since it is associated with an adventitious condition (upādhi).

(f) The stultified reason (bādhita) is one which is put forward to prove a probandum whose non-existence is established by another proof. "Fire is not hot, because it is a substance", the probandum is 'not being hot'; its reverse—'being hot'—is perceived through tactile perception; so, the probans is stultified (bādhita).

Thus ends the chapter on Inference.
A hetvābhāsa is a semblance of reason. It is a fallacious reason or defective reason. It would not be quite correct to use the term *fallacy* as an equivalent of *hetvābhāsa*. In western logic, the term *fallacy* is generally understood in the sense of 'a defective conclusion or interpretation,' resulting from a defective process of thinking. The classification and elucidation of fallacies in western logic are generally influenced in a direct or indirect way by Aristotle's division of fallacies into those which are related to expression and those which are not. Students of western logic are aware that the basis of the Aristotelian classification of fallacies can hardly be considered satisfactory either from the logical or from the rhetorical point of view. As early as in the age of Gautama, the Nyāya system of Indian thought equipped itself with a fairly satisfactory and well-defined scheme of *hetvābhāsa* or defective probans. Gautama definitely classifies defective reasons under five heads and uses the significant expression *hetvābhāsa*, which suggests the *fundamentum divisionis* of his classification. The expression *hetvābhāsa* literally means 'a semblance of reason' or 'what appears to be a reason while it is really not such'. The true function of a *hetu* or *probans* is to *prove*. The defects which vitiate a *probans* are called *hetudōṣāḥ*. The common feature of such defects is that they vitiate the probative value of a *probans*. That this common feature—*viz.*, *vitiating the probative value of a probans*—is the fundamental basis of Gautama's classification of defective reasons is implicitly conveyed by the significant name *hetvābhāsa* used by Gautama. It may be noted
here that the same philosophic instinct, that helped the Nyāya theories of inference and syllogism over the formalistic barriers which western logic still finds it difficult to surmount, has also made it possible for the Nyāya system to equip itself with a really helpful scheme of defective probans, hinging on the concept of hetu which forms the main ground of syllogistic reasoning. The Naiyāyikas who came after Gautama, more especially later Naiyāyikas like Gaṅgeśa, effectively used the hint afforded by Gautama’s classification and clearly and definitely elucidated the principle underlying the Nyāya classification of hetvābhāsas. The principle is taken for granted by writers like Annambhaṭṭa and is embodied in the definition of hetvābhāsa in general. This definition may be set forth thus:—A defective probans (hetvābhāsa or duṣṭahetu) is a reason whose probative value is vitiated by a circumstance, a valid knowledge of which would prevent the inferential cognition (anumiti) kept in view or the efficient cause of such cognition (anumitikaraṇa). For instance, a vyabhicārihetu, which is of the sādhāraṇa type (common strayer), such as ‘a jar’ in the argument—“The mountain has fire, because it has a jar”, is a defective probans (duṣṭahetu or hetvābhāsa) because its probative value is vitiated by the fact that it happens to be present in a place where fire is not present and a valid knowledge of this fact would prevent the generalization (vyāptijñāna)—“Wherever there is jar, there is fire”. This is a typical case where the efficient cause of inference (anumitikaraṇa) is prevented. In an argument like this—“Fire is not hot,
because it is a substance", the hetu is of the bādhita type (stultified probans); in this case, the probative value of the probans is vitiated by the fact that it happens to be put forward to prove a thing which is already disproved by perceptual experience; that fire is not cold is a fact established by pratyakṣa; and a valid knowledge of the fact that fire is never cold would directly prevent the inference that fire is cold. Thus, it will be seen that a valid knowledge of some vitiating elements (hetudosa), would directly prevent inferential cognition (anumiti) and a valid knowledge of some others like vyabhicāra would prevent only the efficient cause of inference (anumitikaraṇa), such as generalization, in the form of knowledge of the invariable relation between the probans and probandum. The Naiyāyikas would insist that it is only a real defect, and not a fancied one, that should be taken to vitiate the probative value of a probans. Any erroneous notion that the connection between a valid probans, like smoke, and a probandum, like fire, is not invariable, should not be held to vitiate the probative value of the probans.

Of the three varieties of the vitiating circumstance called vyabhicāra (literally, straying away or inconstancy), the first, known as sādhāraṇa, is the most important. It generally proceeds from a careless or hasty generalization and when detected, it prevents a valid knowledge of invariable connection (vyāpti-jñāna). The uncommon strayer (asādhāraṇa) is conceived of by the earlier Naiyāyikas as a reason which is known not to co-exist with the probandum in any
sapakṣa, where the probandum is recognized to be present. In the illustration of asādharāṇa given in the text, sabdatva (sound-ness) is present only in the pākṣa and nowhere else. According to the earlier Naiyāyikas asādharāṇatva is anityadosa or operates as a defect only under certain circumstances. They draw a distinction between anityadosa (permanent defect)—a defect, which, when rightly detected, always vitiates the probans, and anityadosa (occasional defect)—a defect which, when rightly detected, vitiates the probans only under certain circumstances. They also hold that asādharāṇatva is an occasional defect (anityadosa) in the sense that a valid knowledge of its presence vitiates the reason only so long as there is a doubt regarding the presence of the probandum in the pākṣa. For instance, in the example given in the text, sabdatva (sound-ness) may be said to be not present in a sapakṣa, only so long as there is some doubt regarding the presence of the probandum in the pākṣa; and if one should be sure of the presence of the probandum in the pākṣa and still desire to confirm one's knowledge by means of inference, the probans—sabdatva—cannot be said to be not present in any place where the probandum is known for certain to be present, for the obvious reason that the probans is present in the pākṣa, where the probandum is already known for certain to be present. Annambhaṭṭa adopts the view of the earlier Naiyāyikas in this matter. The later Naiyāyikas define asādharāṇa to be a probans which is not co-existent with its probandum (sādhyāsamanādhihikarāṇaḥ); and a knowledge of the non-existence of the probans and the
probandum would prevent a knowledge of their invariable co-existence. The non-conclusive strayer (anupa-samhārin) is defective reason which has neither an affirmative example (anvayadṛśṭānta) nor a negative example (vyatirekadrśṭānta). This is the view of the earlier Naiyāyikas and the illustration given by Annambhaṭṭa in his text is based on this view. In this illustration, all things come under pakṣa; when there is doubt regarding the probandum everywhere, there can be no certainty concerning the co-existence of the probans and the probandum, anywhere; thus one cannot have a conclusive knowledge of vyāpti in such cases; and this is how, in such cases, the probative value of the probans comes to be vitiated. The later Naiyāyikas do not accept this view. They contend that, even when 'all' are pakṣas, those particular cases in which one may be sure of the co-existence of the probans and the probandum, may well be treated as dṛśṭānta; and so, a non-conclusive strayer (anupasamhārin) should be defined to be a defective probans, whose probandum happens to be omni-present (kevalānvayin). The vitiating circumstance in this case is, according to the later Naiyāyikas, that a knowledge of the negative concomitance (vyatirekavyāpti) is prevented; and, in spite of this defect, inferential cognition (anumiti) may arise from a knowledge of positive concomitance alone (anvayavyāpti).

