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THE
ELEMENTS OF INDIAN LOGIC AND EPISTEMOLOGY

[A PORTION OF ANNAMBHAṬṬA'S TARKA-SAṀGRAHA AND DĪPIKĀ]

By

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CONTENTS

SECTION 17

SECTION 18

SECTION 19

SECTION 20

THE ELEMENTS OF INDIAN LOGIC AND EPISTEMOLOGY

SECTION 1

न—सर्वव्यवहारहेतुर्गुणोबुद्धिर्ज्ञानम्। सा द्विविधा स्मृतिरनुभवश्च। संस्कारमात्रजन्यं ज्ञानं स्मृतिः। तद्भिन्न ज्ञानमनुभवः॥

दो—बुद्धेर्लक्षणमाह—सर्वेति। ज्ञानमीत्यनुव्यवसायोम्यज्ञानत्वमेव लक्षणमित्यर्थः। बुद्धिं विभजते—सेति॥ स्मृतेर्लक्षणमाह—संस्कारेति। भावनाख्यः संस्कारः। संस्कारध्वंसेऽतिव्याप्तिवारणाय ज्ञानमिति। घटादिप्रत्यक्षेऽतिव्याप्तिवारणाय संस्कारजन्यमिति। प्रत्यभिज्ञायामतिव्याप्तिवारणाय मात्रेति॥ अनुभवं लक्षयति—तद्भिन्नमिति। स्मृतिभिन्नं ज्ञानमनुभव इत्यर्थः॥

T. *Buddhi* (i.e. knowledge) is a quality which is a cause of all employment of words, and is the same as jñāna. It is of two kinds: mnemic knowledge and non-mnemic knowledge. Mnemic knowledge is that kind of knowledge which is solely caused by saṁskāra.[1] Knowledge which is different from that (i.e. from mnemic knowledge) is non-mnemic cognition.

D. The defining character of knowledge is stated in (the sentence) "*Buddhi* is.....". What is meant is that it is (the generic attribute) 'knowledgehood' which is the defining character of knowledge. This knowledgehood is apprehended in the after-cognition, "I know".[2] Knowledge is divided into

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1 Here, the word saṁskāra means a psychical trace which an act of knowledge is supposed to leave behind in the mind as it vanishes, so that, afterwards, there may arise in the same mind an act of memory-cognition corresponding to this act of knowledge.

2 An after-cognition is the cognition of a cognition. It is a secondary cognition which apprehends, and occurs (under suitable conditions) immediately *after*, a primary cognition.

its species in the sentence, "It is.....". In the sentence, "Mnemic knowledge.....", the defining character of mnemic knowledge is given. (Here the word saṁskāra means) that kind of saṁskāra which is called bhāvanā. The word 'knowledge' (which occurs in the phrase, 'that kind of knowledge' in the definition of mnemic knowledge) has been used in order to avoid making the definition too wide and thus wrongly apply to 'the cessation of saṁskāra'. The word saṁskāra (itself) has been employed in order to avoid making the definition too wide so as to apply wrongly to the perceptual knowledge of such an object as a pot. The word 'solely' is intended to prevent the definition from becoming too wide and wrongly apply to perceptual recognition. Non-mnemic knowledge is defined in the sentence, "Knowledge which is different.....". What is meant is that knowledge which is different from memory-knowledge is non-mnemic knowledge.

E. The Nyāya view about knowledge is that it is a quality (guṇa) of a self (ātman) which is a substance (*dravya*), just as much as the red colour of a ripe tomato is a quality of the tomato. This is why it is defined as a quality which is a cause of the employment of any verbal-expression. Evidently this definition takes it for granted that a verbal expression employed by a person is invariably preceded by some act of knowledge occurring in his mind, so that knowledge is a cause of the employment of such an expression. The word '*buddhi*', in certain systems of Indian philosophy, is not understood to mean the same as jñāna (knowledge). For instance, the Sāṁkhya philosopher maintains that *buddhi* is the first evolute of primordeal matter (prakṛti). But the Nyāya view is that these words mean the same thing, namely, knowledge. That is why Annambhaṭṭa says definitely that *buddhi* is jñāna.

The definition that knowledge is a cause of all employment of words is somewhat inexact. For it does not apply to indeterminate or non-judgmental knowledge (*nirvikalpa*

jñāna), since such indeterminate knowledge does not give rise to any verbal expression. That is why a more exact definition of knowledge is given in the Dīpikā. Here, the defining character of knowledge is stated to be 'knowledgehood'. This may appear to involve circularity or tautology. To the question, "What is knowledge ?", the answer given is, "Knowledge is that which possesses knowledgehood, i.e., the generic attribute of being knowledge" ; on the other hand, if it be asked, "What is knowledgehood ?", the only answer would seem to be, "Knowledgehood is what belongs, in common, to every piece of knowledge" ; and this seems to involve circularity, since it appears to define knowledge by knowledgehood, and the latter by the former. Or one may think that by saying, "Knowledge is *what possesses knowledgehood*", we merely state the empty tautology, "Knowledge is knowledge" ; for the phrase, '*what possesses knowledgehood*' would seem to mean the same thing as the word, 'knowledge'. But a little consideration would show that there is no such circularity or tautology. For, in order to understand that a certain state of my mind is an act of knowledge (and not an act of desire), it is necessary for me to understand what knowledgehood or knowledge in general or the essence of knowledge is. This implies that the word, 'knowledgehood', in spite of its being derived from the word, 'knowledge', stands for something which is different from what the latter stands for ; and this shows that to define knowledge by saying that knowledge is what possesses knowledgehood is not to make a tautologous statement. If, further, we can point out some actual experience in which knowledgehood is apprehended as directly as knowledge, and, therefore, without presupposing the apprehension of knowledge, it should be admitted that no circularity is involved in defining knowledge in terms of knowledgehood. Hence Annambhaṭṭa draws our attention to that cognitive experience of ours in which knowledgehood is directly apprehended: Immediately after (i) knowing, for example, that the table in the room is brown, I may also come

(ii) to know "*I am knowing*[3] that the table in the room is brown". Now, this second piece of knowledge apprehends a certain attribute of the "I" to be an act of knowledge, i.e., to be an instance of 'knowledge in general' or of 'knowledgehood' ; and this means that here 'knowledgehood' is directly apprehended just as much as the "I" and the act of knowledge as its attribute ; for without such direct apprehension of knowledgehood, the said attribute of the "I" could not be cognised to be an instance of knowledge in general, rather than, e.g., an instance of desire. Such a secondary act of knowledge about some primary knowledge is technically called *anu*-vyavasāya, i.e., an *after*-cognition, since it takes place immediately *after* the occurrence of that primary cognition which it apprehends, the primary cognition being called vyavasāya.

Knowledge is divided into two kinds, namely, (i) knowledge that is recollection and (ii) knowledge that is not recollection. The positive term in Sanskrit for the latter is *anubhava*, for which, perhaps, there is no suitable English equivalent. The word experience which has been suggested by some cannot be quite appropriate. For experience means knowledge which is based on personal observation and contact ; but *anubhava* includes, as will presently appear, not only perception, but also knowledge derived from such indirect processes as inference, analogy and verbal testimony. That is why we have used the words mnemic and non-mnemic for distinguishing smṛti and *anubhava*. This would seem to be justified, seeing that Annambhaṭṭa himself has defined *anubhava* as that kind of knowledge which is different from memory-knowledge. It may be mentioned here that this use of the word *anubhava* as indicating non-mnemic knowledge is technical, although it is quite common in the literature of Indian philosophy. But in ordinary discourse and even in

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3 This un-English use of the verb 'to know' in the present continuous tense is intended to indicate that 'knowing', here, is a present state of the mind, which has just occurred and is still continuing.

philosophy, *anubhava* often means intuition, realisation or immediate knowledge.

Recollection is defined as that kind of cognition which is solely due to saṁskāra. The word saṁskāra usually means, as it does here, a trace or impression which a vanishing idea is supposed to leave behind in the mind, so that afterwards an act of recollection corresponding to this idea may be possible. But in the systems of Nyāya and Vaiśeṣika it is also technically used as a term having wider significance including speed (*vega*) and elasticity (sthitisthāpaka) as well as a psychical trace, which is specifically called bhāvanā. That is why in the Dīpikā the word saṁskāra is explained as bhāvanā or psychical trace. The wider term saṁskāra would seem to signify a peculiar characteristic of a substance, on account of which it tends to continue in, revert to, or to produce, a state which is similar to a past state of it. Such a tendency is recognised to be one of the twenty-four qualities (guṇa) which substances possess. Bhāvanā as a species of saṁskāra is, therefore, a quality. In fact, it is one of the specific qualities of a self. Hence the phrase 'psychical trace' would seem to be, on the whole, a correct rendering of it.

The Dīpikā points out that if in the definition of smṛti, the word jñāna (knowledge) were dropped, it would apply not only to an act of recollection, but also to 'the cessation of a psychical trace.' For a psychical trace ceases to be after it gives rise to an act of recollection; and of such a cessation of a psychical trace, the psychical trace itself is a cause. In general, X is one of the causes of the cessation of X, since X invariably precedes its own cessation. If, again, the word saṁskāra were omitted, the defining character of smṛti would assume the form, "Recollection is knowledge which is caused"; but this would apply even to a piece of perceptual knowledge, since this, too, is an effect of certain causes. The word 'solely' (mātra) in the definition is used in order that the definition may not apply to an act of perceptual

recognition, such as "This is the same person as was standing at my door yesterday." For even such a judgment of perceptual recognition, just like an act of memory-knowledge, involves some mnemic factor and hence is not possible without the help of a psychical trace; but such a judgment of recognition, being perceptual in nature, requires also some sense-contact with the object of recognition; not so, however, an act of memory-knowledge. And the word 'solely' is intended to exclude this additional factor of sense-contact which is necessary for perceptual recognition, but not for memory-knowledge.

The Tarka-saṁgraha next defines *anubhava* as that kind of knowledge which is different from mnemic knowledge, i. e., from smṛti. The next section treats the distinction between valid and invalid cognition.

SECTION 2

—स द्विविधो यथार्थोऽयथार्थश्च। तद्वति तत्प्रकारकोऽनुभवो यथार्थः यथा रजत इदं रजतमिति ज्ञानम्। स एव प्रमेत्युच्यते। तदभाववति तत्प्रकारकोऽनुभवोऽयथार्थः। यथा शुक्ताविदं रजतमिति ज्ञानम्॥

दी—अनुभवं विभजते—स द्विविध इति। यथार्थानुभवस्य लक्षणमाह—तद्वतीति। ननु घटे घटत्वमिति प्रमायामव्याप्तिः, घटत्वे घटाभावादिति चेन्न। यत्र यत्सम्बन्धोऽस्ति तत्र तत्सम्बन्धानुभव इत्यर्थाद् घटत्वेऽपि घटसम्बन्धोऽस्तीति नाव्याप्तिः। स इति। यथार्थानुभव एव शास्त्रे प्रमेत्युच्यते इत्यर्थः। अयथार्थं लक्षयति—तदभाववतीति। नन्विदं संयोगीति प्रमायामतिव्याप्तिरिति चेन्न। यदवच्छेदेन यत्सम्बन्धाभावस्तदवच्छेदेन तत्सम्बन्धज्ञानस्य विवक्षितत्वात्, संयोगाभावावच्छेदेन संयोगज्ञानस्य भ्रमत्वात्, संयोगावच्छेदेन संयोगज्ञानस्य प्रमात्वात् नातिव्याप्तिः।

T. This is of two kinds: veridical and non-veridical. A cognition which has, for its subject, something which possesses the character which it (i.e., the cognition) has for its predicate, is a valid cognition; for example, the knowledge, "This is silver," in respect of silver. It is this (veridical non-mnemic cognition) which is called pramā (i.e. right knowledge). That (non-mnemic) cognition is non-veridical, which has, for its predicate, a character which is not possessed by the subject (of the cognition); for example, the cognition, "This is silver," in respect of a shell.

D. In the sentence, "This is of two kinds...," non-mnemic cognition is divided into its species. In the sentence, "A cognition which has...," the defining character of veridical cognition is stated. It may be objected: The (suggested) definition does not apply to the veridical cognition, "Pothood

is in a pot"; for a pot is not in pothood. But this objection is not valid. For what is meant (by the definition) is that it (i.e. valid cognition) is the knowledge of the relation of a certain character (tatsambandhānubhava) in respect of that subject (*tatra*) in which there *is* the relation of that character; and (certainly) there is in pothood the relation of a pot (although the pot cannot be said to be in pothood). So the proposed definition is not too narrow. The sentence, "It is this..." means that it is veridical non-mnemic knowledge which is called pramā (i. e., right cognition) in scientific treatises (of philosophy). The definition of non-veridical cognition is given in the sentence, "That (non-mnemic) cognition...". One may object that this definition is too wide in that it applies to the veridical judgment, "This has conjunction." But this objection is not proper. For what we intend to say is: If a piece of knowledge cognises that there is (in the thing which is the subject of the knowledge) relation with something *A* within some determinate limits within which there is not that relation, then, that piece of knowledge is invalid. So the definition is not too wide. For (certainly) the cognition of 'conjunction within the precise limits within which there is absence of conjunction' is erroneous, and the cognition of 'conjunction within the precise limits within which there *is* conjunction' is valid.

E. For the sake of brevity, we have often referred to veridical non-mnemic cognition as veridical or valid cognition. Similarly non-veridical non-mnemic cognition has often been referred to simply as non-veridical or invalid cognition. In order to understand the definitions of valid and invalid cognitions, it is necessary to understand the meaning of the term prakāra that has been employed in these definitions. We are familiar with the usual analysis of a judgment or proposition into three parts, namely, a subject, a predicate and the copula. It is often maintained that the function of the copula is to join the subject and the predicate. But it is not quite obvious why such a link should be essential for

joining the two, except that it is required by the accidental factor of the peculiar syntax of certain languages. For the subject 'man', for instance, could be joined with the predicate 'mortal' in the form 'man mortal', instead of 'man is mortal'. Perhaps a more plausible view in regard to the function of the copula would be that it demarcates the subject from the predicate, indicating where the subject ends and the predicate begins. But this could be indicated by a suitable pause in speech or an artificial sign in writing. Anyway, it does not seem to enter into the content of a judgment. This content would seem to have nothing which can be said to correspond to the copula. And this is precisely what would seem to be the Indian analysis of the content of a judgment or determinate cognition. The subject is referred to as viśeṣya, i. e., as something which is, or is to be, characterised; and the predicate is called prakāra, i. e., a character. The Indian analysis of the content of a judgment would thus appear to be somewhat similar to what in western logic is known as the predicative view in regard to the import of a judgment. There is, however, some important difference. As we know, the predicative view maintains that the subject of a judgment is to be understood denotatively, and the predicate connotatively. W. E. Johnson in his Logic supports this very view when he says that primarily the predicate of a proposition is a character and the subject is a substantive. Broadly speaking, by the words viśeṣya and prakāra in the context of a cognition, Indian logic means respectively 'that which is characterised' and 'that which is a character'; but they do not necessarily mean substance and quality—and this is the important difference to which we have already referred. The concept of character, here, is wider than that of quality. It is indeed true that in the judgment, "This is blue," the 'this' is a substance, while 'blue' is a quality which characterises it. But in the judgment, "Blue is different from red," it would not be correct to say that blue is a substance and 'difference from red' is a quality of 'blue.' If it is a fact that 'blue' is a quality,

it would not cease to be a quality when it is made the subject of a judgment. But when it is the subject of a judgment, it is, in that context, what is characterised, that is, known as possessing a certain character, such as 'difference from red.' Any judgment can be considered to be an answer to the question, "What is this?"; in other words, "What character does 'this' possess?" The 'this' is what we desire to know. But in what manner do we desire to know it? We desire to know it not merely as existing but as possessing a certain character. The 'this' is the viśeṣya, whatever be the category of reality to which it belongs, whether substance, quality, activity, relation, or any other. The 'what' or character by which we know the 'this' is the prakāra, whatever be the kind of reality it is, whether substance, quality, activity, relation, or any other. This notion of prakāra may appear to be somewhat strange to western modes of thinking. It may be asked, "How can a substance ever play the role of a character to something else ?" No doubt we have the judgment, "Socrates is a man", where the predicate is 'man', and man is certainly a substance. But according to the predicative view of the import of a judgment, we shall have to take the term 'man' to stand for humanity, which, however, is not a substance. Similarly in the judgment, "This is a pot", although the predicate 'pot' is ostensibly a substance, still according to the present theory we shall have to interpret this word to mean 'pothood', i.e., the generic attribute which is common to all pots and on account of which a pot is a pot. Thus "This is a pot" means "This possesses the character pothood". Where, then, it may be asked, is an instance of a judgment where a substance does the work of a predicated character ? As an instance of this, Nyāya would point out such a judgment as "This man is possessed of a stick". Here, 'this man' is the viśeṣya or the characterised subject ; and 'stick' is the prakāra or the predicated character. And surely a stick is a substance. It may be objected that what characterises the man, in this case, is not a stick, but rather 'possession of

a stick'. But a little consideration would show that the phrase 'possession of' does not mean anything which can properly be said to fall within the predicated character ; on the contrary, it only is an indicator that the word which follows it is to be considered to be the predicated character. Consider, for example, the judgment, "He is honest". This can be paraphrased as "He is possessed of honesty". Now, what is the predicated character, here? Is 'honesty' or 'possession of honesty' to be regarded as the predicated character ? If it be maintained that it is not honesty but 'possession of honesty' which is the predicated character, here, should we not, by a similar line of thinking, say that he is possessed of 'possession of honesty' ? But this would amount to saying that not 'possession of honesty' but 'possession of possession of honesty' is the true predicate. In this way, we should be starting a meaningless infinite process in search of the character which is really the predicate in this judgment. This supports our contention that the phrase 'is possessed of', when it forms part of the ostensible predicate of a judgment', is only an indicator that the word or phrase which follows it represents the predicated character of the judgment.

It is perhaps now clear that the definition of veridical knowledge is here given in terms of the two main constituents of the content of a judgment, namely, viśeṣya and prakāra (that is to say, 'the characterised constituent' and 'the character constituent'). When it is judged that sugar is sweet. the content or object of this cognition is constituted by two factors, namely, (i) a factor which in this particular knowledge-situation has become that which is (apprehended as) the viśeṣya or the characterised, and (ii) a factor which in this very knowledge-situation has become that which is (apprehended as) prakāra or character. It should be observed that the words viśeṣya and prakāra in their present technical signification are necessarily relative to a knowledge-situation, and do not stand for anything real apart from this cognitive relation. Sugar is viśeṣya and sweet is prakāra only in the

context of the judgment, "Sugar is sweet"—in themselves, they are neither viśeṣya nor prakāra ; for in themselves, they are just things (whether substance or quality or relation, or etc.) in objective nature. It is evident that the *relation* between viśeṣya and prakāra, too, is significant only in a knowledge-situation. The question in regard to the truth or validity of a cognition can, at this point, be formulated thus: Does that thing of the objective world, which is the viśeṣya of a cognition, possess that thing of the objective world, which is the prakāra of that cognition ? If the answer is in the affirmative, then, the cognition is true; if not, not. In the judgment, "A is B", the thing B is the prakāra and the thing A is the viśeṣya—this cognition apprehends the thing A *as* characterised by the thing B. If now A possesses B, or (what is the same thing) if B belongs to A, or is related with A, then, this piece of knowledge, which has, for its subject, A, and has, for its predicate, B, is veridical. If, however, you have a cognition having B for its prakāra but in respect of something (i.e. of a viśeṣya) which does not possess B, then, your cognition is wrong. For instance, when in respect of a piece of shell, you have the knowledge that it is silver, the viśeṣya is 'it' (which in reality is a shell) and the prakāra is silverhood ; now both shell and silverhood are things of the objective world, and they are also related in your knowledge as viśeṣya and prakāra ; but since the shell does not in fact possess silverhood, so your judgment can be described as having silverhood for its prakāra, but in respect of a thing which (really being a shell) does not in fact possess silverhood ; and hence this judgment is false.

In the Dīpikā, the objection is raised that in the veridical judgment, "Pothood is in a pot," the viśeṣya is pothood and the prakāra is 'pot,' and yet the prakāra 'pot' cannot be said to reside in 'pothood' which is the viśeṣya. That is to say, this judgment cannot be said to have, for its prakāra, something which resides in that which is the viśeṣya of the judgment. This means that the definition of a veridical

cognition which is given in the Tarkasaṁgraha does not apply to it, although it ought to apply to it, seeing that it is evidently a true judgment; and hence this definition is too narrow.

Before explaining how this objection is met, we think it necessary to say a few words by way of explaining the objection itself. It may not be clear how in the judgment "Pothood is in a pot" the character which is predicated of pothood is 'pot.' Is it 'pot' which is attributed to pothood? Rather, is not the 'character of residing in a pot' which is really attributed to pothood? Consideration, however, would show that the word 'residing' or residence cannot, here, be understood quite in its literal sense. For certainly pothood is no resident and a pot is not a residency. What the judgment means to say is that pothood is related with a pot. It would seem, therefore, that, for the purpose of logic, the phrase 'relation with a pot' expresses the character-constituent of this judgment better than the phrase 'residence in a pot.' Even so, the character which is here attributed to 'pothood' is not 'pot' but 'relation with a pot.' But once more, a little consideration would indicate that the specific character which is attributed to pothood in the judgment, "Pothood is in a pot" does not include 'relation,' as such. For relation with a certain *thing* is what is attributed to a subject in every judgment whatsoever—and it is the word 'thing' in the phrase 'relation with a certain *thing*' which indicates the character which is specifically attributed to the subject of a specific judgment. In other words, 'relation,' as such, is never attributed to a subject in a judgment. What is attributed to it is relation with some character; and to say that a certain character is attributed to a certain subject is the same as to say that 'relation with that character' is attributed to it. If nevertheless it be held that at least in some cases '*relation* with something' and not that *something* is attributed to the subject, it would imply that *relation* with 'relation with something' and not 'relation with something' is what is attri-

buted to it. This would lead to an infinite process which must be considered to be vicious, since it can be avoided. It can be avoided if we say that what in a judgment is attributed to its subject as a character of it is a 'thing' and not 'relation with a thing.' It would appear, therefore, that in the judgment "Pothood is in a pot," the viśeṣya or subject is 'pothood,' while the prakāra or attributed character is 'pot.' Now the precise point of the objection we are considering is: You have virtually said that a true judgment is one, of which the prakāra is in its viśeṣya; but certainly, the pot is not in pothood; on the contrary, it is pothood which really is in a pot; so in the judgment, "Pothood is in a pot", which is obviously veridical, the prakāra of the judgment is not in its viśeṣya; so your definition of a true judgment, since it does not apply to such a true judgment as "Pothood is in a pot," cannot be considered correct.

Let us see how the author meets this objection. He grants that a pot is not in pothood; on the contrary, it is pothood which is in a pot; and as a matter of fact, this is precisely what the particular judgment under consideration asserts. But he points out that when we say that the viśeṣya of a true judgment must possess its prakāra, what we mean is that the viśeṣya must possess a relation with it; and certainly although a pot is not in pothood, still there is, in pothood, relation with a pot, or (in somewhat more precise but awkward expression) although pothood does not possess a pot, still pothood possesses some relation with a pot. So the definition of veridical cognition, put in more exact language, is: if in respect of a thing which possesses relation with another thing, there is a cognition having the second thing for its prakāra, then, this cognition is valid. This definition holds good not only in the somewhat unusual case of such a judgment as "Pothood is in a pot", but also in such a simple case as "This is a pot". For the 'this', the subject of the second cognition, possesses not only pothood which is the prakāra, here, but also relation with pothood. One may,

however, contend that the solution of the difficulty in question implies that the predicated character in the cognition, "Pothood is in a pot" is not 'pot', but 'relation with a pot', and this goes counter to what we have maintained in the foregoing paragraphs. But this contention is not sound. For what the solution implies is not that 'relation with a pot' is the predicated character, but that although the judgment under consideration has 'pot' as the predicated character, still what we apprehend in such a judgment is 'the relation of a pot' with the subject 'pothood'. In other words, the prakāra of a judgment is that thing, the *relation* of which with its viśeṣyā is apprehended in the judgment—the *relation* itself does not fall within the prakāra.

The definition of invalid knowledge should present no difficulty to one who has understood that of valid knowledge. Suppose that in respect of a piece of shell which is in front of a person he judges that this is silver. Here the viśeṣya or subject of the judgment is 'This' (which, as a matter of fact, is a shell), and the prakāra or predicated character is 'silverhood'. Since the prakāra 'silverhood' of this judgment is not *in* (i.e., is not related with) the viśeśya 'this', so the judgment is not true.

At this point, the Dipikā raises and solves a difficulty which, perhaps, requires some explanation. Conjunction (saṁyoga), in the view of Nyāya, is a quality which resides in the substances which are conjoined with each other. For example, when there is a book on the table, we have to recognise that there is a quality called conjunction which resides both in the book and in the table. Now one remarkable characteristic of this quality is that, unlike other qualities, such as colour, which pervade wholly the substance which they qualify, conjunction does not wholly pervade the substance which it qualifies. If a monkey be sitting on the top of a tree, it can be said that the tree has conjunction with a monkey; and yet it would not be correct to say that this conjunction with the monkey is in every part of the tree. For

instance, this conjunction is not in its trunk. Hence it can be said that the tree both possesses and does not possess this conjunction. Thus although the cognition, "The tree has conjunction with a monkey" is valid, still its prakāra, namely, 'conjunction with a monkey' can be correctly said not to be in its viṣeśya, namely, the tree ; and on account of this, the definition of invalid cognition would apply to this valid cognition. This means that the definition of invalid knowledge is too wide. This is the difficulty which the Dipikā has raised here. One may think that the difficulty is too puerile to deserve consideration ; for it is not quite correct to say that the tree both has and has not conjunction with a monkey—the true state of affairs is rather that its top has, while its trunk lacks, such conjunction. But a little consideration would show that this manner of putting the matter would preclude the possibility of saying that the monkey is, in any sense, in conjunction with the *tree*. It must, of course, be granted that the *top* of the tree, too, has the said conjunction. But the question is: Has the *tree* this conjunction or not ? The question is quite legitimate. For whatever is true of a part is not necessarily true of the whole. For example, whatever is true of a triangle need not be true of any of its sides and *vice versa*. It may perhaps be contended that the correct account of the situation is that the tree has conjunction at the top but not at the trunk. This must readily be granted. Even so, the tree both has and has not the conjunction in question. It would appear, therefore, that the difficulty raised in the Dipikā is not absurd. That is why the author has to expand his original definition in order to meet this difficulty.

Let us now try to understand the solution. Space would not permit a full explanation of it. For the word '*avaccheda*', employed in the expanded definition, has to be understood in a technical sense which, for its proper understanding, would require a good deal of elaboration. But for our present purpose we may take the word *avaccheda* to mean a

determinate limitation. The judgment, "The tree has conjunction" is valid, because it does not assert, at what precise part of it, the tree possesses this conjunction ; and certainly there is conjunction with the monkey in the tree, although not at its trunk. Of course, the judgment would have been wrong, if it were asserted that the tree possessed conjunction at the trunk, since there is no such conjunction in the tree at that place.

SECTION 3

त—यथार्थानुभवश्चतुर्विधः प्रत्यक्षानुमित्युपमितिशाब्दभेदात् ।
तत्करणमपि चतुर्विधं प्रत्यक्षानुमानोपमानशब्दभेदात् ॥

दी—यथार्थानुभवं विभजते—यथार्थेति । प्रसङ्गात् प्रमाकरणं विभजते-तत्करणमिति । प्रमाकरणमित्यर्थः । प्रमायाः करणं प्रमाणमिति प्रमाणसामान्यलक्षणम् ॥

T. Right apprehension (which is not mnemic) is of four kinds, on account of the distinction between perceptual, inferential, analogical and verbal apprehensions. The instrumental cause of it (i. e., of right apprehension) is also of four kinds, on account of the distinction between perception, inference, analogy and words.

D. Right apprehension is divided into its classes in the sentence, "Right apprehension (which is ...) is ...". The instrument of right apprehension (also), on account of (its) association (with right apprehension), is divided into its classes in the sentence, "The instrumental cause of it...". The phrase 'the instrument of it' means the instrument of right apprehension. Pramāṇa means the instrument of valid cognition; and this is the defining character of pramāṇa in general.

E. The Sanskrit word pramā or *pramiti* means right knowledge; and the word pramāṇa means an instrument of right knowledge, although occasionally it is also employed in the sense of pramā. Now, an instrument for bringing about an effect is a kind of *cause* of that effect. So the author proceeds to define a cause, and an 'instrument.' as a species of cause.

SECTION 4

त—असाधारणं कारणं करणम्। कार्य्यनियतपूर्ववृत्ति कारणम् कार्यं प्राग्भावप्रतियोगि। कारणं त्रिविधम्, समवाय्य-समवायिनिमित्तभेदात्। यत्समवेतं कार्यमुत्पद्यते तत् समवायिकारणम्। यथा तन्तवः पटस्य, पटश्च स्वगतरूपादेः। कार्येण कारणेन वा सहैकस्मिन्नर्थे समवेतत्वे सति यत् कारणं तदसमवायिकारणम्। यथा—तन्तुसंयोगः पटस्य, तन्तुरूपं पटरूपस्य। तदुभयभिन्नं कारणं निमित्तकारणम्। यथा—तुरीवेमादिकं पटस्य। तदेतत्त्रिविधकारणमध्ये यदसाधारणं कारणं तदेव करणम्।

दी—करणलक्षणमाह—असाधारणेति। साधारणकारणेदिक्कालादावति-व्याप्तिवारणायासाधारणेति। कारणलक्षणमाह—कार्येति। पूर्ववृत्ति कारणमित्युक्ते रासभादावतिव्याप्तिः स्यादतो नियतेति। तावन्मात्रे कृते कार्येऽतिव्याप्तिरतः पूर्ववृत्तीति॥ ननु तन्तुरूपमपि पटं प्रति कारणं स्यादिति चेन्न। अनन्यथासिद्धत्वे सतीति विशेषणात्। अनन्यथासिद्धत्वमन्यथासिद्धिविरहः। अन्यथासिद्धिश्च त्रिविधा। येन सहैव यस्य यं प्रति पूर्ववृत्तित्वमवगम्यते तं प्रति तेन तदन्यथासिद्धम्। यथा तन्तुना तन्तुरूपं तन्तुत्वं च पटं प्रति। अन्यं प्रति पूर्ववृत्तित्वे ज्ञात एव यस्य यं प्रति पूर्ववृत्तित्वमवगम्यते तं प्रति तदन्यथासिद्धम्। यथा शब्दं प्रति पूर्ववृत्तित्वे ज्ञात एव घटं प्रत्याकाशस्य। अन्यत्र कल्पनियत-पूर्ववर्तिनैव कार्यसम्भवे तत्सहभूतमन्यथासिद्धम्। यथा पाकजस्थले गन्धं प्रति रूपप्रागभावस्य। एवं चानन्यथासिद्धनियतपूर्ववृत्तित्वं कारणत्वम्॥ कार्यलक्षणमाह—कार्यमिति॥ कारणं विभजते—कारणमिति। समवायिकारणस्य लक्षणमाह यत्समवेतमिति। यस्मिन् समवेतमित्यर्थः।

असमवायिकारणं लक्षयति कार्येणेति । कार्येणेत्येतदुदाहरति तन्तुसंयोग इति । कार्येण पटेनैकस्मिंस्तन्तौ समवेतत्वात्तन्तुसंयोगः पटस्यासमवायि-कारणमित्यर्थः । कारणेन सहेत्येतदुदाहरति-तन्तुरूपमिति । कारणेन पटेन सहैकस्मिंस्तन्तौ समवेतत्वात्तन्तुरूपं पटरूपस्यासमवायिकारणमित्यर्थः । निमित्तकारणं लक्षयति तदुभयेति । समवाय्यसमवायिभिन्नं कारणं निमित्तकारणमित्यर्थः ॥

करणलक्षणमुपसंहरति—तदेतदिति ॥

T. The extraordinary cause (of an effect) is the instrument (of the effect). A cause is that which is invariably present immediately before the effect. An effect is that which has prior non-existence (or, literally, an effect is the counter-correlative of a prior non-existence). A cause is of three kinds, on account of the distinction between the inherent, the non-inherent, and the auxiliary causes. That is called the inherent cause by inhering in which the effect originates. For instance, the threads are the inherent causes of a piece of cloth; and a piece of cloth is the inherent cause of its own colour and other qualities. That which is the cause of an effect by co-inhering, in the same thing, with that effect or with the inherent cause of that effect is called the non-inherent cause. For example, the conjunction of the threads is the non-inherent cause of a piece of cloth; and the colour of the threads is the non-inherent cause of the colour of the cloth. An auxiliary cause is that which is different from these two. For instance, a shuttle, a loom, etc. are the auxiliary causes of a piece of cloth. Out of these three kinds of cause, that which is the extraordinary cause is alone the instrument.

D. The defining character of an instrument is stated in the sentence, "The extraordinary cause...." The word 'extraordinary' is meant to prevent the definition from becoming too wide and thus applying to the common causes (of

all effects) such as space, time, etc. The defining character of a cause is stated in the sentence, "A cause is...". If it were merely said that a cause is what is present immediately before the effect, then, the definition would have become too wide by applying to such accidental factors as an ass. In order to obviate this (possibility), the word 'invariably' has been used in the definition. But if only that much were done (i.e., if it were merely said that an effect is invariably with an effect), then, the definition would have once more become too wide by applying to the effect itself,[4] In order to avoid this possibility, the words 'immediately before' have been employed in the definition.

It may be objected that (in accordance with this definition of a cause) even the colour of the threads (which are the material cause of a piece of cloth) would be the cause of a piece of cloth. But this objection is not sound. For (in the definition given above) there is (understood) an adjectival phrase, namely, 'being indispensable.' Indispensability is absence of dispensability. And dispensability (in the context of causality) is of three kinds. If in regard to something *y* (*yam prati*), we know the priority of something *z* (*yasya*), but only with (our knowledge of) the priority of *x* (in respect of the same *y*) (*yena saha*), then, in respect of *y*, this *z* is rendered dispensable (i. e., capable of being set aside) by *x*.[5] Thus in respect of a piece of cloth, the colour of the threads and (the generic character) threadhood are rendered dispensable by the threads (for the production of the cloth). (ii) If in respect of something *y* (*yam prati*), we know the priority of something *z*, but only *after* our knowledge that *z* precedes something other than *y*, then, in respect of this *y*, (we should maintain that) *z* is dispensable. Thus we know that ether (ākāśa) precedes a piece of cloth only after our knowing that

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4 For in regard to anything, it can be rightly said that it is invariably with itself.

5 Though both *x* and *z* invariably precede *y*, still it is *x*, not *z*, that would be the cause of *y*.

ether precedes sound.[6] (iii) If it is possible for an effect *y* (which, in instances of a certain type, is invariably preceded by *z* as well as *x*) to be produced by *x* which is known, in other instances (of *y*), to precede (this effect *y*) invariably, then, *z* which accompanies it[7] (in the former type of instances) is (to be considered) dispensable in respect of that (i. e., in respect of *y*). For example, the prior non-existence of (the new) colour is dispensable for the production of (the new) smell, in cases where the colour and the smell of a substance (such as a fruit) change under heat.

Thus (the) causality (of the cause of an effect) is constituted by invariable (and immediate) precedence (in respect of the effect), provided this precedence is indispensable (for the effect).

An effect is defined in the sentence, "An effect is that which... ."

Causes are divided into their species in the sentence, "A cause is...". An inherent cause is defined in the sentence, "That is called...". The (compound) word '*yatsamavetam*' means 'that by inhering in which.' A non-inherent cause is defined in the sentence, "That which is...". In the passage, "For example, the conjunction...", an illustration is given for the first case (of non-inherent cause) stated in the passage, "by co-inhering with that effect." The meaning is that the conjunction of the threads is a non-inherent cause of a piece of cloth, on account of the fact that it (i.e., the said conjunction) co-inheres with the cloth which is the effect (under consideration) in the same thing, namely, thread. In the passage, "and the colour of the threads.. ," an illustration is given for (the second case of non-inherent cause which was stated in) the passage, "or with the inherent cause...". The meaning is that the colour of the threads is a non-inherent cause of the colour of the cloth on account of the fact

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6 Hence ether is not indispensable for the production of cloth.
7 The pronoun 'it', here, stands for *x*.

that it (i.e., the colour of the threads) co-inheres with the (inherent) cause (of the colour of the cloth), namely, the cloth, in the same thing, namely, the threads. An auxiliary cause is defined in the sentence, "An auxiliary cause is...". What is meant is that a cause which is different from an inherent and a non-inherent cause is an auxiliary cause.

The definition of an instrument is finalised in the sentence, "Out of these three kinds of cause...".

E. There are certain things such as space, time, merits and demerits of souls which are supposed to be the common causes of all effects. These, however, are not to be regarded as the instrumental cause of any effect. The word 'extraordinary' in the definition of an instrument is used for excluding these from the purview of the notion of instrument. It is also meant to exclude certain types of even uncommon causes of an effect. That is to say, the extraordinariness of a cause it is which constitutes its being an instrument. But what is extraordinariness? It, of course, implies that an instrument is an uncommon cause. But it is not merely that. Nyāya philosophers do not all agree among themselves as to what precisely should be considered as the karaṇa or instrument of an effect. That may be the reason why our author has left the word 'extraordinary' undefined and further unexplained, thinking perhaps that it is not necessary in an elementary work to accept any particular view of it. There are, in fact, two views about the definition of karaṇa and hence also about what uncommon cause of an effect should be regarded as its karaṇa. One view maintains that a karaṇa is that cause which has a vyāpāra (i.e., a kind of operation);[8] and the word 'extraordinary' would then technically indicate 'having a vyāpāra'. The other view identifies a karaṇa with the temporally last of the many preconditions of an effect, i.e., with that precondition which is immediately followed by

8 The word 'vyāpāra' will be explained presently. 'Asādhāraṇaṃ kāraṇam' would, then, mean 'vyāpāravat kāraṇam'.

the effect; and the word 'extraordinary' would, here, technically stand for this character of being immediately followed by the effect.[9] A little consideration would show that what in the first view is a vyāpāra is, in the second view, the karaṇa. As will appear afterwards, Annambhaṭṭa accepts the first view in his treatment of perceptual knowledge, knowledge by analogy and verbal knowledge, while he accepts the second view in his treatment of inferential knowledge. This inconsistency may not be due to inadvertence. The Sanskrit word 'karaṇa' is usually employed in the sense which, in English, is expressed by the word 'instrument'; and consideration would show that it may not be possible to give an exact definition of 'instrument' which would apply to every instance where common sense employs the term. Thus it will generally be agreed that an axe is the instrument for cutting down a tree, that sense-organs are instruments for perceptual knowledge, and so on. It would, however, be difficult to say what should be considered to be the instrument for inferential knowledge. It is not unlikely that difficulties of this sort originally gave rise to the controversy about the definition of an instrument. Epistemologically, however, it may not be very important to ascertain what should be considered to be the instrument of a particular kind of knowledge. What is more important is to ascertain what are its specific and indispensable preconditions or causes. Probably, this is why our author has used the vague word 'extraordinary' for describing an instrument, leaving room for both the interpretations of a karaṇa.

One reading of the Tarkasaṁgraha text, here, adds the word vyāpāravat before asādhāraṇa. This evidently supports the first view about a karaṇa. But, as we have already remarked, the word 'extraordinary' itself can technically be

9 Cf. Phalāyoga-vyavacchinnam kāraṇam karaṇam: A karaṇa is that cause which is distinguished from other causes by the circumstance that in its absence (in spite of the presence of all other causes) the effect does not emerge.

used to stand for 'having an operation'. If, however, we accept this reading of the text to be correct, we can understand asādhāraṇa as intended to exclude such common causes of every effect as space, time, etc.; and the word vyāpāravat can, then, be supposed to be intended for excluding those of the specific causes of an effect which are not its instrumental cause.

The word vyāpāra, roughly speaking, means an operation which temporally occupies an intermediate position between the instrument and the effect. For example, the eye is an instrument for the visual perception of a cup; but the mere existence of the eye and the cup would not yield its perception. For this it is also necessary that the eye should be in contact with the cup. This sensory contact is called the vyāpāra or operation of the eye. The first view about an instrument would thus define it as a cause which has such an intermediate operation; and an operation is defined as what is brought about by the instrument and is itself a cause of the effect. Thus in our example of the visual perception of a cup, the contact of the eye with the cup is the vyāpāra; and it is caused by the eye,[10] but is itself a cause of the visual perception.[11] Hence the eye which, of course, is essential for the visual perception is its instrumental cause. In case the text does not contain the word vyāpāravat, we shall, as already suggested, have to understand the word 'extraordinary' itself in the sense of 'which has an operation'.[12]

The second view about karaṇa would identify it with the sense-object contact itself, since this is immediately followed by the effect, provided, of course, the other causes of the

10 For without the prior existence of the eye, there cannot be any contact of the eye with the object.

11 For without the prior existence of such sense-contact with the object, there can be no visual perception of the object.

12 The definition of a karaṇa may thus be either 'vyāpāravat asādhāraṇam kāraṇam karaṇam' or 'asādhāraṇam kāraṇam karaṇam'.

visual perception in question are also present at the same time. "

Since an instrument is a kind of cause, so the author next gives the definition of a cause. We have translated the word 'ananyathāsiddha' which occurs in the revised definition of a cause, given in the Dīpikā, as 'indispensable (for bringing about an effect).' The literal meaning, however, is: 'not established or known in a different way.' We shall show that this really amounts to 'indispensable'. Suppose that we are to find out the cause of an effect *y*. Although there may be several things which invariably precede *y*, still all of them are not to be considered to have caused it—only those, the antecedence of which, in respect of *y*, is established independently of their antecedence in respect of things other than *y*, are to be regarded as its cause, the rest being dispensable for bringing about *y*. It is, however, difficult to define what precisely constitutes this independent antecedence. And Nyāya philosophers admit their failure to suggest any definition of anyathāsiddha (dispensable) which would not be too wide and yet would cover all the instances of what are traditionally recognised to be cases of anyathāsiddha. (The word ananyathāsiddha (indispensable) means '*not* anyathāsiddha (dispensable),' and its employment in the definition of a cause is intended to eliminate those invariable antecedents of an effect, which are not indispensable for producing the effect. Annambhaṭṭa classifies these dispensable antecedents into three kinds. There are others who recognise five such kinds of dispensable antecedents. Nīlakaṇṭha, in his scholium of the Dïpikā, points out that Annambhaṭṭa in this matter has followed Gangeśa, the founder of Neo-Nyāya. The threefold classification would seem to be more logical than the five-fold one, at least in one respect. In the latter, even an ass is considered to be anyathāsiddha in respect of the production of a pot. But certainly, an ass is not an invariable antecedent of its origination; for one may bring the clay which is required for making a pot through some agency other than

an ass, so that the ass can be rejected as a cause of the pot by the mere fact that it does not invariably precede its origination. The notion of anyathāsiddha has a narrower range of application—it applies only to certain factors which invariably precede the effect and yet for some reason are not indispensable for producing the effect. The three-fold classification of anyathāsiddha is free from this defect.

Although it is difficult to give a precise definition of the notion of anyathāsiddha, i.e., of an invariable antecedent of an effect which nevertheless is not indispensable for it, still one can appreciate, in a general way, the important point, in a causal situation, to which a Nyāya philosopher draws attention, by the word anyathāsiddha. Thus although the particular colour of the threads that serve as the warp and woof of a piece of cloth would invariably precede it (since the threads do so and there can be no thread without some colour), still it has to be admitted that the colour of the threads does not matter so far as the production of the cloth is concerned—a piece of cloth can be made out of threads of *any* colour whatsoever. Although the threads must have some colour, still the fact that they have colour is no consideration for the weaver when he chooses threads, rejecting other things, as material, for making a piece of cloth. Of course, when he wants to make a cloth of a particular pattern of colour, the colour of the threads would at once assume importance. This shows that the colour of the threads is anyathāsiddha or dispensable for a piece of cloth, but not so for the colour of the cloth. The colour of the threads can, therefore, be said to be a cause of the colour of the cloth, but not a cause of the cloth itself, although the colour of the threads can truly be said to precede both the cloth and the colour of the cloth. This is an instance of Annambhaṭṭa's first kind of anyathāsiddha. Here, the antecedence of the colour of the threads (in respect of the cloth) is dependent upon the antecedence of the threads—that the colour of the

threads invariably precedes the cloth is merely due to the fact that the threads do so.

We shall now try to understand Annambhaṭṭa's illustration of his second kind of anyathāsiddha. It should, in this connection, be remembered that ether (ākāśa) is a substance which is not capable of being known by perception. It is primarily established by inference as the substance-cause of sound (which obviously is an effect). i.e., as the substance to which sound belongs as a quality; further Nyāya proves, by certain arguments, that this ether is one and eternal. But since it is proved to be eternal, it has, on this very ground, to be accepted as what invariably precedes every effect in the world. But we should not, for that reason, consider it to be a cause of every effect. The belief that ether invariably precedes an effect such as a pot is ultimately dependent on the presumption that it is the specific substance which invariably precedes the origination of a sound. In respect of effects other than sound, ether should be considered anyathāsiddha.

For the proper understanding of Annambhaṭṭa's illustration of his third kind of anyathāsiddha, it is necessary to understand the Nyāya philosopher's notion of prāgabhāva or the antecedent non-existence of an effect. As will presently appear, an effect is defined as that which has prāgabhāva. What is an effect? An effect is that which, after having been non-existent, comes into being, so that, before its origination there must have been its non-existence. This non-existence of an effect (before it comes into being) is its prāgabhāva. We should also observe that the prior non-existence of a pot must be considered to have no beginning in time, i.e., it is beginningless or, what comes to the same thing, it is not an effect. Though the prāgabhāva (say) of a particular pot has no beginning in time, still it is not temporally endless—it ends as soon as the pot originates; for when the pot is in existence, it would be wrong to say that it is non-existent. Of course, there would be non-existence of the pot, again, when the pot comes to an end. But this non-existence of a

thing is equivalent to its cessation or going out of existence (dhvaṁsa), and must be differentiated from the prior non-existence which we have just explained. There is prior non-existence of the pot when the pot is *not yet*; while there is cessation of it when the pot is *no longer*. While the second type of non-existence has a beginning in time, i.e., is an effect, the prior non-existence of a thing is beginningless but has an end. In contrast to the prior non-existence of a pot, its non-existence after its cessation has a beginning, but no end. For if it were to have an end, this would mean the re-emergence of the same pot; but nobody believes that the particular pot which is once destroyed ever comes into being again.

To come back to our original point. This prior non-existence of a pot must be considered to be a cause of the pot, since it invariably precedes the origination of the pot. Similarly, the prior non-existence of a particular stick is one of its causes; and so on. Moreover, the non-existence of a pot must be distinct from that of a stick. If they were not distinct, when the non-existence of the pot comes to an end with the emergence of the pot, the non-existence of the stick should also end, so that the stick, too, should emerge at the same time as the pot. But certainly all sticks and pots do not originate at one and the same time. Now consider the illustration given by Annambhaṭṭa. It is a fact of ordinary experience that if a full-grown green mango is kept in a stuffed place of moderate heat for a suitable period of time, it ripens, and its colour, smell, taste and touch undergo change—the colour changes from green to yellow, the smell from non-fragrant to fragrant, the taste from sour to sweet, and the touch from hard to soft; and these changes would seem to be simultaneous. Coming to cases where there is such simultaneous change of colour and smell under heat, we find that the new colour is invariably preceded not only by its own prior non-existence, but also by the prior non-existence of the new smell. Should we now consider the prior non-existence

of the new smell, too, to be a cause of the new colour ? The answer is that we should not. For although in these cases of change under heat, the prior non-existence of the new smell invariably precedes the new colour, still since, in general, the prior non-existence of a particular thing is a cause of that particular thing alone, and since no other prior non-existence is necessary for its causation, so in these cases of change under heat, we should, in tracing the causes of a particular change, be guided by the rule which obtains elsewhere. For this rule is sufficient to explain the emergence of the particular change in question. Hence in spite of its invariable antecedence, the prior non-existence of the new smell should be considered as dispensable for the emergence of the new colour.

The definition of an effect contains the Sanskrit word '*pratiyogin*' which requires some explanation. The Nyāya-Vaiśeṣika system recognises the reality of negative facts. When we say that there is no pot on the table, we correctly describe a factual situation which is different from the situation correctly described by the statement, "There is a pot on the table". If the latter is a positive fact, the former can be described as a negative fact—the positive fact being (the existence of) the pot on the table, and the negative fact being the non-existence of the pot on the table. Non-existence is, therefore, a fact, since it is a factor of a real situation. It would appear, however, that non-existence, unlike most positive facts, is a relative thing, i.e., it is not intelligible by itself, but only by reference to other things. A pot is intelligible by itself. But non-existence always demands, for its intelligibility, the answer to the question, "Non-existence of what ?" No particular non-existence can be grasped without some adjunct such as 'of the pot'. A particular non-existence must be the non-existence of something such as either a particular pot or pots in general. It cannot be a mere non-existence. Now that by reference to which a particular non-existence is intelligible is called its *pratiyogin* or counter-

correlative. The etymology of the word *pratiyogin* indicates that the *pratiyogin* of a non-existence is opposed to it ; and we should observe that it is actually so. Thus the non-existence of a pot is opposed to the pot which is its *pratiyogin* —the one cannot be present where the other is. As long as there is the prior non-existence of a pot, there cannot be the pot ; and when there is the pot, its prior non-existence has vanished.

