Among the author's earlier published works

Regularity, Normativity and Rules of Language (Poona University, Pune, India, 1989).

Karma, Causation and Retributive Morality (ICPR, New Delhi, 1989), *Ends and Means in Private and Public Life* (ed.) (Indian Institute of Advanced Study, Shimla, 1989).

Aesthetics, Morality and Jīvanmukti (Karnatak University, Dharwad, 1992).

Darśanaśāstra kī Rūparekhā (Shukla Book Depot, Patna; Rpt, 1993).

Varṇadharma, Niskāma Karma and Practical Morality: A Critical Essay on Applied Ethics (D.K. Printworld [P] Ltd., New Delhi, 1999).

In Honour of Rajendra Prasad

R. Balasubramanian and R.S. Mishra (eds.), *Man, Meaning and Morality* (ICPR, New Delhi, 1995).

B. Kar (ed.) *Philosophy of Professor Rajendra Prasad* (ICPR, New Delhi) (forthcoming)

Dharmakīrti's Theory of Inference
Revaluation and Reconstruction

RAJENDRA PRASAD

OXFORD
UNIVERSITY PRESS

ONE

Introduction

1. Dharmakīrti and His Works

Dharmakīrti was a seventh century Buddhist logician. When exactly during that century he lived and wrote his books is not precisely ascertainable, and this is true with most of the classical Indian philosophers. That we cannot accurately date his life-history does not matter very much here because the focus of this work is not intended to be the history of Buddhist logic, or any particular aspect of it, or even on the historical development of Dharmakīrti's views on logic.

Most scholars of Buddhist logic, or of Indian logic, consider Dharmakīrti (DK) to be the most distinguished logician of the later phase of Buddhism, and, by any standard, he is one the most distinguished among classical Indian logicians. His works are as follows: *Pramāṇavārtika; Pramāṇaviniścaya; Nyāyabindu; Hetubindu; Sambandhaparīkṣā; Vādanyāya;* and *Santānāntarasiddhi.*

Though none of his works can be described as philosophically weak, *Nyāyabindu* surpasses all the rest for conciseness, precision, systematic development and rigour, without a hint of opaqueness or unintelligibility. DK is creatively analytical in presenting his views on almost all the topics he chooses to discuss therein. It comprises three chapters. The first discusses the nature and kinds of knowledge or organs of knowledge (*pramāṇa*) and in detail the nature of perceptual knowledge (*pratyakṣa*). The second cites the forms of inference or inferential knowledge (*anumāna*) and discusses in detail the nature of inference for oneself (*svārthānumāna*),

that is, of inference drawn by an inferer for his own cognitive benefit. The third is a detailed analysis of the nature of inference for someone else (*parārthānumāna*), that is, of inference presented by the inferer to another person to demonstrate to him the truth of a proposition (or cognition) the inferer himself is convinced of. In each one of the three chapters, some related or consequential issues have also been discussed.

I have concentrated on the main body of his theory of inference to highlight his contributions to logic *per se*, and not just to *Indian* logic. With this end in view, I have not only not talked about any of the several peripheral or consequential issues discussed by him but also have completely left undiscussed his theory of perception. I have adopted this course because when I was writing the book I had, and do still nurture, the fear that in a work dealing with both his theory of perception and his theory of inference, his contribution as a logician may not be properly demonstrated, and that such a work might foster in the reader a feeling that in classical Indian philosophy, the boundaries between epistemology and logic are not as clearly demarcated as they should have been.

2. The Importance of *Nyāyabindu* and of Dharmottara's Commentary *Nyāyabindutīkā*

Usually it is wise to discuss a philosopher's views on a topic on the basis of all his works that deal with it rather than on the basis of a single one. This is however not always the best course to adopt. It is the best course, or the only reasonable course, if one aims at giving an account of the historical development of his views on the chosen theme or topic, and when his views presented in one work have undergone some change or changes in later ones. On the other hand, when one wants to present his final or conclusive views on a theme or on a cluster of themes relating to a particular area of thought, in their neatest and best-structured form, and such an account is available in a single work of his, it is fair to concentrate on that. This is the case with DK. His theory of inference, which I have called his logical theory, is available in its most systematic and organized form in *Nyāyabindu* (NB). That is why I chose to present his theory almost exclusively on the basis of what he says in this work about inference and some related issues, and on the elaboration of his views by Dharmottara (DU), an eighth-century logician, in his *Nyāyabindutīkā* (NBT),[1] an explicative–analytical commentary on NB. I have made use