The adverse probans (viruddha) and the opposable probans (satpratipakṣa) should be carefully distinguished. In the case of viruddha, the same
probans proves the contrary, the probandum being known to be invariably concomitant with the absence of the probans. In the case of satpratipakṣa, the probans admits of being counter-balanced by an opposite probans, which may be put forward to prove the contrary. The vitiating circumstance in a viruddha is that it prevents inference (anumiti). In the case of a satpratipakṣa, the two counter-balancing reasons prevent each other from producing the inference connected with it. Some Naiyāyikas hold that, in cases of satpratipakṣa, a dubitative type of inferential cognition (sambhayarūpanumiti) arises. It will be seen that viruddhavatva is a more serious defect than satpratipakṣatva, for the obvious reason that the former involves a greater degree of carelessness in reasoning.

The unestablished reason (asiddha) is defective in that a knowledge of the fact that the probans is unestablished prevents a knowledge of the presence of the invariably concomitant probans in the pakṣa (i.e., prevents parāmarśa) in the first two varieties—viz., āśrayāsiddha and svarūpāsiddha; while, in the third variety—viz., vyāpyatvāsiddha, it is defective in that a knowledge of the relation of invariable concomitance (vyāptijñāna) is prevented. In connection with the elucidation of the nature of upādhi, which is associated with the third kind of asiddha, Annambhaṭṭa speaks of four kinds of adventitious circumstance (upādhi) in his Dipika. These four varieties are:—(1) an adventitious circumstance with which, the probandum, taken by itself, is concomitant (kevalasādhyavyāpakaḥ); (2) one with which, the probandum,
as determined by an attribute of *pakṣa*, is concomitant (*pakṣādharmaṇavacchinnasādhyavāpakaḥ*); (3) one with which, the *probandum*, as determined by the *probans*, is concomitant (*sādhanāvacchinnasādhyavāpakaḥ*); and (4) one with which, the *probandum* is concomitant, as determined by an attribute not belonging to the *pakṣa*, nor being the *probans* (*udāśina-dharmaṇavacchinnasādhyavāpakaḥ*). The instance cited in the text, viz., contact with wet fuel (*ardrendhanasamyoga*) is typical of the first variety of *upādhi*. In the argument—"Air is perceptible; because it has touch which is perceptible"—‘perceptible colour’ (*udbhūtarūpa*) is *upādhi* of the second variety; for, with this *upādhi*, the *probandum*—perceptibility—is invariably concomitant, as determined by the attribute—*being an external substance* (*bahirdravyatva*)—which belongs to the *pakṣa*. In the argument—"Antecedent negation is destructible; because it is producible", *bhāvata* (*ens-ness*) is *upādhi* of the third variety; for, with this *upādhi*, the *probandum*—destructibility—is concomitant, as determined by the *probans*—producibility. In the argument—"Antecedent negation is destructible; because it is knowable", *bhāvata* is *upādhi* of the fourth variety; for, with this *upādhi*, the *probandum* is concomitant as determined by producibility, which is neither the *probans* nor any other attribute of the *pakṣa*. In all these four varieties, it will be seen that the *probans* may be present in a place where the *upādhi* may not be present (i.e., *upādhivyabhicārin*); that the *sādhya* (*probandum*), in one of its four forms described above, is invariably associated with the *upādhi*, which
is thus *sādhyavyāpaka*; and that the *probans*, which strays away from the sphere of *sādhyavyāpaka*, must necessarily stray away from the sphere of *sādhyā* itself. A thing, whose extent is represented by a circle, which has a portion falling outside the sphere of a second thing represented by a second circle, must necessarily have a portion falling outside the sphere of a third thing represented by a third circle contained within the second circle representing the sphere of the second thing. This relation is embodied in the generalization: “Whichever strays away from the *pervader*, must stray away from the pervaded” (*yo yadvyāpakavyabhicarā sa tadvyabhicārī*). On the basis of this generalization, every case of *upādhi* leads to the inference of *vyabhicāra* and through such inference, prevents a knowledge of *vyāpti*. Some Naiyāyikas hold that the vitiating circumstance in *upādhi* is that the negation of the particular *upādhi* admits of being put forward as a counter-balancing *probans* to prove the contrary and that it leads thus to the inference of *satpratipākṣatva*. These two views are usually expressed thus in Sanskrit:—“*Upādhip vyabhicāronnāyakah*”; “*Upādhiḥ satpratipākṣonnamyakah*”.