Now an effect is defined as the *pratiyogin* of a prior non-existence. This comes to saying that an effect is that which had prior non-existence. In other words, a prior non-existence is necessarily the prior non-existence *of* an effect, so that an effect is the *pratiyogin* of a prior non-existence. It would seem that this definition of an effect is only a formal rendering of what common sense recognises to be the characteristic mark of an effect, as such. An effect means what originates, is produced, or comes into being, after having been non-existent. An effect is non-existent prior to its emergence. So we can correctly say that an effect is that which has this sort of prior non-existence, or that it is the *pratiyogin* (counter-correlative) of such a prior non-existence.

We may mention, here, that although this notion about the essential nature of an effect is in consonance with common sense, still this is not universally recognised by all schools of Indian philosophy. This common sense notion about the nature of an effect, which is supported by the Nyāya-Vaiśeşika system is called asat-kārya-vāda or the theory that an effect is non-existent prior to its origination. Opposed to this is the rival theory of sat-kārya-vāda or the theory that an effect exists in a latent form even prior to its origination. This theory is especially connected with the Sāṁkhya system.

The Dīpikā classifies causes into three types. In this connection, it is necessary to understand the nature of samavāya or the relation of inherence. This is somewhat like what in European philosophy is known as internal relation. But the internality of samavāya is only one-sided, while that of

internal relation pervades both sides of the relation. Thus the relation between a substance and its qualities, that between a part and the whole of which it is a part and that between an individual and its appropriate universal or generic character would be considered to be internal by those who recognise internal relation at all. Nyāya, too, would maintain that these relations are all samavāya or inherence. Now, the essence of an internal relation is said to lie in the fact that the terms of the relation would cease to be what they are apart from that relation. But this is only partly true of samavāya, as conceived by Nyāya. For Nyāya maintains that although a quality cannot exist apart from the substance in which it inheres, still the substance can, apart from its qualities ; similarly, although a whole, such as a table, cannot exist apart from its parts, yet the parts can exist apart from the whole ; and finally, although the individual cannot exist except by being connected with its appropriate universal, nevertheless, the universal can exist without being connected with an individual.

What is called a material cause (upādāna kāraṇa) in most schools of Indian philosophy other than the Nyāya-Vaiśeṣika would be comprised by the latter system within the samavāyi kāraṇa or the inherent cause. But the notion of material cause is not quite identical with that of samavāyi kāraṇa. For the former is specifically applied in the context of composite substances, i. e., of wholes made up of parts. The notion of samavāyi kāraṇa, too, applies here. But a substance cannot be regarded as the material cause of its qualities, such as colour, taste, etc., although a substance is considered by the Nyāya-Vaiśeṣika system to be the inherent cause (samavāyi kāraṇa) of such qualities. Thus the notion of inherent cause is wider than that of material cause.

The notion of non-inherent cause (asamavāyi kāraṇa) is peculiar to the Nyāya-Vaiśeṣika system. This is perhaps not to be met with in any other school of philosophy. It should be observed that although this kind of a cause is called a-

samavāyi (non-inherent), in order to distinguish it from the inherent cause, still this type of cause, too, is connected with its effect by the relation of samavāya or inherence, not indeed, directly as in the case of an inherent cause, but indirectly. For example, the conjunction of the threads is not directy connected with the effect 'cloth' by the relation of inherence, since the conjunction in question does not inhere in the cloth, but in the threads of which it is a quality; nonetheless, this conjunction (which is the cause) as well as the cloth (which is the effect) *inheres* in the same things, namely, the threads. That is why both an inherent and a non-inherent cause are defined in terms of the relation of inherence. This is what may be considered to be common to them.

It would appear, therefore, that there is some point in defining the auxiliary cause as a cause which is different from the inherent and the non-inherent cause, since the latter are connected with the relation of samavāya, but the former is not connected with it in the same way. It may be noted that the efficient cause or the agent in respect of such products as a pot, a piece of cloth, etc. would, in the view of Nyāya, fall under the auxiliary cause (nimitta-kāraṇa) just as much as instrumental causes such as the potter's wheel, the weaver's loom, etc. This indicates an essentially scientific outlook (free from anthropomorphic notions) of these realistic philosophers of India, in treating the problem of causality. It may be mentioned, in this connection, that even Vedānta which would seem to recognise only two kinds of cause, namely, the material and the auxiliary (upādāna and *nimitta*), would put the agent (kartṛ) under the head 'auxiliary cause'[13].

This three-fold classification of causes, however, does not seem to be quite pertinent to the problem of ascertaining

13 Compare, in this connection, the Vedantic view that the auxiliary and the material cause of the world are the same Brahman (Abhinna-nimittopādāna).

the specific kind of instrumental cause (karaṇa) for a specific type of knowledge, such as perception, inference, etc. From what follows, it would appear that though the word 'karaṇa', was perhaps originally associated with the idea of an instrument, still, here, it is employed in a purely technical sense. As we have already pointed out, even in regard to this technical sense of the word 'karaṇa', there are two views[14]. At the end of the Tarkasaṁgraha of this section, the author implies that a karaṇa may be any one of these three types of cause, namely, inherent, non-inherent and auxiliary. We may also observe that almost every effect requires some cause or other of each of these three kinds.

The whole discussion on causality ends with the remark that an instrument (karaṇa) is the extraordinary (a-sādhāraṇa) cause of an effect. We have already pointed out that the word 'extraordinary,' here, has been used technically, but somewhat vaguely, leaving room for interpreting it in either of two different ways, namely, (i) as that which is possessed of an operation (vyāpāra) or (ii) as what is immediately followed by the effect. These different interpretations of 'extraordinary' would explain why different views have been maintained as to what constitutes the instrument of a particular type of knowledge such as perception. As already remarked, the author accepts the first interpretation in stating the instrument of perceptual knowledge, but the second interpretation in stating that of inferential knowledge.

14 See pp. 23-24.

SECTION 5

त—तत्र प्रत्यक्षज्ञानकरणं प्रत्यक्षम्। इन्द्रियार्थसन्निकर्षजन्यं ज्ञानं प्रत्यक्षम्। तद्द्विविधम्—निर्विकल्पकं सविकल्पकं चेति। तत्र निष्प्रकारकं ज्ञानं निर्विकल्पकं, सप्रकारकं ज्ञानं सविकल्पकम्। यथा—डित्थोऽयं, ब्राह्मणोऽयं श्यामोऽयमिति।

दी—प्रत्यक्षलक्षणमाह—तत्रेति। प्रमाणचतुष्टयमध्य इत्यर्थः। प्रत्यक्षज्ञानस्य लक्षणमाह—इन्द्रियेति। इन्द्रियं चक्षुरादिकम्। अर्थो घटादिः। तयोः सन्निकर्षः संयोगादिः तज्जन्यं ज्ञानमित्यर्थः॥ तद्विभजते—तद्द्विविधमिति। निर्विकल्पकस्य लक्षणमाह—निष्प्रकारकमिति। विशेषण-विशेष्यसम्बन्धानवगाहि ज्ञानमित्यर्थः॥ ननु निर्विकल्पके किं प्रमाणमिति चेन्न। गौरिति विशिष्टज्ञानं विशेषणज्ञानजन्यं विशिष्टज्ञानत्वाद्दण्डीति ज्ञानवदित्यनुमानस्य प्रमाणत्वात्। विशेषणज्ञानस्यापि सविकल्पकत्वे-ऽनवस्थाप्रसङ्गान्निर्विकल्पकसिद्धिः॥ सविकल्पकं लक्षयति—सप्रकारकमिति। नामजात्यादिविशेषणविशेष्यसम्बन्धावगाहि ज्ञानमित्यर्थः। सविकल्पक-मुदाहरति—यथेति।

T. Among them, the instrument of perceptual knowledge (pratyakṣa-jñāna) is (called) a perceptive instrument (pra-tyakṣa). Knowledge which is caused by the contact of the (known) object with a sense-organ is perceptual knowledge. This is of two kinds, namely, (i) non-judgmental or indeter-minate[15] and (ii) judgmental or determinate. Out of them, knowledge without (the predication of) a character is non-judgmental or indeterminate; while knowledge with (the predication of) a character is determinate, as for example,

15 It is indeterminate in the sense that it merely apprehends an object without *determining* that it has such and such a character.

the cognitions, "He is Dittha"[16], "He is a Brahmin," "He is dark (in complexion)", etc.

D. The defining character of a perceptive instrument is stated in the sentence, "Among them...." The phrase 'among them' means among the four kinds of instruments of knowledge. The defining character of perceptual knowledge is stated in the sentence, "Knowledge which is caused.....". A sense-organ means such a thing as the eye. An object means such a thing as a pot. The contact of these two (namely, the object and the sense-organ) is such things as conjunction; and perceptual knowledge is knowledge which is caused by it (i. e., by such a contact of the object and a sense-organ)—this is what is meant. This (perceptual) knowledge is divided into its classes in the sentence, "This is of two kinds....." The defining character of indeterminate perceptual knowledge is given in the clause, "knowledge without....." What is meant is that it is that kind of knowledge which does not grasp the character-characterised relationship. It may be objected, "What is the evidence for the existence of indeterminate knowledge?" But this objection is not proper. The (following) inference is an evidence for it: The judgment, "This is a cow" is a cognition which contains (the ascription of) a character; so it is caused by the apprehension of this character, because it is a cognition in which there is (the ascription of) a character; for instance, the cognition, "He is with a stick (in his hand)"; if the knowledge of the character also be determinate, there would be the undesirable contingency of an infinite process; hence is established the existence of indeterminate knowledge.

The defining character of determinate knowledge is stated in the clause, "while knowledge which contains...". What is meant is (that determinate cognition is that type of) knowledge which grasps the relation between a character such as

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16 Dittha here is employed as the proper name of a boy.

a name, a universal, etc. and that which such a character qualifies. An illustration for determinate knowledge is given in the sentence, "As for example, the cognitions....."

E. We have translated the compound word pratyksajñāna as perceptual knowledge, while the word pratyksa occurring at the end of the first sentence of the Tarkasamgraha, here, has been translated as perceptive instrument. The word pratyksa in Sanskrit is often used to express both perceptual knowledge and its specific instrument. The same word does for both. But this is not so in the case of the other three types of knowledge. Thus there are the words *anumiti, upamiti* and śabda-jñāna for expressing inferential knowledge, knowledge by analogy and verbal knowledge respectively, while the corresponding words for the instruments of these types of knowledge are respectively anumāna, upamāna and śabda. Moreover, the word pratyksa is also employed as an adjective (meaning perceptual) and can be made to qualify both knowledge and its object. As will appear, in the next section, the instrument of perceptual knowledge is a sense-organ.

Indeterminate apprehension, recognised by Nyāya, is a non-judgmental cognition which occurs before judgment that contains a subject and a predicate emerges. The Sāmkhya system, too, recognises a kind of indeterminate knowledge at the pre-judgmental level of consciousness and maintains that it is similar to the sort of knowledge which an infant or a deaf and dumb person is likely to have. Advaita Vedānta, too, recognises a type of indeterminate cognition ; but, in its view, this kind of indeterminate cognition can occur even at the judgmental level, and certainly at the post-judgmental level of consciousness. Whether indeterminate knowledge be of the kind which is recognised by Nyāya or of the kind which is recognised by Advaita Vedānta, in either case, it is considered not to apprehend any relation between a character and a characterised. This distinction between indeterminate and

determinate cognition would seem to be analogous to that between what Russell calls 'knowledge by acquaintance' and 'knowledge by description'. But there would also seem to be a good deal of difference between the two distinctions. In the first place, those who maintain the second distinction would grant that it may be possible to be reflectively aware of even a case of knowledge by acquaintance. This would seem to be especially true when such knowledge is specifically connected with the awareness of what is called a sense-datum such as that of a colour patch. The awareness of a red patch, for example, apart from any element of interpretation about that to which this patch belongs is, it would seem, an instance of 'knowledge by acquaintance'; and a sense datum philosopher is not likely to deny that a visual patch of this sort can, at any rate, be remembered, and also perhaps that its awareness can be reflected upon. We believe that Advaita Vedānta, too, would grant the possibility of remembering the type of indeterminate cognition which it recognises at the judgmental and the post-judgmental levels of consciousness. But this would not be true of either indeterminate knowledge or the objects of indeterminate knowledge as conceived by Nyāya. For Nyāya definitely says that this type of pre-judgmental cognition cannot be directly known by an act of after-cognition (anuvyavasāya) which, in its view, constitutes the immediate knowledge of knowledge. Hence the objects, too, which are apprehended by a piece of indeterminate knowledge cannot be remembered. No direct reflective cognition can be the evidence for the existence of indeterminate knowledge, as it is for recognising determinate knowledge. The only evidence which one may have about its existence is inference of the type which has been stated in the Dīpikā, here.

Let us try to understand the nature of this inferential argument. In order to have the determinate knowledge, "Here is a man with a stick in hand", it is necessary to have the prior knowledge of a stick, and the stick, here, is the

predicated *character* of the subject 'man'.[17] That is to say, in order to know that a thing has a certain character, it is necessary already to have the knowledge of that character. This, then, is a general rule: the knowledge which apprehends that a thing has a certain character is invariably preceded by the knowledge of that character. Now the judgment, "This is a pot" is the knowledge of the thing indicated by the word 'this' to possess the character 'pothood'. Hence it must be preceded by the knowledge of the character 'pothood'. To know a pot as a pot, we must already have the knowledge of the generic character pothood. But how do we know 'pothood' as pothood ? If all knowledge were determinate, i.e., if it were impossible to know anything except by the ascription of a character to it, then, in order to know pothood as pothood, it would be necessary to ascribe to it 'the character of being pothood', i.e., the character 'pothood-hood'. But the same question can arise even in respect of knowing this 'character of being pothood' or the character 'pothood-hood'. Hence if we maintain that knowledge is always determinate or judgmental or predicational, then, this would lead to a vicious infinite process. The process would indeed be vicious. For certainly we know a pot as a pot. But do we, for having this knowledge, perform the impossible task of going through an infinite process of ascribing, to one character, another character, and to this other character, still another, and so on ? If we do not, it would imply that certain characters such as the character 'pothood' are known without the ascription of a further character like pothood-hood to it. If so, the apprehension of such a character must be considered to be an instance of indeterminate knowledge, i.e., knowledge of a thing without the ascription of a character to it. This implies that *before* we have the perceptual judgment or determinate knowledge,

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17 In our explanatory notes on Section 2, we have explained the sense in which the word 'character' is to be understood.

"This is a pot", there must have been the indeterminate knowledge of pothood. Not only that. The judgment, "This is a pot" must have been preceded by also the indeterminate knowledge of the 'this', i.e., of the pot itself. For there can be no perceptual knowledge of pothood, if there is no sense-contact with it; and there can be no sense-contact with pothood unless there is sense-contact with the pot at the same time; hence when there is the perception of pothood, there is also, at the same time, the perception of the pot; but this knowledge of the pot must not be the knowledge of it as possessing pothood; for that would amount to a determinate cognition of the pot—a cognition which is not possible without the previous indeterminate knowledge of pothood; and we are concerned with a sort of cognition of the pot at the time prior to our determinate cognition of it; therefore, it, too, must itself be indeterminate. Thus before I have the perceptual judgment, "This is a pot" I have the non-judgmental or indeterminate perception of both the pot and of pothood, i.e., some sort of knowledge of both of them but not as related in the manner of a characterised subject and a character which is predicated of it. We may, therefore, maintain that indeterminate perceptual knowledge is a cause of the corresponding determinate perceptual knowledge[18].

Since it is not possible *to be directly aware of* such indeterminate knowledge by introspective after-cognition, it is also not possible to give an idea of its nature in such a

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18 Do we invariably have such indeterminate knowledge in every instance of a determinate perceptual cognition such as "This is a pot" ? Primarily, of course. But is this true of every instance of perceptual judgement ? Do I have this type of indeterminate cognition, every time I perceive a pot in the determinate form, "This is a pot?" This is a more complex problem and does not admit of a straightforward solution and requires a good deal of detailed consideration. We would, therefore, avoid it, here. It may be mentioned that Gangesa in his *Tattva Cintāmani* remarks that even in the determinate judgment. "This is a cow", the cognition of cowhood is indeterminate. *Tattva Cintāmani* Asiatic Society edition. p. 824.

manner as would be intelligible immediately in terms of one's own experience. Yet it is quite possible to *conceive* of it. Critical realists such as Santayana have familiarised us with the notion of 'the intuiton of an essence'. Indeterminate perceptual knowledge of a character such as pothood would seem to be just such intuition of an essence. But Nyāya maintains that it is possible to have indeterminate knowledge not only of a universal or essence, but also of a particular thing such as an individual pot. It may perhaps be correct to say that indeterminate knowledge is an awareness or apprehension of an object not as possessing a character but in its essence, in its individuality, or perhaps as it is in itself, provided we divest this phrase of its usual association with the notion of unknownness.

SECTION 6

त—प्रत्यक्षज्ञानहेतुरिन्द्रियार्थसन्निकर्षः षड्विधः। संयोगः, संयुक्त-समवायः, संयुक्त-समवेत-समवायः, समवायः, समवेत-समवायो, विशेषण-विशेष्यभावश्चेति। चक्षुषा घटप्रत्यक्षजनने संयोगः सन्निकर्षः। घटरूपप्रत्यक्षजनने संयुक्त-समवायः सन्निकर्षः, चक्षुः-संयुक्ते घटे रूपस्य समवायात्। रूपत्वसामान्यप्रत्यक्षे संयुक्त-समवेत-समवायः सन्निकर्षः, चक्षुः-संयुक्ते घटे रूपं समवेतं, तत्र रूपत्वस्य समवायात्। श्रोत्रेण शब्द-साक्षात्कारे समवायः सन्निकर्षः, कर्णविवरवर्त्याकाशस्य श्रोत्रत्वात्, शब्दस्याकाशगुणत्वात्, गुणगुणिनोश्च समवायात्। शब्दत्व-साक्षात्कारे समवेत-समवायः सन्निकर्षः, श्रोत्रसमवेते शब्दे शब्दत्वस्य समवायात्। अभाव-प्रत्यक्षे विशेषणविशेष्य-भावः सन्निकर्षो, घटाभाववद्भूतलमित्यत्र चक्षुःसंयुक्ते भूतले घटाभावस्य विशेषणत्वात्। एवं सन्निकर्षषट्कजन्यं ज्ञानं प्रत्यक्षम्। तत्करणमिन्द्रियम्। तस्मात् इन्द्रियं प्रत्यक्ष-प्रमाणमिति सिद्धम्।

दी—इन्द्रियार्थसन्निकर्षं विभजते—प्रत्यक्षेति। संयोगसन्निकर्षमुदाहरति—चक्षुषेति। द्रव्यप्रत्यक्षे सर्वत्र संयोगः सन्निकर्ष इत्यर्थः। आत्मा मनसा संयुज्यते, मन इन्द्रियेण, इन्द्रियमर्थेन, ततः प्रत्यक्षज्ञानमुत्पद्यते। संयुक्तसमवायमुदाहरति—घटरूपेति। तत्र युक्तिमाह—चक्षुःसंयुक्त इति। संयुक्तसमवेतसमवायमुदाहरति—रूपत्वेति। समवायमुदाहरति—श्रोत्रे-णेति। तदुपपादयति—कर्णेति। ननु दूरस्थशब्दस्य कथं श्रोत्रसम्बन्ध इति चेन्न वीचितरङ्गन्यायेन कदम्बमुकुलन्यायेन वा शब्दाच्छब्दान्तरोत्पत्तिक्रमेण श्रोत्रदेशे जातस्य शब्दस्य श्रोत्रसम्बन्धात्प्रत्यक्षत्वसम्भवात्। समवेत

समवायमुदाहरति—शब्दत्वेति। विशेषणविशेष्यभावमुदाहरति—अभावेति। तदुपपादयति—घटाभाववदिति। भूतले घटो नास्तीत्यत्र घटाभावस्य विशेष्यत्वं द्रष्टव्यम्। एतेनानुपलब्धेः प्रमाणान्तरत्वं निरस्तम्। यद्यत्र घटोऽभविष्यत्तर्हि भूतलमिवाद्रक्ष्यत, दर्शनाभावान्नास्तीति तर्कितप्रतियोगिसत्त्वविरोध्यनुपलब्धिसहकृतेन्द्रियेणैवाभावज्ञानोपपत्तौ, अनुपलब्धेः प्रमाणान्तरत्वासंभवात्। अधिकरणज्ञानार्थमपेक्षणीयेन्द्रियस्यैव करणत्वोपपत्तावनुपलब्धेः करणत्वस्यायुक्तत्वात्। विशेषण-विशेष्यभावो विशेषण-विशेष्यस्वरूपमेव नातिरिक्तः सम्बन्धः। प्रत्यक्षज्ञानमुपसंहरंस्तस्य करणमाह—एवमिति। असाधारणकारणत्वादिन्द्रियं प्रत्यक्षज्ञानकरणमित्यर्थः। प्रत्यक्षमुपसंहरति—तस्मादिति॥

T, The sense-object contact which is a cause of perceptual knowledge is of six kinds, namely, (i) conjunction, (ii) inherence in what is conjoined, (iii) inherence in what inheres in a thing which is conjoined (with a sense-organ), (iv) inherence, (v) inherence in what inheres (in a sense-organ) and (vi) the relation of character-and-characterised. In the generation of the perceptual knowledge of a pot with the help of the eye, the (required) contact is conjunction. In the generation of the perceptual knowledge of the colour of a pot, the (required) contact is 'inherence in what is conjoined (with the visual organ).' For colour inheres in the pot which is conjoined with the eye. In the perceptual knowledge of the generic character 'colourhood,' the (required) contact is 'inherence in what inheres in what is conjoined (with the sense-organ, namely, the eye)'; for colour inheres in the pot which is conjoined with the eye, and colourhood inheres in that (i.e., in colour). In the perceptual knowledge of sound by the ear, the (required) contact is inherence; for the ear is constituted by ether which is inside the hole of the ear, sound is a quality of ether, and the relation between a quality and the substance which it qualifies is one of inherence.

In the perceptual knowledge of soundhood, the (required) contact is 'inherence in what inheres (in an organ)'; for soundhood inheres in sound which inheres in the ear. In the perceptual knowledge of non-existence, the (required) contact is 'the relation of character-and-characterised'; for in (the perceptual knowledge), "The floor has the non-existence of the pot," the non-existence of the pot is a character of the floor which is conjoined with the eye. Thus the knowledge which is caused by (any one of) this group of (these) six (types of sensory) contacts is perceptual knowledge. The instrument of this (perceptual knowledge) is a sense-organ—this is what is established.

D. Sense-object contact is divided into its kinds in the sentence, "The sense-object contact which is.....". An illustration of the contact called conjunction is given in the sentence, "In the generation of the perceptual knowledge of a pot.....". What is meant is that in every instance of the perceptual knowledge of a substance, conjunction is the (required) contact. The self (ātman) is conjoined with the inner sense (*manas*), the inner sense with a sense-organ, and the sense-organ with an object; then, arises perceptual knowledge. An illustration of the contact called 'inherence in what is conjoined (with a sense-organ)' is given in the sentence, "In the generation of the perceptual knowledge of the colour.....". This is supported by reasoning in the sentence, "For colour inheres in.....". An illustration of the contact named 'inherence in what inheres in what is conjoined (with a sense-organ)' is given in the sentence, "In the perceptual knowledge of the generic character.....". An illustration of (the contact named) 'inherence' is given in the sentence, "In the perceptual knowledge of sound.....". This is explained in the clause, "for the ear.....". It may be objected, "How can the ear be connected with sound which is at a distance (from the ear)?" But this objection cannot stand. For from one sound originates another (from this second sound origina-

tes a third, and so on), in the manner of a series of waves rising, one from another, or in the manner of the bud of a *kadamba* flower, and thus gradually there occurs the connection of the ear with the sound which originates in the place of the ear, and thus takes place the perceptual knowledge of sound. An illustration for (the contact called) inherence in what inheres (with the ear)' is given in the sentence, "In the perceptual knowledge of soundhood.....". An illustration of (the contact called) 'the relation of character-and-characterised' is given in the sentence, "In the perceptual knowledge of non-existence...". This is explained in the passage, "for in (the perceptual knowledge).....". It should be observed that in the judgment, "There is no pot on the floor", the non-existence of the pot is the characterised entity. By this,[19] is refuted the view that non-perception (*anupalabdhi*) is a separate instrument of valid knowledge (pramāṇa). If there were a pot here, it would have been seen just like the floor; but because it is not seen, therefore, it does not exist (here)—inasmuch as the knowledge of non-existence can in this way be understood as being due to some sense-organ with the help of (that) non-perception which is opposed to the supposed existence of the counter-correlative (*pratiyogi-sattva*) of the non-existence (in question), therefore, non-perception cannot possibly be a different (and independent) instrument of valid knowledge. Since the sense-organ on which one has (necessarily) to depend for the knowledge of the locus (wherein the said non-existence resides) can be understood as the (requisite) instrument (of the valid cognition of the said non-existence, too), hence it is not proper to consider non-perception to be an (independent) instrument of valid cognition (pramāṇa). The relation of character-and-characterised is just the same as the character and the characterised—this relation is not anything

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19 i.e., by the demonstration that the valid knowledge of non-existence is produced by the contact called "the relation of character-and-characterised': *vide* Nīlakaṇṭha's scholium on the Dīpikā.

different (from the character and the characterised). By the statement, "Thus the knowledge which is caused... ..", the author finishes (his treatment of) perceptual knowledge, and then states its instrument. What is meant is that a sense-organ is the instrument of perceptual knowledge, on account of its being the extraordinary cause (of perceptual knowledge). The author finishes (his treatment of the topic) 'instrument of valid perceptual knowledge' by the statement, "The instrument of this.....".

E. In order that a sense-organ may give us the knowledge of an object, it must somehow first come in contact with the latter. If the object, for example, be behind me and I do not take a right-about-turn so as to face it, I cannot have its visual perception even by keeping my eye wide open in broad day light. Now the fact that one thing comes in contact with another is just the fact that the first enters into some relationship with the second. Hence to understand properly how a sense-organ functions as an instrument of perceptual knowledge, it is necessary to understand the particular type of relation which constitutes this sensory contact with an object. In the visual perception of a physical object, such as a flower, for example, the theory which is generally maintained in Indian philosophy is that the eye which is made of particles of light (*tejas*) sends its rays to the flower and thus is conjoined with it. The eye is a substance; so is the flower; and when two substances come together, the relation between them is called conjunction (saṁyoga); hence the sense-object contact which is involved in the perception of the flower would be an instance of the relation of conjunction.[20] In the tactual perception of a physical object such as a pot, it is evident that the tactual organ which, too, is a substance comes into conjunction with it. So we can generalise and say that

20 We need hardly mention that the theory of modern science in this matter is different. It maintains that certain light rays, which the flower cannot absorb and reflects back, reach the eye, and that is how contact between the eye and the flower takes place.

in the perception of a substance, the sense-object contact which is necessary for such perception is one of conjunction. But this is not true of the perception of every kind of object. When I perceive the colour of the table with the eye, it would not be correct to say that the eye is conjoined with the colour; for colour is a quality, and there can be no conjunction except between substances. What, then, is the peculiar relationship which constitutes the sensory contact required for the perception of a quality such as the colour or the heat or the coldness of a substance? Of course, for seeing the colour of the table, the eye must be conjoined with the table. But to be with the table is not the same as to be with its colour. For the table is one thing and the colour is another. What precisely is the relation between the eye and the colour of the table when the eye is conjoined with the table? In the view of Nyāya, the colour resides in the table by the relation of inherence (samavāya). So when the table is in conjunction with the eye, we can say that the relation between the colour and the eye is 'inherence in what is conjoined (with the eye).' This is the second type of sensory contact mentioned in the Tarkasaṁgraha. Consideration would show that this type of sense-contact is involved in the perception of a perceptible quality or activity residing in a perceptible substance, or of a generic character (jāti) residing in its perceptible appropriate individual substance.

But a generic character may as well reside in a quality or in an activity; and the perception of such a generic attribute would require a third kind of sense-object contact; and this is 'inherence in what inheres in what is conjoined (with an appropriate sense-organ).' For instance, there is the generic character colourhood which is present in every individual colour such as red, yellow, green, etc. This colourhood resides in its individual colour, such as red, by the relation of inherence. In the view of Nyāya, the relation between an individual and the universal (jāti) which resides in it is one of inherence. In order, therefore, to perceive

colourhood, it would be necessary to have the eye conjoined with a coloured substance such as a red tomato, in which the red colour resides by the relation of inherence; for colourhood which is common to all colours resides in this red colour by the relation of inherence. That is to say, the relation between the universal 'colourhood' and the eye is: Inherence in what inheres in what is conjoined with the eye.

The fourth kind of sense-contact is necessary for the perceptual knowledge of sound which is a quality of ether. Ordinarily, we should have supposed that the contact in question is the same as what is required for the perception of a quality such as a colour, namely, the second type of contact which, in this case, should have been 'inherence in what is conjoined with the auditory organ.' But this is precluded by the fact that this organ is not different from ether of which sound is a quality; for the auditory organ is just ether, as limited within the hollow of the ear;[21] and the sound which is heard is a quality inhering in this very ether. As the Dīpikā explains, the sound which is produced at a distance from the hearer, for instance, in the place occupied by a drum, is not what is heard by the auditory organ; on the contrary, the sound produced by the drum gives rise to a series of sounds, and the last sound of this series is produced inside the hollow of the ear, and this it is which is heard. Nīlakaṇṭha points out that the analogy of the *kadamba* flower[22] is better and is intended to show that several series of sounds, following one after another, arise spreading out in, and covering, every direction around the place occupied by the object such as the drum from which the sound proceeds. That the sound comes from the place

21 We must distinguish between the auditory organ which is imperceptible and the ear which can be seen and touched. In fact, all sense-organs are imperceptible.

22 This beautiful flower which is round in shape is like a small woollen ball and has several layers of thin petals, arranged symmetrically one upon another.

occupied by the drum which is at some distance from the ear is known by a very quick but complicated process of inference. Hence the perception of sound necessitates that type of sensory contact which is called 'inherence'. This is the fourth kind of sense-object contact mentioned in the Tarkasaṁgraha. The perception of soundhood, the generic character which is common to all individual sounds, requires the fifth kind of sensory contact called 'inherence in what inheres in (the sense-organ)'. For soundhood inheres in an individual sound by the relation of inherence, and the individual sound resides in the auditory organ also by the relation of inherence, since ether, limited within the hollow of the ear, is what constitutes the auditory organ (śrotra).

The sixth type of sensory contact is required for the perception of non-existence. Now, non-existence or non-being (abhāva) is considered by Nyāya to be a fundamental category of thing (padārtha).[23] The judgment, "The table has no inkpot on it" would represent the perceptual cognition of a non-being, namely, the non-being of an inkpot on the table. Evidently the judgment must be true, if it be a fact that there is no inkpot on the table. We have just mentioned that in the view of Nyāya a non-being such as that of an inkpot should be recognised as a fundamental category of thinghood (padārtha), which is distinct from such positive categories as substance, quality, etc. But in the view of certain other schools of Indian philosophy, such as that of Prabhākara Mīmāṁsā, the non-being of an inkpot represents no distinct kind of thinghood; on the contrary, it is just identical with the table as it is in its own nature (swarūpa). It may be mentioned, here, that many modern positivists, too, deny that there is any such thing as a negative fact. Be that as it may, we are just now concerned with the question as to how the non-being of such a thing as an inkpot is originally

23 This view, however, is not shared by every school of Indian philosophy.

known. Nyāya maintains that this is known by perception. As I look at the table, I at once know that there is no inkpot on it; so this is a case of perception, and as a matter of fact, of visual perception.

Against this, Bhāṭṭa Mīmāṁsā maintains that the original knowledge of non-being cannot be perceptual, since the perception of a thing requires some sensory contact with it. But how can a sense-organ be possibly in contact with a mode of non-being? Of course, non-existence is known. For it is not a pure non-entity such as the son of a barren woman. The non-existence of the inkpot on the table represents a fact and can certainly be known. How? Consideration would show that it is known by an appropriate type of non-perception (*anupalabdhi*). As I look at the table on which there is no inkpot, I see the table, but I do *not* see any inkpot there. If there were an inkpot there, I should certainly see it while I see the table. That is to say there is, in me, on this occasion, the non-perception of an inkpot in a perceptual situation in which I should certainly see the inkpot if it were there. This type of non-perception of an object in a situation in which I should perceive the object if it were there is called the appropriate (*yogya*) type of non-perception; and this is what originally gives me the knowledge of non-existence. This appropriate kind of non-perception is, therefore, a new and independent kind of instrument of valid cognition (pramāṇa), which is distinct from such other cognitional instruments as perception, inference, etc.

Nyāya, too, recognises that this kind of appropriate non-perception of a thing is necessary for the knowledge of the non-existence of that thing. But it maintains that there is no reason for giving, to this non-perception, the status of an independent instrument of knowledge (pramāṇa), on a par with such other instruments as perception. For in order that there may arise the knowledge of the non-existence of an inkpot on the table from the fact that I do not perceive it (although I should have perceived it if it were there), it is

certainly necessary also to employ the eye for seeing the table (which is the locus) in which there is this non-existence of the inkpot; since, however, the employment of a sense-organ is thus essential for the knowledge of non-existence, and since we already know that a sense-organ is a fundmental kind of instrument of valid knowledge (pramāṇa), so we should consider sense-organs to be the specific instrument of the valid knowledge of non-existence. Of course, a sense-organ would require, for such knowledge, also the assistance of the requisite type of non-perception which has been described above. But a sense-organ requires some assistance of something or other even for the perception of objects other than non-existence. For instance, the perception of colour with the eye requires the assistance of sufficient light in the place which is occupied by the object to be perceived. Even by keeping the eyes wide open, one cannot see colour in an exteremely dark place. Yet nobody would maintain that therefore the instrument for cognising colour is not the eye but the presence of sufficient light. Similarly, the cognition of the non-existence of an inkpot on the table requires both the eye and the requisite kind of non-perception; still, it is the eye which should be regarded as the specific instrument for the knowledge of this non-existence, and not non-perception which only helps the eye in producing such knowledge. As far as possible, we should not add to the number of the fundamentally different and independent kinds of instrument of valid cognition (pramāṇa). Of course, the question raised by the Mīmāṁsā philosopher remains unanswered as yet, namely, "If the non-existencc of the inkpot be known by the eye, the eye must come in contact with this non-existence—but how can it? It may at best come in contact with the table. How can the eye which is a substance come in contact with a mode of non-being?" To this the reply of Nyāya would be as follows. We should remember at the very outset that sense-contact with the object which is necessary for its perception need not necessarily be conjunction. The word

'contact,' here, has a wider connotation. For we have already seen that 'inherence,' 'inherence in what is conjoined with a sense-organ,' etc. serve as the requisite sensory contact in different cases of perception. So, what can legitimately be demanded in the present case is that we should point out some suitable type of relation connecting the eye with the non-existence of the inkpot. And Nyāya maintains that this relation is that of character-and-characterised. The non-existence of the inkpot is adjectival to the table in the perceptual jùdgment, "The table has no inkpot on it, i.e., the table has the non-existence of the inkpot." Thus the said non-existence is connected with the eye by the relation of character-and-characterised (viśeṣaṇa-viśeṣya-bhāva), the characterised table being, here, conjoined with the eye. This relation is often more briefly indicated by the word viśeṣaṇatā. This would also seem to be a more appropriate term. For really speaking, the relation in the case which we have just considered is not one of mere 'character-and-characterised or attributiveness,' but 'the relation of an attribute to what is conjoined with the eye' (cakṣuhsaṁyukta-viśeṣaṇatā); and attributiveness (viśeṣaṇatā) can legitimately be a short term for this. Moreover, consideration would show that in every instance of the knowledge of non-existence, the relevant relation is not necessarily one of attributiveness to what is conjoined with a sense-organ (saṁyukta-viśeṣaṇatā). For instance, in the perceptual knowledge, "Red is not yellow," 'difference (which is a mode of non-being) from yellow' is perceived as an adjective of red which is in contact with the eye by the relation of 'inherence with what is conjoined (with the eye),' i. e., saṁyukta-samavāya; so the relation of this 'non-existence of yellow,' i. e., of 'difference from yellow' with the eye should be described as saṁyukta-samaveta-viśeṣaṇatā or 'attributiveness to what inheres in what is conjoined with the eye.' Consideration would show that there are five such viśeṣaṇstās or kinds of attributiveness which can be formulated by adding the word 'viśeṣaṇatā' after

the words indicating the first five kinds of sense-object contact, such as saṁyoga, saṁyukta-samavāya, etc.; and the word viśeṣaṇatā is a short name for indicating all these five kinds of viśeṣaṇatā.

It is worth noting that although Nyāya and Bhāṭṭa-Mimāṁsā differ in regard to the instrument for the valid cognition of non-existence, still both agree that both a sense-organ and an appropriate type of non-perception are necessary for the knowledge of non-existence. They differ only in respect of the question as to which of these two factors should be treated as the instrument of such valid knowledge of non-existence—while Nyāya considers the former as the proper instrument, Mīmāṁsā considers the latter to be so.

It may be objected that the relation of attributiveness would seem to be a new category that cannot be comprised within any of the fundamental categories which Nyāya recognises; and this means that for the cognition of non-existence, Nyāya has to grant an additional category of thing-hood (padārtha), although by refusing to recognise non-perception as an instrument of knowledge (pramāṇa), it has avoided recognising an additional instrument of knowledge. To this, the Dīpikā replies by saying that the relation of attributiveness is not a separate category—it is just the same as either the non-existence in question or the locus of this non-existence. The relation of character-and-characterised is the same as the character 'non-existence' or the characterised, namely, the locus in which the said non-existence resides. In the judgment, "The table has no inkpot on it," the non-existence of the inkpot is a character of the table which, thus, is the characterised; and the relation of character-and-characterised is not anything different from the table or from the said character, namely, the non-existence of the inkpot—it is just what the table is or what the non-existence is.

We shall now say a few words by way of explaining the Dīpikā statement, "The self is conjoined with the inner sense, the inner sense with an (outer) sense, and the (outer) sense

with an object; then, arises perceptual knowledge." The outer senses, such as the visual, the olfactory, etc., are instruments for the perception of outer objects like tables, and their colour, shape, etc. The word 'outer' (bāhya), as an epithet of objects means 'other than one's own self and its attributes such as pleasure, pain, desire, cognition, etc.' Now the outer senses cannot apprehend the self and its perceptible qualities, since it does not possess any such quality as colour, smell, sound, etc. Yet one can certainly have immediate awareness of the self and some of its qualities such as pleasure, desire, cognition, etc., when they occur in one's mind. But any type of immediate or perceptual knowledge requires the help of some sense-organ or other; and since the outer senses are of no use for the immediate apprehension of the self and its qualities, so we require a type of sense-organ which is distinct in kind from the outer senses. This is the inner sense (antahkaraṇa) usually termed '*manas*.' The existence of the inner sense is thus inferred on the ground that we can immediately apprehend our own self and some of its attributes such as pain, desire, cognition, etc. It may be mentioned here that the self which is a substance cannot be perceived except as possessing some such perceptible quality of it, as pleasure, desire, cognition, etc.

The inner sense or *manas* is conceived to be a substance which is different in kind from, and on a par with, such other kinds of substance as earth, water, fire, etc. Four outer senses, namely, the visual, the olfactory, the palatal and the tactile, are considered to be made of fire, earth, water and air respectively. These are composite substances, while the *manas* is a simple substance and atomic in size. The reason why the *manas* is considered to be of atomic size will be stated presently. The fifth outer sense, namely, the auditory, is not a composite substance, nor is it atomic in size. It is the same as the all-pervasive ether, but limited within the space of the ear-hole. Both the inner sense and the outer senses are imperceptible. The only evidence for their existence is

inference, based on the various kinds of perceptual knowledge such as internal, visual, olfactory, etc, which we actually have. Of course, the things which are ordinarily known as the eye, the ear, etc. are perceptible. But they are not to be identified with the sense-organs. These perceptible things only indicate the locations of the outer sense-organs, which themselves are not capable of being perceived. The *manas* is in the body, but has no fixed location within it.

The *manas* is, as already stated, postulated for explaining the fact that we can perceive our self and some of its qualities. It is also postulated for explaining another fact of our inner life. It is usually believed that one cannot have, at a time, more than one act of knowledge; and further, although different outer senses may simultaneously be in contact with different outer objects suited to their capacity, still there cannot be, at the same time, more than one type of perceptual knowledge—e. g., if the visual sense be in contact with a tree, and the auditory one be in contact with a sound, there would occur either the visual perception of the tree or the auditory perception of the sound, but not both simultaneously. Let us suppose that it is the visual perception which actually takes place in a certain instance of this kind. In order to ensure this and to obviate the occurrence of the auditory perception, Nyāya postulates the existence of the inner sense —the perception of an external object depends not only on the contact of the object with a sense-organ but also on the contact of the inner sense with that sense-organ. Thus in the case under consideration, we are to suppose that although the visual and the auditory sense-organs are both in contact with their respective objects, still the *manas* is in contact with the visual, and not with the auditory sense; and that is why the visual perception, instead of the auditory one, takes place. This explanation takes it for granted that the *manas* cannot at the same time be in contact with more than one outer sense-organ. But why should it be impossible for the *manas* to come in contact with more than one sense? This is explained

by the theory that the *manas* is atomic in size. That which is atomic in size cannot be directly in contact with more than one thing—it can be in contact with two things, only when one of them contains the other; but no sense-organ is of such a type that it contains another sense-organ within it.

The above is thus a second proof of the existence of the *manas*. A third proof for the same is as follows. Pleasure, pain, desire, cognition and such other occurrent states of the self have, for their inherent cause (samavāyikāraṇa), the self in which they inhere when they come into existence. But every effect (kārya) requires, for its origination, also some non-inherent cause (asamavāyi-kāraṇa). This must be the conjunction of the self (which is the inherent cause) with some 'other substance'. This 'other substance' is the *manas*. Of course, this conclusion cannot be said to be fully established without some further discussion showing that the 'other substance' in question cannot be identified with any one of the outer senses nor with any other thing. But we must leave the matter just here.

It should now become clear why Annambhaṭṭa says in the Dīpikā that before the perception of an external object takes place, the self must first of all be conjoined with the *manas*. This condition is required in order that the perception which is a (cognitive) state of the self could arise at all in the self. For the conjunction of the self with the *manas* is, as explained above, a non-inherent cause of any cognition which is to occur and inhere in it. That the *manas* must also be in contact with the particular sense-organ (through which the perception is to be brought about) has already been explained in the course of stating the second proof for the existence of the *manas*. We may perhaps say that the conjunction of the *manas* with a particular outer sense, to the exclusion of all the rest, is for directing, as it were, the act of cognition (which comes into being through the contact of the *manas* with the self) specifically to those objects which are in

contact with that particular sense-ogan, keeping off, from the perceptual field, all other objects which may, at the same time, be in contact with certain other sense-organs. The function of this contact of the *manas* with a particular sense-organ would thus seem to be somewhat similar to the function of what in western psychology is indicated by the word 'attention'.

SECTION 7

त—अनुमितिकरणमनुमानम्। परामर्शजन्यं ज्ञानमनुमितिः। व्याप्तिविशिष्टपक्षधर्मताज्ञानं परामर्शः। यथा वह्निव्याप्यधूमवानयं पर्वत इति ज्ञानं परामर्शः। तज्जन्यं पर्वतो वह्निमानिति ज्ञानमनुमितिः। यत्र यत्र धूमस्तत्राग्निरिति साहचर्यनियमो व्याप्तिः। व्याप्यस्य पर्वतादिवृत्तित्वं पक्षधर्मता।

दी—अनुमानं लक्षयति—अनुमितिकरणमिति। अनुमितेर्लक्षणमाह—परामर्शेति। ननु संशयोत्तरप्रत्यक्षेऽतिव्याप्तिः स्थाणुपुरुषसंशयानन्तरं पुरुषत्वव्याप्यकरादिमानयमिति परामर्शे सति पुरुष एवेति प्रत्यक्षजननात्। न च तत्रानुमितिरेवेति वाच्यम्। "पुरुषं साक्षात्करोमि" इत्यनुव्यवसाय-विरोधादिति चेन्न। पक्षतासहकृतपरामर्शजन्यत्वस्य विवक्षितत्वात्। सिषाधयिषाविरहसहकृतसिद्धयभावः पक्षता। साध्यसिद्धिरनुमिति-प्रतिबन्धिका। सिद्धिसत्त्वेऽप्यनुमिनुयामितीच्छायामनुमितिदर्शनात्। सिषाधयिषोत्तेजिका। ततश्चोत्तेजकाभावविशिष्टमप्ययभावस्य दाहकारणत्ववत् सिषाधयिषाविरहसहकृतसिद्धयभावस्याप्यनुमितिकारणत्वम्। परामर्शं लक्षयति—व्याप्तीति। व्याप्तिविषयकं यत्पक्षधर्मताज्ञानं स परामर्श इत्यर्थः। परामर्शमभिनीय दर्शयति—यथेति। अनुमितिमभिनयति—तज्जन्यमिति। परामर्श-जन्यमित्यर्थः॥ व्याप्तेर्लक्षणमाह—यत्रेति। यत्र धूमस्तत्राग्निरितिव्याप्तेरभिनयः। साहचर्य्यनियम इति लक्षणम्। साहचर्य्यं सामानाधिकरण्यं तस्य नियमः। हेतुसमानाधिकरणात्यन्ताभावाप्रतियोगिसाध्यसामानाधिकरण्यं व्याप्तिरित्यर्थः। पक्षधर्मता-स्वरूपमाह—व्याप्यस्येति॥

T. Anumāna is the instrument of inferential knowledge. Inferential knowledge is the knowledge which is caused by parāmarśa. Parāmarśa is the knowledge that a concomitant

of the probandum (vyāptiviśiṣṭa) is a character of the subject (of the conclusion). For instance, the cognition, "This hill possesses smoke which is concomitant with fire" is the parāmarśa (when we prove that the hill possesses fire on the ground that it possesses smoke). The cognition, "The hill possesses fire" which is caused by it (i.e., by the parāmarśa) is called *anumiti* (i.e., inferential knowledge). (Inferential) concomitance is a law of 'being-together' (of the probans and the probandum) such as "Wherever there is smoke, there is fire". The concomitant's being in such things as the hill is what constitutes its 'being a character of the subject'.

D. Anumāna is defined in the sentence, "Anumāna is the instrument...". The defining character of inferential knowledge is stated in the sentence, "Inferential knowledge.....". (It may be objected: This definition of inferential knowledge is too wide and applies to an instance of perceptual cognition which occurs after a state of doubt. For after doubting about (whether a thing is) a post or a person, if there takes place the reflection (parāmarśa), "This is something which possesses hands, etc, which are concomitant with the state of being a person," then, there occurs the perceptual judgment, "This is undoubtedly a person." Nor would it be proper to say that this is (an instance of) nothing but inferential knowledge. For this would go counter to one's inner experience, "I am perceiving a person." But this objection is not sound. For what we intend to state (as the defining character of inferential cognition) is: the character of being caused by reflection (parāmarśa) together with (appropriate) 'subjecthood.' Subjecthood is (constituted by) the absence of 'certainty (about the inferable thing) qualified by the absence of the desire to infer.' Certainty about the inferable thing is an obstacle to inferential knowledge. The desire to infer is a stimulant (to inference), since it is found that there is inferential knowledge when there is the desire, "I will infer," although there is already certainty about the inferable

thing. Therefore, just as the absence of 'a certain precious stone (which obstructs burning) qualified by the absence of (every) stimulant (to burning)' is a cause of burning, similarly the absence of 'certainty (about the inferable thing) associated with the absence of the desire to infer' is a cause of inferential cognition. Parāmarśa is defined in the sentence, "Parāmarśa is....." The meaning (of the sentence) is: That cognition which apprehends the probans to be a character of the subject, and at the same time has, for its object, the concomitance (of the probans with the probandum) is parāmarśa. Parāmarśa is exhibited with the help of an illustration in the sentence, "For instance, the cognition...". Inferential knowledge is explained with the help of an illustration in the sentence, "The cognition, 'The hill...'...". The phrase 'caused by it' means 'caused by parāmarśa.' The defining character of implying concomitance is stated in the sentence, "Concomitance is a law...". The clause, "Wherever there is smoke..." is only a clarification of concomitance with the help of an illustration. The defining character of implying concomitance is: The law of being-together. 'Being-together' means 'being in the same locus'; (and concomitance is) a law of that. The meaning is that concomitance is compresence (of the probans), in the same locus, with the probandum which is not the counter-correlative (*pratiyogin*) of any absolute non-existence which is compresent with the probans. In the sentence, "The concomitant's being...", the true nature of (what is meant by the phrase) 'being a character of the subject' is stated.

E. The word *anumiti* stands for the judgment which is arrived at as a result of the process of inference. The word anumāna, too, sometimes is employed in the same sense. But, here it is distinguished from *anumiti* and is used in the sense of either the five-membered syllogism generating inferential knowledge or the instrument (karaṇa) of valid inferential knowledge. So we have sometimes translated

anumāna as the process of inference and sometimes as the instrument of inferential knowledge. The word 'parāmarśa' means reflection, consideration, etc. Here it has been employed in a technical sense to indicate a peculiar type of judgment which has been defined and explained in the text with an illustration. We have often employed the term reflection as its English equivalent.