[1]All references to *Nyāyabindu* (NB) and *Nyāyabindutīkā* (NBT) are to the texts in Śrīnivāsaśāstrī's (SNS's) *Nyāyabindutīkā*, a Hindi translation of NB and NBT (Sahitya Bhandara, Meerut, 1975). The English translations given in this work do not literally follow SNS's Hindi ones, nor Th. Stcherbatsky's (St's) English ones given in his *Buddhist Logic*, Vol. II (Dover, 1962). The former are definitely better than the latter, though quite often too literal; the latter are generally difficult and in a number of places conceptually unclear or odd.

of DU's explications–elaborations because they deal primarily with the philosophical, conceptual content of DK's assertions and only rarely, or casually, with their grammatical or linguistic aspects. Generally, they deal with the latter only when a grammatical, or linguistic, analysis helps to clarify a philosophical or conceptual point.

DU has, of course, sought to present DK's views in the best light but also he has taken pains to remain faithful to the master's intentions in saying what he has said of them. He does not try to foist on DK some view of his own, or to take him in a direction in which he himself has not gone, but, according to DU, he should have gone. He does not even say anywhere that DK has really gone in this or that direction without realizing that he has, or without seeming that he has.

As I will not only present DK's theory of logic but also some critical observations on a few of its important aspects, academic fair play demands that I take the theory at its best. NB and NBT, taken together, do make it available to us in its best, or strongest, form. The tradition also ranks NB as the best among DK's works and NBT as the best among the philosophical, or conceptual, commentaries on NB. Buston,[2] a modern historian of Buddhism, remarks that DK wrote *Pramāṇaviniścaya* for the average reader, *Pramānavārtika* for that of a dull mind, and NB for that of an intelligent mind. I am told that a saying of this kind was current among classical Indian, or Buddhist, logicians.

Durbeka Miśra, a tenth–eleventh century logician, wrote a commentary on the NBT, entitled *Dharmottarapradīpa* (K.P.J. Research Institute, Patna). After reading it I found that for my purpose NB and NBT were sufficient and therefore have referred to *Dharmottarapradīpa* only very occasionally.

My account of DK's logic will be interspersed with comments. Though I will not ignore any, I will generally comment on those aspects that are important in a broad sense, that is, in terms of any logical theory of inference, or at least for any propounded in the general setting of classical Indian philosophies. Secondly, I shall specifically comment on those aspects, or general features, that modern interpreters of Buddhist, or rather, Indian, logic, appear to have got wrong. However, my

[2]Buston, *History of Buddhism* (Heidelberg, 1931), p. 85. Referred to by SNS, NBT, Introduction, p. 9.

objective throughout will be to present the reader with a neat and clear picture of DK's logical theory as a logical theory, without any metaphysical, psychological, or religious frills. The comments are intended to help him see the structure of the theory in its proper perspective.

I will generally refrain from any comparisons of DK's views with those of other logicians, Indian or non-Indian. References to other logicians' views, therefore, will be few and far between, and occurring only when they help me in clarifying any aspect of DK's theory or some general logical point. I will, however, attempt to point to the inaccuracies in the interpretations by modern scholars, comparative or non-comparative, of some features of DK's logic or of Indian logic, which have gained widespread acceptance. I will also be discussing DK's theory as a logical theory in its own right, and not as a constituent of the history of Buddhism or Buddhist philosophy. By not taking his historical background into consideration I do not mean to deny the truth that every thinker or theory is rooted in time. If I have not delved into this, it is merely because my primary interest lies in ascertaining and characterizing what his theory of inference is and not in ascertaining or characterizing its relationships with other theories of inference. I will also attempt to assess the degree of success with which it answers the problems it raises, or the problems that any viable theory of inference ought to answer. Therefore, some of my comments will, I hope, convey a wider sense and help us in understanding some other classical Indian theories of inference which share with DK's the features that have occasioned those comments.