The defect called *bādha* consists in the negation of the *probandum* being already established by a stronger proof. This defect directly prevents inference (*anumiti*). It is sometimes suggested that it is unnecessary to recognize *bādha* as a distinct defect of the *probans*; for, it may be merged in *vyabhicāra* in cases where the *probans* is known to be present in *pakṣa* which is known
to be devoid of the probandum; and it may be merged in asiddhi in cases where the pakṣa is known to be devoid of the probans. It should, however, be remembered that the suggested merger is not possible in certain arguments like this.—"A jar at the first moment of its creation has smell; because it is earth" (utpattikṣane ghaṭaḥ gandhavan, prthivātvāt); and that, in such cases, the only defect that may be pointed out is bādha.

The Vaiśeṣikas recognize only three hetvābhāsās—viz., viruddha (the adverse probans), asiddha (the unemployed probans) and samīdgha (the doubtful probans). The last corresponds to what the Naiyāyikas call vyabhicāra. The satpratipaksatva of the Nyāya system may be brought under viruddha, according to the Vaiśeṣikas, and the bādha, partly under samīdgha and partly under asiddha.

It is necessary to differentiate the defective varieties of the probans (hetvābhāsāḥ) described above, from what are known in Gautama’s Nyāya as chala, jāti and nigrahasthāna. Chala is dialectic quibbling mainly through equivocation. Jāti is a futile response through parity or disparity. Gautama shows at the end of the first āhnika of the fifth chapter of Nyāya-sūtras, how a debate, carried on exclusively through jāti, is bound to become a barren type of dialectic tu quoque, leading to nothing. Nigrahasthāna is a vulnerable point which makes for defeat in a debate and need not necessarily invalidate an argument. When a person is described as navakambala in the sense that he has a new blanket, it would be chala to object to the state-
ment by perversely misinterpreting it to mean 'having nine blankets'. It should be noted here that the expression navakambala is ambiguous and may mean 'having a new blanket' or 'having nine blankets.' To the argument "Sound is non-eternal, because it is produced, like a jar", it would be a futile response (jātyuttara) to say "Sound may well be said to be eternal, because it has no activity (niṣkriya), like ether". To shift one's ground without adequate reason and give up the thesis proposed to be maintained (pratijñāhāni and pratijñāsanīnyāsa), to be unable to give a suitable reply when a reply is called for (apratiḥā)—weak points like these are vulnerable points (nigrahasṭhāna) which make for defeat in a debate. All the defective varieties of probans (hetvābhāṣāḥ) may also be treated as vulnerable points, while the latter, other than defective reasons, do not invalidate an argument.
CHAPTER III
ASSIMILATION OR ANALOGY (upamāna)

37—T

Assimilation (upamāna) is the instrument of assimilative cognition. Assimilative cognition (upamīti) consists in the knowledge of the relation between a name and the object denoted by it. Knowledge of similarity is the efficient instrument (karana) of such cognition. This may be illustrated thus:—

A person happens to be ignorant of the exact meaning of the word gavaya (a particular animal of the bovine species). From a forester, he learns that a gavaya is similar to a cow; he goes to a forest, sees the animal called gavaya, which is similar to a cow and recollects the information conveyed by the assimilative proposition (atidesa-vākya). Then the assimilative cognition, “This is the animal (of the bovine species) denoted by the word gavaya” arises.

Thus ends the chapter on upamāna.
The Nyāya conception of *upamāna* as a distinct instrument of valid cognition restricts its scope to ascertaining of the primary denotative or significative power of a word (*saktigraha*). The chief object of the Naiyāyikas in so restricting its scope is to save it from being swallowed up in inference (*anumāna*). It should be carefully noted here that, according to the Mīmāṃsakas, the cognition embodied in the proposition "The animal called *gavaya* is similar to a cow" is the efficient instrument (*karaṇa*) and the cognition "My cow is similar to this animal called *gavaya*" is the resultant *upamiti* (assimilative cognition); whereas, according to the Naiyāyikas the resultant *upamiti* is in the form of the knowledge of the primary significative power of the word *gavaya* (*gavaya-pada-saktigraha*). It could be easily seen that the relation between the *karaṇa* (efficient instrument) and the *phala* (result), according to the Mīmāṃsakas, is exactly similar to the relation between the two propositions "A is similar to B" and "B is similar to A". The Vaiśeṣikas and Bauddhas could easily show how the latter, viz., "B is similar to A" may be taken to be inferred from the former, viz., "A is similar to B". The Naiyāyikas cleverly escape from this danger by narrowing the scope of *upamāna* as indicated above. One might, however, remark that the Nyāya conception of *upamāna* is singularly unpractical and unfruitful. Vātsyāyana’s remarks on *upamāna*, under I-i-6 and II-i-44 to 48, throw some light on the practical value of this *pramāṇa*.
The Bhāṣyakāra points out how it would be of great practical value to know exactly what is denoted by certain technical names of medicinal herbs, as used in the Ayurveda literature. It should be remembered here that the Indian view of a pramāṇa is that it is an efficient instrument of valid knowledge, which possesses such unchallenged certitude as is usually associated with validity or as is not nullified by subsequent experience; or according to some Indian thinkers, it is an efficient instrument of valid knowledge, which possesses such practical utility and effectiveness as is usually associated with validity. In this way, it would not be difficult to appreciate the reasons why the Naiyāyikas regard upamāna as a distinct pramāṇa.
CHAPTER IV
VALID VERBAL TESTIMONY. Sentence or proposition (sabdha)

38—T

(a) Valid verbal testimony is a proposition set forth by a trustworthy person (apta). One who habitually speaks only truth is a trustworthy person (apta). A sentence or proposition is a group of words like “Bring a cow” (gamanaya).

(b) A word is that which has significative potency (sakti). “From this word, this concept should be known”—God’s will to this effect (Iswarasamketah) is called sakti (significative potency).

The Vaiśeṣikas would bring valid verbal testimony also under inference. The Naiyāyikas however, contend that, in cases where valid knowledge is derived from valid verbal testimony (pramanasabda), one is not conscious of any conclusion through subsumption to a generalization; but one is, on the contrary, conscious of a valid verbal cognition or judgment (sabdabodha) resulting from a knowledge of words, without the mediacy of any such subsumptive process of
thought. For this reason, the Nyāya system holds that *sabda* deserves the rank of a distinct *pramāṇa*.