The two words, 'pakṣatā' and 'pakṣadharmatā' should be carefully distinguished. Both are used in technical senses. The former literally means the character of being the subject of an inferential cognition, i.e., of subjecthood in respect of the conclusion of a process of inference. For example, in the inference, "The hill has fire, because it has smoke", the hill is the pakṣa or the subject ; and so it has pakṣatā or subjecthood. But in the present context, the word pakṣatā, as already mentioned, is a technical term and has some further signification which is concerned with the question, "What is it that makes a thing the *proper* subject of an inferential judgment ?" Ordinarily, if a person actually perceives fire in the hill, there would not occur in his mind the inferential judgment, "The hill has fire", so that in such a case, the hill would not be, for him, a proper subject, i e., a pakṣa, of an inferential judgment like "The hill has fire". In other words, there would not be in such a case pakṣatā, in the technical sense which we have just explained, and hence there would be no inference either. However, if the person desires to infer fire in the hill, in spite of his perceiving it there, there can arise, in his mind, the inferential cognition that there is fire in the hill, provided, of course, that he sees smoke there and remembers the invariable concomitance of smoke and fire. Hence there can be inference of fire in the hill even when there is certainty about its presence there, if there is, in the knower, the desire to infer it ; and in such a case, there would be pakṣatā, i.e., the hill would be a *proper* subject for the inferential judgment, "The hill has fire." A little consideration would show that so far as

the desire to infer fire and the certainty of fire are concerned, there are three situations in which the inference of fire in the hill is possible and where, therefore, there would be pakṣatā or proper subjecthood in respect of an inferential judgment. These three situations are briefly described below. (1) There is no desire to infer fire, but there is also no certainty that there is fire in the hill—in such a case, by seeing smoke in the hill, it is possible that I should remember the invariable concomitance of smoke with fire and then infer that there is fire in the hill. (2) There is desire to infer, although there is certainty about the existence of fire in the hill—here, too, inference is possible ; for although the certainty about the existence of fire in the hill would be a hindrance to its inference, still the desire to infer would be a stimulant to it. (3) There is desire to infer and there is also no certainty about fire—here inference is possible, since there is not only no hindrance to inference, but there is also an additional incentive to infer. Since in these three situations, the inference of fire in the hill from the observation of its possessing smoke is possible, so there is pakṣatā, i.e. the hill can be an appropriate subject of which fire can be predicated in an inferential judgment. But there is a fourth situation where inference would not be possible, namely where there is certainty about fire and there is also no desire to infer it. This fourth case can be formulated as a case of 'certainty with absence of desire to infer' (siṣādhayiṣā-viraha-viśiṣṭa-siddhi) ; and this, therefore, represents the case where there is absence of pakṣatā. Hence pakṣatā should be expressed by the formula : "Absence of (certainty with absence of desire to infer)". Now the single phrase "Absence of (A with B)" would correctly describe all the cases where we can truly say "Not-both A and B" ; and the following is an exhaustive list of all these cases: (i) Not-A and B, (ii) A and not-B, and (iii) not-A and not-B ; for these are the only cases which refuse to be described correctly by the phrase, 'both A and B'. Similarly, the phrase, "Absence of (certainty with absence of the desire

to infer)" would apply to the following and only the following three cases: (i) no certainty, and absence of desire to infer, (ii) certainty and absence of absence of desire to infer (i.e., desire to infer), and (iii) no certainty and absence of absence of desire to infer (i.e., desire to infer). The Dīpika, here, refers to an analogical formula which is often quoted in books on logic in India—a formula which brings together the kinds of occasion when fire burns and also, by implication, the kind of occasion when it does not burn. In order to appreciate the aptness of the analogy, it is necessary to bear in mind the ancient Indian belief that there are certain precious stones which obstruct the natural power of fire to burn and certain other things which thwart such obstruction and act as stimulants to the burning power of fire. The second kind of things may be called stimulants (*uttejaka*) and the first, obstructions (*pratibandhaka*). Now the formula for describing the case where burning does not take place in spite of the presence of fire is: (an obstruction with the absence of every stimulant). This means that fire will not burn, when there is some obstruction and there is also no stimulant to counteract the obstruction to burning. Hence the cases where there is burning are those where there is "absence of (obstruction with absence of every stimulant)". The phrase put within inverted commas in the foregoing sentence is thus the formula for describing all the occasions when burning takes place. This is analogous to the formula for pakṣatā. Consideration would show that there are three and only three kinds of occasion when buring takes place, namely, (i) when there is some obstruction with absence of 'absence of stimulants', i.e., presence of a stimulant ; (ii) when there is absence of obstruction together with absence of stimulants ; and (iii) when there is no obstruction with absence of 'absence of stimulants', i.e., presence of some stimulant.

The above concept of pakṣatā has been introduced to meet the objection which is raised in the Dīpikā against the Tarkasaṁgraha definition of inferential knowledge. Let us now try

to understand the objection and see how it is met with the help of this concept of pakṣatā. (In the Tarkasaṁgraha, inferential knowledge is defined as that kind of knowledge which is caused by parāmarśa. The judgment, "The hill has fire in it" would be inferential, if it is brought about by such a parāmarśa as "The hill has, in it, smoke which is invariably concomitant with fire.' The objection raised in the Dīpikā against this definition is that it would apply even to an instance of perceptual cognition of the following kind. Suppose that in somewhat indistinct light there is an object (which really is a man) before my eyes. Under these circumstances, it is likely that I shall be in doubt as to what the object in front of me precisely is, whether, for example, it is a man or a post. If now I discern that the object is possessed of hands, ears, etc., I am likely to have the parāmarśa, "This is possessed of hands ears, etc., which are invariably concomitant with the character of being a man." If so, my initial doubt would yield place to the definite judgment, "This is a man." Such a judgment should be considered perceptual, inasmuch as I should actualy be seeing the object to be a man when I make this judgment. Here arises the objection we are trying to explain. Is not the judgment, "This is a man," here, posterior to, and caused by, the parāmarśa, "This is possessed of hands, ears, etc., which are invariably concomitant with the character of being a man"? If so, does not the definition of inferential knowledge given in the Tarkasaṁgraha apply to it? If it thus applies to an instance of perceptual cognition, this definition of inferential knowledge must be too wide. To this objection, the answer given in the Dīpikā is that inferential knowledge is caused not by parāmarśa alone, but by parāmarśa with the co-operation of pakṣatā.)

(The trend of this reply would seem to be that although the perceptual judgment, "This is a man" is caused by parāmarśa and, of course, also by the usual conditions of perception, such as sensory contact with the object, still it is not caused by pakṣatā. Why not? Is it the case that here there is no

pakṣatā at all? That does not seem to be the case. For certainly before the perceptual judgment, "This is a man" takes place, there is no certainty (*siddhi*) about what precisely the 'this' is, since there is doubt about whether it is a person or a post; nor is there the desire to infer (siṣādhayiṣā); and this means that there is the first of the three types of pakṣatā which have been explained above. Now since there is admittedly parāmarśa, too, at the same time, why should we not be able to say that the judgment, "This is a man" is caused by parāmarśa and pakṣatā, as, indeed, it is also caused by the conditions of perceptual knowledge? If so, the definition of inferential cognition as 'that knowledge which is caused by parāmarśa with the assistance of pakṣatā' would apply to this instance of perceptual knowledge. Is not, then, this definition too wide? (Now the scholiast Nīlakaṇṭha remarks in this connection that parāmarśa, in causing a perceptual judgment which occurs after a state of doubt, does not need the co-operation of pakṣatā; so, such a perceptual judgment cannot be said to be caused by 'parāmarśa with the co-operation of pakṣatā'; and hence the definition of inferential knowledge, as amplified in the Dīpikā, does not apply to such a perceptual judgment. But one may still ask, "When both parāmarśa and pakṣatā are present immediately before the judgment under consideration, why should it not be correct to say that both in association with each other have exercised causality in respect of this judgment?" The reply may perhaps be as follows. Parāmarśa, we should remember, is a cause of every type of inferential knowledge, but not of every type of perception—it is a cause of only a particular type of perception, namely that which occurs after a state of doubt. This suggests that the function of parāmarśa in the two cases is not the same. What precisely is its function in the latter case? It would seem that its only role, here, is to prevent the judgment, "This is a post, i. e., not a man," from occurring in the mind, i. e., it functions, here, as something which is antagonistic to the judgment, "This is not a man" which is opposed to the

judgment, "This is a man." It would seem that if a perceptual judgment of this kind is to occur after a state of doubt, something or other must play this antagonistic role in order that the conditions of perception which failed to yield their appropriate result should be able to do so. Now in preventing the opposed judgment from occurring in the mind, parāmarśa certainly does not require the co-operation of pakṣatā. That is to say, pakṣatā has no causal function in respect of preventing this opposed judgment. The upshot of all this is that the perceptual judgment, "This is a man" is not caused by 'parāmarśa in co-operation with pakṣatā,' although one of its causes is parāmarśa; so the definition of inferential cognition, as given in the Dīpikā, does not apply to such a perceptual judgment; and hence this definition is not too wide on this score.

If, however, we keep in view the tenor of Annambhaṭṭa's answer to the objection under consideration, it would appear that he seems to think that there is no pakṣatā at all in such an instance of perceptual judgment. But, as already pointed out by us, Annambhaṭṭa's definition of pakṣatā comes in the way of denying the presence of pakṣatā here. Now some have defined pakṣatā in such a way, that such denial would be justified. In their view, pakṣatā is constituted not merely by the absence of 'certainty qualified by the absence of the desire to infer,' but by this absence together with the absence of the conditions of perception. Since there is not the absence of the conditions of perception, in the present case, consequently there is not pakṣatā either; hence the judgment under consideration cannot be said to be caused by 'parāmarśa in co-operation with pakṣatā'; and this means that the definition of inferential knowledge does not apply to it.

But others are of opinion that the absence of the conditions of perception should not, in this way, be included within the defining character of pakṣatā, since this would unnecessarily make its definition too cumbrous, violating the principle of Occam's razor. In their view, it is sufficient to

recognise that, if in respect of the same object, both the conditions of perception and those of inferential knowledge be simultaneously present, then, the former prevent the latter from exercising their causality, i. e., prevent the occurrence of inferential knowledge, and generate, instead, perceptual cognition. Pakṣatā is indeed constituted by merely the absence of 'certainty qualified by the lack of desire to infer' Thus although our instance of the perceptual judgment, "This is a man" which occurs after a state of doubt is immediately preceded by both pakṣatā and parāmarśa, still inasmuch as there are, at the same time, the conditions of perception, too, and inasmuch as these hinder the process of inference, so the judgment which actually takes place is perceptual. Of course, if there were, in addition, also the desire to infer, the judgment which would have resulted under these circumstances would have been inferential, because the desire to infer is such a stimulant (*uttejaka*) to the process of inference that it can remove every obstacle which may come in the way of inference. But in the instance of the perceptual judgment which is under consideration, there is not this desire to infer; and this is why inference does not take place; instead, it is perception which takes place. Thus although, here, both parāmarśa and pakṣatā are present, still on account of their being obstructed by the conditions of perception, they fail to exercise their causal function; and it is the conditions of perception which prevail and bring about the perceptual judgment, "This is a man." Hence the definition of inferential knowledge (as a cognition which is caused by parāmarśa with the co-operation of pakṣatā) does not apply to this judgment.

For a more exact understanding of the last two ways of meeting the objection in question one may consult Dinakara's commentary on the Muktāvalī passage which gives the definition of pakṣatā.

The Dīpikā analyses the compound word 'vyāptiviśiṣṭa-pakṣadharmatā jñānam' as 'vyaptiviṣayakam yat pakṣadhar-

matā-jñānam,' i. e., the knowledge which apprehends the fact that the probans is in the subject (pakṣadharmatā-jñānam) and also has, for its object, the invariable concomitance of the probans with the probandum (vyāpti-viṣayakam). Ordinarily, the word viśiṣṭa means 'characterised.' But in the present analysis, it is taken in the sense of 'having for its object' (viṣayakam). This is not unjustified. For the object of a cognition can be considered to be adjectival to it, i. e., to characterise it, since the object restricts a cognition to a specific object and thus qualifies it. Cognition, as such, may be of anything whatsoever. But the cognition of a pot is restricted to a pot, so that the pot, here, is adjectival to it.[24]

It should be observed that the definition of invariable concomitance (vyāpti) which is given in the Dīpikā is in terms of the probans and the probandum and not in terms of any two things indifferently. That shows that the word vyāpti, here, is specifically restricted to the relation of regular compresence, in the same locus, between the probans and the probandum. This is why we have occasionally translated this word as 'inferential or implying concomitance,' though, for the sake of brevity, we have also employed the single term concomitance as its English equivalent. The correct rendering of the word 'vyāpti', as technically employed in Indian logic, is not concomitance as such, much less pervasion,[25] but 'implying or inferential concomitance', i. e., concomitance between the things denoted by the middle and the major terms of an

24 The compound word in question should not be analysed as vyāptiviśiṣṭe pakṣadharmatā taj-jñānam, i.e., it should not be taken to mean that the concomitant probans (vyāpti-viśiṣṭa) is in the subject. For this would not apply to parāmarśa in the case where the probans is not concomitant with the probandum, though it is mistakenly taken to be so, since there would not be, here, a *concomitant* probans (vyāptiviśiṣṭa). Vide Nīlakaṇṭha's scholium.

25 Of course, the Sanskrit word vyāpti ordinarly does mean 'pervasion'. But in the context of inference, it is employed in a technical sense which has been defined in the Dīpikā and which could hardly be interpreted as pervasion.

Aristotelian syllogism. Further, this vyāpti or concomitance is not 'compresence of the probans and the probandum in the same locus' in only a single instance or even a large number of instances, but it is a universal law of compresence, or regular compresence.

What is it that constitutes the universality or regularity of the compresence? Strictly speaking, a law means a rule which has no exception. But what is the meaning of 'having no exception'? This means that there must not be any locus on earth (past, present or future), where the probans is, but the probandum is not, although it goes without saying that there must be some locus where both probans and probandum are. The definition of vyāpti given in the Dīpikā states all these essential factors of vyāpti in a single and short sentence. Before explaining this definition, we shall try to remove certain initial difficulties.

The word 'atyantābhāva' means 'absolute non-existence.' But this 'atyanta' or absolute is not to be taken quite literally. Nyāya divides non-existence into two principal classes: (i) Non-existence in respect of association (saṁsarga) and (ii) non-existence in respect of identity (tādātmya). The latter is called anyonyābhāva or *bheda* which means difference. This is illustrated in the statement, say, 'Wood is not iron.' What is denied by this statement is the identity of wood with iron.[26] The former kind of non-existence has three sub-classes. First, there is what is called prāgabhāva, i. e., the prior non-existence of a thing; we have to recognise the reality of this type of non-existence of a thing before it originates; for before a pot, for example, comes out of the potter's wheel, it was not, i.e., it was non-existent. Secondly, there is what is called pradhvaṁsa, i.e., the non-existence of a thing, which is constituted by its destruction—after a pot is destroyed by the stroke, say, of a rod, it is once more non-existent. In contrast

26 Thus difference is considered to be a mode of non-being (abhāva). This reminds one of Plato's Theaetetus where non-being is shown to be difference.

to the prior non-existence of a thing, this type of non-existence can perhaps be entitled 'posterior non-existence,' though as matter of fact pradhvaṁsa has not been so named; and we shall, on occasions, refer to pradhvaṁsa as posterior non-existence. Prior non-existence is considered to be beginningless in time (anādi), but to have an end (sānta); for before the pot comes into existence, it is not existent at any point of time whatsoever; and after the pot comes into existence, its prior non-existence ceases to be. In contrast to this, pradhvaṁsa has a beginning in time (sādi), but no end (*ananta*); for the destruction of a thing is an event that occurs; and the cessation of the destruction of a thing would amount to its revival, but nobody believes that after an individual thing is once destroyed, the same individual thing can again be brought back into existence. Thirdly, there is that kind of non-existence of a thing which is expressed by such statements as "There is no colour in air" or "There is not my red inkpot on the table." This non-existence it is which is called atyantābhāva or absolute non-existence. It is so named because it is eternal, while the other two species of saṁsargābhāva are not so—the first has an end, and the second a beginning in time. It may be easy to understand that the absence of colour in air is eternal and hence absolute, since colour is never present in air. It is, however, difficult to see how the absence of a particular pot (or for the matter of that, of pots in general) on the table could be considered eternal; for certainly if I bring the pot and lay it on the table, it would no longer be true to say that there is its absence on the table. This difficulty is removed by the hypothesis that although the said non-existence of the pot is real even when the pot is kept on the table, still the said non-existence becomes disconnected with the table and so cannot be perceived there at that time. Thus the precondition of perceiving this kind of non-existence is that there should be, in its locus (which, in the present case, is the table), either the prior or the posterior non-existence of the *conjunction* of the pot. That is to say, the non-existence

of the pot is an eternal thing, and is usually also connected with objects like tables except when the pot is in conjunction with them. We can perceive this non-existence only when the pot is not conjoined with the table (this is the time when there is the prior non-existence of the conjunction of the pot with the table) or when such conjunction of the pot with the table comes to an end (and this would be the occasion when there would be the posterior non-existence of the said conjunction). When somebody keeps the pot on the table, there is no longer the prior non-existence of the pot's conjunction with the table; hence at that time, the absolute non-existence of the pot cannot be perceived on the table. Similarly, when somebody removes the pot from the table, there is there, at that time, the posterior non-existence of the said conjunction (ghaṭa-saṁyoga-dhvaṁsa); and hence the absolute non-existence of the pot can be perceived on the table, again. This would appear to many to be a very strange view. As far as we can see, the only argument in favour of it is that it is favoured by the law of parsimony (lāghava). As a matter of fact, certain philosophers of even the Nyāya school used to maintain that this type of non-existence which is expressed by a judgment like "There is no pot on the table" should be regarded not as eternal but occasional (sāmayika)—it can be brought about and destroyed—when the pot is kept on the table, this non-existence is destroyed, and when the pot is removed from there, another such non-existence of the pot on the table originates, and so on. This theory is rejected on the ground that this has to postulate an infinite number of non-existences of the pot, although the supposition of a single non-existence would subserve all theoretical and practical purposes in the matter. It should be remembered that all these three types of non-existence which we have considered just now are in respect of the association (saṁsarga) of one thing with another. Thus the prior non-existence of a particular pot (prāgabhāva) can be described by the statement that before the origination of the pot, the pot is not in association with the material

(such as earth) of which it is made; posterior non-existence (pradhvaṁsa) of the pot can be described by the statement that after the pot is destroyed, it is not in association with the (broken) parts of the pot; and finally, the absolute non-existence of the pot on the table can be described by the statement that the pot is not in association with the table, at any time.

Difference or non-existence in respect of identity, too, is, like absolute non-existence, considered to be eternal. A table is *always* different from a pot. This difference cannot be said to begin at one time and end at another. Although difference (anyonyābhāva) and absolute non-existence (atyantābhāva) are both thus eternal, still the one is distinguished from the other on the ground that while the negation involved in the first is in respect of identity (tādātmya), that involved in the second is in respect of association (saṁsarga).

It may now be somewhat easier to understand the definition of vyāpti or inferential concomitance. We should bear in mind that this vyāpti is a character of the probans, i. e., of smoke in our stock example of inference. Of course, this is only a relative character of smoke, a character which it has only in relation to the probandum fire. A probans would possess this relative character of vyāpti in relation to a probandum which is such that it is never absent from the locus in which the probans is present. Such a probandum is described technically as a probandum which is not the counter-correlative (*pratiyogin*) of any absolute non-existence which is compresent with the probans in the same locus; and vyāpti is defined as 'compresence in the same locus' (sāmānādhikaraṇya) with a probandum of this description. Vyāpti is regular (*niyata*) compresence of the probans, in the same locus, with the probandum. Dropping the word, 'regular,' but retaining what it means, this very idea of vyāpti is technically expressed by saying that vyāpti is the compresence of the probans, in the same locus, with a probandum which is not a counter-correlative of any absolute non-existence which is compresent, in the same locus, with the probans.

SECTION 8

त—अनुमानं द्विविधं स्वार्थं परार्थं च। तत्र स्वार्थं स्वानुमिति-हेतुः। तथा हि स्वयमेव भूयो-दर्शनेन यत्र धूमस्तत्राग्निरिति महानसादौ व्याप्तिं गृहीत्वा पर्वतसमीपं गतस्तद्वते चाग्नौ सन्दिहानः पर्वते धूमं पश्यन् व्याप्तिं स्मरति यत्र धूमस्तत्राग्निरिति। तदनन्तरं वह्निव्याप्यधूमवानयं पर्वत इति ज्ञानमुत्पद्यते। अयमेव लिङ्गपरामर्श इत्युच्यते। तस्मात् पर्वतो वह्निमानिति ज्ञानमनुमितिरुत्पद्यते। तदेतत् स्वार्थानुमानम्।

दी—अनुमानं विभजते—अनुमानमिति। स्वार्थानुमितिं दर्शयति—स्वयमेवेति। भूयोदर्शनेनेति। धूमाग्न्योर्व्याप्तिग्रहे साध्यसाधनयोर्भूयः सहचारदर्शनेनेत्यर्थः। ननु पार्थिवत्वलोहलेख्यत्वादौ शतशः सहचारदर्शनेऽपि वज्रादौ व्यभिचारोपलब्धेर्भूयोदर्शनेन कथं व्याप्तिग्रह इति चेन्न। व्यभिचारज्ञान-विरहसहकृतसहचारज्ञानस्य व्याप्ति-ग्राहकत्वात्। व्यभिचारज्ञानं द्विविधम्, निश्चयः शङ्का च। तद्विरहः क्वचित्तर्कात्क्वचित् स्वतःसिद्ध एव। धूमाग्निव्याप्तिग्रहे कार्यकारणभावभङ्गप्रसङ्गलक्षणस्तर्को व्यभिचारशङ्का-निवर्तकः॥ ननु सकल-वह्निधूमयोरसन्निकर्षात् कथं व्याप्तिग्रह इति चेन्न। *धूमत्ववह्नित्वरूपसामान्यलक्षणप्रत्यासत्त्या सकलधूमवह्निज्ञानसम्भवात्।* तस्मादिति लिङ्गपरामर्शादित्यर्थः।

T. (The process of) inference is of two kinds: that which is meant for one's own self and that which is meant for others. Out of these (two), that which is meant for oneself is the cause of inferential knowledge for one's own self. To explain this. A person himself knowing, by repeated observation, in such places as a kitchen, the regular concomitance (expressed by the sentence), "Wherever there is smoke, there is (also) fire," goes near a hill; going there, he has some doubt about (the existence of) fire (in the hill) and seeing smoke in the hill

remembers that wherever there is smoke there is fire. Then, there arises (in him) the cognition, "This hill possesses smoke which is concomitant with fire." This (knowledge) it is which is called the reflection or consideration of the sign or probans (liṁgaparāmarśa). From this (reflection of the sign), there arises the cognition which is the inferential knowledge, "The hill possesses fire." This is (what is called) inference for one's own self.

D. Inference is divided into its kinds by the sentence "The process of inference is.....", Inference for oneself is shown (by an example) in the sentence, "A person himself knowing.....". The phrase 'by repeated observation' means 'in knowing the concomitance of smoke and fire which are respectively the probans and the probandum, by observing (the fact of) their being together.' The objection may be raised: Inasmuch as even by observing, hundreds of times, (this type of) "being together' as (is exhibited in) 'an earthen article and the possibility of writing on it with a piece of iron',[27] it is found that this rule has exceptions in such instances as a piece of diamond, how can uniform concomitance be known for certain by repeated observation? But this objection is not valid. For it is the knowledge of compresence together with the absence of the apprehension of exceptions which causes the certain knowledge of uniform concomitance. *The apprehension of exceptions is of two kinds: certainty* and doubt.[28] The absence of this (i.e., of doubt in regard to exceptions) sometimes arises out of *tarka*[29] and on occasions

27 The suggested uniform rule is of the type: Whatever is made of earth can be scratched with a piece of iron. This suggested rule has an exception in the case of diamond which is nothing but a mode of earth.

28 Doubt is, like certainty, considered to be a cognitive mode of the mind.

29 *Tarka* is a sort of *reductio ad absurdum* reasoning. For example, the *tarka* which is usually resorted to for removing one's doubt about the concomitance of smoke with fire assumes the form: "If smoke were not accompanied by fire in some cases, then, it would not be caused by fire".

it is there of itself. In knowing the regular concomitance of smoke with fire, a *tarka* which consists in (showing that) a breach in the cause-effect nexus (would be involved if the invariability of the concomitance is not granted) removes the doubt that there may be exceptions.

One may raise the objection: Since all instances of fire and smoke are not near (the sense-organs), how can (their) regular concomitance be known? But this objection is not proper. For the knowledge of all instances of fire and smoke is possible through that type of (extraordinary) sensory contact which is constituted by the common features firehood and smokehood. The phrase 'from this' means 'from the reflection of the sign'.

E. Obviously, the first kind of inference is the primary one, and the second is based on it. The first is called 'inference for the purpose of oneself'. What is this purpose? As is implied by the clause in the Tarkasaṁgraha, "he has some doubt about fire", this purpose is to remove such doubt concerning the existence of the probandum (fire) in the subject (hill).

In the Tarkasaṁgraha, it is said that the apprehension of concomitance between the probans and the probandum is brought about by repeated observation of their compresence in the same locus. In the Dīpikā, a difficulty is raised regarding the efficacy of repeated observation for producing such apprehension. It is pointed out that in spite of repeated observation of the compresence of two things, it is occasionally found to have some exceptions. One who knows this can hardly be certain that one thing is invariably concomitant with another merely on the ground of one's repeated observation that the two things have till now been found to go together. For example, it is found that a suitably shaped piece of iron can make indents into anything made of earth—iron being harder than earth. From this, one may think that there is invariable concomitance between an earthen object and the possibility of writing on it with a piece of iron. But

this thought is falsified by the observation that iron can make no indent on a piece of diamond which is nothing but earth in its constituents.[30]

In answering this objection, the author grants, by implication, that repeated observation by itself would not produce certainty in regard to the concomitance of two things. What, in his view, can produce such certain knowledge is the observation (not necessarily repeated) of compresence together with the *absence of knowledge* of non-compresence. That is to say, concomitance of A with B is known with certainty, when we know one or more instances where they go together and when we are, at the same time, not aware of any instance where A is present without being accompanied by B.

Those who have the same sceptical attitude as modern logicians of the west have in regard to the validity of the inductive process will not be satisfied with this Nyāya view about how the certain knowledge of the regular concomitance of one thing with another is attained. For absence of knowledge of exceptions is not equivalent to the knowledge of the absence of exceptions ; and it is the knowledge of such absence of exceptions which alone (together, of course, with the knowledge of compresence) can yield the certain knowledge of regular concomitance. We may not be aware that there is any case where A is present but B is not ; nevertheless, there may be such instances.

But this dissatisfaction with the Nyāya theory for the apprehension of a universal rule is partially due to not properly understanding the precise nature of the question which has been raised and answered by Nyāya in this connection. The question raised is not, "How do we know the validity of

30 Diamond, when put under great heat, is reduced to charcoal, just like anything which is known to be earth ; but iron, silver and gold do not change into charcoal even under intense heat, although they, then, assume liquid forms. This shows that while diamond is made of earth atoms, iron, silver and gold are not so. These latter were believed to be made of atoms of fire.

our knowledge of a universal rule ?" On the contrary, the question is merely, "How do we get certain knowledge of such a rule ?", and the word 'certain', here, refers to subjective certainty. It is this question which Nyāya answers by saying that such knowledge arises when we are aware of one or more instances where the two things under consideration are compresent, provided, however, we are not aware of any instance to the contrary. If for some reason we have either doubt or knowledge of contrary instances, then, such certain knowledge of a universal connection between A and B cannot arise even if such a connection be a fact. In case there is the knowledge of compresence and there is no awareness of any exception, there will occur the knowledge or belief that there is such regular connection between A and B, even if such connection be not a fact. Of course, the question would still remain, "How to know that such certain knowledge of a universal connection is valid ?" Or what comes to the same thing, How to ascertain that there is, in fact, such a universal connection? Nyāya may be supposed to offer the following answer to this. The question of validity can be raised even in regard to the perceptual knowledge of a single instance of compresence of A with B in the same locus. In fact, most cases of perceptual judgment involve the knowledge of the compresence (not necessarily universal) of two things such as A and B in the same locus. For instance, the perceptual judgment, "This flower is red" involves the cognition of the 'compresence of flowerhood and redness in the same locus,' the same locus here being indicated by the term, 'this'. Psychologically, this judgment is altogether devoid of any doubt and can rightly be described as a certainty. Still, since we detect that we are, on occasions, mistaken in such cases of perceptual judgment, doubt may arise in our mind whether or not the 'this' is really characterised by flowerhood or by redness or by both. Of course, in the case of the awareness of a *universal* relation of compresence in the same locus between two things A and B, there is some additional problem. For,

here, the judgment pertains to all instances of A (past, present and future, near the sense-organs and very far from them) although it is not possible to observe more than only a very small number of these practically innumerable instances of A. For this additional problem connected with the cognition of a universal rule of connection between two things such as A and B, Nyāya offers a theoretical solution which we shall consider presently.[31] Meanwhile, we may notice that the question of validity can properly be raised in regard to every piece of judgmental cognition, whether perceptual or non-perceptual, whether of an individual thing or of a universal characteristic of certain individual things. How, then, is doubt in regard to the validity of a piece of knowledge removed? Practically considered, the answer is: By employing methods which are recognised by mankind in general and supported by his accumulated experience, or in more complicated cases, by the methods which are recognised by the experts in the various branches of practical knowledge. Theoretically considered, the answer of Nyāya to this question is: The validity of a piece of knowledge in regard to which there is doubt is ascertained by inference based on the success of purposeful activities which may be initiated by such a piece of knowledge. For instance, I may have the perceptual cognition: "There is water near the foot of the tree." If I have doubt about the validity of this knowledge, I may proceed toward the tree and actually see whether or not I can wash my hand or quench my thirst with what I took to be water. If I can, I infer that my perceptual judgment in regard to the presence of water at the foot of the tree is valid. The validity of a cognition of universal concomitance would be ascertained in the same way.

But one may think that this involves circularity, since, here, the *validity* of the cognition of concomitance is sought to be ascertained by inference, while inference on its part

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31 See pages 82-84 of the present treatise.

depends on the *valid* cognition of concomitance. However, a little consideration would show that it really involves no such circularity. For, here, it is not proposed that the validity of the cognition of a universal connection in general is to be ascertained by inferential knowledge in general. What is suggested is merely that the validity of the cognition of a particular universal connection such as "Wherever there is smoke, there is fire" is ascertained with a particular type of inferential knowledge. Although this latter depends on the valid knowledge of some universal connection, still this universal connection is not identical with the universal connection, "Wherever there is smoke, there is fire." The universal concomitance the cognition of which is required by the validating inference is: Whatever knowledge leads to successful activity is valid. It may be asked, "What is the validating ground for the cognition of this universal connection between the validity of a cognition and any successful activity which the cognition initiates?" This is a somewhat perplexing question, and we doubt if any philosopher of any school would be able to give a wholly satisfactory answer to such an ultimate question—it may not be possible to give the validating ground of a validating ground. Perhaps in support of the Nyāya doctrine that whatever knowledge leads to successful activity is valid, a modern analyst may urge that the proposition, "Valid knowledge is that which initiates successful activity" is an analytic proposition, and so is necessarily true—valid knowledge is but a name for that kind of cognition which can lead to successful activity connected with its specific object. Nyāya, however, would not go so far with the analyst as to say that this proposition is only a definition of valid knowledge (in the modern analyst's sense of definition). Let us remember that the Nyāya definition of valid cognition, in simple (if not quite exact) language, is: A cognition is valid, if its predicate is something which is a character of its subject. Now Nyāya would maintain that if anybody raises a doubt about the universal connection

expressed by the judgment, "Whatever knowledge can initiate successful activity connected with its specific object is valid" can be made to see the unreasonableness of such doubt by means of a *tarka* which is based on the Nyāya definition of valid cognition. This *tarka* may be supposed to assume some such form as the following: Suppose that in a certain case, a piece of cognition which initiates some successful activity is not valid. If so, the said successful activity must be due to an invalid cognition, But this is absurd. For in no case would it be true to say that a piece of invalid cognition leads to any successful activity which is specifically connected with the object of that cognition. Let us try to justify this statement. Suppose that I take the content of a bottle to be spirit, while, as a matter of fact, it is water. If now in accordance with my judgment, I intend to ignite fire by putting a burning match-stick on to a portion of this content poured on the floor of the room, can anybody, in his senses, maintain that this activity initiated by my judgment about the contents of the bottle would be successful? The supposition that it might be successful is self-contradictory. For to take water to be spirit and on the basis of this wrong belief to get a result which is specifically connected with spirit would involve the belief that water is spirit, i.e., water is not water—and this is a plain case of self-contradiction. Of course, this would not silence an inveterate sceptic of a philosopher. Just now, we cannot do more than put a simple question to him, and it is this: "Do you understand the meaning of a wrong judgment unless you take some other judgment in the same connection to be valid, a judgment which, to say the least, directly or indirectly, denies, of the subject, the predicate which the wrong judgment has attached to it? If so, how can every piece of knowledge be possibly wrong? If not, how would you ascertain which piece of knowledge is not actually wrong?" The sceptic can still maintain that in the case of no cognition can this be ascertained satisfactorily. We may again ask him if the correctness of this view which

he is maintaining just now is capable of being ascertained satisfactorily. But the sceptic can once more reply in the negative. To our further questions of the same nature, he may reiterate the same negative answer. Although this may be irritating to certain temperaments, it must be admitted that such an answer is not inconsistent with the general philosophical view of the sceptic. For his position is that no judgment including the one which represents his own position can ever be known to be indubitably true. What, however, appears to us to be wrong in this procedure of the sceptic is his belief that such an admittedly dubitable general proposition of such vague import can either logically or psychologically affect our common sense belief in regard to the validity of such particular judgments as "This is an inkpot", especially when all genuine doubts in regard to their truth have been removed by the recognised methods of verification. If thus this belief of the sceptic is wrong, the ascertainment of the validity of judgments like "This is an inkpot", by the sort of inference which is suggested by Nyāya, would seem to be justified and hence also the ascertainment of the validity of the cognition of vyāpti or inferential concomitance.

To return now to the subject under discussion, namely, how precisely vyāpti is apprehended. We have seen that the invariable concomitance of A with B is apprehended by the observation of some instances where they are together, provided that at the time of such observation there is no cognition of any contrary instance where A is present, but not B. The Dīpikā says in this connection that the cognition of a contrary instance (vyabhicāra which literally means inconstancy) may be either certainty or doubt. That is to say, one would not judge that there is invariable concomitance between smoke and fire by simply knowing that they are compresent in certain instances which one has observed, if at the same time one has either doubt that in some cases there may be smoke without fire, or certain knowledge that in some instances smoke is present without being accompanied by fire,

Psychologically, the correctness of this statement can hardly be disputed. What, however, may appear somewhat strange is the remark of the Dipikā that the cognition of exceptions (vyabhicāra) may be either doubt or certain knowledge, implying thereby that doubt, too, is a mode of knowledge. For when I am in a state of doubt about something, I cannot be said to know it. But this strangeness would disappear if we realise that the word jñāna which we have rendered as knowledge or cognition has a wider meaning than these English words. Perhaps jñāna means any mode of consciousness of some object. Doubt, too, would seem to be some sort of consciousness of an object. If so, it would fall under jñāna. Doubt (saṁśaya) is contrasted with certain knowledge (niścaya). Be that as it may, it is evident, however, that if there be either certainty or even doubt that there are exceptions to a suggested invariable rule, one cannot have certain knowledge that there is such an invariable rule.

We have already pointed out that the question of validity can be raised in regard to the knowledge of even an individual object and not merely in regard to the knowledge of a universal rule. But we also admitted that there is a special difficulty connected with the apprehension of a universal rule which connects all the things of a certain class with some or all things of another class. Before considering the solution which Nyāya offers to this difficulty, it is well to remember that this is not the difficulty of ascertaining the validity of such knowledge of universal concomitance. The difficulty in question is: "Since Nyāya maintains that the invariable concomitance of smoke with fire is originally known by perception, Nyāya should be able to show how it is possible to bring all instances of smoke (near and far, and past, present and future) within the purview of the senses. Not only that. Those instances of fire, too, which are compresent with the various instances of smoke should similarly be capable of being brought within the reach of the senses. But how can that be possible?" To this, Nyāya replies as follows. When

I perceive a single instance of smoke as smoke, in the judgmental form, "This is smoke". I in a way perceive what smoke is and thus all instances of smoke. That this is so is also shown, as Nyāya contends, by the fact that when a person perceptually knows a certain instance of the compresence of smoke with fire in the same locus such as his kitchen, he sometimes has the perceptual doubt, "Do all instances of smoke have this sort of compresence with fire or not?" If all instances of smoke were not by some means or other perceptually preseht to him, he could not possibly have a perceptual doubt in regard to *them* as to whether or not they, too, possess this character of compresence with fire, which is perceived by him now to be a character of the smoke in his kitchen. This means that in perceiving a particular instance of smoke, a person perceives, in some sense, every other instance of it. Of course, the two perceivings would be of different kinds. My perceptual knowledge of the smoke in my kitchen would differ in kind from the perceptual knowledge which I can have of every other instance of smoke through it. If we give the name ordinary (*alaukika* pratyakṣa) to the first kind of perceptual knowledge of smoke, then, the second type can be named 'extraordinary' (*alaukika* pratyakṣa).

Perceptual knowledge, as we have seen, always requires some kind of sense-contact with its object. Now the question is: "What can possibly serve as the relation or contact between the senses and those instances of smoke which are not physically present near the senses and cannot be said to be in ordinary contact with them?" Nyāya's answer is that the common character 'smokehood' (which is present in all instances of smoke, and on account of which smoke is smoke) is capable of serving as the connecting link between the senses and these remote instances of smoke, provided, however, that one instance, at least, of smoke is physically near enough to the senses so as to be in ordinary contact with them. In consonance with the term 'extraoadinary perception,' the sensory contact which brings about such

perception is called 'extraordinary sense-contact' (*alaukika sannikarṣa*).

There are two other types of extraordinary sense-contact with objects, bringing about extraordinary perception. These are entitled 'jnāna-lakṣaṇa-sannikarṣa' and 'yogaja-dharma-sannikarṣa.' The former has been briefly explained by us in Section 22.[32] The latter means the sort of sensory contact which a *yogin* is believed to have with distant, past and future objects so as to be able to know them perceptually. This type of extraordinary sense-contact is believed to be due to some extraordinary property which accrues to a *yogin* on account of his practice of *yoga*, i.e., of deep concentration and control of mind.

32 See p. 219 of the present treatise.

SECTION 9

त—यत्तु स्वयं धूमादग्निमनुमाय परप्रतिपत्त्यर्थं पञ्चावयववाक्यं प्रयुङ्क्ते तत् परार्थानुमानम्। यथा पर्वतोवह्निमान् धूमवत्वात्। यो यो धूमवान् स वह्निमान् यथा महानसः। तथा चायम्। तस्मात्तथेति। अनेन प्रतिपादिताल्लिङ्गात् परोप्यग्निं प्रतिपद्यते। प्रतिज्ञाहेतूदाहरणोपनयनिगमनानि पञ्चावयवाः। पर्वतोवह्निमानिति प्रतिज्ञा। धूमवत्त्वादिति हेतुः। यो यो धूमवान् स सोऽग्निमान् यथा महानस इत्युदाहरणम्। तथा चायमित्युपनयः। तस्मात्तथेति निगमनम्॥

दी—परार्थानुमानमाह—यत्त्विति॥ यच्छब्दस्य तत्परार्थानुमानमिति तच्छब्देनान्वयः॥ पञ्चावयववाक्यमुदाहरति—यथेति॥ अवयवस्वरूपमाह—प्रतिज्ञेति। उदाहृतवाक्ये प्रतिज्ञादिविभागमाह—पर्वतो वह्निमानिति। साध्यवत्तया पक्षवचनं प्रतिज्ञा॥ पञ्चम्यन्तं लिङ्गप्रतिपादकं वचनं हेतुः। व्याप्तिप्रतिपादकमुदाहरणम्। पक्षधर्मता-ज्ञानार्थमुपनयः। अबाधितत्वादिकं निगमनप्रयोजनम्॥

T. But that statement having five members, which a person, after having himself inferred fire from smoke, employs for (producing inferential) knowledge (of fire) in other persons is (the process of) inference which is meant for others. For instance, "The hill has fire, on account of (its) possessing smoke; whatever is possessed of smoke is (also) possessed of fire, as for instance, a kitchen; this (hill) is also like that (i.e., like a kitchen it is possessed of smoke); on account of this, it (i. e., the hill) is like that (i. e., like a kitchen, it is possessed of fire)." Even another person knows fire (inferentially) from a sign or probans which is made known to him by this (five-membered statement). The five members are: (i) the Asser-

tion (of the proposition to be proved), (ii) the Reason, (iii) the (statement containing the) Illustration (which exhibits the invariable concomitance of the probans with the probandum), (iv) the Application (of this invariable concomitance to the case under consideration), and (v) the Conclusion. The hill possesses fire—this is the Assertion; "On account of its possessing smoke"—this is the Reason; "Whatever possesses smoke possesses fire, as for instance a kitchen"—this is the Illustration; "This (hill) is also like that (i.e. like a kitchen in respect of possessing smoke)"—this is the Application; (and) "On account of this, it (i. e., the hill) is like that (i. e., like a kitchen in respect of possessing fire)"—this is the Conclusion.

D. (The process of) inference which is meant for others is described in the sentence, "But that statement...". Here, the word 'which' (preceding the words 'a person') is related to the word 'that' in the clause, "*that* statement...is inference meant for others." An illustration of the five-membered statement is given in the sentence, "For instance, the hill has fire...". The members themselves (svarūpam) are mentioned (with their names) in the sentence, "The five members are..." The (five) divisions, such as the Assertion, in the sentence which is cited as an illustration, are indicated in the sentence, "The hill possesses fire...." The Assertion is the statement about the subject as possessing the probandum. The statement which ends in the fifth case-ending (indicating 'on account of') and makes known the mark or probans is the Reason. The Illustration is the statement which makes known the implying concomitance (vyāpti). The Application is intended to produce the cognition of the (concomitant's being) a character of the subject. The purpose of the Conclusion is (to indicate) the uncontradictedness, etc. (of the probans).

E. The process of inference which is meant for other persons is often referred to in English as 'the five-membered

syllogism of Indian logic' in contrast to the three-membered Aristotelian syllogism. But there are schools of Indian philosophy which, too, recognise only three members which would appear to be more or less similar to the three members of the Aristotelian syllogism in Barbara; and even Nyāya writers often adduce only three or sometimes even only two such propositions in support of their theses, although they would contend that they are to be taken only as abbreviated forms of the full five-membered syllogism. But it is worth noting that Indian logicians were quite aware, and explicitly stated, that these different members are parts of a single complex statement. Of course, this is implied even in western logic by the prefix 'syl' (meaning combination or simultaneity) which forms part of the word 'syllogism,' although this fact has been explicitly recognised only in modern times.

Parārthānumāna, i. e., inference meant for other persons, is also known as nyāya, which, then, is to be understood in a technical sense and not as the name of a particular school of Indian philosophy. As already mentioned by us, the express purpose of this Indian syllogism is to produce, in other persons, that reflection about the probans which is called parāmarśa.[33] In other words, the Indian syllogism is intended to produce, in the mind of the hearer or the reader, what is called pakṣadharmatā-jñāna, i. e., the knowledge that the probans which is concomitant with the probandum is a character of the subject of the conclusion. This can be contrasted with Aristotle's notion of the syllogism as something in which certain things being supposed something else follows necessarily, solely in virtue of the suppositions themselves.[34] This idea of 'following necessarily from certain presuppositions' would seem to be foreign to the Indian notion of in-

33 Cf. Anumiti-carama-kāraṇa-liṅgaparāmarśa-prayojaka-śābda-jñāna-janaka-vākyam.

34 Aristotle: Prior. Analyt. Bk. I. Ch. I., Sec. 7.

ference (anumāna). Parārthānumāna or nyāya is concerned with the generation, in the mind of the hearer or the reader, a certain piece of inferential knowledge which the speaker or writer himself has acquired by the observation of the sign or probans at a certain place and by remembering that the sign is invariably concomitant with the probandum or thing to be proved. The Indian theory of inference is concerned with the aetiology of the mode of mediate cognition, which is called inference; while the Aristotelian theory of inference is concerned with the question as to how certain propositions involve or entail a new proposition different from those which involve it. This partially explains why the Aristotelian syllogism comprises only three propositions, while the Indian, five. The former cannot have within it more than just that number of propositions which can be said to involve the conclusion, neither less nor more. The Indian syllogism, however, attempts to give an account of how a person who has himself attained some inferential knowledge can, with the help of words and avoiding all irrelevant matter, produce, in other persons, the same inferential knowledge by the same process in which it originated in his own mind. So it tries to secure, first of all, the attention of the hearer to this piece of knowledge which has occurred in himself. That is the purpose of the Assertion (pratijñā) or the enunciation of the unproved conclusion, "The hill has fire". Since this is still unproved to the hearer, it is natural to expect that he would ask the question, "Why?" Hence comes the next clause called the Reason, namely, "Because the hill possesses smoke." But at this, the critical hearer would naturally think, "What's of that? Certainly, smoke is not fire. Let there be smoke and still there may be no fire in the hill." This legitimate doubt is removed by the third step called the Illustration, namely, "Wherever there is smoke, there is also fire, as for example, in a kitchen." The third step either takes it for granted that the hearer is already acquainted with the fact of the invariable concomitance of smoke with fire and merely

serves to remind him of this fact, or brings this fact to his notice, for the first time, with the help of an illustration.

This explicit enumeration of these three steps would appear to many persons to be quite sufficient for generating the certain knowledge of the conclusion which was enunciated in the first step. Nyāya would grant this in a way, but would insist that before the conclusion would emerge in the mind of the hearer as fully established, another cognitive step would be necessary, namely, a complex judgment asserting that there is, in the hill, smoke which is invariably concomitant with fire. Of course, he has already remembered that smoke is concomitant with fire; and before this, he has also noticed that there is smoke in the hill. Even so, it is further necessary that he should combine this remembered fact of concomitance with the observed presence of smoke in the hill. Else, the two judgments (namely, the memory judgment about concomitance and the perceptual judgment about the presence of smoke) cannot separately give rise to the knowledge that there is fire in the hill. Even formally in the way in which Aristotelian logic understands the syllogism, the two propositions, "Wherever there is smoke, there is fire," and "There is smoke in the hill" cannot, independently of each other, involve the proposition, "There is fire in the hill." It is only their combination in the mixed proposition, "Wherever there is smoke, there is fire, *and* there is smoke in the hill" which involves and can yield such a conclusion. It would appear, however, that the combination of the two propositions through the middle term 'smoke' is better achieved by the *complex* proposition, "There is. in the hill, smoke which is invariably concomitant with fire", And this is precisely the fourth step of the Indian syllogism, called the Application (*upanaya*). This is briefly expressed by the sentence, "This too, is like that." With reference to the context, this means "This hill, too, is like a kitchen in respect of possessing smoke which is invariably concomitant with fire." The judgment which occurs in the mind of the hearer, after he

hears the statement, "This, too, is like that" would be, "The hill has smoke which is universally concomitant with fire." This complex judgment is called the 'reflection about the mark' (liṁga-parāmarśa). In the view of Nyāya, this complex judgment is essential for the origination of the inferential knowledge of fire in the hill from the knowledge of smoke, there. This may not always be clearly and distinctly present in the mind of the hearer. Nevertheless, Nyāya maintains that this must be present there before one actually has the knowledge of the conclusion as established.

The fifth step of the Indian syllogism, called the Conclusion (*nigamana*) merely repeats the initial assertion, with only this difference that this now is stated as established—the difference being indicated by the word 'tasmāt', meaning 'on account of this', i. e., on account of there being no flaw in the mark or probans, or on account of the flawlessness of smoke as a sign for inferring fire.

About the precise number of steps in this syllogism, there has been a good deal of discussion and controversy among the various schools of Indian philosophy. Thus Vātsyāyana, the commentator of Gautama's Nyāya Sūtras, refers to an ancient school of even Nyāya philosophy which recognised ten steps including the five admitted by Gautama. The Vaiśeṣika system, like that of Gautama, recognised only five steps, though they named them differently. Some schools accepted only the first three, some only the last three, some others, again, either the first three or the second three; while still others namely, the Buddhists, recognised only the first two of the five steps which we have explainend above. Of course, Nyāya rejects all such views. We should, however, remember that in the view of Nyāya the most essential step of the syllogism is the fourth step, namely, the one which produces the knowledge that there is, in the subject (pakṣa), the mark or probans which is universally concomitant with the inferable thing. The other steps are intended to lead to this fourth. This implies, it would seem, that the total num-

ber of steps in the syllogism may be more or less than just five, according as the hearer is able to supply all that is necessary for the emergence of the liṁga-parāmarśa which is to cause the final knowledge of the conclusion. Nevertheless, the five-membered syllogism can be said to represent all the steps that may be necessary for, at least, an intelligent novice in the inferential process, if he is to be guided by another person to attain the inferential knowledge of a fact after being informed of a mark or sign which is connected with that fact.'

In the Dīpikā, Annambhaṭṭa says that "Illustration" is the name of the clause which makes known the invariable concomitance of the probans with the probandum. Modern European scholars such as Ballantyne and Maxmüller have raised and tried to answer the question why the statement of invariable concomitance should at all require an illustration, and why it should be called by the name 'illustration,' seeing that an illustration is a very unimportant part of the clause and is even perhaps quite superfluous. Even Gangeśa, the father of Neo-Nyāya, has observed that the citation of an example in the third member of the syllogism is only occasional, implying thereby that an example is not a 'must'.[35] Viśvanātha, in his commentary on the Nyāya Sūtras, has said that the word 'illustration,' as a name of the third member of the syllogism, means "the statement of an illustration, i, e., that member (of the syllogism) in which an illustration can be cited."[36] It would appear, however, that the citing of an illustration where the probans and the probandum are generally recognised to be compresent is quite necessary for the person who is being informed of the said compresence for the first time. Of course, for a person who has already apprehended this regular concomitance and has

35 Dṛṣṭānta-prayogasya sāmayikatvena asārvatrikatvāt.

36 Dṛṣṭānto dṛṣṭānta-vacanam dṛṣṭānta-kathana-yogyāvayava ityarthah.

merely to be reminded of this on the present occasion, the illustration may not be of any use. But even he may occasionally require to be reminded of an illustration, too, where such compresence was observed in the past. Moreover, the general form of the syllogism should not take into consideration such exceptional cases. We must formulate the syllogism in a way which would cover all cases. Once more, let us remember that the Indian syllogism is not intended to show how two statements together imply a third (in which case, indeed, the citation of an illustration would have no place whatsoever) but that it is intended, by means of words, to produce, in the mind of the hearer, the inferential process by which the speaker arrived at the conclusion.