The recognition of *sabda* as a distinct *pramāṇa* has laid most of the Indian systems of philosophy open to the charge of dogmatism. Careful students of Indian philosophy know well that this charge, when put forward in a sweeping form, can easily be exposed as based on certain misapprehensions. Certain objections may be raised by advocates of independent thinking against the view of the Mīmāṃsakas that the relation between a word and its meaning is eternal and that the statements constituting the Vedas should be held to be eternal and eternally valid and to possess self-evident validity. But these objections cannot be raised against the Nyāya view of *sabdapramāṇa*. This view seeks to reconcile the Nyāya standpoint of rationalism with the conception of *sabda* as a distinct source of valid knowledge, through the Nyāya theory of extrinsic validity (*paratapramāṇya*). According to the Naiyāyikas, it should be remembered that a *sabda* is a source of valid knowledge only in so far as the source of *sabda* is a perfectly trustworthy person and that validity (*pramāṇa*va) of the knowledge derived from a *sabda* is extrinsically caused (*paratap utpadyate*) through the reliability of the speaker and is also extrinsically made out (*paratap āntyate*) through verification in direct experience. The Naiyāyikas seek to gain a twofold advantage by this view of *sabda*. One advantage consists in the fact that they have succeeded in freeing their rationalistic system of thought from the
reproach of dogmatism; and the other advantage consists in the fact that they are able to base a theistic argument on this view by pointing out that belief in the infallibility of the *Veda* would necessarily imply a belief in the *Veda* having been produced by an infallible author—such an infallible author in the case of *Veda* being none other than the Omniscient and Omnipotent God.

The primary significative potency of a word, called *padaśakti*, is the eternal significative relation between a word and its sense, according to the Mimāṃsakas; and it should be brought under *sakti*, which is a distinct category or quality according to them. The Naiyāyikas refuse to accept this view and hold that the utmost that could be said about *padaśakti* is that it is the will of God to the effect that a particular word should convey a particular sense. This is on the assumption that speech is not a human product but made by God for the benefit of humanity.

39—T

(a) Verbal expectancy, congruity and proximity—these are the causes which bring about verbal cognition or judgment from a proposition.

(b) Verbal expectancy, (*ākāṅkṣā*) consists in a word not being capable of conveying a complete judgment in the absence of another word.
(c) Congruity (*yogyata*) consists in the sense being not stultifiable.

(d) Proximity (*sannidhi*) consists in the articulation of words without undue delay.

(e) A sentence which is devoid of expectancy and the other two requirements (congruity and proximity) does not bring about a valid cognition. For instance, a string of words like "Cow, horse, man, elephant" does not produce any judgment; for there is no verbal expectancy (*akaṅka*) here. The sentence "One should sprinkle with fire" does not produce a valid judgment, as there is no congruity here. Words like "Bring a cow", uttered at long intervals, cannot produce a valid judgment, owing to want of proximity.

In section 39, Annambhatta briefly states the *Nyāya* view regarding the accessories necessary for arriving at a valid judgment from a proposition. In every language, certain words necessarily require certain other words to complete the sense. For instance, a verb denoting an action necessarily requires a *karaka*.
such as a word denoting the agent or instrument or object of the action; and in the absence of such a word, it cannot convey a complete sense. This kind of syntactic need is what is called verbal expectancy or **akāṅkṣā**. Words which are not required for syntactic completeness or which have no kind of syntactic relation whatever cannot form a proposition. **Yogyata** or congruity of the sense is stated to be another requirement. One can easily see that, in the example given in the text, the concept of *fire* is incongruous as a means of sprinkling; because sprinkling is done with *water*, and not with *fire*. When the words constituting a sentence are uttered at long intervals, one cannot have any connected thought and complete judgment in the form of verbal cognition does not arise. With regard to the causal connection between **yogyata** and **sabdabodha**, there is difference of opinion among the Naiyāyikas. Many Naiyāyikas hold that a decisive knowledge of congruity (**yogyatāniścaya**) is a pre-requisite of verbal cognition. Some of them maintain that a decisive knowledge of incongruity (**ayogyatāniścaya**) prevents verbal cognition (**sabdabodhopratibandhaka**) and the absence of such a counteracting agent is necessary for having the effect.

In this connection, attention may be drawn to the relation between a decisive knowledge of the speaker's intention (**tatparyaniścaya**) and the verbal cognition (**sabdabodha**) arising from a sentence. Some hold that **tatparyaniścaya** is an accessory cause of **sabdabodha**; others hold that it is required only in cases where ambiguous words or expressions are used; and
yet others maintain that, though it is required, it need not be referred to separately as a cause of śabdabodha, for the reason that ākāṅkṣā (syntactic expectancy) consists in the need which one word has for another word in order to convey the complete sense intended to be conveyed and that, in this form, ākāṅkṣā includes tātparya.

Students of Nyāya will do well to note the essential features of the Nyāya theory of śabdabodha. This theory is, for all practical purposes, the Nyāya theory of the import of propositions. The Nyāya view is that only a determinate judgment (savikalpakaśājñāna) is embodied in, and conveyed by, a proposition; every proposition comprises at least a subject (uddeśya) and predicate (vidheya); in a verbal judgment (śabdabodha) arising in the hearer’s mind from a proposition, the meaning of the chief substantive in the nominative case (prathamāntartha) plays the role of the leading concept (mukhyaviśeṣya) and all the other concepts are directly or indirectly subordinated to it; the cognition arising from a proposition is always non-perceptual (parokṣa); and the additional element conveyed by a sentence, over and above the separate concepts conveyed by separate words, is the intended relation of the concepts (padarthasamsarga) and this additional element, which is the distinctive feature of a verbal judgment (vākyārtha), is conveyed through the particular juxtaposition of words (samsargamaryāda), and not through a primary or secondary significative power of words (abhidhā or laksanā). It may be observed here that the juxtaposition (samsargamaryāda)
yāda), referred to here, turns out to be identical with co-utterance (samabhivyāhāra), which is reducible to the form of what is technically known as syntactic expectancy (ākāṅkṣā).