SECTION 10

त—स्वार्थानुमितिपरार्थानुमित्योर्लिङ्गपरामर्श एव करणम्। तस्मा-
ल्लिङ्गपरामर्शोऽनुमानम्॥

दी—अनुमितिकरणमाह—स्वार्थेति॥ ननु व्याप्तिस्मृतिपक्षधर्मताज्ञानाभ्यामेवानुमितिसम्भवे व्याप्तिविशिष्टलिङ्गपरामर्शः किमर्थमङ्गीकर्तव्य इति चेन्न। वह्निव्याप्यधूमवानयमिति शब्दपरामर्शस्थले विशिष्टपरामर्शस्यावश्यकतया लाघवेन सर्वत्र परामर्शस्यैव करणत्वात्। लिङ्गं न करणम्। अतीतादौ व्यभिचारात्। व्यापारवत् कारणं करणमिति मते परामर्शद्वारा व्याप्तिज्ञानं करणम्। तज्जन्यत्वे सति तज्जन्यजनको व्यापारः॥—अनुमानमुपसंहरति—तस्मादिति॥

T. (It is parāmarśa (the reflection about the mark or probans) which is the instrument of inferential knowledge both for one's own sake and for the sake of other persons. So anumāna (the instrument of inferential knowledge) is (this) reflection about the mark or probans.)

D. The instrument of inferential knowledge is indicated in the sentence, "It is parāmarśa.....". (It may be objected: Since inferential knowledge can arise from only two (cognitions), namely, (i) the memory-knowledge of invariable concomitance and (ii) the knowledge that the sign is a character of the subject (pakṣa), why should one recognise (what is called) 'the reflection about the sign as characterised by invariable concomitance'?[37] But this objection cannot stand. For in an instance where one has the verbal reflection,[38] "This possesses what is invariably concomitant with fire," the reflection about the mark as characterised (by concomitance) is indispensable (for the inferential knowledge, "This possesses fire"); therefore, in accordance with the law of parsimony, (such) 'reflection about the mark' should be

37 This is liṁga-parāmarśa having the form, "The hill has smoke which is invariably concomitant with fire."

38 That is, the cognition called liṁga-parāmarśa, which is produced by the hearing of a sentence to that effect.

(regarded as) the instrument (of inferential knowledge) in every instance (of inferential knowledge). The sign (we should note) is not the instrument (of inferential knowledge). For (such instrumentality) is not present in such signs, e.g., as are past. In the view of those who maintain that an instrument (in the technical sense of the term) is that cause which has an operation (preceding the effect but following the cause itself), the knowledge of concomitance, with the reflection of the mark (as the intermediate operation), is the instrument (of inferential knowledge). An (intermediate) operation (vyāpāra) is that thing which is caused by it (i.e., by the instrument) and is the cause of that (i.e., of the final effect which is produced by the instrument). The consideration of the topic anumāna or inference is brought to a close in the sentence, "So anumāna....."

E. We have already seen that in the view of Nyāya the complex judgment called liṁgaparāmarśa is an essential precondition of inferential knowledge. In the stock example of the inference of fire from smoke, this judgment assumes the form, "The hill has smoke which is invariably concomitant with fire". Here, the Dipīka examines an objection against this Nyāya view. The objection which comes from a Prābhākara Mīmāṁsā philosopher is as follows: The complex judgment called parāmarśa would require, as its preconditions, both the knowledge that smoke has invariable concomitance with fire and the knowledge that smoke is a character of the hill; as otherwise there cannot be the complex judgment, "The hill has smoke which is invariably concomitant with fire." This implies that to recognise parāmarśa as a cause of inferential knowledge is also to recognise that these two cognitions, too, (namely, the cognitions. "The hill has smoke" and "Smoke is invariably concomitant with fire)" are causes of the inferential knowledge of fire with the help of the mark 'smoke.' Now since it can very well be maintained that the inferential knowledge, "The hill has fire" is brought about by the two cognitions which we have just referred to, it would

But there is, as we pointed out in section 4, another interpretation of karaṇa, which would seem to be more closely connected with the notion of an instrument, the interpretation that a karaṇa is that cause which has an intermediate operation (vyāpāra). In this view, what should be considered to be the karaṇa of inferential knowledge is the (memory) knowledge of invariable concomitance, i. e., of the concomitance of the sign with the inferable thing. What, then, is the intermediate operation (vyāpāra) of this knowledge of concomitance? It is what has been designated as the 'reflection about the sign' (parāmarśa). For this satisfies the definition of operation, since it is an effect of the knowledge of concomitance and is also a cause of the final effect, namely, inferential cognition. Thus the judgment, "Wherever there is smoke, there is fire" causes the complex judgment, "The hill has smoke which is invariably concomitant with fire," and this complex judgment is also what causes the final effect, namely, the inferential judgment, "The hill has fire." As we pointed out in the Section 4, Annambhaṭṭa is not consistent in his view concerning what is a karaṇa. For perceptual knowledge, he accepts the view that a karaṇa is that cause which has an intermediate operation. For there he supports the common sense notion that a sense-organ is what is the specific instrument of perceptual knowledge. But in the case of inference, he accepts that view of karaṇa which identifies it with the cause which is present only immediately before the effect, i. e., which is followed by the effect immediately at the next moment of its own origination. That is why he can refer to the reflection about the sign (liṁgaparāmarśa) as the specific instrument of inferential knowledge. As already remarked by us in Section 4, this inconsistency is not to be viewed very seriously. What is important for the epistemology and psychology of a particular kind of knowledge is not pointing out from among its causes what should be called its instrument, but the exact specification of the various causes which are essential for bringing it about.

For the explanation of the definition of vyāpāra, which is given in the Dīpikā, please refer to our explanatory notes on Section 4 which treats causality.

The Dīpikā also refers to and refutes the view, maintained by some, that the sign (liṁga) is the instrument of inferential knowledge. Evidently, if the sign be an instrument it must be a cause of inferential knowledge. It should be observed, however, that what this view maintains is not that the sign, as such, is a cause of inferential knowledge, but that the sign, *as known*, and known as a character of the subject (pakṣa). is such a cause. Even so, the Dīpikā remarks that this view must be rejected. For a sign may be a thing of the past or the future and may not be in existence at the time when the process of inference takes place. How can such a non-existent sign function as a cause ? The cause must *exist* immediately before the effect comes into being. It must be granted, therefore, that what can function as a cause of inference is not the sign, as known, but the knowledge of the sign, whether this sign be a thing of the past, the present or the future. One may perhaps find the distinction between *the sign as known* and *the knowledge of the sign* somewhat airy. But certainly there is a logical distinction between what is signified by one phrase and what by the other. It must, of course, be conceded that the distinction in question is reduced almost to a cipher in those cases where the sign is in actual existence when the process of inference takes place. Nevertheless, this would not be true in the case where the sign is yet to come into existence and where it was, but is no longer, in existence. As already remarked, a future thing or a past one, not being in existence immediately before the effect, cannot function as its cause. The mere qualification that it is known cannot confer existence on it. But the past or the future thing can be known at present. If so, its knowledge can function causally in respect of an effect. Hence even if it be maintained that the instrument is a cause which has an intermediate operation (vyāpāra), it would have to be granted

that the karaṇa of inferential knowledge is not the sign which is known to be concomitant with the inferable thing, but that this karaṇa is the knowledge of the sign as concomitant with the inferable thing, i.e., the knowledge of the concomitance of the probans with the probandum.[40]

We may here draw attention to the difficulty of rendering, by single words in English, the Sanskrit words pratyakṣa, anumāna and upamāna in the sense of an instrument of knowledge. Thus the word 'perception' can indeed stand for the process of perception, for perceptual knowledge and even for the perceptual object. So also the Sanskrit word 'pratyakṣa'. But the word 'perception' cannot be a correct rendering for 'pratyakṣa' in the sense of the karaṇa or instrument of perceptual knowledge. For it is a sense-organ which is pratyakṣa in this sense ; and certainly English usage would be against calling a sense-organ by the name 'perception'. Similarly, the word 'inference' can indeed stand for the process of inference, and hence may be an appropriate rendering for anumāna in the compound words 'svārthānumāna' and 'parārthānumāna' under which heads we get respectively accounts of the inferential process for one's own self and that for other persons. But the word 'inference' cannot render anumāna in the sense of the karaṇa or instrument of inferential knowledge. For neither the knowledge of invariable concomitance nor the judgment (called parāmarśa) that the subject (pakṣa) possesses the sign which is invariably concomitant with the inferable thing could, by English usage, be called inference. This is why we have employed cumbrous phrases like 'inferential knowledge' and 'instrument of inferential knowledge' for unambiguously rendering words like *anumiti* and anumāna.

40 It may be observed here that Annambhaṭṭa refers to one interpretation of the word 'karaṇa' in the Tarkasaṁgraha and to the other in the Dīpikā.

SECTION 11

त—लिङ्गं त्रिविधम्—अन्वयव्यतिरेकि, केवलान्वयि, केवल-व्यतिरेकि चेति। अन्वयेन व्यतिरेकेण च व्याप्तिमदन्वय-व्यतिरेकि, यथा वह्नौ साध्ये धूमवत्त्वम्। यत्र धूमस्तत्राग्नि-र्यथा महानस इत्यन्वयव्याप्तिः। यत्र वह्निर्नास्ति तत्र धूमोऽपि नास्ति यथा महाह्रद इति व्यतिरेकव्याप्तिः। अन्वयमात्र-व्याप्तिकं केवलान्वयि, यथा घटोऽभिधेयः प्रमेयत्वात् पटवत्। अत्र प्रमेयत्वाभिधेयत्वयोर्व्यतिरेकव्याप्तिर्नास्ति, सर्वस्यापि प्रमेयत्वादभिधेयत्वाच्च। व्यतिरेकमात्रव्याप्तिकं केवलव्यतिरेकि, यथा, पृथिवीतरेभ्यो भिद्यते गन्धवत्त्वात्, यदितरेभ्यो न भिद्यते न तद्गन्धवत् यथा जलम्, न चेयं तथा, तस्मान्न तथेति। यद्गन्धवत्तदितरभिन्नमित्यन्वयदृष्टान्तो नास्ति, पृथिवी-मात्रस्य पक्षत्वात्॥

दी—लिङ्गं विभजते—लिङ्गमिति॥ अन्वयव्यतिरेकि लक्षयति—अन्वयेनेति। हेतुसाध्ययोर्व्याप्तिरन्वयव्याप्तिः। तदभावयोर्व्याप्ति र्व्यतिरेकव्याप्तिः॥ केवलान्वयिनो लक्षणमाह—अन्वयेति। केवलान्वयिसाध्यकं केवलान्वयि। अत्यन्ताभावाप्रतियोगित्वं केवलान्वयित्वम्। केवलान्वयिनमुदाहरति यथा घटोभिधयः प्रमेयत्वादिति। ईश्वरप्रमाविषयत्वं सर्वपदाभिधेयत्वं च सर्वत्रास्तीति व्यतिरेकाभावः॥ केवलव्यतिरेकिणो लक्षणमाह—व्यतिरे-केति। केवलव्यतिरेकिणमुदाहरति—पृथिवीति। नन्वितरभेदः प्रसिद्धो न वा। आद्ये यत्र प्रसिद्धस्तत्र हेतुसत्त्वेऽन्वयित्वम्। असत्त्वेऽसाधा-रणयम्। द्वितीये साध्यज्ञानाभावात् कथं तद्विशिष्टानुमितिः। विशेषण-ज्ञानाभावे विशिष्ट-ज्ञानानुदयात्। प्रतियोगिज्ञानाभावाद्व्यतिरेकव्याप्ति-ज्ञानमपि न स्यादिति चेन्न। जलादित्रयोदशान्योन्याभावानां त्रयोदशसु

प्रत्येकं प्रसिद्धानां मेलनं पृथिव्यां साध्यते। तत्र त्रयोदशत्वावच्छिन्नभेदस्यैकाधिकरणवृत्तित्वाभावान्नान्वयित्वासाधारण्ये। प्रत्येकाधिकरणे प्रसिद्धया साध्यविशिष्टानुमितिर्व्यतिरेकव्याप्तिनिरूपणं चेति ॥

T. The mark or probans is of three kinds: (i) the co-present and co-absent, (ii) the merely co-present, and (iii) the merely co-absent. That which is concomitant (with the probandum) both by presence and by absence is the probans called 'the co-present and co-absent'. For instance, the mark 'possession of smoke' in respect of the probandum 'fire' (is a mark of this kind). Wherever there is smoke there is fire, as in a kitchen—this is concomitance by presence; and wherever there is no fire, there is no smoke, as in a lake—this is concomitance by absence. The mark which is concomitant (with the inferable thing, merely by presence is the merely co-present mark, as for example, (the mark in) the inference, "A pot is nameable, on account of its knowability, just like a piece of cloth". Here, there is no 'concomitance by absence' between knowability and nameability, because all things are (both) knowable and nameable. The mark which has concomitance (with the inferable thing) only by absence is the merely co-absent mark, as for example (the mark in the inference), "Earth is different from all other things, because of its possessing smell; that which is not different from other things does not possess smell, for example, water; this is not like that; therefore, it is not like that". (Here) we have no 'concomitance by presence' of the type: Whatever is possessed of smell is different from other things. For every instance of earth is the subject (of the conclusion).

D. Marks are divided into their classes in the sentence, "The mark.....". The defining character of 'the co-present and co-absent mark' is stated in the sentence, "That which is concomitant ....". The concomitance of the probans and the probanbum is (called) 'concomitance by presence'.

The concomitance between their absences is (called) 'concomitance by absence.' The defining character of 'the merely co-present (mark)' is stated in the sentence, "The mark which is concomitant by mere presence.....". The merely co-present (mark) is what is connected with that inferable thing which is not absent from anything. The character of 'not being absent from anything' is the character of being a non-countercorrelative of absolute non-existence. An illustration for the merely co-present probans is given in the clause, "as for example, the inference, 'a pot is nameable ...". There is, in every thing, the character of being an object of divine knowledge as also the character of "being designated by the word 'all' " ; so there is absence of 'concomitance by absence'. The defining character of the merely co-absent mark is stated in the sentence, "The mark which has concomitance merely by absence...". An illustration for the merely co-absent probans is given in "Earth is different...". It may be objected: "Is the 'difference from other things' a known fact or not ? If the first alternative be true, then, in case the probans is present where it (i.e., this difference from other things) is known (to be), the probans would be co-present ; and if the mark is absent from there, it would have the defect of uniqueness (i.e., of existing merely in the subject). If the second alternative be true, then, in the absence of any cognition of the thing to be inferred, how can there be the inferential knowledge which is characterised by it (i.e., has, for its object, this utterly unknown thing which is to be inferred) ? For if there be no cognition of the thing which is to function as character, there cannot arise any judgment in which that thing is attributed as character (to the subject of the judgment). There would not even be any knowledge of 'concomitance by absence', because there would be no knowledge of the counter-correlative (of that absence)". But this objection is not proper. What is proved to exist in earth (by this probans) is the sum of the thirteen differences such as those from water, etc., each of which (differences) is

known to exist in (some one of) these thirteen things. Since the difference determined by (the number) thirteen does not exist in a single locus, so the probans, there, has no co-presence (with the probandum), nor has it (the defect of) uniqueness (i.e., the defect of existing only in the subject of the conclusion and nowhere else). Since these differences are known to be in their respective loci, so the inferential cognition which is characterised by the inferable thing (i.e., has, for its object, the inferable thing) as well as the cognition of 'concomitance by absence' is possible.

E. The mark or probans is stated, here, to be of three kinds: (i) the merely co-present, (ii) the merely co-absent (iii) and that which is both co-present and co-absent. We have translated the word '*anvayin*' as 'co-present' and the word '*vyatirekin*' as 'co-absent'. As explained by us in parentheses, the phrase 'co-present mark' is a cryptic expression for a probans which is concomitant with the inferable thing by co-presence, i.e., which is such that wherever it exists, the inferable thing also exists. Thus smoke as a mark of fire is such that it is co-present with fire in the sense that wherever there *is* smoke there *is* fire. Therefore, in this respect, smoke is a co-present mark. Similarly the phrase 'co-absent mark' is a cryptic expression for a 'mark which is co-absent with the inferable thing, i.e., is such that there is its *absence* wherever there is the *absence* of the inferable thing. In our stock example of 'inference of fire by means of smoke', the mark smoke is such that wherever there is the absence of fire, there is also the absence of smoke. This is what is expressed by the statement that smoke is a co-absent mark of fire. This also explains the meanings of the phrases, 'concomitance by presence' and 'concomitance by absence'. The concomitance of smoke with fire which is indicated by the sentence, "Wherever there is smoke, there is fire" is 'concomitance by presence' (anvaya-vyāpti). And the concomitance of smoke with fire, which is indicated by the sentence, "Wherever

there is absence of fire, there is absence of smoke" is called 'concomitance by absence' (vyatireka-vyāpti). It should be noted that the latter is not to be understood as the concomitance of absence of smoke with the absence of fire, but as the concomitance of the absence of fire with the absence of smoke. That is to say, by the phrase 'concomitance of smoke with fire by absence,' we are not to understand that relation (if there be such a relation)[41] between smoke and fire which would be expressed by "Wherever there is absence of smoke, there is absence of fire," but the relation which would be expressed by "Wherever there is absence of fire, there is absence of smoke." It would be easy to understand that this is exactly what it should be, if we remember that the concomitance with which we are just now concerned is the concomitance between a mark and what can be validly inferred from it, i. e., between A and B, where A is the probans and B its proper probandum.[42] Now the concomitance between A and B which would be expressed by "Wherever there is absence of A there is absence of B" would not justify the inference of B from A. But the other type of concomitance of A and B by absence which would be expressed by "Wherever there is absence of B, there is absence of A" would justify the inference of B from A. Vyatireka-vyāpti is, therefore, defined as the concomitance of the absence of the probandum with the absence of the probans.[43]

41 As a matter of fact, there is no such invariable concomitance between absence of smoke and absence of fire.

42 This is precisely the reason why vyāpti is defined in terms of a mark and a corresponding inferable thing. This is also why we have occasionally translated vyāpti as 'implying or inferential concomitance.'

43 It is clear that the following syllogism is invalid: "If non-A, then non-B ; but A ; therefore, B." For by denying the antecedent, we cannot deny the consequent validly. But the following is quite valid: "If non-B, then, non-A ; but A ; therefore, B". For by denying the consequent, we can validly deny the antecedent.

The mark which has concomitance with the inferable thing both by presence and by absence, in the sense explained just above, is called 'the co-present and co-absent mark' (anvaya-vyatireki-liṅga). This is illustrated by smoke when it is employed as a mark for inferring fire, since, here, we have both types of implying concomitance. But there are marks which have concomitance by mere presence and not also by absence. Such a mark is called 'a merely co-present mark.' This is illustrated in the inference, "A pot is nameable, because it is knowable." Here, the mark 'knowability' is 'concomitant by presence' with the probandum 'nameability'; for it is a fact that wherever there is knowability, there is also nameability. For example, a piece of cloth is knowable and at the same time nameable. But the mark 'knowability' has no 'concomitance by absence' with 'nameability.' For there is no such fact which can be truly represented by the statement that wherever there is absence of nameability, there is also the absence of knowability, because the phrases 'absence of nameability' and 'absence of knowability' represent no factual characteristic of any real thing, since every real thing is both nameable and knowable.

One may find it difficult to understand why, if it be correct to say that wherever there is A, there is also B, it should not be correct to say at the same time that wherever there is absence of B, there is also absence of A. This difficulty, however, arises from the notion that what a materially true proposition formally implies (or is formally equivalent with) is also a materially true proposition. That this notion is wrong is proved by the very example which we are considering here. For if neither absence of nameability nor absence of knowability are capable of being attributed to anything in the real universe, how can the proposition in question be materially true? On the contrary, this clearly proves that formal involvement has nothing to do with material truth. What is materially true has always to be ascertained by a pramāṇa, i. e., by a proper instrument of valid knowledge, such as

perception, inference, etc. It should be further noted that inference can enable us to know a fact, if and only if inference be a process as it is understood in science and in Indian philosophy, and not as it is understood in the formal logic of Europe. The reason why the proposition which is formally implied by a materially true proposition need not be materially true is that it is implied by the proposition in question as merely a proposition and not also as materially true. It would be implied by that proposition even if that proposition were materially false. For that indeed is the very *raison d'etre* for the distinction between formal validity and material truth. Thus what may, at first sight, seem to be a true statement of invariable concomitance may not actually be so; and such a statement of concomitance is certainly not true when there is no instance where this concomitance is illustrated. This can be considered to justify the insistence of Nyāya that the third member of the five-membered Indian syllogism, which states the invariable concomitance of the probans with the probandum, should adduce one illustration where this concomitance can be readily recognised.

Then, there are marks which, although they have concomitance by absence, still do not have it by presence. Such a mark is called 'a merely co-absent mark (kevala-vyatireki-liṅga).' This is illustrated in the inference, "Earth is different from all other things; because it possesses smell; for what is *not* different from other things does not possess smell, for instance, water; this (i. e., earth) is not like that (i. e., it is not that it does not possess smell); therefore, it is not like that (i. e., it is not that it is not different from other things, i. e., it is different from other things)." The invariable concomitance which has been utilised here is: Wherever there is absence of 'the difference from other things,' there is the absence of smell, too. And this amounts to 'concomitanance by absence.' But for the purpose of the present inference, no illustration is available for 'concomitance by presence' which could be stated as "Wherever there is smell, there is 'difference from

other things' ". Of course, earth could serve as an illustration for such 'concomitance by presence', since it has both smell and difference from other things. Still it cannot do so on the present occasion, because earth is the subject of the conclusion, "Earth is different from other things". If we did offer earth as an illustration for such a concomitance by presence, it would amount to taking for granted what is to be proved by the inference.

It would perhaps be contended that a *petitio principii* is already involved in the very first step of the syllogism, namely, in the Assertion, "Earth is different from *other* things" ; for the phrase 'other things' directly expresses, by the word 'other', that earth must be different from those things. To this, the reply is that the otherness of the other things is one thing, and the otherness of earth from those things is another. And it is the latter otherness or difference which is the thing to be proved and cannot be considered to be given in the otherness of the other things. Of course, if it be given that B is different from A, then, it is true that A, too, is different from B. Still the two differences are not identical. That the one difference is different from the other can be shown by showing that what can be truly predicated of the one cannot necessarily be predicated of the other. Thus although we can truly say that the difference of A from B is in A, still the difference of B from A cannot be said to be in A, but in B.

It must be granted, however, that the difference between the two differences is a bit too tenuous and may not appear to be a convincing solution of the difficulty that has been raised. One is likely to think that although there may be some distinction between these differences, still to know the one is almost the same as to know the other. So we are suggesting another way out of the difficulty. We can presume that the word 'other' (*itara*) has been employed not in the sense of 'different,' but as a short-hand term for designating the following fourteen things together, namely, water, fire,

air, ether, time, space, self, inner sense,[44] quality, activity, generic character, inherence, particularity and non-being.[45]

In regard to this inference which employs a mark which has 'concomitance only by absence', the Dīpikā raises and solves a somewhat hard difficulty. It is as follows. In this syllogism, 'possession of smell' is the probans, and 'difference from other things' is the probandum. Now the question is, "Is this probandum, 'difference from other things' known to be a character of anything other than earth which, here, is the subject of the conclusion ? It would not do to say that it is known to be a character of earth. For this is what precisely this syllogism is to establish ; and before this is established the said 'difference from other things' should already be known to be somewhere other than earth. If you maintain that it is known to be in some such thing as T, which is other than earth, then, we shall ask again, "Is smell which is the probans, here, present in this T ?" If it is present in T, then, the probans would have 'concomitance by presence' ; for both the probans and the probandum would be compresent in T. This would mean that smell is not a merely co-absent mark, but also a co-present one ; and this would go against your initial supposition that smell is a merely co-absent mark in this syllogism. Let us, then, suppose that the mark 'smell' is not in T. In that case, the mark would not be anywhere else than in the subject of the conclusion, neither in anything which possesses this 'difference from other things' nor in anything which does not possess the said difference. But such

44 These are the eight out of the nine substances, the ninth being earth which must not be counted as 'other.'

45 These are the six out of the seven categories, the seventh being 'substance' which has already been taken into consideration. Of course, the number of things, referred to by the word 'other' is really infinitely greater than fourteen ; for there are innumerable individual cases of water, fire, etc., innumerable selves and inner senses, twenty-four qualities, each of which has innumerable individual instances, and so on. But for our present purpose, they may all be counted as fourteen,

a probans has the defect of being unique (asādhāraṇya) and cannot establish, in earth, this 'difference from other things'. A unique mark is one which is present only in the subject (pakṣa), and is absent from everything which is known to possess the probandum (i.e., from every sapakṣa) as well as from everything which is known not to possess it (i.e., from every vipakṣa). That such a probans would fail to establish the probandum is quite clear. Of course, the fact that such a mark is not found in anything which lacks the probandum is not indicative of any defect in it. But that it is not to be found in anything in which the probandum is present would certainly be a defect ; for this will come in the way of establishing any connection of compresence between the probans and the probandum ; and it is on this connection that the proof of the conclusion depends. If, however, it is conceded that the thing to be inferred is not to be found anywhere at all, then, in the absence of the knowledge of such a thing, there cannot be the inferential cognition which the present syllogism is to yield. For inferential knowledge is nothing but the knowledge that a certain subject is characterised by the thing to be inferred ; and in the absence of the knowledge of the thing which is to characterise the subject, it is not in any way (whether inferential or non-inferential) possible to know that the subject is characterised by that thing. For example, in order that you may know that a person is characterised by a stick, in a judgment like "Here is a man with a stick in hand," you require the prior knowledge of a stick. Moreover, if the thing to be inferred is not known to be anywhere, its absence also cannot be known; for it is not possible to know any absence without knowing its counter-correlative (i.e , that of which it is the absence). And if the absence of the probandum cannot be known, 'concomitance by absence' also cannot be known. For 'concomitance by absence' is constituted by a relation between the mark and the inferable thing which is indicated thus: Wherever there is the *absence of the inferable thing*, there

that from inherence and (xiv) that from non-existence. About each of these fourteen differences we can observe a certain peculiarity; the difference from water is to be found not in water but in each of the remaining thirteen things, namely, fire, air, ether, qualities, activities, etc.; similarly, the difference from fire would be found to reside not in fire, but in the remaining thirteen things, namely, water, air, etc. That is to say, none of these fourteen differences can be said to reside in all of these fourteen things (which have been enumerated above as things other than earth). Further, every one of these differences, nevertheless, can be said to be a real thing which is known to reside in several loci; e. g., the 'difference from water' is in earth, fire, air, etc. Now the contention of Nyāya is that the syllogism in question proves that the entire group of these fourteen differences resides in earth, that earth possesses this collection of the fourteen differences described above. This is the true meaning of the Assertion (pratijñā), "Earth is different from other things." With this interpretation of the term, 'difference from other things,' it would appear that the difficulties raised by the opponent wholly disappear. The difficulties raised were: Is the inferable thing, 'difference from other things' known to be in *something* other than earth? If it is so known, then, the further question is: Is the mark 'possession of smell' present in that *something* ? If it is present there, then, the mark would cease to be merely co-absent (*kevala-vyatirekin*) which would go against Nyāya's contention that this is an instance of a merely co-absent mark. If the mark is not present in that *something*, then the mark would have the defect of being a unique one in the sense that it is present only in the subject of the conclusion and not anywhere else. It should now be clear that if the phrase, 'difference from other things' means the group of the fourteen differences referred to above, then, the question whether this thing which is to be inferred is known to exist anywhere at all, can be answered by saying that it is certainly known, but not known

to exist at any one locus other than earth where it is inferred to exist by the present syllogism. It is known, because every one of the members of this group is known to exist in its proper loci, and hence the group which is made up of these members is also known without our being required to know where precisely this group resides. So the further question, "If it is known to be somewhere, then, is the mark present there or not?" does not arise, and the question of the mark either being not merely co-absent or being unique (asādhāraṇa) does not also arise. The other objection that if the thing which is to be inferred be not known at all, then, there could not be the inferential knowledge in which this is attributed as a character of earth and that the concomitance of the mark by absence (vyatireka-vyāpti) could not be established is also met. For the inferable thing is certainly known as a group of fourteen differences, since each of these fourteen differences is known to exist in some locus or other.

Still one point remains to be explained. In the Dīpikā, the inferable thing is stated to be a group of *thirteen* differences, while what we have made out above is that this inferable thing is a group of *fourteen* differences. Nilakaṇṭha, the scholiast of the Dīpikā explains this discrepancy in two different ways. (1) The Sanskrit compound word jalādi-trayodaśa-bheda is to be interpreted thus: jalādi-trayodaśa is to be analysed into its components as jalam adih yeṣām trayodaśānām—and this would mean those thirteen things which are preceded by water, and by a grammatical rule pertaining to a certain type of compound words,[46] this would mean the thirteen things together with that which precedes them, thus giving us fourteen things in all; and these are, as we have shown above, water, fire, air, etc. Jalādi-trayodaṣa-bheda should now mean the fourteen differences from these fourteen things. (2) But a better explanation would be that the objector here should be supposed to be a follower of the

46 These are called 'tadguṇa-saṁvijñāna-bahuvrīhi.'

Prābhākara Mīmāṁsā system which does not recognise non-being (abhāva) as a distinct category; and the reply which the Dīpikā offers to his objection is in terms of categories which are acceptable to both Nyāya and Prābhākara Mīmāṁsā. Now Prābhākara Mīmāṁsā admits all the categories of things (padārtha) which Nyāya recognises except non-being (abhāva), although they also recognise certain additional kinds of things which are not accepted by Nyāya. If so, subtracting 'one' (for non-being) from 'fourteen' which is the number of things other than earth, we get thirteen things other than earth. And the contention of Nyāya is that the group of thirteen differences from these thirteen kinds of things is proved to exist in earth by the present syllogism.

SECTION 12

त—सन्दिग्धसाध्यवान् पक्षः। यथा धूमवत्त्वे हेतौ पर्वतः॥ निश्चितसाध्यवान् सपक्षः। यथा तत्रैव महानसः॥ निश्चित-साध्याभाववान् विपक्षः। यथा तत्रैव महाह्रदः।

दी—पक्षलक्षणमाह—सन्दिग्धेति। ननु श्रवणानन्तरभाविमननस्थलेऽव्याप्तिः। तत्र वेदवाक्यैरात्मनो निश्चितत्वेन सन्देहाभावात्, किञ्च प्रत्यक्षेऽपिवह्नौ यत्नेच्छयानुमितिस्तत्राप्यव्याप्तिरिति चेन्न। उक्तपक्षताश्रयत्वस्य पक्ष-लक्षणत्वात्॥ सपक्षलक्षणमाह—निश्चितेति॥ विपक्षलक्षणमाह निश्चितेति।

T. The subject of inferential cognition is that in regard to which there is doubt whether it possesses the inferable thing. For example, the hill (is the subject), when the possession of smoke (on the part of the hill) is the probans.

A similar instance[47] (sapakṣa) is that in regard to which there is certain knowledge that it possesses the inferable thing. For example, in that very place (i.e., in the syllogism which proves the existence of fire by the mark 'smoke'), the kitchen (is a similar instance).

A contrary instance (vipakṣa) is that in regard to which there is certain knowledge that it does not possess the inferable thing. For instance, in that very place, a big lake (is a contrary instance).

D. The defining character of the subject is stated in the sentence, "The subject of inferential knowledge...". It may be objected that this definition would be too narrow, since it would not apply to the instance in which reasoning (which is only a kind of inference) takes place after hearing (the truth

47 That is, an instance which is similar to the subject (pakṣa).

about the self from the Vedas) ; for there, (the truth about) the self is known with certainty with the help of certain Vedic texts. Moreover, the definition would be too narrow, since it would not apply to that instance where, even after fire is perceived, there takes place its inference on account of (the knower's) desire (to infer it). But this objection is not proper. For the defining character of the subject is the character of being the substratum of that 'subjecthood' (pakṣatā) which has already been defined. The defining character of a similar instance is given in the sentence, "A similar instance...". The defining character of a contrary instance is stated in the sentence, "A contrary instance...".

E. In the Tarkasaṁgraha, the subject of the conclusion (pakṣa) is stated to be that in regard to which there is doubt as to whether it possesses the inferable thing. Of course, this doubt would be there, only before the process of inference takes place. The point of this description of a subject is that if one already knew for certain that there was fire in the hill, one would not be inclined to perform the process of inference in order to prove the existence of fire there, so that in such cases the hill would not be a proper subject of an inferential judgment such as "The hill possesses fire".

The Dīpikā points out that this account of a subject (pakṣa) cannot be taken as its definition. For it does not apply to the subject (pakṣa) of certain instances of valid inference. The first instance of such inference which is pointed out has reference to the Vedic text, "The (nature of the) self should be heard (from scripture), reasoned about and meditated".[48] This scriptural sentence enjoins that if we would attain self-knowledge, we should first of all learn from the Veda what is the true nature of the self, and then get it corroborated by our own reasoning (i.e., inference) in support of this truth, and finally intuit it by meditation. Now a religious person must have absolute faith in what the Veda

48 Ātmā vā are śrotavyo mantavyo nididhyāsitavyah.

teaches. Else, he would not be a religious person at all, and therefore he would not have the requisite fitness for attaining self-knowledge. That is to say, when such a person learns from the Veda that the self of a person is identical with God, he would not have any doubt about the truth of such a statement. That is, he would have absolute certainty about his self's being identical with God. If so, he would not ordinarily think of supporting this conviction of his by inference or reasoning. But yet he must undertake the task of supporting this conviction by inference, since scripture itself has enjoined that after learning this truth, one should get it corroborated by reasoning. Let us now see what would be the subject and what the probandum of this inferential cognition. Evidently, this subject would be a person's own self and the probandum would be 'the character of being God.' Now the question is: After I hear from the Veda that I am God, can there be, in me, any doubt that my self (which, here, is the subject of the inferential judgment) possesses 'the character of being God' (which, here, is the probandum)? If not, the self cannot be the subject of any inferential knowledge like "I am God"; for the definition of subjecthood given in the Tarkasaṁgraha asserts that the subject of an inferential judgment is that in regard to which there is doubt whether it possesses the probandum; and here there is absolute conviction (derived from the Veda) that the subject 'self' possesses the probandum 'the character of being God.' This means that there cannot be any inference in regard to the self's being identical with God. But we must provide for the possibility of such inference, since the Veda itself has asserted that the nature of the self should first be ascertained from Vedic texts and then reasoned about. So the definition of the subject as that about which there is doubt whether it possesses the inferable thing would not apply here and hence would be too narrow.

The Dīpikā raises another objection, too, against this definition of a subject (pakṣa). Suppose that I have already perceived fire in the hill. Now ordinarily I would not try to

ascertain again, by inference, the existence of fire there. But if I desire to do so, certainly this should not be impossible. But by our definition of the subject as that in regard to which I have doubt whether it possesses the probandum, the hill would not be a proper subject for the inferential knowledge of fire in the hill with the help of the probans smoke. So this definition of a subject (pakṣa), although it would be true in most cases where we naturally employ inference for knowing something, would not be so in these exceptional cases.

Both these difficulties are solved with the help of the more exact definition of 'subjecthood', given in the Dīpikā of Section 7. Let us remind ourselves that in accordance with this definition of subjecthood, inference would be possible in all the three following cases and hence there would also be a proper subject of inferential cognition: (i) When there is the absence of certainty about the inferable thing together with the absence of the desire to infer; (ii) when there is absence of certainty about the inferable thing as well as the desire to infer; and (iii) when there is certainty about the inferable thing but also the desire to infer. But no inference would be possible when there is certainty about the inferable thing as well as the absence of the desire to infer. In other words, the conditions of subjecthood, thus defined, are fulfilled in each of the first three cases, but not in the fourth and last case.

After giving the definition of *pakṣa* or the proper subject of an inferential judgment, the author gives the definition of *sapakṣa*, i.e., of an instance which is similar to the pakṣa. Similar in what respect? In respect of possessing the inferable thing. The difference between a pakṣa and a sapakṣa lies in the fact that while the former will be proved to possess the probandum by inference, the latter is already recognised by all to possess it even before the process of inference takes place.

Next comes the definition of a *vipakṣa* i.e., of an instance which is dissimilar to the pakṣa in the sense that it does not possess the probandum and that this is a recognised fact.

It should be observed that although the definition of pakṣa or subject, as given in the Tarkasaṁgraha, has been rejected in the Dīpikā, still it has its utility in contrasting a pakṣa or subject from a similar and a contrary instance. Thus pakṣa is that which is only suspected to possess the inferable thing, the sapakṣa is that which is definitely known to possess it, and the vipakṣa is that which is definitely known not to possess it. Nor is this definition altogether wrong, since it applies to almost all instances of inference. Moreover, as will presently appear, the concepts of vipakṣa and sapakṣa, as defined here in contrast with that of pakṣa, are of use in defining certain types of wrong mark (liṁga).

SECTION 13

त—सव्यभिचारविरुद्धसत्प्रतिपक्षासिद्धबाधिताः पञ्च हेत्वाभासाः ॥

दी—एवं सद्धेतुं निरूप्यासद्धेतुं निरूपयितुं विभजते—सव्यभिचारेति । अनुमिति-प्रतिबन्धकयथार्थज्ञानविषयत्वं हेत्वाभासत्वम् ।

T. There are five kinds of defective reasons, namely, (i) the inconstant, (ii) the contradictory, (iii) the counterbalanced, (iv) the unfounded, and (v) the invalidated.

D. Having thus ascertained (the nature of) a genuine mark or probans, a defective mark is divided into its classes in the sentence, "There are five...". This is for the sake of ascertaining (the nature of) a defective mark. The defect of a mark is the object of that right knowledge which obstructs inferential knowledge.

E. The word hetvābhāsa can be understood in two ways. It may mean what looks like a *hetu* without really being one,[49] i.e., a defective or spurious mark. It may also mean the defect of a mark or probans.[50] In the Tarkasaṁgraha where the defective marks are classified, the word is understood in the first sense. In the Dīpikā, where the defect (doṣa) of a mark is defined, the word is understood in the second sense.[51]

The first defective mark is called the savyabhicāra which we have translated as the inconstant mark. The word vyabhicāra is contrasted with sahacāra. The latter means 'staying in union,' so that the former means 'staying in separation'

49 Hetuvad ābhāsate iti hetvābhāsah.

50 Hetoh ābhāsah iti hetvābhāsah.

51 *Vide* Nīlakaṇṭha's gloss on this passage.

which amounts to 'inconstancy or variability' in respect of being accompanied by the probandum, i.e,, the defect of not being, at least on certain occasions, with the probandum. Evidently, if the mark is sometimes found not to be accompanied by the inferable thing, there would be no invariable concomitance between them and so no reflection about the mark (liṁga-parāmarśa) and hence no inference either.

The *viruddha hetu* or the contradictory mark, as will be explained in the Tarkasaṁgraha afterwards, is the mark which is concomitant not with the inferable thing but with its absence. It is indeed difficult to see how such a thing could even appear to be a mark. But disputants, in the heat of their discussion, sometimes make very ludicrous mistakes and it is not quite infrequently that one offers, in support of one's thesis, a probans which, properly speaking, would be found, after some consideration, to prove just the opposite of the thesis which one intends to establish.

We have translated the phrase 'sat-pratipakṣa hetu' as 'the counter-balanced mark.' The word pratipakṣa means an opponent of equal strength. Sometimes it may so happen that when one person has offered a probans for his thesis, another person, instead of directly showing any defect in the offered probans, may himself offer another probans which would establish just the opposite of the first thesis. In such cases, the first probans is said to have an opponent of equal strength. This is called the counter-balanced mark.

Asiddha has been translated by us as 'unfounded' and bādhita as 'invalidated.' All these will presently be explained by the author himself.

It is necessary, however, to say a few words in explanation of the definition of the defect of a probans. Strange as it may appear to persons trained in western modes of thinking on this topic, the defect of a mark is something in objective reality, and usually not connected, in any very direct way, with the mark. For example, in the wrong syllogism, "The hill possesses smoke, on account of its possessing fire," the

factual absence of smoke in the hill is considered to be a defect of the mark fire. The absence of smoke in the hill, if it be a fact, would not generally be considered by us to be a defect of fire; and yet in the present context we are to understand that this is so, of course, if one offers 'fire' as a mark for inferring smoke in the hill. Before considering how such absence of smoke in the hill is connected with fire, so as to be capable of being described as a defect of it, let us first try to see, with the help of the definition of a defect of a mark, as given in the Dīpikā, why it is considered to be a defect of a mark at all. The defect of a mark is here described to be the object of a piece of right knowledge which obstructs inferential knowledge (of the inferable thing with the help of the mark under consideration). Suppose that I have the right knowledge that there is no smoke in the hill and am then confronted with the syllogism, "The hill has smoke, because it has fire". Now will this syllogism produce, in me, the inferential judgment, "There is smoke in the hill"?. The plain answer would certainly be in the negative. For if I know for certain that there is no smoke in the hill, how can there arise, in me, the cognition that there is smoke there, simply because somebody points out to me the existence of fire there ? Hence the right knowledge that there is absence of smoke in the hill, obstructs the inferential knowledge of the existence of smoke there, whatever may be offered as a probans for such an inference. Now what is the object of this right knowledge which obstructs the inference of smoke in the hill ? Evidently, the object is "the absence of smoke in the hill". Hence in accordance with the definition of a defect which we are considering here, this absence of smoke in the hill is a defect of the mark 'fire' in the syllogism, "The hill has smoke, because it has fire". The reason why the adjective 'right' has been employed before 'knowledge', in this definition, is that although the wrong knowledge that there is absence of smoke in the hill would obstruct the inferential cognition that there is smoke there,

still such absence, not being a fact, should not be considered to be a (real) defect of the mark.

We have already raised the question as to how to connect 'the absence of smoke in the hill' with 'fire, as a mark for inferring smoke' so as to be describable as a defect (and hence as a character) of fire. One answer which may be accepted by many is that the absence of smoke can be connected with fire by the relation of being the objects of one and the same knowledge,[52] i. e,, on account of the fact that both fire (which is the probans) and 'the absence of smoke in the hill' (which is the defect of this probans) are the objects of the possible judgment, "The hill which has no smoke has fire." To repeat what has already been stated and explained, the reason why this absence of smoke in the hill is a defect of the mark 'fire' is that if a person knows this absence, then, the probans 'fire' cannot yield the inferential knowledge that there is smoke in the hill.

The defects of a mark thwart inferential cognition either directly, or indirectly by first thwarting the reflection about the mark (liṁga-parāmarśa) which is a cause of, and is followed by, the inferential cognition at the very next moment of its own occurrence. This will become clearer at the end of the treatment of inference in Section 17. Hence the clause, 'which obstructs inferential knowledge,' occurring in the definition of the defect of a mark, should be interpreted to mean 'which obstructs inferential knowledge or its cause (namely, the reflection of the mark).'[53]

It should be noted that the *primary* division into five types is not of defective marks, but of the defects of a mark. These five types of defects of a mark are designated (i) vyabhicāra. (ii) *virodha*. (iii) pratipakṣa, (iv) *asiddhi*, and (v) bādha. A mark which has one or more of these five

52 Eka-jñāna-viṣayatvam.

53 Such interpretation is possible by means of that mode of secondary signification of a word, which is called ajahallakṣaṇā.

kinds of defect is, then, called a defective mark. The same defective mark can have more than one defect and it can, therefore, be referred to by more than one name such as savyabhicāra, *viruddha*, etc. For example, in the syllogism, "The lake possesses smoke, because it possesses fire", the mark, 'fire' can be considered to be both inconstant (savyabhicāra) and invalidated (bādhita), since it has both the defects of inconstancy and invalidation: for fire is sometimes found together with absence of smoke, and this constitutes the defect of inconstancy ; again there is, as is well known, the absence of smoke in the lake, and this constitutes the defect of invalidation.[54]

We may mention in this connection that different logicians of different schools of philosophy have spoken of certain other defects, too. But a strict follower of Nyāya, i,e. of the system founded by Gautama, would comprise all of them in one or other of the five kinds of defect which have been stated here.

54 The present mark has also other defects such as that of being unfounded (*asiddhi*).

SECTION 14

त—सव्यभिचारोऽनैकान्तिकः। स त्रिविधः। साधारणा-साधारणानुपसंहारिभेदात्। तत्र साध्याभाववद्वृत्तिः साधारणोऽनैकान्तिकः। यथा पर्वतो वह्निमान् प्रमेयत्वादिति प्रमेयत्वस्य वह्नयभाववति ह्रदे विद्यमानत्वात्। सर्वसपक्ष-विपक्षव्यावृत्तोऽसाधारणः। यथा शब्दो नित्यः शब्दत्वा-दिति। शब्दत्वं सर्वेभ्यो नित्येभ्योऽनित्येभ्यश्च व्यावृत्तं शब्द-मात्रवृत्ति। अन्वयव्यतिरेकदृष्टान्तरहितोऽनुपसंहारी। यथा सर्वमनित्यं प्रमेयत्वादिति। अत्र सर्वस्यापि पक्षत्वाद्दृष्टान्तो नास्ति॥

दी—सव्यभिचारं विभजते—स त्रिविध इति। साधारणं लक्षयति—तत्रेति। उदाहरति—यथेति। असाधारणं लक्षयति—सर्वेति। अनुपसंहारिणो लक्षणमाह—अन्वयेति॥

T. The inconstant mark means the irregular (anaikāntika) mark. It is of three kinds, on account of the distinction between the common, the uncommon and the non-conclusive mark. Among them, that which is present in what possesses the absence of the probandum is the common irregular mark. For example, in "The hill has fire, because it has knowabili-ty", the probans 'knowability' is present in the lake which has absence of fire ; (so the probans, 'knowability' is a common irregular mark). The uncommon irregular mark is what is absent from all similar and dissimilar instances. For example, in "Sound is eternal, on account of its possessing soundhood", (the mark, 'soundhood' is uncommon) because soundhood is absent from all eternal and non-eternal things and present only in sound. The inconclusive irregular mark is that for which no example is available, which can show its concomitance

either by presence or by absence (with the probandum) ; for example, in "All things are non-eternal, on account of the fact that they are knowable", (the mark, 'knowability' is inconclusive) because all things being included within the subject (of the conclusion), there is no example (at all, either an example of co-presence or an example of co-absence).

D. The inconstant marks are divided into their kinds in the sentence, "It is of three kinds...". The defining character of the common mark is stated in the sentence, "Out of them, ...". An illustration for this is given in the sentence, "For example, in.....". The uncommon mark is defined in the sentence, "The uncommon mark...". The defining character of the inconclusive mark is stated in the sentence, "The inconclusive irregular mark.....".

E. As already explained in Section 13, vyabhicāra means 'staying away from', i.e., not being together. The word anaikāntika which has been employed, here, also means the same thing. As Vātsyāyana, in his commentary on the Nyāya Sūtras[55] says, "Eternity is one end (*anta*) ; and non-eternity is another end. That which remains at (only) one end is the regular (aikāntika) mark. On account of being opposed to this, (a mark) is called irregular (anaikāntika), because it stays (in different instances) at both ends".[56] If some one were to give 'absence of tactile quality' as a ground for inferring the eternity of sound, then, this ground would be an irregular mark, since the absence of tactile quality is found both with eternity (for example, in a self) and with non-eternity (for example, in an act of cognition). It would appear, therefore, that the first sentence of the Tarkasaṁgraha of this section should not be taken as a definition of the inconstant (savyabhicāra) mark. It only

55 Bhāṣya on Nyāya Sūtras 1. 2. 46.

56 This it does by staying, in certain instances, at one end, and, in certain other instances, at the other end.

states that savyabhicāra is also known by another name, namely, anaikāntika. So the Dīpikā does not say that this gives the defining character of savyabhicāra. In short, the inconstant mark is that which cannot be said to possess the virtue of constancy in respect of staying with, i.e., of never deviating from, the probandum. This is to say, it does not possess invariable concomitance with the inferable thing (vyāpti). This absence of invariable concomitance it is which is common to all the three varieties of the inconstant mark (anaikāntika). Thus the common mark (sādhāraṇa anaikāntika) lacks invariable concomitance, since it is found, in certain instances, to stay even with absence of the probandum, although it is found to stay, in some instances, with the probandum. The uncommon mark (asādhāraṇa anaikāntika) lacks invariable concomitance, because it is not found in any thing which is definitely known to possess the probandum, so that there is no reason to believe that it ever stays with the inferable thing at all, much less constantly. Similarly, the inconclusive mark (anupasaṁhāri), too, cannot be said to possess this invariable concomitance with the probandum, since neither a similar[57] nor a dissimilar[58] instance is available so as to enable us to see that the mark has concomitance with the inferable thing either by presence (anvaya-vyāpti) or by absence (vyatirekavyāpti).