It may be useful here to contrast the Nyāya theory of śabdabodha with the śabdabodha theories of certain other Indian schools. According to the Vaiyākaraṇas, the activity denoted by the root of the finite verb (dhātvarthā) is the leading concept in a verbal cognition arising from a sentence; and according to the Bhāṭṭas, the ‘will to do’ (kṛtya) denoted by the ending of the finite verb is the leading concept there. If, from the stand-point of logical analysis, the subject is the central concept of a judgment, the meaning of the root of the finite verb may be regarded as its central concept from the stand-point of linguistic analysis; or the ‘will to do’, denoted by the ending of the finite verb, may be viewed as its central concept from the stand-point of Mīmāṃsā legalism.

The Nyāya system recognizes only two main types of significative force (sabdavṛtti)—viz., abhidhā (the primary significative force) and lakṣaṇā (the secondary significative force). It refuses to accept the third type of significative force called vyāñjanā or suggestion, which is recognized by the Ālaṃkārikas as a distinct type of sabdavṛtti, and brings it under inference. According to the Nyāya system, the primary significative force (abhidhā) includes two phases, which correspond to connotation and denotation, and relate to jāti (generality) as the connoted attribute, and to vyakti (the individual thing) as the denoted object qualified
by such attribute. In other words, the Naiyāyikas generally maintain that the primary sense of a word is ordinarily an individual qualified by a generic attribute (jñātivṛtiṣṭवयव्यक्ति). Students of modern philosophy will find it easy to see that, according to the Nyāya system, the concepts conveyed by separate words are apparent simples, but really petrified judgments. All the names, including proper names, are connotative, according to Nyāya.

40—T

(a) There are two classes of sentences: those that belong to the Veda and those that belong to secular speech. Those that belong to the Veda are all statements of God and therefore authoritative. Of those that belong to secular speech, such as produced by trustworthy persons are authoritative and others are not authoritative.

(b) Verbal cognition (śabdajñāna) is the knowledge of the meaning of a sentence. Its efficient instrument (karaṇa) is sentence (śabda).

Here ends the chapter on Verbal Testimony.

Thus valid experience (yathārthānubhava) has been explained.
Erroneous experience is of three kinds—the three varieties being doubt, misapprehension and indirect argument (reductio ad absurdum).

(a) A doubt is a cognition which relates to several incompatible attributes in the same thing—as, in the dubitative cognition—“It may be a post or a man”.

(c) Misapprehension is a false cognition—as in the erroneous cognition of a nacre, in the form—“This is silver”.

(d) Indirect argument (reductio ad absurdum) consists in the hypothetical admission of vyāpya (an invariably concomitant fact) which leads to the admission of the pervasive concomitant (vyāfaka); as, “If there were no fire, there would be no smoke”.

Recollection is also of two kinds:—true and false. The former is the result of a valid experience; and the latter arises from an erroneous experience.
In this connection students may be advised to read again pages 104 to 146 of chapter I part III.

43—T

(a) Pleasure is a quality which all consider agreeable.
(b) Pain is a quality which all consider disagreeable.
(c) Desire is wish.
(d) Dislike is ill-feeling.
(e) Volitional effort is the will to do.

(f) Dharma is the unseen spiritual benefit accruing from the performance of actions which are enjoined by the Vedic law.

(g) Adharma is the unseen spiritual demerit accruing from the performance of forbidden actions.

(h) Cognition and the following seven qualities (eight in all) are the specific qualities (viśeṣa-guṇaḥ) found only in the soul. Cognition, desire and volitional effort may be eternal or non-eternal; they are eternal in God and non-eternal in the ordinary souls of living beings (itva).
There are three kinds of tendencies or impressions—speed, reminiscent impression and elasticity. Speed belongs to the substances—earth, water, fire, air and mind. Reminiscent impression belongs only to the soul and it results from a previous experience and causes recollection. Elasticity is the tendency of a thing to recover its original form when it is changed.

Here ends the section dealing with Qualities.

It would be useful if students read again, in this connection, pages 13 to 15 of chapter I part III.

Activity is of the nature of motion. Upward motion leads to contact with an upper place. Downward motion leads to contact with a lower place. Contraction leads to contact with a place near one's body. Expansion leads to contact with a place remote from one's body. All the other varieties of motion come under 'going'.
45—T

Generality is a generic attribute which is eternal and one and inheres in many things. It is found in substances, qualities and activities. Existence (satta) is the most comprehensive type of generality. Substance-ness and such others are less comprehensive.

46—T

Specialities are the differentiating features belonging to eternal substances.

47—T

Inherence is the eternal relation, which belongs to the inseparables. An inseparable pair consists of two things of which one thing, so long as it does not come to an end, exists only in the other thing:—as component part and the composite whole, quality and substance, motion and moving body, generality and the individual having it, and speciality and the eternal substance having it.

In this connection, students will do well to read again pages 18 to 37 of chapter I, part III.
(a) Antecedent non-existence has no beginning but has an end. It relates to the period preceding the production of an effect.

(b) Annihilative non-existence has a beginning but has no end. It relates to the period subsequent to the production of an effect.

(c) Total non-existence is the negation of a counter-correlative in respect of relation to all the three times—present, past and future—as in the statement—"There is no jar on this spot."

(d) Reciprocal non-existence is the negation of a counter-correlative in respect of its identity with another thing—as in the statement—"A jar is not a cloth."

Here, students should peruse again pages 37 to 52 of chapter I, part III.

49—T

All the other *padartha* may be brought under one or the other of the seven *padartha*
enumerated at the beginning of this work. So, there are only seven categories.