The distinction between the common, the uncommon and the inconclusive mark can be best understood by reference to the terms, 'sapakṣa' and 'vipakṣa,' i.e., similar and dissimilar (or contrary) instances. As already stated, a similar instance is one which is definitely known to possess the probandum; and a dissimilar instance is one which is definitely known not to possess it. We can, therefore,

57 Sapakṣa. i.e., an instance which is definitely known to possess the probandum.

58 Vipakṣa, i.e., an instance which is definitely known not to possess the probandum.

say that a common mark is what is found in some similar instances and also in some contrary instances—the fact that it is found in some dissimilar instances shows that it lacks invariable concomitance. The uncommon mark is found in neither a similar nor a contrary instance—it is found only in the subject of the conclusion (pakṣa). The fact that it is not in any dissimilar instance, of course, does not constitute any defect of the mark; but the fact that it is not even in any similar instance indicates that it cannot prove the existence of the inferable thing in the subject (pakṣa), since it is not possible to point out any instance where it is compresent with the inferable thing. Thus the common and the uncommon mark are distinguished from each other by the fact that while the former is present both in some similar and some dissimilar instances, the latter is present in neither a similar nor a dissimilar instance. The inconclusive mark is distinct from both the common and the uncommon mark on account of the fact that while, in its case, we have neither any similar nor any contrary instance, in the case of the latter two, we have instances of both these types. That in the case of the inconclusive mark we have neither any similar nor any dissimilar instance precludes the possibility of showing that it is concomitant with the inferable thing. If there were some similar instance and if the mark were present there, or if there were some dissimilar instance and if the mark were absent from there, then and only then, and not in any other way, would it have been possible to show that the mark is concomitant with the inferable thing (either by presence or by absence). So far as the subject of the conclusion is concerned, although the mark is present there, still whether the inferable thing, too, is present there is not yet known: for this is what is to be proved in the conclusion.

That all the three, namely, the common, the uncommon and the inconclusive mark are varieties of the same kind of defective probans is due to the fact, which we have already stated, that in regard to none of them can it be

known for certain that it possesses invariable concomitance with the probandum. That is why all of them are called inconstant marks (anaikāntika or savyabhicāra).[59]

59 Some logicians have defined the inconclusive mark in a different way, namely, as a mark which is offered to establish a probandum which is not the counter-correlative of any absence, i. e., which is present in every thing (kevalānvayi-sādhyaka-hetu). See Nyāya-Siddhānta-Muktāvalī on Kārikā 74.

SECTION 15

त—साध्याभावव्याप्तो हेतुर्विरुद्धः। यथा शब्दो नित्यः कृतकत्वा-
दिति। कृतकत्वं हि नित्यत्वाभावेनानित्यत्वेन व्याप्तम्॥

दी—विरुद्धं लक्षयति—साध्येति॥

T. A mark which is universally concomitant with the absence of the probandum is (called) the contradictory mark. For example, (the mark, 'the character of being produced' is a contradictory mark, in the syllogism) "Sound is eternal because it is something which is produced." For 'the character of being something which is produced' is invariably concomitant with non-eternity, i.e., the absence of eternity.

D. The defining character of the contradictory mark is stated in the sentence, "A mark which is...",

E. It may be pointed out that the contradictory mark differs from the common mark in that it is not present in any similar instance whatsoever, while the latter is present in similar instances, too. It is different from the uncommon mark by being present in dissimilar instances, while the latter is not present in any dissimilar instance, just as much as it is not present in a similar instance either.

The word 'kṛtaka' means 'something which is produced', i.e., an effect. It is taken as an established fact that whatever is an effect, i.e., has a beginning in time, has also an end in time, and so cannot be considered to be something which is permanent.

SECTION 16

त—यस्य साध्याभावसाधकं हेत्वन्तरं विद्यते स सत्प्रतिपक्षः। यथा शब्दो नित्यः श्रावणत्वात् शब्दत्ववदिति। शब्दोऽनित्यः कार्यत्वाद् घटवदिति।

दी—सत्प्रतिपक्षं लक्षयति यस्येति।

T. That (mark) which has (confronting it) another mark which is (offered) to prove the absence of the inferable thing is (called) the counterbalanced mark. As for example, (the mark, 'audibility' in the syllogism) "Sound is eternal, on account of its audibility, just as soundhood" is counterbalanced (when it is opposed by the mark 'the character of being an effect' in the syllogism) "Sound is non-eternal on account of its character of being an effect, just as a pot."

D. The defining character of the counterbalanced mark is stated in the sentence, "That (mark) which... ..".

E. In the Nyāya-Sūtras of Gautama, satpratipakṣa is termed 'prakaraṇasama.' The counterbalanced mark is different from the invalidated mark (bādhita), because while in the case of the latter it can be said that the absence of the inferable thing is definitely ascertained by some other means of valid knowledge, in the case of the former, it cannot be said that either the presence or the absence of the inferable thing is definitely established, since here just as one mark tries to establish the presence of the inferable thing, so another mark tries to establish its absence.

It is a general rule that a universal (jāti) is apprehended by the same sense-organ by which an individual in which that universal inheres is apprehended. Since an individual sound is perceived by the ear, so soundhood, too, is perceived by the ear. Again soundhood is eternal, since it is a universal.

त—असिद्धस्त्रिविधः। आश्रयासिद्धः स्वरूपासिद्धो व्याप्यत्वासिद्धश्चेति। आश्रयासिद्धो यथा गगनारविन्दं सुरभ्यरविन्दत्वात् सरोजारविन्दवत्। अत्र गगनारविन्दमाश्रयः। स च नास्त्येव। स्वरूपासिद्धो यथा शब्दो गुणश्चाक्षुषत्वात्। अत्र चाक्षुषत्वं शब्दे नास्ति शब्दस्य श्रावणत्वात्। सोपाधिको व्याप्यत्वासिद्धः। साध्यव्यापकत्वे सति साधनाव्यापक उपाधिः। साध्यसमानाधिकरणात्यन्ताभावाप्रतियोगित्वं साध्यव्यापकत्वम्। साधनवन्निष्ठात्यन्ताभावप्रतियोगित्वं साधनाव्यापकत्वम्। पर्वतो धूमवान् वह्निमत्त्वादित्यत्रार्द्रेन्धनसंयोग उपाधिः। तथाहि। यत्र धूमस्तत्रार्द्रेन्धन संयोग इति साध्यव्यापकता। यत्र वह्निस्तत्रार्द्रेन्धनसंयोगो नास्त्ययोगोलक आर्द्रेन्धनसंयोगाभावादिति साधनाव्यापकता। एवं साध्यव्यापकत्वे सति साधनाव्यापकत्वादार्द्रेन्धनसंयोग उपाधिः। सोपाधिकत्वाद्वह्निमत्त्वं व्याप्यत्वासिद्धम्॥

दी—असिद्धं विभजते—असिद्ध इति॥ आश्रयासिद्धमुदाहरति—गगनेति॥ स्वरूपासिद्धमुदाहरति—शब्देति॥ व्याप्यत्वासिद्धस्य लक्षणमाह—सोपाधिक इति। उपाधिलक्षणमाह—साध्येति। उपाधिश्चतुर्विधः। केवलसाध्यव्यापकः पक्षधर्मावच्छिन्नसाध्यव्यापकः साधनावच्छिन्नसाध्यव्यापक उदासीनधर्मावच्छिन्नसाध्यव्यापकश्चेति। आद्य आर्द्रेन्धनसंयोगः। द्वितीयो यथा—वायुः प्रत्यक्षः प्रत्यक्षस्पर्शाश्रयत्वादित्यत्र बहिर्द्रव्यत्वावच्छिन्नप्रत्यक्षत्वव्यापकमुद्भूतरूपवत्त्वम्। तृतीयो यथा—प्रध्वंसो विनाशी जन्यत्वादित्यत्र जन्यत्वावच्छिन्नानित्यत्वव्यापकं भावत्वम्। चतुर्थो यथा—प्रागभावो विनाशी प्रमेयत्वादित्यत्र जन्यत्वावच्छिन्नानित्यत्वव्यापकं भावत्वम्॥

T. The unestablished mark is of three kinds: (i) that which is unestablished in respect of (its) substratum, (ii) that which is unestablished in respect of its own being (in the subject), and (iii) that which is unestablished in respect of concomitance. The mark which is unestablished in respect of its substratum is illustrated in "A sky-lotus is fragrant, because it is a lotus, just as an aquatic lotus." Here, the sky-lotus is the substratum (of the mark). This (however) does not exist at all. The mark which is unestablished in respect of its 'own being' is illustrated in "Sound is a quality, because it is visible." Here, (the mark) 'visibility' (itself) is not present in sound; for sound is audible (and not visible). The mark which is unestablished in respect of concomitance is (the same as) 'that which has a vitiating condition.' A vitiating condition is what invariably accompanies the inferable thing, but does not invariably accompany the mark. 'The character of invariably accompanying the inferable thing' is 'the character of not being the counter-correlative of any absolute non-existence which has the same locus as the inferable thing.' 'The character of not invariably accompanying the mark' is 'the character of being the counter-correlative of some absolute non-existence which is in what possesses the mark.' In "The hill has smoke, because it has fire," 'the conjunction of wet fuel' is a vitiating condition (of the mark). Thus there is (in this conjunction of wet fuel) the character of invariably accompanying the inferable thing, since wherever there is smoke, there is conjunction of wet fuel. (Again) there is (in this conjunction of wet fuel) the character of not invariably accompanying the mark, since it is not the case that there is conjunction of wet fuel wherever there is fire; for there is no 'conjunction of wet fuel' in a (red-hot) piece of iron. In this way, the conjunction of wet fuel is a vitiating condition (of the mark, 'fire'), because it does not necessarily accompany the mark, 'fire', while at the same time it necessarily accompanies the inferable thing (namely, smoke). On account of the fact that (the mark)

'possession of fire' has a vitiating condition, therefore, it (i. e., the mark) is unestablished in respect of invariable concomitance.

D. The unestablished mark is divided into its classes in the sentence, "The unestablished mark is...". The mark which is unestablished in respect of its substratum is illustrated in the sentence, "The mark which is unestablished in respect of its substratum...". The defining character of the mark which is unestablished in respect of concomitance is given in the sentence, "The mark which is unestablished in respect of concomitance...". The defining character of the vitiating condition (of a mark) is stated in the sentence, "A vitiating condition...". A vitiating condition is of four kinds: (i) That which invariably accompanies the inferable thing without any extraneous adjunct (*kevala*), (ii) that which invariably accompanies the inferable thing as restricted by a character of the subject, (iii) that which invariably accompanies the inferable thing as restricted by the mark, and (iv) that which invariably accompanies the inferable thing as restricted by some neutral character (i.e., by something which neither is a character of the subject nor is the mark). Here is an example of the first (kind of vitiating condition): The conjunction of wet fuel (in the syllogism, "The hill has smoke, because it has fire"). An example of the second is: "Air is perceptible, because it is the substratum of a tactile quality which can be perceived"; here, 'the possession of manifest colour' invariably accompanies (the inferable thing) 'perceptibility' as restricted by external substancehood. We have an example of the third kind (of vitiating condition) in "The dissolution (of a thing) is destructible, because of its being something which is brought about"; here, 'positivity' (bhāvatva) invariably accompanies non-eternity as restricted by the character of being brought about (and is, therefore, an instance of the third kind of vitiating condition of the mark). An example of the fourth kind would be: "The

pre-natal non-existence of a thing is destructible, because of its knowability"; here, positivity invariably accompanies non-eternity as restricted by the character of being brought about (and, therefore, is an instance of the fourth kind of vitiating condition).

E. It is not easy to give an exact definition of the unestablished mark (*asiddha hetu*) that would apply to all its three varieties. That may be the reason why the author of the Nyāya-Siddhānta-Muktāvalī defines it as what is one (*anyatama*) of those (three) which begin with what is non-established in respect of its substratum.[60] Annambhaṭṭa, too, without giving any general definition of the term 'unestablished mark' just begins with its division into its three varieties. It may be observed that this particular defect of a mark which is called *asiddhi* (the character of being non-established) acts as an obstacle to the origination of that reflection about the mark (liṁga-parāmarśa) with leads immediately to the conclusion of the inferential process. As we have already learnt, this reflection about the mark assumes some such form as "The hill has smoke which is invariably concomitant with fire." It can, therefore, be considered to apprehend two things, namely, (i) the presence of the mark in the subject and (ii) the invariable concomitance of the mark with the inferable thing. This means that this reflection about the mark would be hindered by our failure to apprehend either of these two factors. Now the quid, 'presence of the mark in the subject' may not be apprehended either because there is no real subject, or because, though there is a real subject, still the mark is not present there. The first would give an instance of the mark which is unestablished in respect of its substratum (āśrayāsiddha). and the second would be an instance of the mark which is unestablished in respect of its own being in the subject

60 See the Muktāvalī on Kārikā 71. This procedure, however, has been adopted by him elsewhere, too.

(svarūpāsiddha). The second of the original alternatives, namely, the failure to apprehend the concomitance of the mark with the inferable thing would give an instance of the third variety of the unestablished mark, namely, that which is unestablished in respect of its concomitance with the inferable thing (vyāpyatvāsiddha).

This third subdivision of the unestablished mark, namely, the mark which is unestablished in respect of concomitance may seem to be the same as the inconstant mark (savyabhicāra). But there is some distinction. While in the latter, the absence of invariable concomitance in the mark is directly established, so that the mark can at once be termed inconstant,* in the former case, this absence of concomitance is known not directly, but only indirectly through the knowledge that there is a vitiating condition of the mark. We shall presently explain the term 'vitiating condition' and then make some further remarks about the 'vyāpyatvāsiddha'.

The first of these subdivisions, namely, the āśrayāsiddha, i.e., the mark which is unestablished in respect of its substratum is illustrated in the syllogism, "The sky-lotus is fragrant, because it is a lotus." Here, since the sky-lotus does not exist, so there is no real subject (pakṣa) which could serve as the substratum of the mark 'lotushood'. That is to say, the mark is left without a suitable substratum, hanging, as it were, in the air. It should be observed that the reason why the sky-lotus is said not to exist is that the character of being in the sky is always absent from a lotus. The subject of a judgment, and hence of an inferential judgment, too, has to be stated by mentioning some specific character which it possesses, the implication being that the said subject does not function as the subject of the particular judgment in question except as possessing this specific character. When I say that the round table has a flower-vase on it, the subject of my assertion must be understood as possessed of not merely tablehood, but also the round shape. A character such as 'round shape', which specifies the subject of an inferential

judgment is technically called 'the determining character of subjecthood' (pakṣatāvacchedaka-dharma). Now if the determining character of subjecthood be absent from the proposed subject, this would amount to the non-existence of the subject as subject. But without a subject, how can there be an inferential judgment? Hence this defect of āśrayāsiddhi, i.e., of being unestablished in respect of substratum is technically defined as the non-existence, in the subject, of the determining character of subjecthood (pakṣe pakṣatāvacchedaka-dharma-viraha).

The second variety of the defect of 'being unestablished' is called the defect of 'itself being unestablished' (svarūpāsiddhi). The name is not self-explanatory. The example which the Tarkasaṁgraha gives for this defect is, "Sound is a quality (guṇa), because it is visible." Certainly, here, visibility *itself* (svarūpa) cannot be said to be something the existence of which is not established by any instrument of valid knowledge (and that is what is meant by the word *asiddha*). For visibility is a character which is known to exist in such things as colour. What is unestablished, here, is not visibility itself, but the existence of the mark itself (which is visibility) in the subject (pakṣa). It is, of course, quite evident that I should fail to prove with the help of the mark 'smoke' the existence of fire in the hill, if smoke *itself* were absent from the hill.

About the third variety of the unestablished probans, namely, vyāpyatvāsiddha, it is necessary to point out that some logicians interpret this term differently. They maintain that a mark is called vyāpyatvāsiddha or unestablished in respect of concomitance when its own existence cannot be established by any instrument of valid cognition or when the existence of the probandum which it seeks to prove cannot be established by any such instrument of valid knowledge. For example, in the syllogism, "The hill has fire, because it has smoke which is made of gold" or in the syllogism, "The hill has fire which is made of gold, because

it has smoke," the mark is vyāpyatvāsiddha.* In the first syllogism, the mark itself is non-existent and in the second, the probandum. There is no such thing as 'smoke made of gold,' nor a thing like 'fire made of gold.' In both the syllogisms, the mark can be said to be unestablished in respect of concomitance, because the validity of both depends on a certain relation of implying concomitance (vyāpti) which is unreal, one of the terms of this relation being unreal. This interpretation of vyāpyatvāsiddha can clearly distinguish it from the savyabhicāra or inconstant mark. But if we accept the view that the vyāpyatvāsiddha is the same as the sopādhika, it would be difficult to distinguish it from the savyabhicāra, except in the not very satisfactory way which we have already suggested, namely, by the circumstance that in the latter the absence of concomitance is known *directly*, while in the former this is not known directly, but mediately through the knowledge of a vitiating condition (upādhi) of the mark. It need hardly be mentioned that those who accept the second interpretation of vyāpyatvāsiddha would comprise the sopādhika mark under the savyabhicāra.

It remains now to say a few words about what has been called an upādhi or a vitiating condition of the mark. It has been defined as something with which the probandum is concomitant, but with which the mark is not concomitant. If a person tries to prove the existence of smoke in the hill with the help of the mark, 'fire', he (wrongly) believes that fire is concomitant with smoke, that is, that wherever there is fire, there is also smoke. Now in showing that fire is a defective mark for inferring smoke, we may point out to him that the concomitance of fire with smoke is clearly seen to be unreal in a red-hot piece of iron, inasmuch as there is fire, here, but no smoke. If we do so, this would amount to saying that fire is an inconstant mark (savyabhicāra). But instead of thus disproving the concomitance of fire with smoke in this direct fashion, we may point out to him something v (for example, 'conjunction of wet fuel'), which is such that the

probandum 'smoke' is concomitant with it, but the mark 'fire' is not. That is, wherever there is smoke, there is also v; but it is not a fact that wherever there is fire, there is also this v. For instance, we may point out conjunction of wet fuel to be such a thing as v. For wherever there is smoke, there is 'conjunction of wet fuel'; but it is not a fact that wherever there is fire, there is also 'conjunction of wet fuel,' since we find that in a red-hot piece of iron, although there is fire, still there is no conjunction of wet fuel. When a person, who wants to prove the existence of smoke with the help of the mark 'fire,' is confronted by a vitiating condition of the mark like 'conjunction of wet fuel,' he realises that the relation of concomitance on which he is depending for the inference of smoke is not a fact, i. e., he realises that the mark 'fire' is an inconstant mark. The truth of this statement can be made quite patent thus. Putting F for fire, S for smoke, and W for 'conjunction of wet fuel,' we get two propositions: (i) If S, then W; and (ii) it is false that if F, then W. Can we now truly assert that (iii) if F, then S? We cannot. For from proposition (ii), it follows that there is at least one instance (say I), where there is F, but no W; and from proposition (i), it follows that where there is no W, there is also no S; hence in our particular instance I, there is F, but no S. This means that it is not true that if F, then S. Hence to point out such a thing as v also amounts to pointing out the inconstancy of the mark. The *sopādhika-hetu* is thus the same as the *savyabhicāra-hetu*. Annambhaṭṭa would certainly grant this. It would appear, therefore, that, in his view, this particular type of an inconstant mark (savyabhicāra-hetu), the inconstancy of which is discovered through a vitiating mark (as explained above), is called by the specific name, vyapyatvāsiddha-hetu, i. e., a mark which is unestablished in respect of concomitance.

The Dīpikā observes that there are four types of the vitiating condition (upādhi) of a mark. To explain this fourfold division. If p, q, and v be the defective probans, its intended

probandum and its vitiating condition respectively, then, in accordance with the definition of a vitiating condition, we can say that q is concomitant with v, but it is not true that p is concomitant with v. We have already shown that under such conditions p cannot be concomitant with q. But in certain cases, the probandum q in itself (i. e., without restriction by an adjunct) is not concomitant with v: what is concomitant with v is 'q as restricted by some character c'; and the probans p, when it is restricted by the same character c, is found to be not concomitant with v. We will presently show that even in these cases, the probans p fails to be concomitant with q, so that it has the defect of being unestablished in respect of concomitance (vyapyatvāsiddhi). But before doing so, we may observe that we have taken the character c (which restricts the probandum q in order to make q concomitant with v) to restrict the probans p, too. Although the Dīpikā explicitly speaks of restricting the probandum only, still we should take this c to restrict the probans p, too, and then be able to say that 'p as restricted by c' is not concomitant with v, while 'q as restricted by the same c' is concomitant with this v. This is absolutely necessary if v is to be an upādhi at all, under the present restricting conditions. Else, even a valid probans would be rendered invalid. For instance, when we validly infer "The hill has fire, because it has smoke," one may point out 'stoniness' as an upādhi; for 'fire as restricted by hilliness' is concomitant with 'stoniness' but smoke is not, since there can be smoke in a place which is not stony. But if we restrict smoke, too, by 'hilliness', then such 'smoke restricted by hilliness' is quite concomitant with stoniness, so that stoniness cannot be an upādhi.

We shall now show symbolically that, in the instances of upādhi described above, it is not true that p is concomitant with q. For this, we shall represent 'p as restricted by c' by the symbol 'c-p,' and 'q as restricted by c' by the symbol 'c-q.'

Given:

(i) If c-q, then v.

(ii) It is false that if c-p, then v.

To prove:

(iii) It is false that if p, then q.

Proof:

From proposition (ii), we know that there is at least one thing T which possesses c-p, but not v. That is, there is, in T, c as well as absence of v. Since there is no v in T, we learn, from proposition (i), that there is absence of c-q in T. But we already know that there is c in T; hence the absence of c-q in T must be attributed to the absence of q in T; that is, q is not present in T. Thus in the thing T, there is p, but there is no q. Hence (iii) it is false that if p, then q.

The Dīpikā remarks, here, that this restricting character may be of three kinds, namely, (1) it may be a character of the subject (pakṣa) of the inferential judgment, or (2) it may be the same as the mark (sādhana) itself, or (3) it may not be either the mark itself or a character of the subject. Counting that kind of vitiating condition (upādhi) which is concomitant with the probandum itself (i. e., without its being restricted by any character) as the first, we thus get four types of vitiating condition in all. The first is called kevala-sādhyavyāpaka or that with which the probandum, without any restriction, is concomitant. The second is called pakṣa-dharmāvacchinna-sādhyavyāpaka or that with which 'the probandum as restricted by a character of the subject' is concomitant. This is illustrated in the syllogism, "Air is perceptible, because it is the substratum of perceived tactile quality ; for example, a pot which is the substratum of such perceived tactile quality is perceptible". 'The possession of manifest colour' is here pointed out as the vitiating condition of the mark. So by the simple definition of a vitiating condition, the probandum 'perceptibility' should be concomitant with it ; i.e., we

should be able to say that wherever there is, perceptibility, there is also 'possession of manifest colour' ; but this would not be correct ; for, in spite of the fact that a self is perceptible (by the internal sense-organ), it does not possess any colour, whether manifest or unmanifest. So the probandum, 'perceptibility' is not concomitant with the suggested vitiating condition ; nevertheless, "perceptibility as qualified by 'external substance-hood' " is concomitant with the suggested vitiating condition. For every external substance which is perceptible (such as a pot) possesses some manifest colour.[61] Again it is also true that the probans, namely, 'the character of being the substratum of perceived tactile quality (sparśa)', when it is similarly restricted by 'the character of being an external substance' is not concomitant with the said 'possession of manifest colour' ; for although air is a substratum of such tactile quality, and is also an external substance, still there is, in air, no colour at all, whether manifest or unmanifest. As already explained in the two foregoing paragraphs, this means that the possession of manifest colour, here, is a vitiating condition (upādhi). Moreover, the limiting adjunct 'external substancehood' which qualifies the probandum, 'perceptibility' in order to make it concomitant with this vitiating condition happens to be a character of the subject (pakşa), namely, air ; for air is an external substance in the sense that it is different from a self which may be called an internal substance because it is perceived by the internal sense-organ called *manas*.[62] That is, this 'possession of manifest colour' is a vitiating condition of the second type, which is such that the probandum as restricted by a character of the subject (pakşa) is concomitant with it, but with which

61 The reason why 'colour' is qualified here by the adjective 'manifest' is that certain types of atoms (such as those of earth) possess colour, but on account of the fact that this colour is not manifest, these atoms are not perceptible.

62 It may be noted that substances other than selves are perceived by such external sense-organs as the eye.

the probans as similarly restricted is not concomitant (pakṣa-dharmāvacchinna-sādhya-vyāpaka).

To explain now the third variety of vitiating condition. This is illustrated in the syllogism, "Cessation is a perishable thing ; because it is an effect ; for example, a pot which is an effect is a perishable thing". Here, the vitiating condition is stated to be 'postivity' (bhāvatva), as opposed to negativity' (abhāvatva). So by the simple definition of an upādhi, we should expect that the probandum 'perishability' is concomitant with this 'positivity'. But as a matter of fact, it is not so ; for prior non-existence (prāgabhāva) which is perishable does not possess positivity, since it is a mode of non-existence. Nevertheless, the probandum, 'perishability', as restricted by 'the character of being an effect', is concomitant with positivity ; i.e., whatever is perishable and is an effect is also positive ;[63] for things such as pots, which are perishable and are effects, possess positivity. Now this restrictive adjunct, namely, 'the character of being an effect' is just the probans of our syllogism. Hence, here, the probandum, 'perishability', as restricted by the probans, is concomitant with this suggested vitiating condition, namely, 'positivity'. Again, our probans, namely, 'the character of being an effect' is not concomitant with 'positivity' ; for it is not true that whatever is an effect possesses positivity, since cessation is an effect, but it does not possess positivity on account of the fact that cessation is a mode of non-existence. We thus find that 'positivity', in the present syllogism is a vitiating condition of the third type, namely, that type with which the probandum, as restricted by the probans, is concomitant, but with which the probans is not concomitant.[64]

63 Of course, positivity is absent from prior non-being (prāgabhāva) ; but, then, prior non-being is not an effect.

64 Here, the question of restricting the mark does not arise, because a thing by being restricted by itself remains the same.

There is a different reading of this syllogism in certain editions. In the place of 'pradhvaṁsa' as the subject of the conclusion, this read-

We now proceed to give an account of the fourth type of vitiating condition. This is illustrated by the syllogism, "Prior non-existence is perishable ; because it is knowable". Here, too, 'positivity' is said to be the vitiating condition. But, again, positivity is not a thing with which the probandum 'perishability', as such, is concomitant. For the prior non-existence of (say) a pot is perishable ; but it is not positive. Nevertheless, perishability as qualified by effecthood (kāryatva), is concomitant with positivity ; i.e., whatever is an effect and is also perishable is positive ; for example, a pot, which is an effect and is also perishable, is positive. But the probans 'knowability', even when it is qualified by effecthood, is not concomitant with positivity ; for posterior non-existence (pradhvaṁsa) which is an effect is knowable ; but it does not possess positivity (bhāvatva). Now effecthood is neither a character of the subject (pakṣa), namely, of 'prior non-being', nor is it the probans itself, namely knowability. Hence this vitiating condition, 'positivity' falls under the fourth type, since, here, the probandum perishability, as qualified by an adjunct (namely, effecthood) which neither is the probans knowabilitiy itself, nor is a character of the subject prior non-existence, is concomitant with the vitiating condition positivity.

One may think that the fourth type of vitiating condition is an extremely round about way of showing that the probans is not invariably concomitant with the probandum. That

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ing has 'prāgabhāva. This has the advantage of making the vitiating condition 'positivity' fall clearly outside the second type. In the reading which we have accepted, this is not so. For 'effecthood' (kāryatva) which has to qualify the probandum in order to make it concomitant with 'positivity' would be a character of the subject (pakṣa), if this subject be cessation (pradhvaṁsa). But this would not be the case, if the subject be prior non-existence (prāgabhāva) ; however, this has the disadvantage of making the mark 'effecthood' (kāryatva) fall within the second of the principal kinds of unestablished probans, namely, 'that which is unestablished in respect of not being in the subject (svarūpāsiddha) ; for prior non-existence is not an effect. However, it is not necessary that a mark should not have more than one kind of defect.

knowability is not concomitant with perishability can be shown much more directly by pointing out the case of such things as space, time, selves etc., which are considered by Nyāya and many other schools of philosophy to be eternal—these things are certainly knowable, and yet being eternal they are not perishable. But against this, a Buddhist may urge that since he does not believe in the reality of any eternal thing, these so-called eternal things cannot be accepted by him as instances of things which are knowable and yet not perishable. The fourth type of vitiating condition may perhaps be useful in refuting the Buddhist's contention that knowability is concomitant with perishability.

We shall now say a few words for explaining how such a thing as 'the conjunction of wet fuel' is called, at all, a 'condition. (albeit vitiating) or 'upādhī of 'fire' when fire is employed as a mark for inferring 'smoke'. It would appear that this was originally due to the fact that although fire, as such, is not uniformly concomitant with smoke, still fire, as restricted or *conditioned* by the adjunct 'conjunction of wet fuel' is concomitant with smoke. For although it is not a fact that wherever there is fire, there is also smoke, still it is a fact that wherever there is 'fire associated with conjunction of wet fuel', there is also smoke. Thus the reason why a vitiating condition (upādhi) was originally called a condition of a mark is perhaps the fact that it is the condition of a mark's being concomitant with the probandum. But consideration would show that this explanation would not cover every type of a vitiating condition[65]. Hence a vitiating condition of a mark

65 For example, it would not apply to the fourth type of a vitiating condition. Annambhaṭṭa illustrates this type by the syllogism, "Prior non-being is destructible, because it is knowable" and says that 'positivity', here, is the vitiating condition. But certainly, 'knowability', even when it is qualified by positivity, would not be concomitant with destructibility ; for there are positive things such as time which, in the view of Nyāya, are not destructible, although they are knowable.

It may be mentioned that the suggested explanation of the name

should here be understood in a purely technical sense, i.e., in the sense that the inferable thing (either in itself or with some adjunct c) is concomitant with it, but the probans (in itself or with the adjunct c, as the case may be) is not concomitant with it. In this technical sense, the term 'upādhi' has lost its original and natural meaning of being a condition of the mark's concomitance with the inferable thing.

upādhi would apply to the second and the third types of its. The second type is illustrated by the syllogism, "Air is perceptible, because it is the substratum of perceptible tactile quality", where the vitiating condition is stated to be the possession of manifest colour. Here, although the probans, 'the character of being the substratum of perceptible quality' is not concomitant with the probandum 'perceptuality' (because ether which possesses the perceptible quality 'sound' is not itself perceptible, still this 'character of being the substratum of perceptible quality', limited by the condition 'possession of manifest colour' is concomitant with perceptuality; for whatever is the substratum of a perceptible quality and possesses some manifest colour is itself perceptible, as for instance, a mango. The third type of upādhi is illustrated by the syllogism, "Cessation is destructible, because it is an effect", where 'positivity' is said to be the upādhi or vitiating condition. Here, although the probans, 'effecthood' is not concomitant with the probandum, 'destructibility' (because cessation which is an effect is nevertheless incapable of being destroyed), still this 'effecthood', qualified by the upādhi, 'positivity', is concomitant with destructibility; for whatever is an effect and possesses positivity perishes, as for instance, a pot.

SECTION 18

त—यस्य साध्याभावः प्रमाणान्तरेण निश्चितः स बाधितः। यथा वह्निरनुष्णो द्रव्यत्वादिति। अत्रानुष्णत्वं साध्यं तदभाव उष्णत्वं स्पार्शनप्रत्यक्षेण गृह्यत इति बाधितत्वम्॥

दो—बाधितस्य लक्षणमाह—यस्येति। अत्र बाधस्य ग्राह्याभावनिश्चयत्वेन, सत्प्रतिपक्षस्य विरोधिज्ञानसामग्रीत्वेन साक्षादनुमितिप्रतिबन्धकत्वम्। इतरेषां तु परामर्श-प्रतिबन्धकत्वम्। तत्रापि साधारणस्याव्यभिचारा-भावतया, विरुद्धस्य सामानाधिकरण्याभावतया, व्याप्यत्वासिद्धस्य विशिष्ट-व्याप्त्यभावतया, साधारणानुपसंहारिणोर्व्याप्तिसंशयाधायकत्वेन च व्याप्ति-ज्ञानप्रतिबन्धकत्वम्। आश्रयासिद्धस्वरूपासिद्धयोः पक्षधर्मताज्ञानप्रति-बन्धकत्वम्। उपाधिस्तु व्यभिचारज्ञानद्वारा व्याप्तिज्ञान-प्रतिबन्धकः। सिद्धसाधनं तु पक्षताविघटकतया आश्रयासिद्धेऽन्तर्भवतीति प्राञ्चः। निग्रहस्थानान्तरमिति नवीनाः।

T. A probans is (said to be) invalidated, if the absence of the probandum is ascertained by some other (more trustworthy) instrument of valid knowledge. For example, (the probans) in "Fire is not hot, because it is a substance" (is an invalidated probans). Here, absence of heat is the probandum; and its absence, i. e., heat is known by tactile perception; so here there is invalidation (of the probans).

D. The defining character of the invalidated probans is stated in the sentence, "A probans is invalidated...".

Here (i.e., among the various kinds of defect of a probans), 'invalidation' on account of its yielding the sure knowledge of the absence of the probandum, and 'counter-balance' on account of its being the cause of an opposing cognition (i.e., a cognition which is opposed to the conclusion) directly

obstruct inferential knowledge. But the other defects (directly) obstruct the 'reflection about the mark' (parāmarśa). Among these other defects, again, the common mark, the contradictory mark, the mark which is unestablished in respect of concomitance, the unique and the inconclusive marks obstruct the knowledge of concomitance—the common mark does so, by not having absence of inconstancy; the contradictory does so, on account of its not having compresence (with the probandum) in the same locus; the mark which is unestablished in respect of its concomitance does so, on account of its not having the specific concomitance (of precisely that probans with precisely that probandum which are mentioned in the syllogism); and the unique and the inconclusive marks do so, on account of their giving rise to doubt about invariable concomitance. The mark which is unestablished in respect of its substratum and the mark which is unestablished in respect of its own existence in the subject obstruct the knowledge that the mark is in the subject (pakṣa). A vitiating condition, however, obstructs the knowledge of concomitance through the knowledge of inconstancy (of the mark in respect of compresence with the probandum). As for the defect known as "proving of what is already proved," the older school maintains that it falls within (the defect called) 'the mark which is unestablished in respect of its substratum,' since it undermines the subjecthood (of the subject of an inferential congnition); while the new school maintains that this is only what constitutes a kind of discomfiture (of a disputant).

E. The defect of a mark has already been defined, in the Dīpikā of section 13, as *that*, the right knowledge of which obstructs some (attempted) inferential knowledge; and in our explanatory notes on it, we pointed out that this obstruction is in certain cases direct, i. e., the knowledge of some of these defects directly obstructs inferential knowledge, while, in other cases, what their knowledge obstructs directly is not

inferential knowledge, but only its immediately preceding condition, namely, what is called the reflection about the mark (liṁgaparāmarśa), and through this indirectly obstructs inferential knowledge (*anumiti*) also. Now the Dīpikā, here, brings out how precisely each kind of defect directly obstructs inferential knowledge, or the reflection about the mark, as the case may be.

Bādha or invalidation, let us call to mind, is illustrated in the syllogism, "Fire is not hot, because it is a substance"; for here, the conclusion is invalidated by the perceptual knowledge that fire is hot. So, here, the absence of the probandum, i.e., absence of 'absence of heat' is ascertained by tactile perception which, in this case, is more trustworthy than the proposed inference. The defect of the mark, 'substancehood' is, here, constituted by this fact of the absence of the probandum in fire; and the knowledge of this fact would evidently come in the way of knowing, by inference, that fire is not hot. So this particular kind of defect directly obstructs inferential knowledge, namely, the judgment that the subject possesses the inferable thing.

Similarly, the defect called 'counterbalance', too, directly obstructs inferential cognition. Thus the syllogism, "Sound is eternal, because it is audible, just as soundhood" is counterbalanced by the syllogism, "Sound is non-eternal, because it is an effect, just as a pot." Here, the second probans, namely, 'the character of being an effect' can be said to be the rival (pratipakṣa) of the first probans, namely, 'audibility', and thus to counterbalance its strength; and it tends to produce a piece of knowledge (namely, the knowledge that sound is non-eternal) which is opposed to, and hence directly obstructs, the inferential knowledge namely, the judgment, "Sound is eternal" which is sought to be attained by the first probans, 'audibility'.

The other defects obstruct directly not inferential knowledge, but its immediately preceding condition, namely that complex judgment which is called the reflection about the

mark (liṁga-parāmarśa). We shall now show how in each case it is so. Thus the common mark is illustrated in the syllogism, "The hill has fire, because it is knowable." Here, the mark 'knowability' is such, as is present both in a similar and in a contrary instance; for there is knowability in a kitchen which, since it possesses fire, is a similar instance; and it is also present in a lake which, since it lacks fire, is a contrary instance; that is why it is called a common mark in the sense that it is common to both a similar and a contrary instance. Now on account of its presence in a contrary instance, it is evident that the mark lacks invariable concomitance with the probandum 'fire'. The existence of the mark in an instance which lacks the probandum comes in the way of apprehending the invariable concomitance of the probans and thus obstructs the reflection about the mark. since this latter is of the form, "The subject possesses *the mark which has invariable concomitance* with the probandum."

The contradictory mark is illustrated in the syllogism, "Sound is eternal, because it is something which is produced." Here, the mark, 'the character of being produced,' instead of being concomitant with the probandum, 'eternity' is really concomitant with non-eternity which is only the absence of the inferable thing, eternity. So this is a defect which amounts to the total absence of compresence of the mark with the inferable thing; and hence its knowledge would obstruct the knowledge of its concomitance with the inferable thing, and hence would obstruct the above-mentioned reflection about the mark.

The mark which is unestablished in respect of concomitance is illustrated in the syllogism, 'The hill has smoke, because it has fire." Here, the conjunction of wet fuel is the vitiating condition of the mark. We have already made it clear that such a vitiating condition amounts to the absence of the specific concomitance of the mark with the probandum. Hence this defect, too, is such that its knowledge would preclude the knowledge of the concomitance of the mark and

thus the knowledge which is called the reflection about the mark (liṁga-parāmarśa).

The unique mark (asādhāraṇa) is illustrated in the syllogism, "Sound is eternal, because it possesses soundhood." Here, soundhood is a unique or uncommon mark, since it is not present either in any similar instance such as time which is eternal, or in any contrary instance, such as a pot which is non-eternal. Inasmuch as such a mark is not present in any similar instance, i.e., in an instance which is known to possess the probandum, 'eternity', so there would be doubt if the mark is at all compresent with the probandum, and hence if it is invariably concomitant with it. And this doubt would come directly in the way of knowing, with certainty, that the mark is concomitant with the probandum, and hence also in the way of having the reflection about the mark.

The same is true also of the inconclusive mark (anupasaṁhāri). This is illustrated in the syllogism. "All things are non-eternal, because they are knowable". Here, everything being included in the subject of the conclusion to be proved, there is available no similar instance which can be said to be already known to possess the probandum, 'non-eternity' ; nor is there available any contrary instance which can be said to be already known to possess the absence of non-eternity. Naturally, therefore, there would be doubt as to whether the mark is compresent, and hence also whether it is concomitant, with the probandum. And such doubt would, as in the earlier case, directly obstruct the sure knowledge of the invariable concomitance of the mark with the probandum and would, thus, obstruct also the reflection about the mark, since such reflection involves the knowledge of this concomitance.

Of the unestablished mark, there are three varieties. Of them, we have already considered the case of one, namely, the mark which is unestablished in respect of its concomitance with the probandum (vyāpyatvāsiddha). We have to consider the case of the other two varieties, namely, the mark which is

unestablished in respect of its substratum (āśrāyāsiddha) and the mark which is unestablished in respect of its own presence in the subject (svarūpāsiddha). We shall show now that the knowledge of either of these defects obstructs directly the knowledge of the existence of the mark in the subject and hence also obstructs that complex judgment which is called the reflection about the mark. The first is illustrated in the syllogism, "A sky-lotus is fragrant, because it is a lotus". Here, the substratum of the mark, i.e., the substratum of lotushood, is unreal, since there is no such thing in the world which can be called a sky-lotus. Thus there is no subject where the mark could exist. And the knowledge of this fact would directly obstruct the knowledge that the mark is in the subject, i.e., the knowledge of what is called pakṣa-dharmatā, i.e., of the mark's being a character of the subject. This means that the knowledge of this defect would also prevent the reflection about the mark which involves this knowledge that the mark is in the subject.

The second variety is illustrated in the syllogism, "Sound is eternal, because it is visible". Here, the probans, 'visibility' itself is absent from the subject, 'sound'. And the knowledge of this fact would directly obstruct the knowledge of the existence of the probans in the subject, i.e., the knowledge of what is technically called pakṣa-dharmatā ; and so this knowledge would directly prevent the knowledge called the reflection about the mark, since the knowledge that the mark is present in the subject is involved in the knowledge called the reflection about the mark, such reflection assuming the form, "*The subject possesses the mark* which is invariably concomitant with the probandum".

We have thus shown that the knowledge of a defect of a mark obstructs either directly or indirectly (i.e., by obstructing directly the reflection about the mark) the inferential cognition which is sought to be produced by the defective mark in question.

In the Dīpikā, the author next tries to meet the objection

that his list of the main divisions of the defects of a mark is incomplete, since it does not include certain defects which are recognised by certain philosophers. Thus upādhi (i.e., the vitiating condition of a mark) is considered by some to be a fundamental defect of a spurious probans. We have already explained the term upādhi. This is something with which the probandum is concomitant, but the probans is not. We have shown how the knowledge of such a vitiating condition leads to the knowledge that the probans is not concomitant with the probandum (vyabhicāra-jñāna) ; and this knowledge of its non-concomitance with the probandum obstructs the knowledge of its invariable concomitance with the probandum, and thus the knowledge 'called the reflection about the mark. So the knowledge of an upādhi does not directly obstruct either the inferential cognition which is sought to be produced by the defective mark or the reflection about that mark which is immediately to precede that inferential cognition. And Annambhaṭṭa has defined a defect in such a way that nothing is to be called a defect of a mark (hetvābhāsa) unless its knowledge obstructs directly either the inferential knowledge which is sought to be produced by that mark or the reflection about that mark. But upādhi is no such thing. Hence it cannot be technically called an independent defect which is on a par with the five kinds of it which are mentioned in the Tarka-saṁgraha. Of course, upādhi is a defect. But it is not a defect which cannot be comprised within any of the five which our author has mentioned. A little consideration would show that a mark which has an upādhi or vitiating condition is an instance of the inconstant mark (savyabhicāra). Or in the view of Annambhaṭṭa, a mark with an upādhi falls under that specific type of the inconstant mark which is called 'the mark which is unestablished in respect of concomitance' (vyāpyatvāsiddha). All this is indicated by the author in the Dīpika by his remark, "A vitiating condition, however...".

Some philosophers have recognised another independent

defect called 'siddha-sādhana', i.e., the act of inferring what is already known or recognised by both the parties of a dispute especially by the opponent. So they would object that Annambhaṭṭa's list of defective marks is not complete. This objection is met in the following way. If a person attempts to prove that there is fire in a burning oven which is just in front of him, on the ground that there is smoke there, he can be given the retort that he is establishing what is already known for certain. But in what precise way does the knowledge that here is an attempt to prove what is already known obstruct the process of inference ? That is exactly the question which must be answered in order to ascertain what kind of defect it is, or whether it is an independent kind of defect which does not fall within the five enumerated in the Tarkasaṁgraha. It would appear that the defect of siddha-sādhana would undo the subjecthood (pakṣatā) of that which is offered as the subject (pakṣa) of an inferential process. Subjecthood has already been defined in connection with the definition of inference. If the probandum is already known to be in the ostensible subject, then, it would lack subject-hood, unless there is the desire to infer. And we may recall that this subjecthood (pakṣatā) is one of the conditions of inferential knowledge, the other condition being the reflection about the mark. Hence if in a syllogism the ostensible subject lacks this subjecthood, we can technically say that there is no subject at all in this syllogism. This means that the defect 'siddhasādhana' is really nothing but the defect called āśrāyasiddhi, i.e., the defect of a mark which is un-established in respect of its substratum. This is how, as Annambhaṭṭa remarks, the old school of Nyāya would meet the present objection. But the new school does not think that this is a defect of a mark at all. On the contrary, by pointing out to an opponent that he is merely doing the use-less work of proving what is already well established, we do not mean to say that his reasoning is defective or that the mark which he is employing to prove this established fact is

defective, but we merely tell him that he should use his time more profitably, instead of wasting it in that way. And in a debate, this would cause the opponent some discomfiture (*nigraha*). So siddhasādhana should, instead of being considered to be a defect of a mark, rather be comprised in what Gautama in his Nyāya-Sūtra has entitled nigraha-sthāna, i.e., 'an occasion for a disputant's discomfiture.'

SECTION 19

त—उपमितिकरणमुपमानम्। संज्ञासंज्ञिसम्बन्धज्ञानमुपमितिः। तत्करणं सादृश्य-ज्ञानम्। अतिदेशवाक्यार्थस्मरणमवान्तर-व्यापारः। तथा हि कश्चिद्गवयशब्दार्थमजानन् कुतश्चिदा-रण्यक-पुरुषाद्गोसदृशो गवय इति श्रुत्वा वनं गतो वाक्यार्थं स्मरन्गोसदृशं पिण्डं पश्यति। तदनन्तरमसौ गवयशब्दवाच्य इत्युपमितिरुत्पद्यते॥

दो—उपमानं लक्षयति—उपमितीति।

T. Upamāna (analogy) is the instrument of *upamiti* (i. e., knowledge by analogy). *Upamiti* is the knowledge of the relation between a name and the thing which has that name. The instrument of this (knowledge) is the knowledge of similarity. The memory-knowledge of the meaning of a sentence which expresses similarity between two things is the intermediate operation (vyāpāra). To explain this (with an example). A person, not knowing the meaning of the word *gavaya*, and hearing, from a certain forester, (the sentence) "A *gavaya* is similar to a cow," and then going to the forest, sees a (live) body similar to (that of) a cow, while remembering the meaning of that sentence. After this, there arises (in that person) the knowledge from analogy, "That is what is denoted by the word '*gavaya*' ".

D. Upamāna is defined in the sentence, "Upamāna (analogy) is...".

E. Upamāna which is a particular type of analogy is one of the ways in which a person learns, for the first time, what is meant by a particular word. Other ways for learning the meaning of a word are stated in the section dealing with the instrument of verbal knowledge. These other ways are not independent instruments of valid knowledge (pramāṇa), on a par with the four which Nyāya recognises. But this particular way of learning the meaning of a word, namely,

Upamāna, which is stated and described here, is considered to be an independent instrument of valid cognition on a par with, and qualitatively different from, such other instruments of valid knowledge as perception, inference and words.

There can be no doubt that the process entitled upamāna which is stated and described here is employed by us on occasions to learn, for the first time, the meaning of a word. Whether this process should be comprised within inference, as is maintained by certain schools of philosophy such as the Saṁkhya and the Vaiśeṣika systems, is a different matter. On this we shall presently say a few words. Meanwhile, let us clearly state the steps or the complete process of upamāna. In order that this instrument of knowledge be applicable, it is necessary that I must not have already seen the animal named *gavaya* and I must also have heard that there is such an animal having this name and further that this wild animal is like a cow, which, of course, I must have already seen and known by its name, 'cow.' If these conditions are fulfilled, and I happen to see this animal for the first time, it is quite likely that I shall observe the great similarity of this new animal with a cow. And this would most probably remind me of what I had already heard in this connection from a reliable person, namely, that a *gavaya* is like a cow in appearance. After this, it would seem inevitable that I shall have the judgment, "This is the animal which is called *gavaya*." This peculiar mode of knowledge of what a name stands for, by reference to a perceived object which bears that name, is called *upamiti* (which, literally, means 'knowledge arising from the knowledge of similarity'). The knowledge of similarity (i. e., the judgment, "This is similar to a cow") is the upamāna, i. e., the specific instrument (karaṇa) of this specific mode of knowledge which is technically called *upamiti*. Since this is the karaṇa of *upamiti*, it must give rise (in accordance with one definition of karaṇa[64]) to an

64 Vyāparavad asādhāraṇa-kāraṇaṁ karaṇam.

operation (vyāpāra), before it can yield the final knowledge called *upamiti*. What is this vyāpāra? This is the recollection of the meaning of the sentence, which I heard from a reliable person, stating the similarity of a *gavāya* with a cow.

So the phrase, 'while remembering the meaning of the sentence,' which occurs in the Tarka-saṁgraha, should be interpreted as meaning, 'he sees a live body similar to that of a cow and *then* remembers the meaning, etc.'[65]

The word, 'atideśa-vākya' means a sentence which states that one thing is like another, such as "yathā gauh, tathā gavayah," which means, "as is a cow, so is a *gavaya*."

There is some difference of opinion even among Nyāya philosophers themselves as to which of the two, (1) the knowledge of the meaning of the sentence in question, or (2) the knowledge of the similarity described above, should be considered to be the instrument of *upamiti*. The old school maintains that it is the first, and the new school that it is the second which is the instrument. However, both schools agree that it is the recollection of the meaning of the sentence "A *gavaya* is similar to a cow" which is the intermediate operation (vyāpāra). Moreover, both schools further agree that *upamiti* is not always caused by the knowledge of similarity. Sometimes, this cause may be the knowledge of dissimilarity ; and sometimes, even the knowledge of a very peculiar trait or property may be a cause of *upamiti*. Thus one may know "This is a rhinoceros" from the observation of its having only one horn adorning its nose and the consequent memory knowledge of the meaning of a sentence which one heard from a reliable person to the effect that an animal of that description is called a rhinoceros. Similarly, a person may have the judgment, "This is a camel," when he sees a camel and observes that it does not possess a level back and a short neck like a horse and also remembers the

65 The word '*smaran*,' here, stands for 'smariṣyan', in accordance with the rule, 'vartamāna-sāmīpye vartamānavad vā'

meaning of a sentence, which he heard from a reliable person, to the effect that a camel is an animal which is unlike a horse in respect of not possessing a short neck and a level back. Hence the word, 'similarity' employed in the Tarka-saṁgraha should be interpreted to be illustrative (upalakṣaṇa) and to stand for also dissimilarity, some peculiar trait, etc.

The sentence, "That is what is denoted by the word *gavaya*" (ayam gavaya-pada-vācyah) should not be understood to mean that this particular thing it is which is denoted by the word 'gavaya', but that this is what possesses *gavayatva*, i.e., that generic character which animals named *gavaya* possess in common. If it were understood in the former sense, then, one would not know that another instance of *gavaya*, too, is denoted by the same name *gavaya*.

We have already referred to the Sāṁkhya and the Vaiśeṣika contention that *upamiti* should be comprised within inference. In support of the Sāṁkhya position, Vācaspati Miśra offers the following argument in his Sāṁkhya-Tattva-Kaumudī: A word, provided it has no other meaning, is an expression for that for which it is used by the elders; as for instance, the word 'cow' is an expression for cowhood; in the same way, the word 'gavaya' is used by the elders for what is similar to a cow; so it is an expression for the same; hence this knowledge is nothing but inference. Nīlakaṇṭha in his scholium on the Dīpikā puts the Vaiśeṣika position thus: This animal possesses similarity to a cow, a similarity which is invariably concomitant with the character of being indicated by the word '*gavaya*'; so it is indicated by the word '*gavaya*'; hence it should be considered to be an instance of inference. But Nīlakaṇṭha himself immediately after this says on behalf of Nyāya: Against this, one should consider the fact that the knowledge that a certain thing is indicated by a certain word can be had even without the knowledge of this type of invariable concomitance.

SECTION 20

त—आप्तवाक्यं शब्दः। आप्तस्तु यथार्थवक्ता। वाक्यं पदसमूहः। यथा गामानयेति। शक्तं पदम्। अस्मात् पदादयमर्थो बोद्धव्य इतीश्वरसङ्केतः शक्तिः।

दी—शब्दं लक्षयति—आप्तेति। पदलक्षणमाह—शक्तमिति। अर्थस्मृत्यनुकूलः पदपदार्थसम्बन्धः शक्तिः। सा च पदार्थान्तरमिति मीमांसकाः। तन्निरासार्थमाह—अस्मादिति। डित्थादीनामिव घदादीनामपि सङ्केत एव शक्तिः न तु पदार्थान्तरमित्यर्थः॥

गवादिशब्दानां जातावेव शक्तिर्विशेषणतया जातेः प्रथममुपस्थितत्वात्, व्यक्तिलाभस्त्वाक्षेपादिना इति केचित्। तन्न। गामानयेत्यादौ वृद्धव्यवहारात् सर्वत्रानयनादेर्व्यक्तावेव सम्भवेन जातिविशिष्टव्यक्तावेव शक्तिकल्पनात्।

शक्तिग्रहश्च वृद्धव्यवहारेण। व्युत्पित्सुर्बालो गामानयेत्युत्तमवृद्धवाक्यश्रवणानन्तरं मध्यमवृद्धस्य प्रवृत्तिमुपलभ्य गवानयनं दृष्ट्वा मध्यमवृद्धप्रवृत्तिजनकज्ञानस्यान्वयव्यतिरेकाभ्यां वाक्यजन्यत्वं निश्चित्याश्वमानय गां बधान इत्ति वाक्यान्तर आवापोद्वापाभ्यां गोपदस्य गोत्वविशिष्टे शक्तिरश्वशब्दस्याश्वत्वविशिष्टे शक्तिरिति व्युत्पद्यते।

ननु सर्वत्र कार्यपरत्वाद्व्यवहारस्य कार्यवाक्य एव व्युत्पत्तिर्न सिद्धपर इति चेन्न। काश्चयां त्रिभुवनतिलको भूपतिरित्यादौ सिद्धेऽपि व्यवहारात्, विकसितपद्मे मधुकर इत्यादौ प्रसिद्धपदसमभिव्यहारात्सिद्धेऽपि मधुकरादिपदे व्युत्पत्तिदर्शनाच्च॥

लक्षणापि शब्दवृत्तिः। शक्यसम्बन्धो लक्षणा। गङ्गायां घोष इत्यत्र गङ्गापदवाच्यप्रवाहसम्बन्धादेव तीरोपस्थितौ तीरेऽपि शक्तिर्न कल्प्यते। सैन्धवादौ लवणाश्वयोः परस्परसम्बन्धाभावान्नानाशक्तिकल्पनम्॥ लक्षणा त्रिविधा। जहल्लक्षणाजहल्लक्षणा जहदजहल्लक्षणा चेति। यत्र वाच्यार्थस्यान्वयाभावस्तत्र जहती, यथा मञ्चाः क्रोशन्तीति।

यत्र वाच्यार्थस्यान्वयस्तत्राजहती, यथा छत्रिणो गच्छन्तीति। यत्र वाच्यैकदेशत्यागेनैकदेशान्वयस्तत्र जहदजहती, यथा तत्त्वमसीति।

गौरयपि लक्षणैव लक्ष्यमाणगुणसम्बन्धरूपा। अग्निर्माणवक इति।

व्यञ्जनापि शक्तिलक्षणान्तर्भूता। अर्थशक्तिमुला चानुमानादिनान्यथासिद्धा ॥

तात्पर्यानुपपत्तिर्लक्षणाबीजम्। तत्प्रतीतीच्छयोच्चरितत्वं तात्पर्यम्। तात्पर्यज्ञानं च वाक्यार्थज्ञाने हेतुः। नानार्थानुरोधात्तु प्रकरणादिकं तात्पर्य-ग्राहकम्।

द्वारमित्यादौ पिधेहीति शब्दाध्याहारः। नन्वर्थज्ञानार्थत्वाच्छब्दस्यार्थमविज्ञाय शब्दाध्याहारासम्भवादर्थाध्याहार एव युक्त इति चेन्न पदविशेषजन्यपदार्थोपस्थितेः शाब्दज्ञानहेतुत्वात्। अन्यथा घटः कर्मत्वमानयनं कृतिरित्यत्रापि शब्दज्ञानप्रसङ्गात् ॥

पङ्कजादिपदेषु योगरूढिः। अवयवशक्तिर्योगः। समुदायशक्तीरूढिः। नियतपद्मत्वज्ञानार्थं समुदायशक्तिः। अन्यथा कुमुदेऽपि प्रयोगप्रसङ्गः।

इतरान्विते शक्तिरिति प्राभाकराः। अन्वयस्य वाक्यार्थतया भानसम्भवादन्वयांशेऽपि शक्तिर्न कल्पनीयेति गौतमीयाः ॥

T. The verbal instrument of knowledge is a sentence of a trustworthy person. A trustworthy person is one who speaks the truth (i.e., states a thing as it is). A sentence is a collection of words, as for example, "Bring the cow". A word is that which has denotative function. Denotative function is the will of God that such and such a thing is to be understood by such and such a word.

D. The verbal instrument of knowledge is defined in the sentence, "The verbal instrument...". The defining character of a word is stated in the sentence, "A word is that.....",

The denotative function or capacity is the relation between a word and a (corresponding) thing—the relation which is conducive to the recollection of the (meant) thing after the word is apprehended. The supporters of the Mīmāṁsā system maintain that this relation or capacity belongs to an independent category of things (padārtha). The sentence, "Denotative function is..." is intended for the refutation of this (Mīmāṁsā view). As is the denotative capacity of words like '*ḍittha*', so the denotative capacity of words like 'ghaṭa' (a pot), too, is (constituted by a person's) desire and does not constitute an independent category of things (which is different from the seven categories which are recognised by Nyāya)—this is the purport (of this sentence).

Some (philosophers) maintain that the denotative capacity (of a word) is in regard to merely the generic character (of a thing) ; for (it is) the generic character (of a thing which) as an attribute (of that thing) is presented first (to the mind) ; and the apprehension of the individual thing takes place by presumptive reasoning. This (view) is not correct. For in every instance of the elders' employment of words like "Bring the cow", on account of the fact that an action such as that of 'bringing' (which the elders ask, by such words, the hearer to perform) is possible only in respect of an individual thing (such as an individual cow), it would be proper to infer that the denotative capacity of a word is in respect of only an individual thing, (of course) as qualified by a generic character.

The apprehension of the denotative capacity (i.e., of what is denoted by a word) takes place from (the observation of) the behaviour of the elders. A young boy who intends to learn the denotation of a word observes the voluntary action of a junior elder (which takes place) after (this junior elder's) hearing a senior elder's sentence (such as) "Bring the cow", (then) sees the junior elder's movement and his (action of) bringing the cow, and (then) ascertains by (the method of) agreement and (the method of) difference that the (junior elder's)

knowledge which causes his activity is due to the sentence (uttered by the senior elder) ; and then by (applying the method of) picking up and (the method of) rejection in (the context of) another sentence (such as) "Bring the horse and tie the cow (to a post)," he learns that the denotative function of the word 'cow' is in respect of 'that which is qualified by cowhood' and that the denotative function of the word 'horse' is in respect of 'that which is qualified by horsehood'.

It may be thought that since the employment of words, in every instance, is intended to express some activity (such as 'that of bringing' which is to be brought about), so one should maintain that the meaning of a word is learnt from only those sentences which prescribe an act, and not from those sentences which describe a fact. This idea, however, is not right. For even in respect of a fact, there are such usages as "In Kāñcī, there is a king named Tribhuvanatilaka"; moreover, we find that the denotative function of a word, such as 'bee', in respect of an existing thing (namely, a bee which is a fact) is learnt from its use in a sentence like "A bee in this fully blossomed lotus is drinking honey', where the word, 'bee' is used in contiguity with other words, the meanings of which are already known.

'The secondary (or figurative) meaning-functicn of a word (lakṣaṇā) is also a significatory function of it, (śabda-vṛtti). This secondary meaning-function of a word is constituted by 'the relation of the word' (*sambandha*) with 'that with which the word is related by its denotative (or primary significatory) function' (śakya). In the sentence, "There is the herdsman's hamlet on the Ganges", the word, 'Ganges' presents the bank of the river to the mind through the mere fact that the bank is connected with the river which is directly signified by the denotative or primary meaning-function of the word 'Ganges'. Hence we should not presume that the word 'Ganges' directly signifies, by its primary or denotative meaning-function, (not only the river having that name, but also) the bank of the river. Of course, in regard to a word like '*saindhava*' (which

directly signifies both salt and horse), it is presumed that the word in question has more than one denotative or primary meaning-function (śakti), since a lump of salt and a horse are not naturally connected with each other. This indirect or secondary signification of a word is of three kinds: (i) indirect signification in which the direct or primary signification is wholly given up; (ii) indirect signification in which the primary meaning is not given up; and (iii) indirect signification in which the primary meaning is partially given up and partially not given up. *Where* the primary meaning of a word occurring in a senteuce is not, in fact, connected even partially with the primary meanings of certain other words of the sentence, with which, however, the said word is in grammatical agreement, *there*, we have the first kind of indirect signification of a word, in which the primary meaning is wholly given up. This is illustrated by the word, 'platforms' in the sentence, "The platforms are crying aloud". Where the primary meaning of a word occurring in a sentence is factually connected with the primary meanings of the other words of the sentence and is, therefore, retained in the total secondary meaning of the said word, there, we have the second kind of indirect signification in which the primary meaning is not given up, as in the sentence, "Persons with umbrellas are going". Where (only) a part of the primary signification of a word, by giving up the other part, is connected (with the primary meanings of the other words of the sentence), there, the word has (the third type of) indirect signification in which the primary signification is given up as well as not given up as in the sentence, "Thou art That".

(What is called) gauṇī, i.e., metaphorical signification is also (a mode of) lakṣaṇā, i.e., indirect signification—it is of the nature of a word's relation with an attribute (guṇa) which is intended to be indirectly signified by it as in the sentence "The boy is fire".

Even vyañjanā, i.e., signification by way of suggestiveness falls within primary and secondary significations. However,

that (signification by suggestiveness) which is based on the denotative capacity (not of words, but of) what is primarily meant (by them) is explicable otherwise by inference and other instruments of knowledge (i.e,, by some means other than verbal signification).

Failure to understand the intended meaning is the root-cause of indirect signification. The intended meaning (of a word) is that, with the intention of (producing) the knowledge of which, that word is uttered, (We have to admit that) the knowledge of the intended meaning (of a word) is a cause of the knowledge of the meaning of a sentence (in which this word occurs), in view of (the fact that a word may have) many meanings. Context and such other things are what enable us to ascertain the intended meaning.

In (elliptical) sentences such as "the door," we have to supply a word like 'close'. It may be objected that since the purpose of a word is to produce the knowledge of what is signified by it, and since it is impossible to supply a word without knowing what is meant by the word, so (in understanding an elliptical sentence) it would be proper (to acknowledge) that we supply what is meant (by the word, rather than the word itself). This objection is not proper. For the recollection of a thing, which is brought about by a specific word (signifying that thing) is a cause of verbal cognition. Otherwise (i.e., if this is not granted) it would lead to the undesirable consequence of being required to grant that there could be verbal knowledge even from (such a collection of words as) "A pot. The character of being an object. The activity of bringing. Effort."

In words like paṅkaja (meaning a lotus, but etymologically meaning 'that which has its birth in mud'), there is etymological-cum-conventional signification. Etymological signification is the signification of the constituent parts (i.e., the grammatical roots, prefixes and suffixes which go into the composition of a word, taken together). The signification of the (word as a) whole is the conventional signification.

The signification of the word as a whole is (accepted), so that there may be invariably the knowledge of lotushood (from the word 'paṅkaja'). Otherwise (i.e., if this collective signification be not granted), it would lead to the (undesirable) consequence of being required to apply (the word 'paṅkaja') even to a water-lily.

The followers of Prabhākara maintain that the significatory function (of a word) is in respect of a thing as *related* to something else. The followers of Gautama (however)[66] uphold that since the *relation* (of one thing) to another can be known as the meaning of a sentence, it is not proper to suppose that the meaning function (of a word) is also in respect of (such) *relation*.

E. The word, 'śabda' in the first sentence of the Tarka-saṁgraha, here, does not carry its usual sense, namely, either sound or 'word', as such, but śabda as a pramāṇa, i.e., as an independent instrument of valid knowledge, i.e., of knowledge which is caused by the hearing or reading of a sentencc, to be more specific. We have often referred to such knowledge by the phrase 'verbal knowledge'. As śabda is an instrument of valid knowledge, so in its definition it is stated to be not a sentence coming from any source, but a sentence coming from a reliable person. The word 'reliable' (āpta), in this connection, means both that the person from whom such a sentence comes knows correctly the fact which is stated in the sentence and also that he is truthful. A sentence is a collection of words. The word, '*pada*' which we have translated as 'word' implies, in this context, both that it is properly declined or conjugated (as the case requires) and follows other grammatical rules of a language. It should also be noted that since a vākya is defined as a collection of words, a vākya need not be a complete sentence, although we have, for the sake of convenience, rendered it by the word 'sentence'—a vākya may be a phrase, a clause or a complete sentence.

66 That is, the supporters of Nyāya.

The meaning of a sentence, understood in the sense in which we have just explained it, is often referred to as *anvaya* or saṁsarga, which literally means the relation of the things meant by the separate words, the relation which the sentence, as a whole, expresses through these separate words employed in accordance with the rules of grammar of a particular language.

A word is defined as that (i.e., an articulated sound) which has śakti. Śakti means capacity which, in the present context, means the capacity of indicating something other than the articulated sound to which this capacity belongs. The Sanskrit equivalent of the English word, 'word' is śabda. But śabda also means a mere 'sound'. That is why in order to avoid confusion with 'sound', our author, in defining a sentence, does not employ the term 'śabda', but the term '*pada*' (vākyam padasamūhaḥ). The capacity of a word to indicate a thing is said to be 'in respect of that thing'. We should note that śakti is the capacity of a word to signify the primary meaning of a word, or its primary meanings, if the word happens to have many such primary meanings. In the latter case, the word must be supposed to have as many śaktis or capacities as it has meanings, a single capacity being connected, with a single meaning. If a word, used in a sentence, happens to express some meaning which is different from the primary meaning, but related with the primary meaning, then, this significatory function of it is not designated śakti, but lakṣaṇā. We have rendered śakti by such phrases as 'direct signification', 'primary significatory function or capacity' and lakṣaṇā by 'indirect signification,' 'secondary meaning-function,' etc. Some philosophers, especially those connected with grammar and rhetoric, recognise, besides these two types of meaning-function of a word, also two other types, called gauṇī and vyañjanā. Nyāya, however, comprises them in either śakti or lakṣaṇā. Gauṇī has been translated by us as metaphorical signification, and vyañjanā as signification by suggestiveness.

What precisely is the nature of the peculiar relation which a word has to its meaning? Evidently, śakti or the capacity of a word to *indicate* a particular thing is only a technical name for this relation. We are asking, "What, here, is meant by 'indicating' ?" The Dīpikā answers this question by saying that śakti is the relationship between a word and a thing, which helps, or is conducive to, the recollection of the thing. As I utter a word or hear it, I somehow think the object with which the word is connected. This thought of the object, since it is neither perception, nor inference, nor any fundamental mode of non-mnemic knowledge (*anubhava*), is considered to be mnemic. It is called in Sanskrit smṛti, or *upasthiti*. We have usually translated it as recollection or memory knowledge. This may not be quite correct. It would appear, however, that some factor of memory is involved in my having the idea of a thing when a word which is connected with it is either uttered or heard by me, But we have not yet given any satisfactory answer to the question, "What is this peculiar capacity of a word (which is only a sound or a combination of sounds) to suggest the idea of a thing which is not sound, or which (when the suggested thing also happens to be some sound) is different from the sound which suggests it ?" Mīmāṁsā philosophers have maintained that this peculiar capacity of a word should be considered to be a natural property of it and a fundamental category of thing (padārtha), on a par with, and different from, such other categories as substance, quality, activity, etc. But Nyāys maintains that this capacity can be analysed into the will or desire of God that such and such an object should be understood by such and such a word. It is on account of the will of God that when a person hears the word 'ghaṭa' he at once thinks of that object which can hold water. Sō this śakti is but the will of God in regard to words, and not any such strange thing as Mīmāṁsā believes. This, however, is the view of earlier Nyāya. Later Nyāya holds that śakti need not necessarily be the desire of

God that a certain word should signify a certain thing. Even the desire of man can make a certain word signify a certain object. Thus a combination of certain vocal sounds, which in ordinary language, is meaningless, can be employed by a child's parents as its name; and in such an instance, it is obvious that it is the desire of the parents that accounts for the fact that afterwards such a new word makes persons in their neighbourhood understand or think of that child when they either utter or hear the word. So later Nyāya is of opinion that śakti is nothing but a kind of desire, whether of God or of man. A school of older Nyāya also recognised the fact that technical words and proper names are of such a kind that their significatory capacity cannot be said to be due to God's desire. But it would not grant that such words have śakti. In its view, they are merely paribhāṣā, i.e., conventional and not śakta, i.e., possessed of what properly is called primary signification. This, perhaps, is the implication of Annambhaṭṭa's definition of a *pada* as *śakta*. Conventional words are not to be regarded as *padas* and as thus possessing śākti.

The theory that words are of divine origin (as is maintaintained by Nyāya) or that they have a natural capacity to express certain objects (as is the view of Mīmāṁsā) is likely to have no appeal in modern times. Of course, the precise way in which language originated is still greatly shrouded in mystery. But rather than try to solve such mystery with the help of God, or of some supposed natural property of words to signify things, one would feel inclined to support the view that the significatory capacity of a word is no natural property of it, but an artificial one, due to convention. In fact, this is what the later Nyāya view amounts to, if we free it from the doctrine that the meanings of the words of the Sanskrit language are due to the desire of God.

The next question which the Dīpikā considers is: What is it that a word or term such as 'pot' primarily signifies? Is

it some individual pot (or pots) or the generic character, 'pot-hood', or is it some individual pot (or pots) as characterised by pothood? Annambhaṭṭa, on behalf of Nyaya, maintains the last view. The second is the view of Mīmāṁsā which, here, is stated first and then refuted. The position of Mimāṁsā against that of Nyāya is supported by the following argument. Grant, for the sake of argument, that it is 'an individual pot, characterised by the generic attribute pothood' which is the primary signification of the word 'pot'. Now it is a general principle, which is recognised by Nyāya also, that the knowledge of a thing as characterised by some attribute requires the prior knowledge of that attribute. Hence when after hearing the wofd, 'pot,' I recollect an individual thing characterised by pothood, it must be granted that here I recollect the generic attribute 'pothood' which characterises the individual thing. Now we can well suppose that this pothood is all that the word 'pot' reminds me of. This will fully explain the fact that I think of an individual pot when I hear the word 'pot'. For although the word 'pot' in a sentence like "Bring a pot" would, on this theory, remind me of pothood and not of an individual pot, still the consideration that what can be brought is not pothood but an individual thing which is characterised by pothood would immediately afterwards make me think of an individual pot, too[67]. Of course, both Mīmaṁsa and Nyāya would grant that when a person hears the sentence, "Bring the pot", the word 'pot' which occurs in it would give him the idea of an individual thing characterised by pothood. But the question is: "How much of this total idea is caused by the word 'pot'?" Mīmāṁsā holds that the hearing of the word is responsible only for the idea of pothood, as this is quite sufficient for the purpose of his having the total idea of an individual pot as characterised by

67 Consideration of this kind would be treated by Mīmāṁsā as a mode of non-inferential mode of mediate knowledge called arthāpatti, referred to, here, as ākṣepa, while it would be treated by Nyāya as an instance of inference.

pothood. In framing a theory, we should as far as possible, abide by the law of parsimony (i.e., apply Occam's razor). Hence the word 'pot' should be supposed to signify only pothood and not also the individual thing which it characterises, since this would be attributing, to the significatory capacity of a word, more than the minimum which the situation demands. That is to say, śakti or the meaning capacity of a word is in respect of a generic character which is common to all its individual instances and not in respect of some or all of its individual instances, nor in respect of such individuals as are characterised by this generic character.

This view of Mīmāṁsā is rejected by our author on behalf of Nyāya. Before proceeding further, we may mention, here, that neither Mimāṁsā nor Nyāya would support the view that the direct significatory capacity of a word is in respect of some particular individual or individuals of a class, merely. The principal argument for rejecting this view is that a particular individual cow, as such, cannot be supposed to be what the word 'cow' stands for. If it did stand for only an individual cow, one could not understand, by the same word 'cow', now this individual cow, then that individual cow and on a different occasion those individual cows. In fact, both Nyāya and Mīmāmsā agree that a word certainly signifies a generic character. But Nyāya maintains that this is not the only thing that a word signifies primarily. A word primarily means also an individual, of course, as characterised by its generic attribute. On what ground does Nyāya say this? As the Dīpikā points out, when an elder tells me, "Bring the cow", I at once understand what he means to say. If the word 'cow' in his sentence meant cowhood, his sentence would mean that cowhood should be brought by me. But certainly cowhood is not the sort of thing which can possibly be brought. Hence the word 'cow,' here, means an individual cow which alone is a fit object for being brought from one place to another. Of course, the Mīmāṁsā philosopher may urge, "Mīmāṁsā, too, would not maintain

that the elder's sentence means the bringing of cowhood. By uttering this sentence, the elder certainly means that a particular individual cow should be brought." But the point is: What do I primarily understand by the word 'cow,' when I am asked to bring the cow? The contention of Mīmāṁsā is that the word 'cow' primarily makes me think of cowhood and then by some non-verbal means I also think of the individual which possesses this cowhood. Against this, Nyāya urges that in understanding a sentence of this kind, nobody is aware of adopting any non-verbal means—one would seem directly to understand from the sentence itself that an individual cow is to be brought.[68] This means that the word 'cow' which occurs in this sentence directly means an individual cow, although in order to understand that it is a cow and not any other thing which the elder desires me to bring, it is necessary also to admit that the word 'cow' means further that generic attribute by possessing which a cow is a cow; so the correct view in the matter is that the word 'cow' means an individual as characterised by the generic attribute "cowhood."

How is this meaning or denotative function of a word originally learnt by a novice? The Dipikā says that this is originally learnt by a child by observing the verbal behaviours and the consequent voluntary activities of more grown-up persons. Thus the father of a child may, in its presence, say to its elder brother, "Bring the cow"; it then finds its elder brother to perform the act of bringing the cow to their father. If now the child be supposed to have learnt, however vaguely, that a voluntary act, such as that of bringing a cow, is preceded by the voluntary agent's idea or fore-knowledge of the sort of act which is to be performed, we can very well believe that the child infers that its brother's act of bringing the cow is preceded by his idea or fore-knowledge of the act and

68 For a very good exposition of the Nyāya view on this topic, the student may consult Phaṇibhūṣaṇa Tarkavāgīśa's notes in his Bengali edition of the Nyāya-Bhāṣya, 2.2.66.

that this fore-knowledge has been caused by his hearing certain words proceeding from their father. The latter part of this inference must be supposed to be due to an implicit application of the method of agreement and difference (*anvaya-vyatireka*)—the child has observed that whenever their father addresses the words, "Bring the cow" to its elder brother, the latter invariably brings the cow to him, but when the former does not do so, the latter does not act in the same fashion. In other words, the child infers that its brother's knowledge of their father's desire that he should bring the cow was caused by his hearing the sentence, "Bring the cow". It perhaps hears, on a different occasion, the words, "Bring the horse" and finds that, this time, not a cow but a horse is brought; on still another occasion, it hears the words, "Tie the cow" and the words, "Tie the horse" and finds that its brother performs a different act directed to a cow and a horse. Thus by observing how on account of the fact that certain sentences include (āvāpa) the word 'cow' and exclude (udvāpa) the word 'horse' or include the word 'tie' and exclude the word 'bring' (as the cases may be), the brother performs different acts directed to different objects, it learns that the words 'cow', horse', 'bring', 'tie', etc. respectively mean different things of such and such kinds.

Nyāya recognises that there are other ways, too, by which we learn the meanings of new words. The instrument of valid cognition, which is called 'Analogy', is one such way. This has been discussed and explained in Section 19. The meaning of a new word is also learnt from such other sources as grammar, a dictionary, a sentence in which the new word is employed in contiguity with other words of which the meanings are already known, etc. Nevertheless, it must be granted that the principal way in which a child learns the meaning of the more important words which are employed in daily life by the people among whom the child grows up is what the Dīpikā describes as '(the observation of) the behaviour of its elders', i. e., by observing how a person acts

after hearing imperative sentences like "Bring the cow". On account of this, Mīmāñsā philosophers of the Prābhākara school maintain that the meanings of words are necessarily connected with some act which is to be brought about, that verbal comprehension (śabda-jñāna), truly so called, invariably refers to such an act and that the only way in which the primary meanings of words are learnt (śakti-graha) is the observation of the behaviour of one's elders. The Dīpikā refutes this view with the remark that we have verbal comprehension even from indicative sentences like "In Kāñcī, there is a king named Tribhuvanatilaka", which are not imperatives and which describe some fact without prescribing an act. The Dīpikā also points out that the observation of the specific acts which a person performs after he hears a certain imperative sentence addressed to him is not the only way in which one learns the meaning of a word for the first time. For instance, a person who does not know the meaning of the word, '*madhukara*' (etymologically meaning 'the maker of honey') can learn that this means a bee, when he hears from a reliable person, "Here in a fully blossomed lotus, a bee is drinking honey," provided, of course, he knows the meaning of the other words of the sentence, such as 'lotus,' 'drinking', etc.

The next question discussed in the Dīpikā is the capacity of a word of indirectly signifying something. This indirect mode of signifying a thing, which a word can perform, is called lakṣaṇā, as distinct from śakti. In the view of Nyāya, these are the only two types of significatory capacity which words possess, namely, śakti and lakṣaṇā. Of these, the first has just been explained. Lakṣaṇā is defined as relation with what is directly signified (śakya). The stock example for illustrating this sort of indirect meaning of a word is: "There is a herdsman's hamlet on the Ganges." The primary or direct meaning of the word 'Ganges' is the flowing stream of the river named Ganges—what the word 'Ganges' directly signifies (i. e., its śakyārtha) is the flowing watery

surface of the river. But this meaning is not appropriate in the present sentence; for there can be no hamlet on a flowing watery bed. What the word 'Ganges' must mean, in the present sentence, is the bank of the river having that name. The bank has the relation of immediate contiguity with the flowing surface of the river, and it is the flowing surface of the river which is the primary meaning (śakyārtha) of the word 'Ganges.' Hence the intended meaning, here, namely, the bank of the river, is signified by the word 'Ganges' on account of the fact that the bank is related with the primary meaning of the word. Although the word 'Ganges' directly signifies the flowing surface of the river, still it indirectly signifies, here, its bank, through the connection of the bank with its primary meaning. That is to say, the word 'Ganges' has no direct, but only an indirect, significatory relation with the bank which is what it expresses in the present sentence. This sort of indirect relationship which a word has with what is secondarily meant by it is called lakṣaṇā. The question naturally suggests itself, "Why must we not think that the word 'Ganges' has two primary meanings, namely, (i) the flowing watery surface of the river, and (ii) its adjoining banks?" To this, the answer is that since the word can remind us of the banks on account of their contiguity with the river, so it would be against the principle of parsimony to think that the same word has two meanings and hence two primary significatory capacities (śakti). One word, one primary meaning—this is what should be accepted except when the various meanings are not connected with one another in actual fact. An instance of a word having two primary significatory capacities is supplied by the word *saindhava* which means both 'salt' and 'horse.' Here, we cannot suppose that one of these meanings is primary and the other secondary, since the two are not connected with one another factually. Hence we have perforce to ascribe two denotative capacities to the same word '*saindhava.*"

This lakṣaṇā or figurative signification of a word has been

divided in the Dīpikā into three classes. (1) Figurative signification where the literal meaning is altogether given up. Thus in the sentence, "The platforms are crying aloud," the intended meaning is that the persons on the platforms are crying aloud, and not the platforms themselves. So, here, the word 'platform' signifies not its usual meaning, but the persons who are occupying it; and in this secondary meaning of it, the primary meaning has been completely given up. (2) Sometimes, the figurative meaning of a word retains, within it, the literal meaning, too, although it includes also something more which is different from the literal meaning and connected factually with it. This is the second type of figurative signification. This is exemplified in the sentence, "Men with umbrellas are going." What is meant by this sentence is that a procession of men, many of whom are carrying umbrellas with them, is passing. Now this intended meaning of the phrase, 'men with umbrellas' does not discard what it literally signifies; for 'a procession of men many of whom are carrying umbrellas with them' certainly includes the 'men with umbrellas,' although it also includes some men who have no umbrellas with them. This represents the second type of figurative signification. (3) In the third type of figurative signification, the literal meaning is partly retained and partly given up. For example, in the sentence, "Thou art That," the pronoun 'Thou' in the context in which it occurs has to be taken as referring to a finite individual self; and the pronoun "That" has to be taken to refer to God who is the creator, sustainer and destroyer of the universe. Now in this sentence, these two words are employed as subject and predicate respectively to each other. That is to say, the words, 'Thou' and 'That,' literally interpreted with reference to the context, mean the finite individual self and God respectively; and the sentence would appear to express the identity of the two. But how can the individual self which is limited in power, knowledge and goodness be identical with God who is omnipotent, omniscient and

perfectly good? Nor can the sentence be supposed to be a nonsensical combination of certain words uttered by a capricious person or a lunatic. For it is a sentence of the most holy of religious literatures, namely, the Veda. So what it asserts cannot but be true. Hence we must interpret the words figuratively and suppose that they have, here, some secondary signification, by lakṣaṇā, inasmuch as the literal meanings of the two words do not yield any coherent sense of the sentence. What may their secondary signification be? Consideration would show that in order that the identity between the individual self and God be possible, it is necessary to give up a certain part of the literal meanings of these words and retain some other parts: the part that should be retained should be what is common to both the individual self and God, so that their identity may be asserted rightly, and the parts which should be given up should be those which make the individual self and God different from each other. What, now, is the common element present in both God and the individual self? And what are the divergent elements? It would seem that the divergent elements are the limited power, knowledge, etc, of the individual self, on the one hand, and the perfect power, knowledge, etc. of God, on the other. If we discard these divergent elements, what would remain of the primary meaning of the former would be the mere self or spirit minus its individuality, and what would be retained of the latter would similarly be the mere spirit minus its Godhood or lordship of the universe. And the scriptural sentence in question means to assert the identity of the two, because, as a matter of fact, they have this identity. But one may object, "What about the divergent elements? It would indeed be poor consolation for a poor man to be told that he is identical in status with the king, in this respect that both of them are men". To this objection, the reply given is that the scriptural statement in question further implies that the limited individuality of the self and the infinite power of God are both false appearances, and if

one could realise this, there would be an end of all the sufferings of the individual self which are, after all, incidental to its belief that it is limited, while God is not. Hence, in this example, we get an illustration of the third type of lakṣaṇā, called jahadajahallakṣaṇā. It may be objected, however, "If 'pure spirit' (śuddha caitanya) is to be secondarily meant by the word 'Thou' which primarily means the individual self, then, 'pure spirit' must be connected with the individual self. Similarly, if 'pure spirit' is to be secondarily meant by the word 'That' which primarily stands, here, for God, then, 'pure spirit' must similarly be connected with God. But is pure spirit really connected with the individual self and with God ?" The answer is "Yes". For the individual self is nothing but 'spirit with limited ego-hood' or 'spirit qualified by limited ego-hood' ; if we abstract, from this, the attributive portion, namely, 'limited ego-hood', we get 'spirit', as such, or 'pure spirit' ; so that 'pure spirit' can be considered to be the substratum of 'limited ego-hood' ; that is, pure spirit is connected with the limited ego or the individual self as its substratum. Similarly, 'Godhood' which is the attributive element of God has 'pure spirit' as its substratum. In other words, both the individual self and God are connected with 'pure spirit', so the literal meanings of the pronouns 'Thou' and 'That', in the present sentence, are connected with their figurative meanings, and hence they can signify pure spirit by the secondary mode of signification.

We are afraid that the explanation which we have offered for the figurative interpretation of the sentence, "Thou art That" would not be found by many to be satisfactory. But we must stop here. As a matter of fact, however, this illustration of the third kind of figurative signification of a word would not be acceptable to Nyāya which does not believe in the metaphysical identity of the individual self and God. This illustration would be acceptable only to Advaita Vedānta. What, then, from the standpoint of Nyāya could be offered as an illustration of this third type of figurative signification of

a word ? Nīlakaṇṭha, the commentator of the Dīpikā, says that, in the opinion of some, an appropriate illustration for this, which would be compatible with the general position of Nyāya, is, "This Devadatta (whom I am seeing, here and now) is the same as that Devadatta (whom I saw, there and then)". But he adds that, in the view of others, there is, in this, no secondary signification at all ; and he leaves the matter, there, without further discussion, suggesting, as it were, that Nyāya should rather not recognise jahadajahallakṣaṇā as a mode of lakṣaṇā at all

Certain philosophers have recognised another mode of significatory capacity of a word, called gauṇī, different from śakti and lakṣaṇā which we have explained above. We have translated gauṇī as metaphorical signification, because the illustrations which are given for this would appear to involve what in western rhetoric is known as metaphor. The Dīpikā illustrates it by the sentence, "This boy is (veritable) fire". It is clear that in this sentence, the word 'fire' cannot have its literal sense, namely the object which has heat and burns whatever comes in contact with it. What, then, does the word 'fire' in this sentence mean ? We know that, in western rhetoric, a metaphor is described as a shortened simile, so that the above sentence would be considered to be equivalent to "This boy is as pure or bright as fire." One may maintain that this suggests that the intention of the speaker in making a statement like this is to state just this fact of similarity between this boy and fire. It would appear, however, that a mere statement of similarity between two things does not necessarily require the indirect mode of signification. If it did, then, there could be no statement of similarity with the help of words understood in their very literal sense. So the intention of the speaker in saying that this boy is veritable fire is to state, with a good deal of force and effectiveness, not that the boy is similar to fire in some respect, but that he is extraordinarily pure or bright. Hence the word 'fire' in the above sentence signifies not the substance

named fire, but purity or brightness, which is (believed to be) a property of fire. That is why it is said to be the gauṇī mode of signification, the word, 'gauṇī' being an adjective derived from guṇa which means a property.

Now it is the view of Nyāya that gauṇī should not be considered to be an independent mode of signification which is different from lakṣaṇā. On the contrary, it should be regarded as an instance of lakṣaṇā itself. For what is the definition of lakṣaṇā? It is śakya-sambandha, i. e., relation with what is literally signified. It is clear that this definition applies to the case of gauṇī, too. For instance, in the sentence considered above, the word, 'fire' instead of signifying its primary meaning, namely, the substance fire, signifies purity or brightness which is a property of fire. And certainly the property of a thing is connected with it. Hence the word 'fire', in this case, signifies what is connected with what is directly or literally signified by it, so that this mode of signification is nothing but lakṣaṇā.

Rhetoricians (ālankārika) speak of still another significatory function of words, called vyañjanā (signification by suggestiveness). Their argument in support of this is as follows: When somebody says that there is a milkman's hut on the Ganges, if he means merely to say that there is such a hut on the bank of the stream Ganges, this indeed may be considered to be an instance of lakṣaṇā; but if he means to imply further that the hut is situated in an atmosphere of holiness and coolness (and these properties are usually associated with the river Ganges), this additional sense is incapable of being accounted for by mere lakṣaṇā. Moreover, there are expressions like "Bhūdharas (which mean either hills or kings by primary signification) appear charming when they are at a distance,"[69] where the word 'bhūdhara', standing as it does for either a king or a hill, suggests a fine similarity between the two, bringing before the mind a host

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69 Dūrasthā bhūdharā ramyāḥ.

of other ideas about them, besides the idea that distance lends enchantment to their view. It is difficult to see how the signification of these various ideas could be accounted for by mere śakti or lakṣaṇā. There are also statements like the following couplet, where the words employed cannot in any way, either direct or indirect, be said to be connected with the intended meaning:

"Go, oh dear, if go you must; but may your paths be auspicious;
And may I, too, be born again precisely there, where you would be gone."[70]

Here, a lady, in saying this to her beloved who is about to start for a very distant land, really means to say that she would not live long after he leaves her and so he should give up the idea of undertaking this long journey. How can this intended meaning be drawn out of the words employed, either by śakti or by lakṣaṇā? Yet, what is literally expressed by the words somehow suggests, without being factually related with, the intended meaning. Hence it would be unreasonable not to recognise this peculiar mode of expressing something by suggestion as an independent mode of signification which words possess. This is what is called the vyañjanā mode of signification. This vyañjanā is of two kinds: (i) suggestion which is based on the primary signification of the words employed—śabda-śaktimūlā; and (ii) suggestion which is based directly not on the significatory capacity of the words, but on what is meant (by the words employed)—artha-mūlā. The first is illustrated in the first two examples, given in the Dīpikā, namely, "There is a milkman's hut on the Ganges," and "Bhūdharas (i.e., kings or hills) are charming from a distance." The second type of suggestion is illustrated in the third example, namely, "Go, oh dear, if go you must.....".

70 Gaccha gacchasi cet kānta panthānaḥ santu te śivāḥ. Mamāpi janma tatraiva bhūyāt yatra gato bhavān.

But Nyāya, consistent with its general policy of cutting down the number of theories wherever that is reasonably possible, rejects the claim of vyañjanā to be an independent mode of significatory function of words. It contends that the first type of suggestion, i.e., the one which is based on the primary significatory capacity of words, can be comprised, in certain cases, within the primary significatory capacity itself; as for example, in the sentence, "Bhūdharas are charming from a distance"; for here, we can understand what is intended by the speaker, by having resort to the two direct significatory capacities (śakti) of the same word, 'bhūdhara', one in respect of mountains and the other in respect of kings. In certain other cases, this śabda-śaktimūlā vyañjanā can be comprised in lakṣaṇā; as for example, in the sentence, "There is a milkman's hut on the Ganges." In order to get the idea of coolness and holiness, we can legitimately presume that the word 'Ganges' itself, since its primary meaning, namely, the flowing stream is connected with the holy and cool banks of the river, by lakṣaṇā, i.e., indirectly, signifies not the bare banks, as such, but the holy and cool banks of the river.

As for the second type of vyañjanā, it would appear that the intended meaning, here, is not signified directly or indirectly (i.e., by śakti or lakṣaṇā) by the words themselves at all. On the contrary, this intended meaning is known by a process of inference based, of course, on what is directly signified by the words of the sentence. For example, the intended meaning of the sentence, "Go, oh dear, if go you must,....." is "If you leave me, and undertake this long journey, I shall die soon after you leave," and this meaning can be known by a process of inference like "This woman will die after my going away from her, because she is employing such singularly queer expressions."[71]

71 *Vide* Nīlakaṇṭha's commentary on this portion of the Dīpikā: Iyaṁ madīyagamanottarakālika-prāṇa-viyogavatī; vilakṣaṇa-śabda-prayoktṛtvāt.

Thus Nyāya maintains that there are only two modes of significatory capacity of a word, namely, śakti and lakṣaṇā, i.e, primary and secondary signification. But how are we to ascertain that a certain word in a certain sentence has to be understood not in its primary sense, but in some secondary sense? Some philosophers hold that a secondary sense is to be understood, when the literal meaning of the word would come in the way of getting an intelligible and consistent whole of meaning from the sentence in which it occurs. This is what is technically called anvayānupapatti (i.e., unintelligibility of the total sense of the sentence—*anvaya*, here, means the total meaning yielded cumulatively by all the words of the sentence taken together). But this view is not acceptable to Nyāya. Against this, Nyāya points out that a sentence like "Take the sticks in" (meaning 'take the men with sticks in') does not lack intelligibility so far as the total sense of the sentence is concerned, even if we understand the word 'sticks' in its primary or literal sense. Nevertheless, every one would agree that here is an instance of lakṣaṇā or indirect mode of signification. Hence it cannot be true that the ground on which the lakṣaṇā mode of interpreting a word depends is the unintelligibility of the total meaning of the sentence if all the words be taken in their primary sense. Consideration would show that what necessitates recourse to the lakṣaṇā mode of signification of a word is our failure to understand (*anupapatti*) the *intended meaning* (tātparya) of the word, unless this word be taken in some secondary sense. It would appear that this precondition for adopting the lakṣaṇā mode of interpreting a word is fulfilled not only in such a sentence as "Take the sticks in", but also in such a sentence as "There is a milkman's hut on the Ganges", where there is also the unintelligibility of the total sense of the sentence. Hence it is our failure to understand the intended sense of a word if it be taken in its primary meaning, which is the proper precondition of legitimately having recourse to the indirect mode of signification.

But what is meant by the word 'tātparya' ? The answer, given in the Dīpikā to this, is indicated by the very phrase by which we have rendered it into English, namely, the 'intended meaning'. So this is no definition, but only an explication in more familiar terms, of a word which is rarely used except in the philosophical discussion of the topic on the import of words and sentences. The word, 'tātparya' etymologically means 'the character of being for that' (it being an abstract noun formed from the word, '*tatpara*' which means 'which is for that'). Hence it is necessary to explain the precise sense in which the word is employed in the present context, with the help of a definition. Tātparya is explained as 'the character of being uttered (by a speaker) with the intention of (generating in the mind of the hearer) the apprehension (pratīti) of *that* (i.e., a particular thing)'.

The Dīpikā remarks that the knowledge of this tātparya or intended meaning is one of the causes of the knowledge of the meaning of a sentence. The reason why it is so is that in those cases, at any rate, where in a sentence there is a word having more than one primary signification, it is necessary to know the intended sense of the word before the meaning of the sentence can be apprehended. Thus in the sentence, "Bring *saindhava*", it is not possible to apprehend the sense of the sentence without knowing first what out of the two senses of the word, '*saindhava*', namely, salt and horse, is the meaning in which it has been employed, here. And since the knowledge of the intended meaning of a word has to be recognised as a cause of the apprehension of the meaning of a sentence in these instances, so it should be recognised to be a cause of such knowledge in every instance of the knowledge of the meaning of a sentence. For the cause of a particular kind of effect is of the same kind in every instance of that kind of effect—the law of casuality is a universal law.

It may be objected that there is no way of knowing the intended meaning of a word except by knowing the total

meaning of the sentence in which it occurs; and if it be maintained that the knowledge of the total meaning of a sentence is caused by that of the intended sense of the words which occur in that sentence, this would involve circularity, i.e., the procedure of explaining *a* by *b* and at the same time *b* by *a*. To this the reply given in the Dīpikā is that what enables us to ascertain the intended meaning of a word is not the total sense of the sentence in which it occurs, but such facts as the context in which the sentence has been employed. Thus if the sentence "Bring me *saindhava*" having, in it, the word, '*saindhava*' (which may mean either salt or horse) be uttered by somebody while eating a meal, then, the intended meaning of the word '*saindhava*' must be salt and not horse.' Hence no circularity is involved in maintaining that the knowledge of the intented meaning of a word is a precondition of the knowledge of the meaning of the sentence in which it occurs. Another such fact that enables us to ascertain the intended meaning of an ambiguous word in a sentence is the occurrence (in the same sentence) of a word or phrase of known import as a qualifying adjective of the ambiguous word in question. Thus when a person hears a sentence like "Hari with the conchshell and the wheel should be worshipped", he may be in doubt as to what precisely is meant by the word, 'Hari', here, since it is known that this word has several meanings, such as lion, monkey, etc. But the adjectival phrase, 'with the conchshell and the wheel' which qualifies Hari in this sentence clearly tells us that Hari, here, means Viṣṇu, the Lord of the universe.

It need hardly be mentioned that where the word has only one primary meaning, this primary meaning itself is the intended meaning also, unless this meaning comes in the way of ascertaining the total meaning of the sentence in which it occurs; and, then, we have recourse to secondary signification or lakṣaṇā in order to get the intended meaning of the word.

The next point to which the Dīpikā draws attention is that verbal knowledge should be considered to be wholly due to

words, namely, the words which are employed in a sentence in accordance with the syntactial and other essential rules of a language. Hence when we understand the meaning of an elliptical sentence such as "The door," it must be presumed that we complete the ellipsis, here, not by supplying the idea of 'close' somehow presented to the mind, but by supplying, first, the word, 'close', before the word 'door.'[72] Moreover, the supplied word must be of a specific sort, i.e., properly declined or conjugated, as the case may be, or have a definite relative position in respect of the other words in the sentence. Else, there would not be verbal knowledge. Of course, there may be some other kind of knowledge, such as inferential, from words which are not employed in accordance with the essential rules that govern the use of words in a sentence of a particular language. It is recognised by all philosophers, who recognise verbal knowledge as a fundamental mode of knowledge at all, that by hearing the words, 'pot', 'the character of being an object,' 'bringing', and 'activity,' one after another, although one may, by some means or other, apprehend a consistent meaning such as would be expressed by the sentence, "Bring the pot," still this knowledge cannot be considered to be verbal knowledge. This knowledge would be verbal knowledge, only when it is derived from the words "Bring the pot," employed precisely in this order. The point is that verbal knowledge is a fundamental kind of valid knowledge, only when this is had from words that are employed in the way in which they have to be employed in a language for giving expression to a complex idea. Not only that. In order that a piece of knowledge may truly deserve the name verbal knowledge, it is further necessary that it should be fully derived from words through their significatory capacities. Thus although the word, 'pot' may, besides

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72 This is so, when the sentence happens to be in English. In Sanskrit, however, the word, 'close' may as well follow the word, 'door', since the latter word would have the accusative case-ending, '*am*' as a suffix.

reminding one of that thing which can hold water, remind one of the empty space within a pot, still a piece of knowledge having for its content such empty space and derived from the idea of pot, but not through the meaning function of the word, 'pot', would not amount to verbal knowledge.

Words are divided into three classes: (i) Those the significatory capacity of which is wholly derived from the meanings of their constituents (including grammatical roots, prefixes and suffixes that go into their composition)—this is called *yaugika*, since *yoga* (literally meaning addition or conjunction) means, in this connection, the significatory capacity of the constituents of a word (avayava-śakti); (ii) those the significatory capacity of which is the capacity of the word in its entirety (samudāya-śakti)—a capacity which is not based on the meaning of its constituents, but established by convention from times immemorial and hence perhaps considered to be established by God, or established by some person and accepted by society in general—these are called rūḍha (i.e., based on rūḍhi which means tradition or custom); and (iii) those the significatory capacity of which is partly derived from the meaning of their constituents (avayava-śakti) and partly from tradition or convention (rūḍhi or samudāya-śakti) —these words are called yoga-rūḍha.

The first type is illustrated by the word pācaka (meaning 'one who cooks'), since it is formed from the root, 'pac' (which means 'to cook') with the addition of the suffix *nvul=aka* (in the sense of 'being an agent of some activity). The second type is illustrated by the word '*go*' (meaning a cow). The third is illustrated by the word 'paṅkaja' (meaning a lotus)—here, the etymological meaning (*yoga*) is 'that which is born in mud' (paṅka), and this would apply to a lotus as well as to such other things as a frog which are born in mud ; but tradition has restricted its application to a lotus alone ; hence this is a case of the third type of words, called yoga-rūḍha, i.e., etymological-cum-conventional.

Sometimes, a fourth type of words is also recognised and

called yaugika-rūḍha which is illustrated by such words as '*udbhid*' which etymologically means 'that which rises up, piercing through (earth)' and would therefore apply to such things as grass, trees', etc. ; but, by custom or tradition, this word also means a particular Vedic sacrifice ; hence, here is a word which has both an etymological and a conventional meaning, on account of which such a word is called yaugika-rūḍha (i.e., a word which has both an etymological and a conventional meaning). The distinction between the third and the fourth type lies in this that while the former has only one meaning which is partially etymological and partially conventional, the latter has two meanings, one etymological, and another conventional.

The reason why the word, 'paṅkaja' should be considered to be yoga-rūḍha is given in the Dīpikā in the sentence, "The signification of the word as a whole.....". We have already explained what the word paṅkaja etymologically means and how this etymological sense could equally apply to things of many kinds and how its application nevertheless is restricted to a lotus. This should explain also Annambhaṭṭa's remark in the Dīpikā, "Otherwise.....".