Here, attention is drawn to pages 4 to 8 of chapter I, part III.

50—T

Annambhaṭṭa has written this treatise called Tarkasamgraha with the object of introducing beginners to a study of the Nyāya and Vaiśeṣika systems of Gautama and Kaṇāda.

Thus ends the Tarkasamgraha
akhaṇḍadeśa: indivisible space.
akhaṇḍopādhi: an attribute which is not a jāti but similar to it.

akhyāti: non-apprehension.
acit: non-spirit; matter.
aṇu: atom; minute part.
aṇutva: smallness.
aṇuparimāṇa: atomic size.
atideśavākya: assimilative proposition.
ativyāpti: over-applicability; being too wide.
atyantābhāva: absolute non-existence.
atyantāsāt: non-being out-and-out.
adharma: unseen spiritual demerit.
adhikārin: a qualified person or one to whom the result accrues.

adhiṣṭhāna: real substratum.
adhyavasāya: determinative cognition.
anavasthā: endless regression.
anātman: non-soul.
anādi: without beginning.
anitya: non-eternal.
anityadosa: occasional defect.
anirvacanīyakhyāti: indefinable's apprehension.
anirvacanīyatā: indefinability.
anudbhūta: sub-perceptional.
anupasambhārin: non-conclusive reason.
anubhava: experience.
anumāna: inference; instrument of inference.
anumiti: inference.
anuyogin: correlated substratum.
anuvyavasya: after-cognition, in which the subject also is presented.
anuśpāśita: lukewarm.
antahkarana: inner instrument of knowledge.
antyaviśeṣa: ultimate particularity.
anyathākhyāti: misapprehension.
anyathāsiddha: dispensable antecedent.
anyonyābhāva: reciprocal negation; mutual non-existence.
anyavāḍānta: affirmative example.
anyavasahacāra: sequence of positive factors.
anyavyatirekānta: concomitant in affirmation and negation.
anyavyāpāti: positive or affirmative concomitance.
ap: water.
apara: less comprehensive.
aparatva: spatial or temporal proximity.
apavarga: final emancipation.
apexṣābuddhi: enumerative cognition.
apratyakṣa: imperceptibility.
aprāmāṇya: error; invalidity.
abhāva: non-existence.
abhidheya: denotable thing.
abhidheyatva: namability.
abhīgātha: striking; a kind of contact producing sound.
abheda: identity.
abhyāsapratyaya: repetitional cognition.
amla: acid.
ayathārtha: erroneous.
ayathārthānubhava: erroneous experience.
ayutasiddha: inseparable.
arāṇi: tinder-stick.
artha: substance.
arthāpatti: presumptive testimony.
alaukika: extra-normal.
avakṣepaṇa: downward motion.
avacchedaka: delimiting.
avacchedya: delimited.
avacchinna: delimited.
avayava: member; member of a syllogism; component part.
avayavin: composite structure or product.
avinābhāva: invariable relation.
aviveka: non-discrimination.
avyapadeśya: non-verbal; unverbalisable.
avyāpti: partial inapplicability.
avyāpyavṛtti: non-pervasive.
asakti: inability.
asat: non-being.
asatkhyāti: non-being’s apprehension.
asamavāyikāraṇa: non-inherent cause.
asambhava: total inapplicability.
asādhāraṇa: special; uncommon strayer.
asādhāraṇadharma: specific feature.
asiddha: un-established reason.
asurabhi: non-fragrant.
ākaraja: mine-born; born of the mine.
ākāṅkṣā: verbal expectancy; syntactic expectancy.
ākāśa: ether.
ākāśatva: etherness.
ākuñcana: contraction.
āgama; verbal testimony.
ātman: soul.
ātmakhyāti: self-apprehension.
ātmāśraya: self-dependence.
ādārapratyaya: regardful cognition.
Āditya: Sun.
ānumānika: inferential.
āpta: trustworthy person; truth-teller.
āyojana: concretive activity.
ārambhāvāda: creationistic theory of causation.
āropa: hypothetical admission.
āśrayāsiddha: unestablished in respect of abode.
icchā: desire.
indriya: sense-organ.
indriyatva: senseness.
indriyārthasannikāraṇa: relation between sense-organ and object.
indhana: fuel.
Īśvara: God.
utkṣepaṇa: upward motion.
utpatti: production.
uḍārya: that of the stomach; gastric.
uḍāharana: exemplification.
uḍdeśa: enumeration.
uḍdeśya: subject.
uṭbhūta: perceptible; not sub-perceptional.
upanaya: subsumptive correlation.
upamāna: instrument of assimilation; assimilative instrument; comparison.
upamiti: assimilative cognition or experience.
upalabdhi: apprehension.
upaśṭambhaka: supportive.
upasthiti: thought.
upādānakāraṇa: material cause.
upādhi: adventitious condition; an attribute which is not a jāti.
upekṣā: indifference.
uṣṇa: hot.
uṣṇasparṣa: hot touch.
eka: one.
kaṭu: pungent.
kadamba: a kind of flower.
kapāla: potsherd.
kapiṣa: brown.
kampana: shaking.
karaṇa: efficient or instrumental cause.
karma: activity.
kalaśatva: jarness.
kalpanā: presumptive knowledge; fictitious fabrication.
kaśāya: astringent.
kāma: wish.
kārya: product.
kāla: time.
kālikasambandha: time-relation.
kṛtakatva: producibility.
kṛti: volitional effort.
kṛṣṇatārā: dark pupil.
kevalabhūtala: empty floor.
kevalavyatirekin: concomitant in negation alone.
kevāladhiparaṇa: mere container.
kevalānvayin: concomitant in affirmation alone.
kriyā: activity.
kriyātva: motion-ness.
krodha: ill-feeling.
kṣaṇa: moment.
kṣanikavijnāna: momentary consciousness.
gandha: smell.
gamana: going.
guṇa: quality.
gurutva: weight.
ghatatva: potness.
ghrāṇa: olfactory sense; sense of smell.
cakṣus: visual sense; sense of sight.
calana: motion.
cit: spirit; consciousness.
citra: variegated.
cūrṇa: powder.
chala: dialectic quibbling.
janya: producible thing.
japā: China rose.
jala: water.
jalpa: argument for victory; successful advocacy.
jāti: generic or class attribute; specious and unavailing objections or futile respondence.
jihvā: tongue.
jīva: individual soul.
jīvātman: individual soul.
jñāpti: knowledge.
SANSKRIT GLOSSARY