The next point discussed in the Dīpikā is a certain view of Prābhākara Mīmāṁsā concerning the meaning of a word. One particular view of this school has already been considered, namely, that a word primarily signifies not an individual thing but a generic attribute. Now another view of this school in the same connection. The Prābhākara philosopher raises the question as to how a collection of words (vākya), whether it be a phrase, a clause or a full sentence,[73] signifies that *connected* total meaning (*anvaya*) which combines the several things which are severally meant by the several words which make up the collection. In the sentence, "Bring the cow", the word, 'bring' signifies a certain activity to be performed by

73 The word 'vākya', literally meaning speech, stands for all these. But for the sake of convenience we have translated it as 'sentence'.

the person to whom the sentence is addressed ; and the word, 'cow' signifies a particular animal which gives milk. But what is it that signifies the relation or connection between these two, namely, the activity of bringing and the animal 'cow' ? We should hold that this, too, is expressed by some word or words, since otherwise the knowledge of the total meaning of the sentence would not be verbal, not being wholly due to words. But which word expresses this relation or connection ? Obviously, there is no word other than 'bring' and 'cow', in this sentence, which can be considered to express this connection. We must, therefore, presume that the said connection is expressed by each of the words that make up the combination. But we must nót maintain that the word 'bring', for instance, signifies, over and above the act of bringing, the specific connection between the act and the animal, 'cow'. For in that case, when this word is employed in a different sentence, such as "Bring the pot", its meaning would either be different from what it was in the first sentence or it would not fit in the second. But, as a matter of fact, the word, 'bring' has the same meaning in both the sentences and it also fits in the second. This implies that the word, 'bring' signifies not merely the act of bringing, nor 'the act of bringing as *specifically* connected with the animal cow', but 'the act of bringing as related, in a general way, with something else'. What this something else specifically is in a particular sentence would be determined by the other words of the sentence. Thus this something else is the animal 'cow', in the sentence which is under consideration. The Prābhākara view on this point thus boils down to this: A word primarily means not merely a thing by itself, but 'a thing as related with something else'. This view in regard to the significatory capacity of a word is called anvitābhidhāna, or the signification of what is related.[74]

74 Usually, the Prābhākara view is stated thus: A word signifies something as related with an activity (kriyānvite śaktiḥ). For

The Nyāya view is opposed to this and is called abhihitān-vaya, or the theory that a word does not by itself signify the relation between what it means and something else, but that this relation or connection is known from the sentence, i.e., that peculiar combination of words which the sentence is. We can well presume that the particular connection between certain things, which is expressed by a combination of words, is made known by the syntactical compresence of these words in that combination. So it is not necessary to burden every word of a sentence with the task of signifying, besides the thing which it primarily means, also a general relation with something else, which is to be specified differently in every different sentence. The Prābhākara philosopher raises the question, "If the words that form a combination do not some-how signify, in some manner, the relation between the things which are meant by them, what is to signify this relation ?" To this, Nyāya answers, "The said relation is expressed by the way in which the words are combined in a particular collection of them in accordance with the grammatical rules of a language".

instance, in the sentence, "Bring the cow", the word 'cow' signifies the animal called 'cow' related with 'the activity of bringing' which is expressed by the word, 'bring' occurring in the same sentence. This way of putting the Prābhākara position is connected with another view of this school, namely, that only injunctive sentences should be considered to constitute that particular type of instrument of valid knowledge which is called śabda—sentences which describe a fact should not be considered to yield any distinct kind of knowledge which is different from what is yielded by such other instruments as perception, inference, etc., since they all result in the knowledge of some fact. That a certain action should be done cannot be known by any instrument of knowledge other than a sentence. Thus words are the specific instrument of knowledge that they are, only when they express a prescription, injunction or request in respect of some activity to be done (or avoided) by a person.

But the Prābhākara position in this matter is also sometimes stated in the way in which it has been done, here, in the Dīpikā, in order that the essence of this theory may hold good of even non-injunctive sentences which describe a fact.

SECTION 21

त—आकाङ्क्षा योग्यता सन्निधिश्च वाक्यार्थज्ञानहेतुः। पदस्य पदान्तरव्यतिरेकप्रयुक्तान्वयाननुभावकत्वमाकाङ्क्षा। अर्थाबाधो योग्यता। पदानामविलम्बेनोच्चारणं सन्निधिः। आकाङ्क्षादिरहितं वाक्यमप्रमाणम्। यथा गौरश्वः पुरुषो हस्तीति न प्रमाणम् आकाङ्क्षाविरहात्। अग्निना सिञ्चेदिति न प्रमाणं योग्यताविरहात्। प्रहरे प्रहरेऽसहोच्चारितानि गामानयेत्यादिपदानि न प्रमाणं सान्निध्याभावात्॥

दी—आकाङ्क्षेति। आकाङ्क्षादिज्ञानमित्यर्थः। अन्यथाकाङ्क्षादिभ्रमाच्छाब्दभ्रमो न स्यात्। आकाङ्क्षां लक्षयति—पदस्येति॥ योग्यतालक्षणमाहअर्थेति॥ सन्निधिलक्षणमाह—पदानामिति। अविलम्बेन पदार्थोपस्थितिः सन्निधिः। उच्चारणं तु तदुपयोगितयोक्तम्॥ गौरश्व इति, घटः कर्मत्वमित्यप्यनाकाङ्क्षोदाहरणं द्रष्टव्यम्॥

T. Expectancy, suitability and proximity are causes of the knowledge of the meaning of a sentence. The incapacity of a word, which is due to the absence of another word, to produce the knowledge of the connected meaning (of a sentence in which it occurs) is what constitutes (its) expectancy. Suitability is the absence of incompatibility of sense. Proximity is the utterance of words without (inordinate) delay. A group of words (vākya) which lacks expectancy, etc. is not an instrument of valid knowledge (apramāṇa). For example, (the group of words) "cow, horse, person, elephant" is not an instrument of valid knowledge, because there is, here, no expectancy. (The group of words), "One should sprinkle with fire" is also not an instrument of valid knowledge, because there is, here, no suitability. Words such as "Bring

the cow", uttered not in association with each other and at different *praharas*,[75] is (similarly) not an instrument of valid knowledge, since there is, here, no proximity.

D. In the sentence, "Expectancy.....", what is meant is the knowledge of expectancy, etc. Otherwise (i.e., if this interpretation be not accepted), there would be no wrong verbal knowledge through the wrong knowledge of expectancy, etc. Expectancy is defined in the sentence, "The incapacity of a word.....". The defining character of suitability is stated in the sentence, "Suitability.....". The defining character of proximity is stated in the sentence, "Proximity...". Proximity is the recollection of the meanings of the words (employed in a sentence) without too much delay. (The word) 'utterance' is mentioned, here, because it (i.e. utterance) is of use for this (i.e., for the recollection of the meanings). (The group of words), "cow, horse, etc." and also (the group of words), "pot, the character of being an object" are instances of the absence of expectancy.

E. In order to understand the precise meaning of the word ākāṁkṣā or expectancy, it may be necessary to call to mind the meaning of the word '*anvaya*'. *Anvaya* is the total meaning of a group of words (whether it be a phrase, a clause or a full sentence), i.e., the relation of what is meant by one word with what is meant by another word in that group. Now in the sentence, "Bring the cow", the total sense of all the words taken together is the *anvaya* or the relation between the following:—(i) the command of the speaker, (ii) the act of bringing to be performed by the person spoken to, and (iii) the cow. The command is expressed by the imperative mood of the verb 'bring' in English (and by the conjugational suffix, '*hi*', added to the root, 'nī' in Sanskrit). Now about every one of these words, it would be correct to say that it, by itself, fails to convey this *anvaya*

75 A *prahara* is a period of time of about three hours.

without the help of the other words of the sentence. This failure, however, raises an expectancy for being remedied by the addition of other words. Thus the utterance of the word 'bring' in the manner of a command would create in the mind of the hearer the expectation to know what is to be brought. Hence this word, 'bring' in the imperative mood has expectancy. It should be observed further that a word has expectancy only when employed together with other words that may be said to fulfil this expectancy. Not only that. All the words must be employed in accordance with the syntactical and other rules of a language. Thus although the words 'pot,' 'the character of being an object', 'the act of bringing' and 'effort' express the same things which are expressed by the words of the sentence, "Bring the pot," still none of them in the former group has expectancy and hence such a group of words cannot give rise to the knowledge of *anvaya*, i.e., the verbal knowledge of the relation between one thing and another.

Suitability (yogyatā), like expectancy, is a relative term and is meaningful only in the context of words occurring in the same sentence. Of two such words, one is said to be suitable in respect of the other, if it be not a fact that the meaning of one is never actually related with the meaning of the other. If it be a fact that the meaning of one is never in actual relation with the other, then, there is what is called artha-bādha, i.e., incompatibility between these meanings. For example, when it is never a fact that fire is actually connected with the act of sprinkling, then, we say that the two are incompatible. And the absence of incompatibility between the meanings of the two words is what constitutes the suitability of these words in respect of each other. Thus the words 'sprinkle' and 'fire' have no suitability (yogyatā) in respect of each other. But the words 'water' and 'sprinkle' have such suitability.

Sannidhi or āsatti is proximity. This also is obviously a relative characteristic which one word of a sentence has in

relation to another in it. The necessity of this characteristic for verbal knowledge is seen when it is realised that in order that a combination of words may give rise to the knowledge of a total sense, the meaning of none of them should be totally lost when the meaning of the last among them is recalled. If I were to utter the word 'bring' in the morning and the word 'pot' in the evening, then, from the group of the words "Bring the pot," there would not result any verbal knowledge of that relation of the meanings of these words, which is expressed by the sentence. It may be mentioned that although the definition of proximity contains the word 'utterance,' still this should be understood as standing also for such other modes of proximity as are exhibited in writing or silent thinking. What is essential for proximity is that the meanings of the words should be recalled in sufficiently quick succession. Uninterrupted utterance is only one of the ways for securing this.

As the Dīpikā remarks, these characteristics of expectancy, suitability and proximity do not, in themselves, i.e., by their mere presence in the words under consideration, give rise to verbal knowledge. What is necessary for verbal knowledge is the *knowledge* that they are present, there, even if they are not actually so present. Thus if a man thinks that in a group of words, each word has each of these characteristics, namely, expectancy, suitability and proximity, although some or none of these words, has all of them, still he will have verbal knowledge out of this group of words; that is to say, he will somehow get a total meaning of this group. Of course, such verbal knowledge would not be correct. Again, although all the words of a sentence have all of these characteristics, still he will not understand the total meaning of the sentence, if he thinks that they are absent from them.

Annambhaṭṭa has already, in the Dīpikā of Section 20, mentioned another cause of verbal knowledge, namely, the knowledge of the intended meaning of a word (tātparya). So, the following four are the causes of verbal knowledge:

(i) knowledge of expectancy, (ii) that of suitability, (iii) that of proximity and (iv) that of intended meaning. It may be worthwhile to repeat that the intended meaning in this connection is not the intended meaning of the sentence as a whole, but that of a word in the sentence.

SECTION 22

त—वाक्यं द्विविधम्। वैदिकं, लौकिकं च। वैदिकमीश्वरोक्तत्वात् सर्वमेव प्रमाणम्। लौकिकं त्वाप्तोक्तं प्रमाणम्। अन्यद्-प्रमाणम्। वाक्यार्थज्ञानं शाब्दज्ञानम्। तत्करणं शब्दः॥

दी—वाक्यं विभजते—वाक्यमिति। वैदिकस्य विशेषमाह—वैदिकमीश्वरोक्त-त्वादिति। ननु वेदस्यानादित्वात् कथमीश्वरोक्तत्वमिति चेन्न। वेदः पौरुषेयो वाक्यसमूहत्वाद्भारतादिवत्। न च स्मर्यमाणकर्तृत्वमुपाधिः। गौतमादिभिः शिष्यपरम्परया वेदेऽपि कर्तृस्मरणेन साधनव्यापकत्वात्। "तस्मात्तेपानात्त्रयो वेदा अजायन्त" इति श्रुतेश्च॥ ननु वर्णा नित्याः 'स एवायं गकार' इति प्रत्यभिज्ञाबलात्। तथा च कथं वेदस्यानित्यत्वमिति चेन्न उत्पन्नो गकारो नष्टो गकार इति प्रतीत्या वर्णानामनित्यत्वात्, 'सोऽयं गकार' इति प्रत्यभिज्ञायाः सेऽयं दीपज्वालेतिवत्सादृश्यालम्बनत्वात्; वर्णानां नित्यत्वेऽप्यानुपूर्वीविशिष्टवाक्यस्यानित्यत्वाच्च। तस्मादीश्वरोक्तो वेदः॥ मन्वादिस्मृतीनामाचाराणां च वेदमूलकतया प्रामाण्यम्। स्मृतिमूलवाक्यानामिदानीमनध्ययनात्तन्मूलभूता काचिच्छाखोच्छिन्नेति कल्प्यते। ननु पठ्यमानवेदवाक्योत्सादस्य कल्पयितुमशक्यतया विप्रकीर्ण-वादस्यायुक्तत्वान्नित्यानुमेयो वेदो मूलमिति चेन्न। तथापि वर्णानुपूर्वी-ज्ञानाभावेन बोधकत्वासम्भवात्॥

नन्वेतानि पदानि स्वस्मारितार्थसंसर्गवन्ति आकाङ्क्षादिमत्पदकदम्बक-त्वात् मद्वाक्यवदित्यनुमानादेव संसर्गज्ञानसम्भवाच्छब्दो न प्रमाणान्तर-मिति चेन्न। अनुमित्यपेक्षया शाब्दज्ञानस्य विलक्षणस्य शब्दात्प्रत्येमीत्यनु-व्यवसायसाक्षिकस्य सर्वसम्मतत्वात्॥

नन्वर्थापत्तिरपि प्रमाणान्तरमस्ति 'पीनो देवदत्तो दिवा न भुङ्क्ते' इति दृष्टे श्रुते वा पीनत्वान्यथानुपपत्त्या रात्रिभोजनमर्थापत्त्या कल्प्यत इति चेन्न। देवदत्तो रात्रौ भुङ्क्ते दिवाऽभुञ्जानत्वे सति पीनत्वादित्यनुमानेनैव रात्रिभोजनस्य सिद्धत्वात्।

शते पञ्चाशदिति सम्भवोऽप्यनुमानमेव। इह वटे यक्षस्तिष्ठतीत्यैतिह्यमज्ञातमूलवक्तृकः शब्द एव। चेष्टापि शब्दानुमानद्वारा व्यवहारहेतुरिति न मानान्तरम्।

तस्मात्प्रत्यक्षानुमानोपमानशब्दाश्चत्वार्येव प्रमाणानि॥

ज्ञानानां तद्वति तत्प्रकारकत्वं स्वतो ग्राह्यं परतो वेति विचार्यते। तत्र विप्रतिपत्तिः। ज्ञानप्रामाण्यं तदप्रामान्याग्राहकयावज्ज्ञानग्राहकसामग्रीग्राह्यं न वा। अत्र विधिकोटिः स्वतस्त्वम्। निषेधकोटिः परतस्त्वम्॥ अनुमानग्राह्यत्वेन सिद्धसाधनतावारणाय यावदिति। 'इदं ज्ञानमप्रमेति' ज्ञानेन प्रामाण्याग्रहाद्बाधवारणायाप्रामाण्याग्राहकेति। इदं ज्ञानमप्रमेत्यनुव्यवसायनिष्ठप्रामाण्यग्राहकस्याप्रामाण्या-ग्राहकत्वाभावात्स्वतस्त्वं न स्यादतस्तदिति। तस्मिन् प्रामाण्याश्रयेऽप्रामाण्याग्राहक इत्यर्थः। उदाहृतस्थले व्यवसायेऽप्रामाण्यग्राहकस्याप्यनुव्यवसाये तदग्राहकत्वात् स्वतस्त्वसिद्धिः॥

ननु स्वत एव प्रामाण्यं गृह्यते घटमहं जानामीत्यनुव्यवसायेन घटघटत्वयोरिव तत्सम्बन्धस्यापि विषयीकरणात् व्यवसायरूपप्रत्यासत्तेस्तुल्यत्वात् पुरोवर्त्तिनि प्रकारसम्बन्धस्यैव प्रमात्वपदार्थत्वादिति चेन्न। स्वतःप्रामाण्यग्रहे जलज्ञानं प्रमा न वेत्यनभ्यासदशायां प्रमात्वसंशयो न स्यात्। अनुव्यसायेन प्रामाण्यस्य निश्चितत्वात्। तस्मात् स्वतोग्राह्यत्वाभावात्परतो ग्राह्यत्वम्। तथा हि। प्रथमं जलज्ञानानन्तरं प्रवृत्तौ सत्यां जललाभे सति पूर्वोत्पन्नं जलज्ञानं प्रमा समर्थप्रवृत्तिजनकत्वात् यन्नैवं तन्नैवं यथाप्रमा इति व्यतिरेकिणा प्रमात्वं निश्चीयते। द्वितीयादिज्ञानेषु पूर्वज्ञानदृष्टान्तेन तत्सजातीयत्वलिङ्गेनान्वयव्यतिरेकिणापि गृह्यते॥

प्रमाया गुणजन्यत्वमुत्पत्तौ परतस्त्वम्। प्रमाऽसाधारणकारणं गुणः। अप्रमाऽसाधारणकारणं दोषः। तत्र प्रत्यक्षे विशेषणवद्विशेष्यसन्निकर्षो गुणः, अनुमितौ व्यापकवति व्याप्यज्ञानं, उपमितौ यथार्थसादृश्यज्ञानं, शाब्दज्ञाने यथार्थयोग्यताज्ञानम् इत्याद्यूहनीयम्। पुरोवर्तिनि

प्रकाराभावस्य व्यवसायेनानुपस्थितत्वादप्रमात्वं परत एंव गृह्यते; पित्तादि-दोषजन्यत्वादुत्पत्तौ परतस्त्वम् ॥

ननु सर्वज्ञानानां यथार्थत्वादयथार्थज्ञानमेव नास्ति । न च 'शुक्तावि्दं रजतमिति' ज्ञानात् प्रवृत्तिदर्शनादन्यथाख्यातिसिद्धिरिति वाच्यम् । रजत-स्मृतिपुरोवर्तिज्ञानाभ्यामेव प्रवृत्तिसम्भवात् , उपस्थितेष्टभेदाग्रहस्यैव सर्वत्र प्रवर्त्तकत्वेन, नेदं रजतमित्यादावतिप्रसङ्गाभावादिति चेन्न । सत्यरजतस्थले पुरोवर्तिविशेष्यकरजतत्वप्रकारकज्ञानस्य लाघवेन प्रवृत्तिजनकतया शुक्तावपि रजतार्थिप्रवृत्तिजनकत्वेन विशिष्टज्ञानस्यैव कल्पनात् ॥

T. A sentence is of two kinds: (i) Vedic or scriptural and (ii) ordinary or empirical. All Vedic sentences are instruments of valid knowledge, because they are uttered by God. An empirical sentence, however, is an instrument of valid knowledge, (only) when it is uttered by a trustworthy person. No other sentence is an instrument of valid knowledge. (That is, all other sentences lack evidential value). Verbal cognition is the knowledge of the meaning of a sentence. The instrument of this (verbal knowledge) is words.

D. A sentence is divided into its classes in the sentence, "A sentence is...". The speciality of a Vedic sentence is stated in the sentence, "All Vedic sentences...". It may be objected, "Since the Veda has no beginning (in time), how can it have the character of being uttered or made by God?" But this objection is not proper. (For in support of our view we can give the following argument): The Veda is composed by a person, since it is a collection of sentences, just as the Mahā-bhārata is. Nor is 'the character of having an author who is remembered' a vitiating condition of the probans (of this inference). For (this character) is that with which the probans is invariably concomitant, since it is remembered by such persons as Gautama through an unbroken line of disciples (from the time when the Veda was composed) that the Veda

has an author. Moreover, there is (in support of this view) the scriptural text, "From that meditating one (i.e. from God), the three Vedas originated."

The objection is raised: Letters are eternal, (since this must be granted) on the strength of the recognitive judgment, "This (letter) '*ga*' is the same as that (letter) '*ga*' ". So, then, how can the Veda (which is a collection of sentences which are only a collection of words, which, again, are nothing but a collection of letters such as '*ga*') be non-eternal? But this objection is not right. For on account of the (common) experience that (the letter) '*ga*' (which is only a sound) has originated and (the letter) '*ga*' has ceased to be, (it must be granted that) letters are not eternal; and the recognitive judgment, "This '*ga*' is the same as that '*ga*' " has, for its object, only 'the character of belonging to the same class' (a character which every '*ga*' has in relation to every other '*ga*'), just like the recognitive judgment, "This is the same flame of the lamp as that (flame)"; even if letters be (supposed to be) eternal, a sentence which has the characteristic of possessing a (definite) order of sequence (of the letters which go into its composition) is non-eternal. So (it is established that) the Veda has been spoken by God. The Smṛti works, such as those of Manu, as well as the traditional rites and customs (practised by religious people) are authoritative on account of their being based on the Veda. Since (certain) texts (of the Veda) on which (certain) Smṛti texts are based are not recited now-a-days (i.e., are not to be found in contemporary recitations of the Veda), so it is presumed that certain sections of the Veda which are their source have been lost. It may be objected: It is absurd to presume that (certain) sentences of the Veda which has been being recited (continually from times immemorial) are lost, and since the theory that the parts of a Vedic text lie scattered here and there at different places (of the very Veda which is recited even now-a-days) is not proper, so (we should presume that) the Veda which is inferred to be eternal is the source (of every authoritative teaching of the Smṛti

works). But this objection (too) is not proper. For even then (i.e., even if we grant that no sentence of the Veda has been lost and that the Veda, just in the form in which it is recited now-a-days, is the source of the Smṛti works, still) since it would be impossible (for the Veda) to instruct in case there is absence of the knowledge of the definite order of sequence of the letters (composing the sentences of the Veda), (so the Veda cannot properly be inferred to be eternal).

The objection may be raised:

Words are not an additional instrument of valid knowledge, since the knowledge of the connection (of the meanings of the different words of a group of them) can be had from just an inference (like): These words refer to the connection of the meanings which are recalled by them, because they form a collection of words which possess expectancy etc., just as my sentence (such as "Bring the pot").

But this objection is not valid. For it would be admitted by all that verbal knowledge is distinct from inferential knowledge, since in regard to it there is the evidence of the after-cognition, "I know (this) from words."

It may be objected that there is another kind of instrument of valid knowledge, namely, presumption (in addition to the four which are recognised by Nyāya)—when it is observed or heard that Devadatta who is plump does not eat during the day-time, noctural eating (on his part) is indirectly known by presumption on the ground that (his) plumpness cannot be understood in any other way (than by presuming that he eats at night). But this objection is not proper. For (Devadatta's) eating at night can be known by just an inference (of the type): Devadatta eats at night; because he is plump without eating during the day-time.

'Inclusion' (*sambhava*), too, which is illustrated in "There is fifty, where there is one hundred", is (an instance of) inference. As for tradition (*aitihyam*) which is illustrated in "There lives a yakṣa (a kind of super-human spirit) in this tree", this is nothing but verbal testimony, coming from an

original speaker who is (at present) unknown. Gesture, too, is a cause of valid knowledge (not as a fundamentally distinct kind of cognitive iustrument, but) through words or inference; and so it is not an additional instrument of valid knowledge. Therefore, there are only four (kinds of) instruments of valid knowledge, namely, perception, inference, analogy and words.

It will now be discussed whether the fact that (valid cognitions have (for their predicate) some character which their subject possesses is known directly (svto-grāhya) or indirectly (paratogrāhya). In regard to this matter, the statement of the opposite views (*vipratipatti*) is: Either the validity of a judgment is known by all the things which apprehend (that) judgment but do not apprehend its invalidity, or this validity is not so known. Here (i.e., in this disjunctive statement of the opposing views), the affirmative side represents the theory of directness (of the knowledge of cognitive validity), and the negative side represents the theory of indirectness (of this knowledge of cognitive validity). (In this statement), the word 'all' is (employed) for avoiding (the defect of) establishing what is already established (and accepted by the opposing school of Nyāya), namely, that it (i. e., cognitive validity) is known by an act of inferential knowledge. The words, "which do not apprehend (cognitive) invalidity" are (employed) for avoiding cancellation (of the theory of direct apprehension of cognitive validity), since validity is not apprehended by the judgment, "This cognition is invalid." The word 'its' (in the clause, "but which do not apprehend *its* invalidity) has been employed, as otherwise there would be no directness (in the apprehension of validity) on account of the fact that what apprehends the validity of the after-cognition, "This knowledge is invalid" is not what does not apprehend (cognitive) invalidity, The meaning (of the clause, "which does not apprehend its invalidity) is: which does not apprehend the invalidity of 'it' i.e., of the substratum of validity. Because in the case cited (here) as an illustration, although there is the apprehension of the invalidity of the

primary cognition (vyavasāya), still there is not the apprehension of 'that' (i.e.. of the invalidity) of the after-cognition (anuvyavasāya); therefore, the directness (of the apprehension of cognitive validity) is secured.

It may be contended (against the Nyāya theory that cognitive validity is apprehended indirectiy): Validity is known directly. For the after-cognition, "I know the pot" apprehends the *relation* between the pot and (its generic character) 'pothood', just as it apprehends the pot and (its) pot-hood; (this is so) because the primary cognition[76] (which serves, here) as sensory contact (in order that the objects of the primary cognition may be immediately apprehended by the after-cognition) is the same (for the apprehension of the pot and its pothood, as for the apprehension of the *relation* between the pot and its pothood); and what is meant by cognitive validity is nothing but the *relation* of (what is apprended as) the 'what' with (the 'that' or) the object in front (of the knower).

This contention (of the opponent of Nyāya) is not justified. If validity were known directly, then, no (such) doubt about cognitive validity would be possible (as actually occurs) in the pre-verification state of mind—a doubt of the type, "Is the cognition of water valid or not?"; for (in this view) cognitive validity is (presumed to be) apprehended, for certain, by the after-cognition itself. Hence on account of the fact that there is no direct awareness of cognitive validity, there is (only) an indirect awareness of it. Thus when after the cognition of water, for the first time, there takes place movement (towards the place where water is cognised to be), and one gets water, validity (of this cognition) is ascertained by an inference which has only a negatively concomitant probans—an inference (of the type): The cognition of water which occurred (just a little while) ago is valid, because it has caused successful activity; what is not like this is not like this; for example,

76 That is, vyavasāya.

invalid knowledge. But in the case of (later) cognitions (of water), such as the second (the third, etc.), this validity is ascertained with the help of the probans: This is of the same kind as 'that' (i.e., the first cognition of water). And this has the previous cognition (of water) as an illustration (for showing its concomitance with the probandum 'by presence') and which (therefore) has concomitance (with the probandum) by (both) presence and absence.

The fact that valid knowledge is caused by a good property (in the conditions of knowledge) is what constitutes the indirectness of its origination (*utpattau paratastva*). The specific cause of valid knowledge is (thus) a good property. The specific cause of invalid knowledge is (similarly) a vitiating property. Among these (four kinds of valid knowledge), the good property, for perceptual knowledge, is sense-contact with such a substantive as possesses the predicated character; for inferential knowledge, this good property is constituted by the cognition of the (presence of a probans which is really) concomitant (with the probandum) in that which (really) possesses that (probandum) with which it is concomitant; for valid knowledge by analogy, this good property is constituted by the cognition of true similarity; and in valid verbal knowledge, it is constituted by the cognition of real suitability—statements of this nature should be supplied here. Since the absence of the predicated character in the object (presented) in front is not made known by the primary cognition (vyavasāya), so (one has to admit that) cognitive invalidity is known indirectly (*paratas*); and since it is caused by such a flaw as the derangement of bile, (one should maintain that) its origination (too) is due to certain extraneous factors.

The objection may be raised: Since all cognitions are valid, therefore, there is no such thing as invalid knowledge at all. Nor should it be maintained that since we observe that there is activity on account of the cognition, "This is silver" (which we occasionally have) in respect of a piece of shell, so the theory that (in illusion) the object appears differ-

ent (from what it really is) is justified; for activity is possible on account of the recollection of silver and the (non-mnemic) cognition of the object in front; nor (would it be correct to say that) this position (of ours) involves the undesirable consequence of being required to admit that there should be activity even on account of the correcting judgment, "This is not silver"; for (we can well presume that) activity is everywhere caused by the non-apprehension of the presented object's being different from what is desired.

But this objection cannot stand. Since it is in accord with the rule of parsimony to maintain that in the case of real silver, that which causes activity (i. e., movement toward silver) is the judgment in which the object in front is the substantive and silverhood is the predicated character, so even in the case of a shell (which is mistaken for silver), it is presumed that what causes activity (i. e., movement toward the shell) on the part of a person who intends (thereby) to get silver (there) is a (single) determinate cognition (i. e., a cognition which has, for its substantive, the shell, and has, for its predicated character, silver-hood).

E. In this section, the Tarkasaṁgraha states, in precise terms, what it is that constitutes verbal cognition. This is the knowledge of the total meaning of a sentence, clause or phrase, if such knowledge is caused by the memory knowledge of the separate words which are employed in it. We should notice that it is not words, but the knowledge of words, which is the specific instrument for verbal knowledge. For in an earlier section,[77] the author has stated that not ākāṁkṣā, as such, but the *knowledge* of ākāṁkṣā is a cause of verbal knowledge. If words themselves be the instrument of verbal knowledge, then, there would be no verbal knowledge from the writings of a person who is either dumb or keeps mum

77 See Section 21, p. 193.

as he writes or from the gestures[78] of a silent person who indicates, with the help of his fingers, such things as the number two or when we silently recollect certain verses and at the same time understand their meaning. For writings and gestures are not sounds and so not words, although by being aware of them we can be aware of words corresponding to them and then have verbal knowledge about certain things; and when we are recollecting some verses, words which are nothing but sounds are non-existent, although we are aware of them by memory. Hence if in these cases we have verbal knowledge of certain things, this must be due *not to words*, as such, but to the *awareness of words*. That words by themselves cannot directly be the cause of verbal knowledge can be seen from also the consideration that we do not have verbal knowledge from the words of a person, which we fail to hear. For, here, although the words are in existence, still we are not aware of them; and that is why we have no verbal knowledge from these words. It should be observed that when we understand, from the gestures or the writings of a person, what he intends to express, Nyāya maintains that our understanding of his intended meaning amounts to verbal knowledge. This implies that, according to Nyāya, writings and gestures remind us of words and then yield verbal knowledge.

Since the knowledge of words is the instrument (karaṇa) of verbal cognition, so there must be some intermediate operation (vyāpāra) before the knowledge of words gives rise to verbal knowledge. This intermediate operation is the memory knowledge of the meanings of the separate words of a sentence. The process which culminates in verbal knowledge may, therefore, be sketched roughly as follows. First we hear the words of the sentence which the speaker utters in our presence; as we hear the words, one after another, we quickly recollect the meanings of these words; and then we know the total meaning of the sentence as a whole—this total

78 For some further remarks on gestures and writings, See pp. 215-16.

meaning being constituted by these separate meanings as *connected* with one another.[79]

Before stating what is to be understood by the phrase, 'verbal knowledge (śabda-jñāna or knowledge derived from words', the Tarkasaṁgraha divides sentences or statements into two kinds, namely, Vedic and non-Vedic (or scriptural and secular). Vedic statements are all considered to be valid. This absolute authority of the Vedas is accepted not only by Nyāya but also by many other schools of Indian philosophy, such as Mīmāṁsā and Vedānta. But these schools differ among themselves about the reason why Vedic statements have such unfailing validity and authority. If this unfailing validity is not a myth, obviously there should be some special ground for this. In ordinary life, we find that a statement, whether prescriptive or descriptive, turns out to be invalid on many occasions, although it is made in all good faith. Thus a prescriptive statement which asks us to do a certain action in order to attain a certain result may be invalid in the sense that the prescribed action does not, as a matter of fact, yield the result in question. Similarly a descriptive statement is often found to be wrong in the sense that the fact which it describes does not support the statement. Hence if Vedic statements be all invariably true, there must be some special ground for this. What is this special ground ? The reason why an ordinary statement is wrong is that the speaker or writer from whom it originates is mistaken. So Mīmāṁsā holds that the reason why Vedic statements are all infallible is that the Veda has no author at all (apauruṣeya), that it has a sort of self-existence from beginningless time, i.e., it is eternal. But Nyāya maintains that the infallible authority of the Veda is due to the fact that it has been composed by God who is at once omniscient, omnipotent and absolutely veracious, so that He cannot be mistaken, nor deceptive nor

79 This brief account is somewhat inexact. But perhaps this would do for our present purpose.

incapable of expressing what He means to say. Thus while Mīmāṁsā provides for the infallible validity of the Veda by denying that it has any author at all, Nyāya provides for this by asserting that its author is flawless.

The Dīpikā, here, gives a brief account of the controversy between Mīmāṁsā and Nyāya as to whether the Veda has an author or not. Nyāya supports its own thesis by the syllogism: The Veda is composed by a person, because it is a collection of certain sentences, just like the Mahābhārata. Here, the probans is, 'a collection of certain sentences' ; the probandum is, 'a person's composition' ; and the statement of invariable concomitance between the probans and the probandum is, 'whatever is a collection of certain sentences is a person's composition'—the example which is cited for illustrating this concomitance being the Mahābhārata which is certainly a collection of certain sentences and is universally recognised to be the composition of the famous sage, Vyāsa. Against this argument of Nyāya, Mīmāṁsā may urge that the probans, here, is defective in that it has a vitiating condition (upādhi),[80] namely, 'remembered authorship, i.e., the fact that certain men remember that a certain work is the composition of a certain person'. An upādhi or vitiating condition of the probans is defined as what is concomitant with the probandum but not concomitant with the probans. Thus in pointing out 'remembered authorship' as a vitiating condition of the present probans, Mīmāṁsā is saying that 'remembered authorship' is concomitant with the probandum, 'the character of being a person's composition', i.e., whatever is composed by a person is also remembered by certain men to have had an author—this concomitance is admittedly corroborated by works like the Mahābhārata. Mīmaṁsā is also contending that the probans, 'a collection of certain sentences', however, is not concomitant with 'remembered authorship' : for it is not true that whatever is a collection of certain sentences is

80 For the explanation of the term upādhi, see section 17.

also remembered to have been composed by a person, since in the case of the Veda itself, we find that nobody's memory (i.e., no tradition) supports the contention that the Veda is the composition of some person or persons. While meeting this objection, Nyāya concedes that 'remembered authorship' is indeed concomitant with the probandum, 'the character of being a person's composition', i.e., it is indeed true that whatever is a person's composition is also remembered to have had an author ; but Nyāya controverts, at the same time, the Mīmāṁsā contention that 'remembered authorship' is not universally concomitant with the probans, 'a collection of certain sentences'. Nyāya urges that the Veda which Mīmāṁsā cites as an exception to the said concomitance is actually remembered by Gotama, the author of the Nyāya-sūtras, to be the composition of God. Gotama learnt it from an absolutely reliable tradition which has been handed down, from generation to generation, through a continuous line of preceptors and disciples, since the time the Veda was composed by God. Thus the Veda which is a collection of certain sentences is also remembered to have had an author. Hence it is not true that 'remembered authorship' is not concomitant with the probans, 'a collection of certain sentences'. In other words, 'remembered authorship' cannot be considered to be an upādhi or vitiating condition of the probans, here. Stripped of technicalities, the controversy about whether the Veda has an author or not can be put as follows. The position of Nyāya is that there must be an author of the Veda, since it is a collection of certain sentences; moreover, the Veda is absolutely flawless; therefore, its author must be an omniscient person, i. e., God. Against this, Mīmāṁsā raises the objection that it would not be correct to attribute an ancient work like the Veda to an author simply on the ground that it is a collection of certain sentences, seeing that there is no sacred tradition that it was composed by a person. Nyāya meets this objection by urging that there is, in the school of Nyāya philosophy, this sacred tradition that the Veda was

composed by God. Moreover, in support of its conclusion, Nyāya can quote a text of the Veda itself, which says that the three Vedas originated from God.

The Dīpikā does not end the controversy, here. The Nyāya view that the Veda was composed by God implies that it is not eternal. Mīmāṁsā now tries to show that the Veda must be eternal by arguing that the letters of the (Sanskrit) alphabet, such as *ka*, *kha*, *ga*, etc., are eternal and that the Veda is only a collection of certain words which, again, are only collections of certain letters. That the letters of the alphabet are eternal is held on the ground that if we hear a letter, such as *ga*, being uttered in our presence by different speakers on different occasions, we can recognise it to be the same letter *ga*. This experience of sameness proves that the letter *ga* which was heard in the past is the same as the letter *ga* which is heard at present; but this would not be possible if the letter *ga* were non-eternal. Against this argument, Nyāya points out that when we hear the letter *ga* being uttered by somebody, we have the experience that it (which is nothing but a kind of sound) is produced by his vocal organ; and when we no longer hear it, we have the experience that it has gone out of existence. This means that a letter comes into being at a certain time and then in a short while ceases to be. How can that which has both birth and death be eternal? As for the recognitive experience that the *ga* which was heard in the past is the same as the *ga* which is heard now, this has to be interpreted as recognising not the numerical identity of the letter *ga*, but only the fact that the *ga* heard in the past and the *ga* heard at present belong to the same class, i. e., they have a common character which can be called *gatva* (*ga*-hood). Such an interpretation of the experience of identity is inevitable and indisputable in certain cases. For example, when we stare at a burning oil-lamp for some time, we feel that we see the same flame continuously for all the time. But is it not a fact that a new flame is produced at every moment by the burning of the wick and the consump-

tion of oil? For as soon as the stage is reached when there is no more wick to be burnt or no more oil to be consumed, the flame comes to an end.

Of course, Mīmāṁsā does not grant that a letter is only a particular kind of audible sound (*dhvani*). On the contrary, its position is that a letter is not to be identified with an audible sound—the former is only manifested in the latter. Hence though an audible sound comes into, and then goes out of, existence. still the letter which it manifests may be eternal. The argument of the Dīpikā in defence of the Nyāya view that the Veda has an author is to be understood in this context. The argument is as follows. Granting that letters are eternal, words and sentences cannot still be regarded as eternal. For if the same letters are arranged in different orders of sequence, they give rise to different words which have different meanings ; and this order of arranging the letters cannot be presumed to be fixed and eternal ; for in that case, the same letters could not be arranged, one after another, except in a particular order ; but we find that the same letters are capable of being arranged differently so as to yield the different words *nadī* (meaning a river) and *dīna* (meaning 'humble'). But may not these different orders of priority and posteriority, which may obtain between the same letters, be eternal? No. For these orders of sequence are only orders of consecutive succession between prior and posterior moments of time ; and moments of time are admitted on all hands to be extremely short-lived, so that the actual order of succession between two such actual moments cannot be considered to be permanent, although the character of being consecutively successive may be a permanent feature which is common to the actual orders of succession that obtain between various pairs of actual moments, as well as actual pairs of letters which occupy such moments. Now the Veda is only a collection of words which, again, are only certain letters uttered in a certain temporal order—an order which, as has been shown just now, cannot possibly be

permanent. This means that the Veda is not eternal. Hence it can have an author. That it has an author has already been established by a piece of valid inference.

That the Veda is not eternal is shown by Nyāya by also another consideration. Certain parts of the Veda must have been lost to the present generation. For there are certain sacred books, called Smṛti, other than the Veda, such as the Manusaṁhitā, which give detailed instruction as to how a devout person should conduct himself in his daily life, both in the family and in society. Tradition regards these sacred books also to be authoritative. But their authority is considered to be secondary to, and dependent on, that of the Veda — it is presumed that what they prescribe is capable of being traced to some Vedic text. But as a matter of fact, some of their prescriptions cannot be traced to any statement of the Veda in its extant form today. Hence it is presumed that the original texts of the Veda which are the basis of the said Smṛti prescriptions have been lost to us. If so, the Veda cannot be eternal.

Against the above line of thinking, Mīmāṁsā may urge that the Veda has been handed down to the present generation of its reciters, through an unbroken line of teachers and students, and hence it is not possible that certain Vedic texts have been lost to them, while the rest have been retained unimpaired. Nor would it be proper to suppose that the various parts of the particular Vedic sentences which are to validate the said Smṛti prescriptions lie scattered, here and there, in different places of the very Veda which is available to us, and can be constructed out of them; for such a supposal is altogether odd and absurd. Hence we should infer that the Veda is eternal and this eternal Veda it is which is the validating ground of all Smṛti prescriptions. Of course, a Smṛti prescription which is at variance with a Vedic one must be rejected as not authoritative. If, however, in regard to a Smṛti prescription we do not find any positive and explicit support in the Veda, it should be regarded as authoritative,

provided that it is not contradicted by any Vedic statement. The reason why it should be considered authoritative is that such a Smṛti prescription proceeds out of a sage and seer like Manu.

The above argument in defence of the eternity of the Veda is rejected by Nyāya on the following ground. Let us grant, for argument's sake, that the letters of the alphabet and the words and sentences of the Veda are somehow eternal. This would imply that all of them are always simultaneously present. But can letters, words and sentences make us understand what they intend to express, unless there be a definite order of sequence among them ? An eternally present group of letters, words, etc., which lacks such an order of sequence, would not be able to instruct us. An order of sequence is necessarily a temporal order of evanescent moments, and a Veda which is to instruct us, since it essentially involves such an order of sequence, must be non-eternal. The conclusion which Nyāya establishes by a syllogism—the conclusion, namely, that the Veda has an author—is in this way corroborated by the non-eternity of the Veda.

The Dīpikā next considers the question as to whether it is at all necessary to recognise verbal cognition as a distinct kind of knowledge which is different from inferential knowledge. Although the Vaiśeṣika system agrees with Nyāya to a very great extent, in its ontological, epistemological and logical views, still it comprises verbal knowledge within inference. It is obvious that verbal cognition is not perceptual and that, therefore, it is some kind of mediate knowledge. But the question is whether there is ground to recognise verbal cognition as a kind of mediate knowledge which is distinct from inference.

The syllogistic argument which is offered here in support of this Vaiśeṣika thesis that verbal knowledge is only a kind of inferential knowledge may perhaps require some explanation. Suppose that I have not yet seen a daffodil, nor learnt anything more about it except that it is a kind of flower. If

now a reliable person who is acquainted with this flower tells me, "The daffodil is yellow", what kind of knowledge do I have when I understand what he says ? Is it inferential ? If so, what is the probans ? And what is the probandum ? As the syllogism has been stated in the Dīpikā, it would appear that the probandum is the total meaning of the entire sentence, i.e., of the whole group of words contained in the sentence, "The daffodil is yellow." The group of words is the subject (pakṣa). The conclusion (*nigamana*) is: "This group of words possesses the connected meaning, i. e., refers to the connection of the meanings of the words, of this group." The probans or mark is the fact that this is a group of words which have, in respect of one another, expectancy, suitability, etc. The universal proposition expressing the invariable concomitance of the mark with the probandum is: Whatever is a group of words which have, in respect of one another, expectancy, suitability, etc. refers to (or means) the connection of the meanings of these words. An illustration to show that this universal proposition is true is any sentence employed by me, i. e., by the person who attempts to understand the sentence, "The daffodil is yellow." Certainly, when I employ a sentence such as "Your cup is broken," the words contained in this sentence together express a connected meaning which is nothing but the separate meanings (of the words), as *connected* with one another in the way in which (I intend to assert that) they are connected. Thus it is by a process of inference that after hearing the sentence, "The daffodil is yellow", I know the fact that the yellow colour is *connected* with the daffodil, i.e., I know the *connection* (saṁsarga) of the meanings of the words of the sentence, i.e., its total meaning.

The above account of the syllogism given in the Dīpikā in support of the thesis that verbal cognition is only a type of inferential knowledge is an oversimplification of it. But it is expected that this would give a rough idea of the sort of argument by which this thesis is sought to be defended.

This, of course, is not accepted by Nyāya. In its view, verbal knowledge is not inferential, but a distinct type of mediate cognition which is different from inferential knowledge. Annambhaṭṭa, however, does not here attempt to show in what respect this syllogism is defective, although this has been done by other writers in support of the Nyāya position. In refuting this argument, he merely points out that in knowing the total meaning of a sentence, i.e., in knowing the fact which is expressed by the sentence as a whole, after hearing it, we are not aware of performing any process of inference such as is suggested in the syllogism under consideration; on the contrary, we feel like learning the fact expressed by the sentence by merely hearing it. Self-reflection on what we actually do internally when we understand the meaning of a sentence, i.e., an after-cognition (anuvyavasāya) of the knowledge which the hearing of a sentence produces in our mind, is what Annambhaṭṭa thinks proves the untenability of the Vaiśeṣika view.

To repeat what we have already stated, the word, 'vyavasāya' means primary knowledge; and anuvyavasāya is the knowledge of knowledge or reflective or secondary knowledge. Whatever be the kind of the primary cognition which is known, whether immediate or mediate, this anuvyavasāya or knowledge of knowledge is considered to be perceptual and would, on the whole, seem to be the same as what in western philosophy is termed introspection or inner perception. Now if introspection or inner perception be considered to be a fact, it would seem that its evidential value would have to be regarded as greater than that of such reasoning as has been offered, here, on behalf of the Vaiśeṣika view that verbal knowledge is, really speaking, inferential. Some additional remarks would soon be made on this topic when the question of the knowledge of cognitive validity will be discussed.

Certain systems of philosophy such as Mīmāṁsā recognise 'presumption' (arthāpatti) as an independent instrument (karaṇa) of valid knowledge, distinct from perception, infer-

ence, etc. Presumption is believed to be illustrated in those cases where a known fact cannot be understood without the presumption of another fact. For instance, the plumpness of a certain gentleman who does not eat during the day-time is unintelligible without the presumption of nocturnal eating on his part. This sort of presumptive knowledge, it is maintained, is not inference. Nyāya, however, would not give to this process of knowledge the status of a fundamental kind of cognitive instrument (pramāṇa), but would include it within inference, based on some such invariable concomitance as would be expressed by the statement, "Plumpness without eating during the day-time is invariably concomitant with eating at night", i.e., whoever is plump without eating during the day-time invariably eats at night. Consideration would show that a piece of presumptive knowledge cannot be valid unless some such invariable concomitance as that of 'plumpness without eating during the day-time' and 'eating at night' be true. This indicates that the Mīmāṁsā philosopher's view about presumption is ultimately based on some such relation of universal concomitance. If so, it should be conceded that such presumption is only an instance of inference, expressed in words which are somewhat different from those which are usually employed for expressing an obvious instance of inference.

Bhāṭṭa Mīmāṁsā also recognises another fundamental type of cognitive instrument (pramāṇa) which is named 'non-perception' (*anupalabdhi*). It is maintained that this is what initially acquaints us with non-existence (abhāva). Nyāya rejects this view as unnecessary. Annambhaṭṭa has already shown, in the Dīpikā of Section 6, how although non-perception is necessary for the cognition of non-existence, still it merely serves as an auxiliary to 'sense-contact with the substratum of the non-existence, which is known'; and since knowledge by sense-contact is invariably perceptual, so the cognition of non-existence for which sense-contact is essential should be regarded as perceptual and the senses should be

regarded as the specific instrument (karaṇa) for such cognition of non-existence.

In this connection, the Dīpikā refutes the view (of certain other schools of philosophy) that 'inclusion', 'tradition' and 'gesture' are additional cognitive instruments, distinct from the four which Nyāya recognises. The cases of inclusion and tradition are quite patent. The former which is illustrated in "Fifty is included in one hundred" is an inference from the universal proposition that a smaller number is included in a bigger number. Tradition which is illustrated in "There lives a supernatural spirit in this tree" is obviously a case of verbal knowledge. As for gesture, we have already made some remarks in connection with the question whether words or the knowledge of words should be regarded as the specific instrument (karaṇa) of verbal cognition. Here, the author tells us that a gesture cannot yield the knowldge of a fact (or a prescription) before it is translated in terms of words, or made to serve as a probans which is invariably concomitant with the fact (or the prescription) which the gesture is intended to indicate. Now although it must be granted that very often or at any rate sometimes, this is exactly what we do with gesture, before we actually know what it conveys, still a stage may be reached when gestures themselves, like words or like written symbols, directly indicate things without the mediation of words or any process of inference. And this may be the reason which induced certain philosophers to recognise gestures, just as much as words, to be a distinct kind of cognitive instrument. But perhaps in that case, it would be better to recognise symbols (rather than words, gestures, etc.) as a distinct kind of cognitive instrument, and then words, gestures, writtten marks or any other type of a system of consciously designed signs would appear only to be different types of symbol. This view would seem to be supported by the modern method of teaching a deaf and dumb child to understand and communicate even complex facts (and prescriptions), such as are ordinarily express-

ed by us in judgmental forms which have within them the distinction between a characterisable thing and a predicated character. But the further consideration of the problem which bristles with difficulties cannot be pursued here. Suppose, however, that the fourth type of cognitive instrument which Nyāya recognises were to be included in 'language' in the sense of symbols, we could still appreciate the insight of the Nyāya philosopher in recognising a fourth type of cognitive instrument other than perception, inference and analogy, and thus recognising four and only four types of cognitive instrument, although, perhaps, they were not quite exact in naming the fourth type as 'words.'