<table>
<thead>
<tr>
<th>SANSKRIT</th>
<th>TRANSLATION</th>
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<tbody>
<tr>
<td>jñāna:</td>
<td>knowledge</td>
</tr>
<tr>
<td>īneya:</td>
<td>knowable</td>
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<tr>
<td>attvādhyavasāya:</td>
<td>conclusive</td>
</tr>
<tr>
<td></td>
<td>determination of truth</td>
</tr>
<tr>
<td>adutpatti:</td>
<td>casualty</td>
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<tr>
<td>antu:</td>
<td>thread</td>
</tr>
<tr>
<td>amas:</td>
<td>darkness</td>
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<tr>
<td>arka:</td>
<td>reductio ad absurdum; indirect argument</td>
</tr>
<tr>
<td>ādātmya:</td>
<td>complete identity</td>
</tr>
<tr>
<td>ākta:</td>
<td>bitter</td>
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<tr>
<td>turi:</td>
<td>shuttle</td>
</tr>
<tr>
<td>tṛṇa:</td>
<td>straw</td>
</tr>
<tr>
<td>ājeas:</td>
<td>light; fire</td>
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<tr>
<td>trasareṇu:</td>
<td>triad; ternary product</td>
</tr>
<tr>
<td>truṭi:</td>
<td>triad; ternary product</td>
</tr>
<tr>
<td>tvak:</td>
<td>tactus; sense of touch</td>
</tr>
<tr>
<td>daṇḍa:</td>
<td>stick</td>
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<tr>
<td>dik:</td>
<td>spatial direction</td>
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<tr>
<td>divya:</td>
<td>that of the sky</td>
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<td>dirgha:</td>
<td>long</td>
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<tr>
<td>duṣṭahetu:</td>
<td>defective probans</td>
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<tr>
<td>duḥkha:</td>
<td>pain</td>
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<tr>
<td>drṣṭānta:</td>
<td>typical instance</td>
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<tr>
<td>dravatva:</td>
<td>fluidity</td>
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<tr>
<td>dravya:</td>
<td>substance</td>
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<tr>
<td>dravya-va:</td>
<td>substanceness</td>
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<tr>
<td>dvyaṇuka:</td>
<td>dyad; binary product</td>
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<tr>
<td>dveṣa:</td>
<td>dislike</td>
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<tr>
<td>dharma:</td>
<td>merit; unseen spiritual benefit; attribute</td>
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<tr>
<td>dharmin:</td>
<td>thing qualified</td>
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<tr>
<td>dhātu:</td>
<td>verbal root</td>
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<tr>
<td>dhṛti:</td>
<td>sustaining effort</td>
</tr>
</tbody>
</table>
dhvani: noise.
nāman: name.
nigamana: conclusion.
nigrāḥasthāna: vulnerable point.
nitya: eternal.
nityadoṣa: permanent defect.
nityaguṇa: eternal quality.
nididhyāsana: constant meditation.
nimittakāraṇa: instrumental cause.
niyata: invariable.
niyatapūrvavṛtti: invariable antecedent.
nirūpaka: correlating; correlated.
nirṇaya: decisive knowledge.
nirvacana: definite predication.
nirvikalpaka: indeterminate.
niścaya: determination.
niṣkampapraṇvṛtti: unfaltering effort.
nīla: blue.
nodana: pushing.
naimittika: artificial.
pakṣa: minor term; subject.
pakṣatā: subjectness.
pakṣadharmatā: subject-adjunctness.
pāṭa: cloth.
paṭatva: clothness.
paṭupratyaya: vivid cognition.
padārtha: category.
padartha: more comprehensive.
paratva: temporal or spatial remoteness.
parastavā: extrinsicality.
paratāhprāmāṇya: theory of extrinsic validity.
paratograhya: made out extrinsically.
paramāṇu: atom.
paramātman: Supreme Soul.
paramāparāsambandha: indirect relation.
parāmarśa: subsumptive reflection.
parārthānumāna: inference for others.
parārdha: one thousand crores of crores.
parināma: modification; digesting.
parimāṇa: size.
parīkṣā: investigation.
parokṣa: non-perceptual.
pāka: heat; baking.
pācaka: a cook.
pārimāṇḍalya: the smallest size conceivable; atomic size.
pāṣāṇa: stone.
pinḍa: lump.
pīta: yellow.
puruṣa: spirit.
pṛthaktva: separateness.
pṛthivī: earth.
pṛthvī: earth.
prakāra: adjunct.
prakāratā: adjunctness.
prakāśa: luminosity.
prakṛti: primordial matter.
pracaya: loose contact.
pratiṣṭhā: thesis.
pratipādyapratipādakabhāva: relation of the and the treatise.
pratibandhaka: counter-agent.
pratiyogin: correlative; counter-correlative.
pratiyogitā: correlativeness.
pratiyogitātva: the state of being correlativeness.
pratyakṣa: perception; perceptive instrument.
pradhvamsabhāva: annihilative non-existence.
pramā: valid knowledge.
pramāṇa: means of valid knowledge; valid knowledge.
pramātva: validity.
prameya: object of valid knowledge; cognizable thing.
prameyatva: knowability.
prayatna: volition.
prayojana: purpose; aim.
pralaya: dissolution; universal dissolution.
pravṛtti: volitional decision.
prasāraṇa: expansion.
prāgabhāva: antecedent non-existence.
prātyakṣika: perceptual.
prāmāṇya: truth; validity.
pretyabhāva: cycle of death and birth.
phala: result.
phalibhūtajñāna: resultant cognition.
boddha: bound.
bādhakapratīti: sublating cognition.
bādhita: stultified reason.
buddhi: cognition.
bhāvakārya: positive product.
bhāvanā: reminiscent impression.
bhāvapadārtha: existent entities.
bhāsvara: brilliant.
bhittī: wall.
bhūta: elemental being.
bhūtatva: elementness.
bhuyodarśana: repeated observation.
bhedā: difference.
bhedasahīṣṇu: compatible with difference.
bhauma: that of the earth.
maṇi: lens.
madhura: sweet.
manas: mind.
manana: reflective thinking.
manuṣyatva: humanity.
mahat: large.
mahattva: largeness.
mahākāla: undivided time.
mahāsāmāṇya: grand generality; the *summum genus*.
māna: measurement.
mānasapratyakṣa: mental perception.
mithyā: unreal.
mithyājñāna: false cognition.
mukti: final emancipation.
mūrta: moving substance; limited in size.
mṛgatva: beasthood.
mṛt: clay.
yatna: volitional effort.
yathārtha: real.
yogyatā: congruity.
yogyānupalabdhi: effectual non-cognition.
rakta: red.
rajas: passion.
rasa: taste.
rasana: sense of taste; gustatory sense.
rūpa: colour.
rupatva: colourness.
lakṣaṇa: definition.
lavāṇa: salt.
lāghava: principle of parsimony or economy.
liṅga: probans; mark; reason.
liṅgaparāmarṣa: subsumptive reflection of the probans.
loka: world.
Varuṇa: Water-God.
varṇa: alphabet.
vahni: fire.
vākyārthabodha: verbal judgment.
vāda: argument for truth.
vāyu: air.
vāyu-loka: world of Wind-God.
vikalpa: fictitious fabrication.
vijñāna: consciousness.
vitanḍā: destructive argument or objection.
vidyut: lightning.
vidheya: predicate.
vipakṣa: counter-example.
viparitakhyāti: contrary experience.
viparyaya: misapprehension.
vibhāga: division; disjunction.
vibhāgaja: caused by disjunction.
vibhuvravya: all-pervasive substance.
viruddha: adverse probans or reason.
viśiṣṭapratīti: determinate cognition.
viśeṣa: particularity.
viśeṣaguṇa: specific quality.
viśeṣaṇa: adjunct.
viśeṣyatā: substantiveness.
viṣaya: object; subject-matter.
viṣayatā: objectness.
viṣayatātvā: the state of being objectness.
viṣayitā: subjectness.
vṛkṣa: tree.
vṛtti: activity; modification.
vega: speed.
veman: loom.
vyakti: individual unit.
vyañjanā: suggestion.
vyatirekadrṣṭānta: negative example.
vyatirekavyāpti: negative concomitance; negative generalization.
vyatirekasahacāra: concomitance of negation.
vyaivasāya: cognition in which an object is presented and not the subject.
vāpāra: activity; intermediate cause.
vāpti: co-extension; invariable concomitance.
vāpyatvāsiddha: unestablished in respect of its concomitance.
vāpyāvṛtti: pervasive.
vāvartaka: differentiating feature.
vāvṛtti: differentiation.
vāsajyavṛtti: partially contained.
śakti: significative potency or power; potentiality.
śabda: proposition; verbal testimony; sound.
śabdaja: caused by sound.
śabdatanmātra: subtle sound.
śabdavṛtti: significative force.
śarīra: body; form.
śābda: verbal; verbal experience.
śābdajñāna: verbal cognition.
śābdabodha: verbal cognition.
śīta: cold.
śītasparśa: cold touch.
śukti: nacre.
śukla: white.
śyāma: black.
śravaṇa: understanding.
Śruti: Revealed Texts.
sakampapraṇāti: halting effort.
sakṛddarśana: single observation.
sat: being.
sattā: existence.
sattva: goodness.
satpratipakṣa: opposable reason.
sapakṣa: similar instance.
samavāya: inherence.
samavāyin: constitutive.
samavāyikāraṇa: constitutive or inherent or intimate cause.
samudra: ocean.
samūhālambana: group cognition.
samkhyā: number.
samdigdha: doubtful probans.
sannikarṣa: sense-relation.
sannidhi: proximity.
sambandha: relation.
samyoga: conjunction.
samyogaja: caused by contact.
samāsaya: doubt.
samsarga: relation.
samsargata: relationness.
samskara: tendency or impression; reminiscent impression.
sarit: river.
Sarvajña: Omniscient.
savikalpaka: determinate.
savyabhicara: straying reason.
santa: having an end.
sadrśya: similarity.
sadhana: middle term; probans.
sadhāraṇa: general; common strayer.
sadhya: probandum; major term.
samagri: the whole causal apparatus.
samayikābhāva: temporary non-existence.
sāmānya: generality.
sāmānyaviśeṣa: generic differentia.
sāmkarya: unwarranted blend.
sāmsiddhika: natural.
siddhānta: established conclusion.
sukha: pleasure.
surabhi: fragrant.
suvarṇa: gold.
sṛṣṭi: creation.
sthitasthāpaka: elasticity.
sneha: viscidity.
sparśa: touch.
sphaṭika: crystal.
sphoṭa: the eternal substratum of significativeness.
smṛti: recollection.
smaraṇa: recollection.
svatattva: intrinsicality.
svatograhya: intrinsically made out.
svatojanya: intrinsically brought about.
svatovyayartaka: self-discriminating.
svatovyavrtta: self-differentiated.
svarupasambandha: self-relation; self-linking;
svarupasiddha: unestablished in respect of itself.
svarthanumana: inference for oneself.
svetarabheda: difference from the rest.
harita: green.
hetu: probans; reason; valid reason; middle term.
hetvabhasa: fallacious reason; semblance of reason;
defective probans.
hrasva: short.

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