The Dīpikā next considers what is considered to be a very important and controversial topic in Indian philosophy. It is the question as to what sort of knowledge it is which apprehends the validity of a valid cognition. In discussing this question, Indian philosophers generally start with a definition of the validity of knowledge. The Nyāya definition is usually accepted by almost all. Only those who believe that ultimate reality is a simple and absolutely unitary entity which lacks all distinction, and hence also the distinction between substance and attribute, have to give a different definition of cognitive validity, the reason being that the Nyāya definition implies such distinction, and so would not apply to the right knowledge of this distinctionless entity. But perhaps barring the cognition of this ultimate reality, even these philosophers would have no objection to accept the definition of validity which is given by Nyāya. We have already explained this definition in Section 2. The Dipikā, here, starts the present dicussion by referring to this very definition of cognitive validity. Let us, nevertheless, call to mind that valid knowledge is defined as a piece of knowledge which has, for its predicate, a character which the subject or substantive (viśeşya) of this knowledge actually possesses. Now the question is: What is the type of the knowledge which apprehends the fact that a cognition has, for its predi-

cate, a character which its subject possesses?. Different schools of philosophy give different answers to this question. Still they can be broadly brought under two classes: (i) Those that maintain that the knowledge which apprehends a primary cognition also apprehends the validity of that primary cognition—these are said to support the directness of the apprehension of cognitive validity (svatastva-vādin); and (ii) those that do not maintain this position. The system of Nyāya represents the second class and is, therefore, said to support the indirectness of the apprehension of cognitive validity (paratastva-vādin). The first includes, among others, the systems of Bhāṭṭa Mīmāṁsā, Prābhākara Mīmāṁsā, the Mīmāṁsā* of Murāri Miśra and Advaita Vedānta. Thus all the schools of Mīmāṁsā and the school of Advaita Vedānta support the directness of the apprehension of cognitive validity. Nevertheless, they differ from one another as to what knowledge it is which apprehends the cognition of which the validity is to be apprehended, although they all agree that the same knowledge which apprehends a cognition also apprehends its validity (provided, of course, that this cognition is valid). Thus Bhāṭṭa Mīmāṁsā holds that cognition itself cannot be apprehended in a direct or immediate manner, still its validity is known directly. This may appear somewhat queer. To understand this position, it is necessary to know its theory about the apprehension of knowledge. In its view, knowledge is never directly known. How, then, is knowledge known at all? When an object is known, there arises, in the object, a peculiar property called manifestness or knownness'; and this property of knownness can be directly apprehended; then by a type of mediate cognition called presumption (arthāpatti), we can apprehend the existence of knowledge (of course, in the knower) as the cause of this property of knownness. Now Bhāṭṭa Mīmaṁsā holds that this very mediate presumptive apprehension which cognises knowledge also cognises its validity. That is how Bhāṭṭa Mīmāṁsā can support the

theory of the directness of the apprehension of cognitive validity, notwithstanding its view that cognition itself is known mediately or indirectly.

Prābhākara Mīmāṁsā supports the directness of the apprehension of cognitive validity in a more straightforward manner. It maintains that cognition is self-conscious in the sense that besides knowing some object, it, at the same time. knows itself and also its own validity. For example, the cognition of a table assumes the form, "I know the table"; and it is clear that the content of such a piece of knowledge includes the act of knowledge itself. Prābhākara Mīmāṁsā further upholds that this judgment, "I know the table" also apprehends that this judgment is valid. Knowledge is self-conscious not only in respect of its own existence but also in respect of its own validity. So Prābhākara Mimāṁsā, too, can say, like Bhāṭṭa Mīmāṁsa, that the validity of a cognition is known by the very knowledge which apprehends the cognition itself, although this knowledge, in its view, is just identical with the cognition itself. As I know the table, I also know that I know the table and further that this knowledge of the table is valid, i.e., I know the table truly.[81]

There is an important Mīmāṁsā philosopher, named Murāri Miśra, who differs from both the above schools of Mīmāṁsā in regard to how cognition is primarily apprehended. He is of opinion that cognition is originally apprehended by an act of inner perception which is different from the cognition and occurs immediately *after* the origination of the cognition and hence is designated after-cognition (anuvyavasāya). As we have already seen, this is also the position of Nyāya so far as the question of the knowledge of knowledge is concerned. But unlike Nyāya, Murāri Miśra maintains that the validity of a cognition is also known by the after-cognition which

81 A fuller account of the Prābhākara view would be that a cognition knows its object, itself, the self that knows and the validity of itself.

primarily apprehends the cognition itself. Thus he, too, can be said to support the view that the cognition of cognitive validity is direct, since he maintains that what apprehends a cognition also apprehends its validity, although he does not think either that cognition is self-conscious or that it is known by a sort of presumptive knowledge.

Let us now briefly state the position of Advaita Vedānta on this question. It maintains that cognition is not known by presumptive knowledge (as is held by Bhāṭṭa Mīmāṁsā), nor by the cognition itself which is to be known (as is maintained by Prābhākara Mīmāṁsā), nor by a piece of after-cognition (as is the view of Murāri Miśra and of Nyāya, but by an enduring and immutable apprehension called the sākṣin (witness) which is present *ab initio* in every knower. This apprehension of the sākṣin is immediate, being of the nature of indeterminate perception (nirvikalpa pratykṣa). So what knows a cognition is, in the view of Advaitism, this sākṣin. Now in regard to the apprehension of the validity of a cognition, the position of Advaitism is that it is the same sākṣin which apprehends a cognition also apprehends, at the same time, the validity of that cognition. This means that Advaitism, too, supports the view that the apprehension of cognitive validity is direct in the sense that it is apprehended by the same knowledge, namely, the sākṣin, which also apprehends the cognition itself.

So far as the knowledge of knowledge is concerned, the position of Nyāya, as has already been observed, is the same as that of Murāri Miśra.[82] But in regard to the apprehension of the validity of a cognition, its position differs from that of Murāri Miśra as well as from those of Bhāṭṭa Mīmāṁsā, Prābhākara Mīmāṁsā and Advaitism. Thus like Murāri Miśra, Nyāya, too, maintains that a cognition is primarily apprehended by an after-cognition (anuvyavasāya) which is

82 Murāri Miśra who flourished a few centuries after Gautama and his principal commentators might have borrowed this view from Nyāya.

perceptual in nature. That is to say, Nyāya does not think that cognition is self-conscious, nor that it is immediately apprehended as soon as it comes into being by a standing and immutable consciousness which is ever present in a knowing subject. But differing from Murāri Miśra, it does not think that this after-cognition is what apprehends the validity of the knowledge which this after-cognition apprehends. If Nyāya thought like that, it would have been considered to be a supporter of the theory of the direct apprehension of cognitive validity in one of the senses in which such apprehension is said to be direct. Then, what cognition, in the view of Nyāya, apprehends the validity of a piece of valid knowledge ? This is an inferential cognition resulting from a syllogism of the type which is stated in the Dīpikā. This syllogism will be explained presently.

In rejecting the view that the validity of a cognition is known directly, i.e., known by the very knowledge of that cognition, the main argument of Nyāya is that even when one becomes aware that one has had a piece of knowledge acquainting one with the presence of (say) water at a certain place, one sometimes is in doubt about the validity of such knowledge—this could not have been the case, if one knew the validity of a cognition as soon as one was aware that one had that cognition in one's mind. When I am in doubt about the validity of my knowledge of water at a certain place, it is likely that I shall approach that place, and if I get the expected water there, I may tell myself, "That visual perception of water which I had just now is veridical; for it initiated in me an activity which has proved successful by fulfilling my expectation of getting water there." The universal judgment which this syllogism implies can be stated as "Whatever cognition of mine initiates successful activity in me is valid." But what are the instances where this uniform rule can be said to be illustrated ? If I have, on certain occasions, already verified, in the above way, my cognition of a thing by such successful activity; then, my cognitions of those parti-

cular occasions could serve as positive instances (anvaya dṛṣṭānta) where this uniform rule connecting a cognition and its validity holds good. But suppose I were to verify the validity of a doubted cognition, in this way, for the first time in my life. Such a state of my mind is expressed in the Dīpikā by the word 'anabhyāsadaśā', i.e., the state of not being habituated to this sort of verification of a cognition. Evidently, in such a state of mind, I could not cite any positive instance where the said uniform rule can be considered to be illustrated. Nevertheless, I could take the help of some negative instance (vyatireka dṛṣṭānta), i. e., an instance of a cognition which was known by me to be invalid on account of its initiating in me some activity which ended in failure or the nonfulfilment of the result which I expected to achieve by this activity. That is to say, I could take the help of a merely negatively concomitant probans (kevala-vyatireki-liṁga), which, in our example of the perception of water, would be 'the act of causing successful activity.' Here, no instance would be available for illustrating the positive concomitance (anvaya-vyāpti) of this probans—a concomitance having the form, "Whatever cognition causes successful activity is valid"; for by supposition, I have not yet ascertained the validity of any cognition. Still, negative instances would be available for illustrating the negative concomitance of the probans—a concomitance having the form, "Whatever cognition is not valid (i. e., is invalid) fails to cause successful activity." For I must already have detected the invalidity of some cognitions before any doubt could arise in me about the validity of a cognition. This negative concomitance together with a negative illustration is stated in the Dīpikā in the extremely abbreviated form. "Whatever is not so, is not so ; for example, an invalid cognition." This means, "Whatever cognition is *not* valid is *not* what produces successful activity." And the illustration cited for the truth of this rule is an instance of wrong knowledge which has already been ascertained to be wrong.

Thus in the view of Nyāya, what apprehends a cognition

primarily is an after-cognition, and what apprehends its validity is an act of inferential knowledge which is the result of the process of verifying it. A primary cognition assumes some such form as "This is a table." This is apprehended in a secondary piece of knowledge called after-cognition which assumes some such form as "I know the table" or "I know that this is a table." But this secondary cognition does not apprehend the validity of the primary cognition, "This is a table." What it apprehends is merely the fact that there is in me this primary cognition. That it is valid (of course, if it really is so) is known by the verificatory inferential cognition which has been explained above. Hence Nyāya does not maintain that the validity of a cognition is known by the same knowledge which apprehends that cognition ; and so Nyāya does not support the theory of direct awareness of cognitive validity. That is to say, it supports the theory that the apprehension of cognitive validity is always indirect.

With this short account of the various positions of the different schools of philosophy in regard to the apprehension of cognitive validity, the student may find it somewhat easier to understand the treatment of this topic in the Dīpikā. Here, the point at issue is put in the form of a disjunctive judgment of formal logic, where the alternatives are contradictory of each other. The judgment is: "Either the validity of a judgment is known by all the things which apprehend (that) judgment but do not apprehend its invalidity, or this validity is not so known". It may be noticed that the first alternative is stated affirmatively (vidhi-koṭi), and the second as the negation of that (niṣedha-koṭi). Those who support the affirmative alternative are supporters of the theory of direct awareness of cognitive validity (*svatastva*) and those who accept the negative alternative are supporters of the theory of indirect awareness of cognitive validity (*paratastva*). One cannot but appreciate the skill with which the opposing views on the matter have been stated in the same sentence having two alternatives, one of which covers many differing

views which, however, support, in some sense, the theory of direct awareness of cognitive validity, and the other alternative covers the view that does not support direct awareness in any of the senses in which this is supported by the various schools covered by the first alternative. The first alternative would apply to each of the views of the three schools of Mimāṁsā, as also to the view of Advaitism, while the second alternative which merely denies the first covers the view of Nyāya alone.

After formulating the opposing views in a disjunctive statement, the author proceeds to explain the purpose which certain words and phrases of this statement subserve. It should be observed that these words and phrases occur in the first alternative for expressing, in precise terms, the view which supports direct awareness of cognitive validity. So in showing the purpose of these words and phrases, what is attempted is to point out how in the absence of these words the first alternative would not apply to the theory of direct awareness of cognitive validity. Thus the word 'all' in the first alternative. namely, in "The validity of a cognition is apprehended by *all* the things which apprehend (that) cognition but do not apprehend its invalidity" is intended to avoid saying something which is not acceptable to the theory of direct awareness of validity, but on the contrary is acceptable to the Nyāya theory of its indirect awareness. How? We have seen that in the view of Nyāya, an inferential judgment such as "This cognition (say) c is valid" arising out of some successful activity initiated by the cognition c, is what apprehends the validity of cognition c. Now this inferential knowledge apprehends not only the validity of cognition c, but also at the same time the cognition c itself. For how can one apprehend the validity of a cognition without apprehending, at the same time, that cognition itself? Hence if in the above statement the word "all" were dropped, and the statement assumed the form, "The validity of a cognition is apprehended by some thing which apprehends

that cognition...", then such a statement would be true of even the Nyāya view, since the inferential knowledge which, it thinks, apprehends the validity of the cognition c certainly also apprehends the cognition c itself, and so it would be correct to say in regard to this inferential knowledge that it is the same as what apprehends both a cognition and also its validity; and if to recognise an act of knowledge which apprehends both a cognition and its validity is to support the theory of the direct awareness of cognitive validity, then, Nyāya, too, can be said to support this theory. But certainly Mīmāṁsā philosophers and Advaitists do not mean to accept the Nyāya position as amounting to the theory of direct awareness of cognitive validity. For to say that cognitive validity is primarily known by an act of inference is to give up the theory of direct awareness of validity. Now the employment of the word 'all' would remove this consequence which cannot be accepted by the systems of Mīmāṁsā and Advaitism. For although the said inferential knowledge may be admitted to know both a cognition and its validity still there are certain other instances of knowledge which, too, apprehend the cognition c, but do not, in the view of Nyāya, apprehend the validity of c, although they do so in the opinion of the supporters of Mīmāṁsā and Advaitism. Thus these latter systems can maintain that *whatever* knowledge apprehends cognition c, also apprehends its validity, but Nyāya cannot maintain this, since, in the view of Nyāya, only a piece of inferential knowledge (of the type explained above) apprehends the validity of c. Thus Bhāṭṭa Mīmāṁsā which thinks that cognition is primarilly apprehended by a piece of presumptive knowledge would also maintain that this presumptive knowledge apprehends its validity, too, and, of course, it can grant that the act of inferential knowledge which, in the view of Nyāya, apprehends the validity of cognition c also apprehends c without being required to give up its own brand of direct awareness of cognitive validity. Similar considerations would make it

clear that Prābhākara Mīmāṁsā, the Mīmāṁsā of Murāri Miśra and the system of Advaitism, too, can maintain their respective brands of direct awareness of cognitive validity, even after granting that the said inferential knowledge apprehends both the cognition c and its validity. So every one of them can hold that *all* cognitions which apprehend cognition c also apprehend the validity of c ; and every one of them, on account of its supporting the first alternative of the disjunctive statement which is under consideration now, would be a supporter of the direct awareness of cognitive vilidity. But Nyāya does not grant that any piece of knowledge other than the inferential cognition in question apprehends the validity of c, although it would admit that this inferential cognition also apprehends the cognition c itself; moreover, although it would hold that there are other cognitions such as after-cognitions which apprehend cognition c, still it does not think that these other cognitions also apprehend the validity of c. Thus Nyāya, by denying that all cognitions which apprehend c also apprehend its validity, would be maintaining the indirectness of the awareness of cognitive validity. It would appear now that the word 'all', employed in our disjunctive statement, secures that the first alternative is acceptable to the first four schools of philosophy, but not to Nyāya, while the second alternative which denies the first would be acceptable to Nyāya alone, but not to the first four schools.

The words, 'which do not apprehend invalidity' are meant to avoid the possibility of the first alternative being contradicted by such a true judgment as "This cognition d is invalid". For this judgment apprehends the cognition d just as much as it apprehends the invalidity of d, since you cannot know the invalidity of a cognition without, at the same time, knowing that cognition itself. Now the theory of direct awareness of cognitive validity maintains that whatever cognition apprehends a certain cognition d also apprehends the validity of d. But this theory is contradicted by the cognition, "The

cognition d is invalid" ; for this cognition, although it apprehends cognition d, still does not apprehend the validity of d, but on the contrary it apprehends its invalidity. In order to obviate this, the words, 'which do not apprehend invalidity' have been employed in the disjunctive statement under question.

Next is shown the utility of the word, 'its' (*tat*) which occurs in the clause, "which do not apprehend *its* invalidity (tadaprāmāṇya)". The pronoun, 'its' means 'of that cognition', the validity of which is to be apprehended. That is explained in the Dīpikā by the phrase, 'in that (*tasmin*)', i.e., in the substratum of validity (prāmāṇyāśraye). The substratum of validity means that cognition of which the validity is to be apprehended. Now consider what would happen if the word 'its' were not employed. In the absence of this word, the first alternative would assume the form, "All things which apprehend a cognition but do not apprehend invalidity apprehend also validity". But this changed form of the first alternative would not apply to the following case, where, therefore, there would be no direct awareness of validity. The judgment (let us call it j), "The cognition d is invalid" is a piece of after-cognition, since it makes another cognition d its object. Further, j is not such as does not apprehend any cognitive invalidity, since it apprehends the invalidity of d. Hence the tertiary judgment k which apprehends this after-cognition j would also apprehend some cognitive invalidity although it would not be the invalidity of j itself. The tertiary judgment k, therefore, cannot be described as what does not apprehend cognitive invalidity. And this would be true of any judgment whatsoever which has, for its object, the after-cognition j. And this means that no cognition is available which apprehends the after-cognition j and does not, at the same time, apprehend some cognitive invalidity. But direct awareness of cognitive validity, in accordance with the changed definition of it (which is obtained after dropping the word 'its' from the first alternative), is not possible unless

this awareness is such as does not apprehend invalidity. The word 'its' has been employed in order to obviate this difficulty in the way of making awareness of validity direct. As already explained, the pronoum 'its' stands for that cognition of which the validity is to be apprehended. Now in the above example, we are concerned with the apprehension of the validity of the after-cognition j ; and, therefore, the word, 'its' stands for this after-cognition. Thus although the judgment which apprehends this after-cognition j apprehends some cognitive invalidity, still it does not apprehend the invalidity of this after-cognition j of which the validity is to be known. That is to say, the judgment k is such as apprehends the after-cognition j and does not apprehend *its* invalidity (i.e., the invalidity of j). Hence if this judgment k apprehends the validity of the after-cognition j, such awareness of its validity would, in accordance with the first alternative, with the word 'its' retained, be direct. In the absence of the word 'its', the awareness of the validity of the after-cognition j could not be called direct.

The Dīpikā next offers some argument in support of the theory of the direct awareness of cognitive validity. Of course, this will afterwards be refuted. Meanwhile, let us try to understand this argument in support of the theory of direct awareness. The argument, as stated in the Dīpikā, is from the standpoint of Murāri Miśra. But it can be easily recast so as to make it fit in also with the positions of Bhāṭṭa Mīmaṁsā, Prābhākara Mīmāṁsā and Advaitism. Both Nyāya and Murāri Miśra maintain that what primarily apprehends a cognition is an after-cognition. But the latter is of opinion that this after-cognition also apprehends the validity of the primary cognition. As we have already explained, the position of Nyāya is different. On behalf of Murāri Miśra, it is argued as follows:—

Suppose the primary cognition is, "That is water". Let us name it c. Then its after-cognition would be, "I am aware that this is water". Let us call it j. Evidently, the

objects of this after-cognition j are the primary cognition c itself, as also the objects of c, such as the thing in front and its character 'waterhood'. Now an after-cognition, being perceptual in nature, requires for its origination some type of sensory contact with the things which it cognises. The sense-organ which is involved here is the *manas* or the inner sense, since an after-cognition is a sort of what is called inner perception (mānasa-pratyakṣa), as distinct from external perception, i.e., the perception of extra-subjective things such as tables and chairs. However, although an after-cognition is a type of internal perception, still its content is not merely some subjective state, such as the primary cognition c which it apprehends, but also certain external things which are the objects of this primary cognition c. The judgment "I am aware that this is water" has, for its objects, (i) the 'I', (ii) the state of awareness as a character of the 'I', (iii) the 'this' and (iv) waterhood as a character of the 'this'. The *manas* being the inner sense can easily be in contact with the first two of these objects, namely, the self and the state of awareness. For the first, this contact is conjunction (saṁyoga) and for the second, it is 'inherence with what is conjoined with the sense-organ' (saṁyukta-samavāya). But how will the inner sense be connected or brought into contact with the other two objects which are external things? Ordinarily, the apppropriate senses for the perception of external things are the external senses such as the eye, the ear, etc. But for the perceptual judgment, "I am aware that this is water," these external senses are of no use. The only sense which is appropriate for it is the inner sense called *manas*. And the question is, "How can the inner sense be connected with an external substance (which is represented, here, by the word 'this') and its character, 'waterhood'? Both Murāri Miśra and Nyāya maintain that this connection takes place through the primay cognition c, namely, "This is water." As the *manas* is connected with this cognition c, it is also connected, through this its connection with the cognition c,

with the objects of c. In other words, the sensory contact which we are in search of is the primary knowledge, "This is water." This type of connection which a sense-organ has with objects, through a cognition, is called 'knowledge as sense-contact' (jñāna lakṣaṇa-sannikarṣa). To return to our point. If it be asked how it is possible for the after-cognition j to have perceptual apprehension of the 'this' and the character 'waterhood,' the only answer would be, "Because the primary cognition c, namely, "This is water" serves, here, as the required sense-contact for the 'this' and the generic character 'waterhood.'[83] If so, it should be granted that the same reason is available for admitting that this after-cognition j perceptually apprehends also the relation between the 'this' and the generic character 'waterhood." For the primary cognition c apprehends this relation, just as much as the terms 'this' and 'waterhood' between which it obtains. This is to say, the after-cognition j apprehends, among other things, also the relation of 'waterhood' with the 'this'—in apprehending the primary cognition, "This is water," the after-cognition apprehends not only the 'this' and 'waterhood' but also the relation between these two, i. e., the fact that waterhood is related with the 'this'. Now the validity of a judgment is nothing but the fact that the character which is its predicate is related with its subject. But in the judgment, "This is water," the predicated character is waterhood and the characterised subject is the 'this.' Hence in apprehending the judgment, "This is water," the after-cognition j apprehends also the validity of this judgment. This means that the apprehension of the validity of the primary cognition, "This is water" is direct.

The above argument in support of Murāri Miśra's theory of the direct awareness of cognitive validity has been presen-

83 Stripped of technicalities, this perhaps means no more than that the reason why these objects are perceived by the after-cognition is that they are the objects of the primary cognition which the after-cognition perceives.

ted in the Dīpikā as an objection against the position of Nyāya. And on behalf of Nyāya, the author meets this objection in the following manner.

We grant that the after-cognition, "I know that this is water," apprehends not only the primary cognition, "This is water," but also, through this primary cognition, the 'this' (i. e., some object in front), as subject, and the character 'waterhood,' as predicate, and hence also the relation of 'character-and-characterised' which obtains between waterhood and the 'this.' But this is not the same as to apprehend the factual relation of waterhood with the 'this'. In other words, the after-cognition does not apprehend the fact, if such be the fact, that the predicated character 'waterhood' is actually related to the characterised object, 'this', i. e., to the object in front of the knower. The proper analysis of the proposition, "I know that this is water" would indeed yield the proposition, "I apprehend the subject-predicate relation between the character 'waterhood' with 'the object in front,'" but it does not yield the proposition, "I apprehend the relation of waterhood with an object which, as a matter of fact, possesses waterhood" ; and it is only a proposition of the latter type which can be said to represent the apprehension of the validity of the primary cognition, "This is water". One may contend that to apprehend the relation of waterhood with the 'this' is to know the 'this' to possess waterhood, i.e., to know the relation of waterhood with an object which possesses waterhood or is water. Human knowledge could indeed possibly be of such a kind that this contention were justified. But as a matter of fact, it is not so. For after the occurrence, in me, of a perceptual judgment, such as "This is water", there may and does occur, in me, from time to time, doubt about the validity of the judgment, before I have verified it. Of course, after the process of verification, such doubt does not occur, unless there arises in my mind doubt about the validity of the verificatory cognition itself. Be that as it may, before the process of verification, there may

and does occur, from time to time, such doubt about the validity of a cognition. This clearly shows that the after-cognition does not apprehend the validity of the cognition which it apprehends, although it knows the things which are the subject and the predicate of this cognition as also the subject-predicate relation between them. It has indeed been argued by the opponent that to know validity is only to know that the predicated character is related to the subject. But this is to forget that the subject-predicate relation is dependent upon an act of cognition, and apart from this, it does not exist in things as such, so that to apprehend that in my knowledge 'waterhood' is related, as predicate, to the 'this', as subject, is not to know that waterhood is factually in, or related with, the 'this', independently of my knowledge ; and to know the validity of a cognition is to know this factual relation which is independent of anybody's knowledge. The opponent contended that the primary cognition, "This is water" which is admitted by Nyāya to serve as sense-contact with the 'this' and 'waterhood', so that they can be perceived by the after-cognition, should, for the same reason, be considered to serve as sense-contact with the relation of 'waterhood' with the 'this' too, so that this relation also should be admitted to be perceived by the same after-cognition. It should now appear that this contention is not justified. For a cognition can act as sense-contact with only those things which it itself apprehends. And we have already shown that the primary cognition, 'This is water' does not apprehend the factual relation of 'waterhood' with the 'this' (supposing, of course, that this relation is a fact). Hence this primary cognition cannot serve as sense-contact with the factual relation between waterhood and the 'this'. That is why the after-cognition would fail to apprehend this factual relation.

The word, anabhyāsa-daśā, which occurs in the Dīpikā means, as explained by the scholiast Nīlakaṇṭha, that state of mind in which, on account of the non-apprehension of the

Thus Nyāya holds that the apprehension of cognitive validity is indirect. Similarly it maintains that the origination of the validity of a cognition, too, is indirect. What does indirect origination of cognitive validity mean? It means that those factors which cause a cognition do not cause its validity—the conditions which bring about the validity of a cognition are different from those which bring about the cognition itself. A cognition is due to one set of conditions, while its validity is due to another set. This latter set which is responsible for its validity is called a guṇa, i. e., a good property (in the preconditions of a cognition). It would appear, therefore, that a good property is the specific or uncommon cause of a valid cognition. For a good property invariably precedes only a valid cognition and not an invalid one, while the common causes of a cognition, as such, invariably precede not only a valid cognition, but also an invalid one. Such common causes of every type of cognition, whether valid or invalid, are the conjunction of the inner sense with the self (ātma-manaḥ-saṁyoga), etc.

Similarly the specific cause of an invalid cognition is called a doṣa or a vitiating property (of the causes of a cognition). Just like a good property in the case of a valid cognition, the bad or vitiating property, too, is different from such common causes of every cognition as the conjunction of the inner sense with the self. This means that the origination of the invalidity of an invalid cognition, too, just like that of the validity of a valid cognition, is indirect (*utpattau paratastva*).

For different kinds of valid cognition, such as perception, inference, etc., there are different good properties responsible for their validity. For valid perceptual cognition, this good property is: sense-contact with such a substantive (viśeṣya) as possesses the predicated character. When I perceive the object in front of me as a piece of silver, my perception would be valid only if the object in front, with which my visual organ is in contact, possesses silverhood. Sense-contact with

the object in front is a common cause of every type of perceptual knowledge, whether valid or invalid. But the specific cause of valid perceptual knowledge would be there, only when there is sense-contact with such an object in front, as possesses the character which my cognition attributes to this object in front. If the object in front does not possess silverhood and I have the perceptual knowledge, "This is silver" in regard to it, then, this good property for valid perceptual knowledge would be absent, and so the cognition would not be valid.

What is the good property which is responsible for valid inferential cognition? We know that the immediately preceding cause of inferential knowledge is liṁga-parāmarśa or the knowledge that the subject (pakṣa) possesses the probans which is invariably concomitant with the probandum. Hence inferential knowledge would be valid, if this liṁga-parāmarśa be valid. And the liṁga-parāmarśa would be valid, if the probans be really concomitant with the probandum and if this probans be really present in the subject (pakṣa) and hence if the probandum also be really in the subject. All this is expressed in the Dīpikā by the brief statement that the good property necessary for the generation of valid inferential cognition is the knowledge that the (probans which is) concomitant (with the probandum) is in that (subject) which possesses that (probandum) with which it (i.e., the probans) is concomitant. In the stock example of inference, namely, "The hill has fire because it has smoke," smoke is the vyāpya i.e., that which is concomitant with the probandum; fire is the vyāpaka, i. e., that with which the probans is concomitant. Hence here what constitutes the good property for the validity of the inferential knowledge, "The hill has fire" is the knowledge that smoke which is really concomitant with fire is in the hill which, too, really possesses fire. Lest the reader may think that this involves a *petitio principii*, we may mention that before the inferential cognition, "The hill has fire," can occur, although it is necessary to know that there is smoke

in the hill, still it is not necessary to know that the hill has fire, as a matter of fact. The fact that the hill possesses fire is necessary for the validity of the inferential cognition in question, but it is not necessary to know this fact before this inferential knowledge occurs.

What the Dīpikā says about the good properties for knowledge by analogy and for verbal knowledge is quite clear and does not require any explanation.

We have already stated that the invalidity of an invalid cognition, too, originates indirectly, i. e., from causes which are different from those common causes which bring about a cognition as such, whether valid or invalid. For example, the illusion of yellow colour in a conch-shell is due not to such common causes of every cognition as the conjunction of the inner sense with the self, but to such uncommon causes as jaundice.

The Dīpikā next refutes the Prābhākara Mīmāṁsā view that all cognitions are valid, so that no cognition can be truly said to be invalid. Before explaining this refutation, it may be worthwhile to show that this Mīmaṁsā view is not so absurd as, at first sight, it might appear to be. Of course, common sense does employ the term 'invalid' for describing certain cognitions such as the knowledge of silver in regard to a piece of shell. But the Prābhākara philosopher maintains that a proper analysis of these so-called instances of wrong knowledge would reveal that so far as they involve knowledge, there is nothing wrong about them. It may be asked, "Why then are these instances of knowledge considered to be wrong or misleading?" The Prābhākara philosopher answers this by saying that these instances involve, besides the factor of knowledge, also some other factor which may be described as the *lack* of knowledge of certain important factors of the total cognitive situation to which these instances refer. On account of this lack of knowledge, the knower may be induced to undertake some activity which ends in failure; and because the activity ends in failure, so the total situation which

precedes this activity, since it comprises some factor of knowledge as well as some factor of lack of knowledge, is called an instance of wrong knowledge in that it misleads the knower. What, however, really misleads is not the factor of knowledge in the situation, but the factor of the absence of the knowledge of certain important things—the knowledge which would properly guide the knower. What is ordinarily described as the illusion of silver in respect of a piece of shell is not really a single judgment in which silverhood is wrongly attributed to a shell. The true analysis of this so-called instance of wrong knowledge is that there are here two different cognitions: (i) the perceptual knowledge of the 'this' i.e., of the thing in front, and (ii) the memory knowledge of silver.[84] This total situation is, of course, often expressed by the knower by a sentence like "This is silver." But this has no implication that here there is the ascription of the character 'silverhood' to the object in front. Why does the knower, then, proceed toward the object in front, if he does not, in knowledge, take it to be silver ? This is because he does *not* know that the object in front is a shell, or that it is different from silver. He moves toward the object in front not because he takes it to be silver, but because he *does not know* that it is not silver.

Now the argument of Nyāya against the above view is as follows:—

After a person has, in respect of a piece of shell, the cognition, "This is silver", it is found that he moves towards the place where the shell lies. This proves that here is a cognition of the shell as silver, i.e., the appearance of the shell as other than what it is (anyathākhyāti). In other words, there is, here, a unitary piece of knowledge which has, for its predicate, the character 'silverhood', and has, for its subject,

84 In certain cases, both of these cognitions may be perceptual, e.g., in the case, 'The conch-shell is yellow'.

the 'this' or the object in front of the person, although the 'this' is really not connected with silverhood but with the character 'shellhood'.

Against this Nyāya view, the school of Prābhākara Mīmāṁsā urges that such a conclusion does not necessarily follow from the fact that after the person's knowledge of silver, here, he moves toward the object in front. For such movement on his part is explicable even without presuming that there was, in him, a single piece of knowledge with the 'this' as subject and 'silverhood' as predicate. On the contrary, this movement is explicable by the more plausible hypothesis that there are, here, two different cognitions, namely, (i) the perception of the object in front as 'this' and (ii) the memory knowledge of silver. On account of the person's *lack of knowledge* that the 'this' is different from silver which is presented to him by memory knowledge (upasthiteṣta-bhedā-graha), he moves toward the object in front. What causes his movement is no unitary piece of knowledge with the 'this' as subject and silverhood as predicate. On the contrary, his movement is caused by his not knowing that the silver which is presented to him by memory knowledge is different from that which he perceives in front of him. Indeed, even in the case of the cognition, "This is silver" which is recognised by common sense to be veridical as distinct from that which is supposed to be non-veridical, what causes the activity of the knower toward the known object can well be considered to be not the cognition, "This is silver", but the absence of the knowledge that the 'this' is different from the desired thing silver which is presented to the mind by this very cognition, "This is silver". Of course, the 'this', here, is not really different from silver (as it is different in the case of so-called wrong knowledge) ; and hence not to know that there is difference between them does not amount to any short-coming in the person's knowledge, as it does in the case of so-called wrong cognition. Even so, the activity of the person, in both cases, can well be supposed to be due to his *not* knowing that the

'this' is different from silver. We have already remarked that the fact that, in the case of so-called wrong knowledge, the difference between the 'this' and silver is not known constitutes a short-coming; and this explains why the absence of the cognition of this real difference causes an activity which fails in its purpose. But in the case of a cognition which is recognised by all to be veridical, the fact that the person does not know the 'this' to be different from silver (in fact he knows the 'this' *to be* just silver) is not a short-coming; and this explains why the activity which is initiated by his not knowing the said difference is successful. It would appear, therefore, that there is no need to uphold that cognition is sometimes non-veridical. For, as has just been made out, in the case where a person knows silver while knowing an object, in front of him, which is not silver, it is sufficient for all practical and theoretical purposes to say that there are really two cognitions, namely, the perception of some object in front as the 'this' and the memory-cognition of silver; and none of these cognitions can be said to be wrong. There could be a non-veridical cognition, only if there were a unitary cognition of the object, in front, as silver, i. e., a determinate judgment in which the 'this' were subject and silverhood were predicate. But we have shown that there is no need to recognise any such unitary cognition in the so-called instances of non-veridical cognition. Even without accepting such a single cognition, all the relevant facts connected with such a situation can be explained fully. So those instances which common sense considers to be cases of wrong cognition are not really so, but only instances of non-cognition of the difference between a desired object that is remembered and the object which is known perceptually, but known very incompletely. They are not, as Nyāya holds, cases of something appearing different from what they are (anyathākhyāti), but cases of incomplete or partial knowledge in which something is *not* known to be different from what one desires. Whatever is known is known rightly, although only more or less partially—so-called cases

of illusory cognition are only cases of non-cognition of certain details of the known object (akhyāti).

Nyāya rejects the above view on the following ground. When a person has the perceptual judgment, "This is silver" in respect of what really is silver (*satya-rajata-sthale*) and proceeds toward what he perceives, what causes his activity is obviously the knowledge of the object in front of him, as subject, and of silverhood, as predicate, silverhood being a character of what he desires to possess. That is to say, the cause of his activity, in this particular instance, is the single judgment, "This is silver." To contend that this is not so, but that the person's non-cognition of the difference between the 'this' from silver is what causes his movement is to postulate, for the sake of a mere theory, an extremely cumbrous and unnatural cause of his activity, where it is natural to think that the judgment, "This is silver" is the cause. And when in the case of real silver, the cause of the person's movement is a single determinate cognition, we should similarly grant that even in the case where there is no silver, his movement is caused by a single determinate cognition like "This is silver." For if the activity of a person who desires to have silver is caused in one case by the determinate judgment, "This is silver", it is both natural to expect and logical to recognise that it would be caused by the same sort of judgment even in the case where there is no silver, but only a piece of shell. Moreover, common sense certainly believes that an illusion does take some such unitary and determinate form as "This is silver", in which silverhood is attributed to the 'this'. Nor should common sense be rejected for the sake of a theory, unless it leads to absurd consequences. This means that illusion should be interpreted as the appearance of a thing to have some character which is different from what it really has. If so, anyathākhyāti is the right theory of illusion.

SECTION 23

त—अयथार्थानुभवस्त्रिविधः संशयविपर्ययतर्कभेदात्। एकस्मिन्-धर्मिणि विरुद्धनाना-धर्मवैशिष्ट्यावगाहिज्ञानं संशयः। यथा स्थाणुर्वा पुरुषो वेति। मिथ्याज्ञानं विपर्ययः। यथा शुक्ताविदं रजतमिति। व्याप्यारोपेण व्यापकारोपस्तर्कः। यथा यदि यह्नि र्न स्यात्तर्हि धूमोऽपि न स्यादिति॥

दी—अयथार्थानुभवं विभजते—अयथार्थेति। स्वप्नस्य मानसविपर्ययरूपत्वान्न त्रैविध्यविरोधः॥ संशयलक्षणमाह-एकस्मिन्निति। 'घटपटा'वितिसमूहालम्बनेऽतिव्याप्तिवारणाय एकेति। 'घटो द्रव्य'मित्यादावति-व्याप्तिवारणाय विरुद्धेति। 'पटत्वविरुद्धघटत्ववानि'त्यत्रातिव्याप्ति-वारणाय नानेति॥ विपर्ययलक्षणमाह-मिथ्येति। तदभाववति तत्-प्रकारकनिश्चय इत्यर्थः॥ तर्कं लक्षयति व्याप्येति। यद्यपि तर्को विपर्ययेऽन्तर्भवति तथापि प्रमाणानुग्राहकत्वाद्भेदेन कीर्तनम्॥

T. Invalid cognition is of three kinds on account of the distinction between (i) doubt, (ii) error, and (iii) *tarka* (a kind of suppostion). Doubt is the apprehension, in respect of the same substantive, that it is characterised by many mutually opposed characters; for instance, (the apprehension), "May it be a post or a person?" Error is false cognition; as for instance, the apprehension, "This is silver" in respect of a shell. *Tarka* is the false assumption of something through the false assumption of that which is invariably concomitant with that something; for example, (the cognition), "If there be no fire (here), there would be no smoke (either)".

D. Invalid cognition is divided into its classes in the sentence, "Invalid cognition...". (The fact that dream is also a kind of invalid cognition) does not go against the tripartite

and should, therefore, be enumerated as the fourth kind of invalid cognition. To this, the reply given is that dreaming should be considered to be comprised in error. But since it is not due to any defect in the external sense-organs nor to any defect in external nature, so it must be due to some internal defect. That is why it is said to be a kind of subjective or internal error.

One may object that the definition of doubting has been stated in such a way that besides applying to an instance of doubting, it would also apply to what may be called a self-contradictory statement. Thus when I have the doubt as to whether the object in front of me is a man or a post, it would appear that I am predicating alternatively both manhood and posthood to the same subject, namely, the thing in front; and manhood and posthood are characters which are opposed in nature in the sense that they cannot characterise one and the same thing, that where the one inheres, the other does not. So the given definition applies to an instance of doubting. But it would also apply to a self-contradictory statement like "This is both a stick and a man."[87] So the given definition of doubt is too wide. To this objection which may perhaps suggest itself to a student who is acquainted with the western notion of a self-contradictory statement, Nyāya may give the following answer. A consciously manufactured or artificially entertained contradictory statement like this cannot be said to represent a cognitive state of mind at all.[88] And doubt is definitely a state of cognition which occurs naturally under certain conditions. It is cognitive in the sense that it refers to what character a characterisable thing factually

87 The self-contradiction in this statement becomes quite patent if we put it in the form, "This is both a stick and a non-stick". Evidently a man can be described as a non-stick.

88 Of course, in Indian philosophy, a consciously entertained supposal, while knowing the supposition to be wrong, is considered to be a kind of invalid cognition. But such a supposal involves no self-contradiction.

possesses. But an openly self-contradictory statement, not being expressive of a cognitive state of mind, cannot be something to which the definition of doubt would apply, since the definition of doubt clearly says that it is a kind of *cognition*.

But a more plausible objection would be that doubt should not be regarded as an instance of invalid knowledge at all. For the word 'invalid' or 'wrong' is properly applicable to cases where there is the definite assertion of a certain character in regard to a subject to which it does not really belong; but doubt does not involve any such definite assertion ; on the contrary, it involves some suspense of judgment—this suspense being due to many contrary suggestions occurring to a person who tries to determine the nature of a thing.

In reply to the above objection, it may be pointed out that the phrase, 'invalid cognition' is indeed associated, in English and European philosophy in general, with a judgment, i. e., with what in Indian philosophy is called a niścaya. Invalid knowledge, in this sense, would, in Indian philosophy, be comprised in *viparyaya* or error. But the phrase, 'invalid cognition' by which we have translated the Sanskrit word 'a-pramā,' as understood by Nyāya, does not necessarily mean error—it stands for any cognition which fails to fulfil its function of delivering the truth about a thing; and certainly, doubt fails to fulfil this purpose of a cognitive state. This is why doubt is included in a-pramā or invalid knowledge. Of course, valid knowledge is necessarily a judgment and hence a kind of sure knowledge; again there is a kind of sure knowledge which is invalid—this is designated *viparyaya* or error. Doubt, since it does not amount to sure knowledge, cannot, of course, be considered to be a kind of error ; but inasmuch as it fails to yield certain knowledge (niścaya) and hence also certain knowledge which is valid, it can well be considered to be different from valid knowledge or to be invalid knowledge, in this sense.

In connection with the definition of doubt, given in the Tarkasaṁgraha, the Dīpikā states the purpose which certain

words in this defintion subserve. In each case, the purpose is to avoid too wide a definition. Thus the word 'same' in the statement. "Doubt is the apprehension, in respect of the *same* substantive,..." is meant to prevent the definition from applying to what is called samūhālambana-jñāna or a cognition which has many things for its subject and has, for its predicate, many characters which are severally ascribed to the many things which constitute its subject. The example of such a compound judgment which is given in the Dīpikā is, "These are a pot and a piece of cloth". This judgment has two things as subject, namely, the 'this' and the 'this' (yielded by an analysis of the plural pronoun 'these'), and two things as predicate, namely, pothood and clothhood, one ascribed to one 'this' and the other to the other 'this'. Now in such an instance of a compound judgment, there are mutually opposed characters (namely, pothood and clothhood) as predicate. Hence if from the definition of doubt, given in the Dīpikā, we remove the portion, "in respect of the same substantive," it would apply to such a compound judgment. But with this portion retained, it would not apply to such a compound judgment, inasmuch as a compound judgment of this type is not in respect of one and the same substantive, but in respect of many substatives.

The words, 'mutually opposed' have been used, because, in their absence, the definition of doubt would apply to such a judgment as "A pot is a substance." For this judgment refers to more than one character, namely 'pothood' and 'substancehood'; besides, there is only one thing as subject, namely, a pot. Nevertheless, since in the definition of doubt it is stated not only that it is a cognition in which many characters are ascribed to one and the same substantive, but also that these characters are opposed to one another, so the definition would not apply to the judgment, "A pot is a substance;" for the characters pothood and substancehood are not mutually opposed, because they can well reside in the same thing.

The word, 'many' is intended to prevent the definition from applying to such a judgment as "This is possessed of pothood which is opposed to clothhood". For although in this judgment two characters are mentioned which are opposed to each other, namely, pothood and clothhood, still only one of them, namely, pothood has been ascribed to the subject.

Viparyaya is first stated to be the same as false cognition, and then false cognition is further explained as a mode of sure knowledge (niścaya) having, for its predicate, a character which the subject of the knowledge does not possess. That is to say, *viparyaya* is synonymous with mithyā-jñāna and means error, Thus doubt, error and *tarka* are mentioned in the Tarkasaṁgraha as the three species of a-pramā or invalid cognition.

Tarka is defined as the false assumption of one thing B on the basis of the false assumption of another thing A which is invariably concomitant with B. The Sanskrit word, 'āropa', here means a false assumption or a false supposal which is entertained for a while, knowing full well that what is assumed is false. So this is not quite the same as what is usually understood by the word, 'error'. For when a piece of erroneous knowledge occurs, one does not know that it is wrong ; but an āropa, in the sense in which it is to be understood here, is a false supposal which is entertained, knowing that it is false. This sort of wilful assumption of what is known to be false is called āhārya-jñāna (meaning literally a piece of knowledge which is artificial or brought about by an act of consciously wilful distortion). Thus *tarka* is a false assumption ; but every false assumption is not a *tarka*. We have an instance of *tarka*, only when a false assumption is entertained on the basis of another false assumption, through the knowledge of an invariable concomitance between two things. If we entertain the supposal that there is in the kitchen no smoke even when we know that it is present there, it would be an instance of āropa or false assumption, no

doubt ; but it would not be correct to say that this is an instance of *tarka*. When, for example, a person perceives smoke in the hill and entertains the proposition, "Let me suppose that there is no fire in the hill ; then, I must also suppose that there is no smoke there", he assumes absence of smoke as a consequence of his assuming 'absence of fire' which he knows to be invariably concomitant with 'absence of smoke'. A false assumption of this kind it is which is called *tarka*.

Since *tarka* is thus a kind of assumptive cognition which is, from the beginning, known to be false and does not involve any doubt about its being false or right, so the Dīpikā grants that this should, really speaking, be comprised in *viparyaya* or erroneous cognition.[89] The question naturally arises, "Why, then, is it stated as a sub-class of invalid cognition (a-pramā) on a par with doubt and erroneous cognition ? The author answers this by saying that it is given this independent status on account of the important role it plays in helping a cognitive instrument (pramāṇa), such as inference, to perform its appropriate function. Other modes of erroneous cognition do not do this important work. This is why it is mentioned as a species of invalid cognition, on a par with error and doubt, and not as a sub-species of error. What is the nature of the help which *tarka* renders to a cognitive instrument ? Sometimes an instrument of valid cognition fails to produce its proper result on account of some impediment, such as doubt. For instance, when it is argued, on the ground

89 Ordinarily, the term, 'erroneous knowledge' indicates a false cognition which, when it occurs and continues, is not known to be false ; on the contrary, it is, then, believed to be true. In this sense, therefore, a supposal which is entertained while knowing it to be false should not be considered to be an instance of erroneous knowledge. But as a rendering of *viparyaya*, this term should be understood in a somewhat technical sense: whenever I entertain a false proposition, I am in error, whether while entertaining it, I know it to be false or not.

of smoke perceived in a hill, that there must be fire there, one may raise the doubt that although there is smoke in the hill, still there may not be fire there. And as long as this doubt persists, the process of inference would fail to generate its appropriate valid cognition, "There is fire in the hill". Now one way of removing such doubt is the employment of a *tarka* like "If there be no fire in the hill, there should not also be smoke", which may be paraphrased as "Suppose that there is no fire in the hill, then, you must also suppose that there is no smoke there either". That is, the false assumption of the absence of smoke is the result of one's assuming the absence of fire—the absence of fire being invariably concomitant with the absence of smoke, a fact which everybody knows for certain, since nobody can produce smoke by anything other than fire. But since this assumption of the absence of smoke is the result of the assumption of the absence of fire, and since one knows the assumption of the absence of smoke to be false (through one's perception of smoke in the hill), so one realises that the assumption of the absence of fire, which has resulted in the patently false assumption of smokelessness must be false; and in this way, one's doubt as to whether there may or may not be fire in the hill, in spite of there being smoke there, is removed, and then the said process of inference is able to produce its appropriate cognition, "There is fire in the hill".

The above account of *tarka* must have suggested to the reader that the thought-process which it involves and the function which it performs are similar to those of what is called the *reductio ad absurdum* method of proving a conclusion. Still it would not be correct to translate the word *tarka* by the phrase, '*a reductio ad absurdum* argument'. For *tarka* primarily is not an argument, nor a method of proving a conclusion, although it can form part of both. Primarily, it is a supposal of the type which is expressed by a subjunctive sentence like "If there be no fire here, there is also no smoke either", when it is known for certain that absence of fire is

concomitant with absence of smoke and also that there is, as a matter of fact, smoke there.

It may be mentioned here that both in ordinary Sanskrit literature and in the philosophical literature of India, the word, '*tarka*' often means the process of inference itself. Its employment for signifying a particular mode of false assumption, as it is done in the 'present 'context, is technical, though this, too, is quite common in the literature of Indian logic.

SECTION 24

त—स्मृतिरपि द्विविधा। यथार्थायथार्था च। प्रमाजन्या यथार्था। अप्रमाजन्यायथार्था॥

दी—स्मृतिं विभजते—स्मृतिरिति॥

T. Memory knowledge, too, is of two kinds, namely, valid and invalid. That (memory knowledge) which is caused by valid non-mnemic knowledge is valid. That (memory knowledge) which is caused by invalid (non-mnemic) knowledge is invalid.

D. Memory knowledge is divided into its classes in the sentence, "Memory knowledge, too,....."

E. In the first section, cognition is divided into two classes, namely, memory knowledge and non-mnemic knowledge; and then memory knowledge is also defined. In the second section, non-mnemic knowledge is divided into two classes, namely, valid and invalid. In the present section, a similar division of memory knowledge is given. But while valid non-mnemic cognition is defined as a piece of knowledge in which the predicate is a character which is possessed by the subject (i. e, it is defined in terms of the content of the cognition), valid memory knowledge is defined not by reference to its content, but wholly by reference to the validity of that primary cognition which is the original cause of the memory knowledge in question. The same procedure is followed in defining invalid memory knowledge, too. This procedure in defining valid and invalid memory knowledge would seem to imply that a piece of memory knowledge cannot be invalid, if the original non-mnemic knowledge which is its cause is valid. This may seem to be unjustified. For do we not, on certain occasions, have wrong memory

knowledge in regard to a past event, although originally we had correct knowledge about it? This, however, would not be granted by Nyāya. In the view of Nyāya, memory may fail to revive certain ideas that were present in the corresponding original apprehension; i. e., it may be defective by omission of certain details (smṛti-pramoṣa), but not by addition of new matter. If there be such falsification by the addition of new matter, Nyāya would perhaps maintain that the knowledge which has such defects is not memory cognition, although memory or memory-traces may partially cause such knowledge. Perhaps Nyāya would regard this type of knowledge in which the original cognition is distorted by the addition of new matter, not apprehended by the original cognition, as a type of inner perception (mānasa pratykṣa) brought about by jñāna-lakṣaṇa-pratyāsatti, the jñāna being some memory cognition or perception. Of course, such inner perception would be considered to be false and would be comprised in the class, '*viparyaya*' or error which would be a type of non-mnemic and not mnemic cognition.

INDEX

R

S

T

U