In the context of critically discussing a classical Indian philosophical theory, it is necessary to clarify, that to make a critical remark on a theory is definitely not to do it any dishonour. Rather, it is an academic way of paying one's respect to its philosophical worth. The natural source of the motivation to comment on a theory is generally the commentator's high estimation of its philosophical merit. I say this because there is a feeling amongst a wide range of modern Indian scholars of classical Indian philosophies that the best thing we can do about them is to state, describe, or report, as accurately as we can, what their classical proponents say or maintain, but to avoid criticizing them. One reason for this attitude is what I call elsewhere,[3] the *Ṛṣi* bias, that is, the bias that our classical philosophers, being *Ṛṣis*, venerable seers of truth, are not prone to any error, and the second is that to criticize a venerable *Ṛṣi* is to disrespect him. It needs no saying that neither of these is a valid 'reason' that is, a rational consideration, but sheer prejudices or superstitions. We can call

[3]See ch. II of my *Varṇadharma, Niṣkāma Karma and Practical Morality: A Critical Essay on Applied Ethics* (New Delhi, 1999).

a classical thinker a *Ṛṣi* and still criticize a view held by him because to criticize is not the same as fault-finding and therefore does not show the holder or propounder of a view any disrespect.

3. 'Inference' and *'Anumāna'*

A word about the use of the English word 'inference' for the Sanskrit term *'anumāna'*. I have used the former for the latter, as is the normal, current, practice among those who write or have written in English on classical Indian logic or philosophy. Many however do it grudgingly because they think that 'inference' is not the right word for *'anumāna'* and that it has to be used because there is no better English equivalent. It seems to me that 'inference' is not as inappropriate an English term for the latter as it has been accused of being. Both 'inference' and *'anumāna'* signify a logical or epistemic act which authorizes one to believe or say something on the basis that one has believed or said something else. Western theories of inference may be different from Indian theories of *anumāna*, but that does not mean that the Western and Indian theories are about different subjects. Not all Indian theories of *anumāna* are exactly alike and yet we say that they are all theories about the same subject, and that is the case too with Western theories of inference. Indeed, this is so in relation to virtually all the subjects on which philosophers theorize. The Buddhist theory of the Self is very different from the *Nyāya* theory, and both are equally different from the *Sānkhya* theory, yet we hold that all three are theories of the Self. Therefore, if Western theories of inference differ from Indian theories of *anumāna*, that is not a good enough ground for saying that 'inference' cannot be used as the English equivalent of *'anumāna'*.

D.M. Datta[4] offers two reasons for the inappropriateness of 'inference' as an equivalent of *'anumāna'*: (1) What is called immediate inference in Western logic cannot be called *anumāna* because in every *anumāna* there must be a *vyāpti*, a universal proposition stating a relation of invariable concomitance between the *pakṣa* (the thing something is inferred to be true of) and *sādhya* (the thing that is inferred to be true of the *pakṣa*), Yet in Western logic no *vyāpti* is used to draw an immediate inference. (2) Secondly, in Western logic, inference denotes all forms of mediate knowledge, but in Indian logic *anumāna* is only one form of mediate knowledge, the others being *upamāna* (comparison), *śabda* (verbal testimony), *arthāpatti* (postulation), etc.

It is true that Indian logic does not offer a theory of immediate

[4]D.M. Datta, *The Six Ways of Knowing* (Calcutta University, Calcutta, 1972), pp. 204–5.

inference, but that does not mean that Indian logicians do not use immediate inferences, or that they are unaware of their logical role. We will see that both DK and DU say that the proposition, 'Whatever does not have fire does not have smoke' says the same thing in a negative way which the other proposition, 'Whatever has smoke has fire' says in an affirmative way, because each of the two is obtainable from the other; they are only verbally different. They do not use any term for 'contraposition' or 'transposition', but they do use the logical technique of contraposition or transposition in deriving one from the other, or in asserting that one says negatively what the other says affirmatively. If they do not attach much importance to such inferences or derivations, that should not surprise us. Even Aristotle, who presents a theory of immediate inference, does not consider immediate inferences very important.

As regards the equation of inference with mediate knowledge in Western logic, we can say that even Buddhist logic does the same thing. Every kind of mediate knowledge, that is, any knowledge which is not perceptual, that is, immediate, is, for it, *ānumānika* (inferential). This implies that then even the Buddhist '*anumāna*' should not be called *anumāna*. However, neither Datta nor any other modern Indian writer realizes this implication, or grudges DK's, or any other Buddhist's, inclusion of all mediate knowledge in *anumāna*.

A recent writer, Douglas D. Daye,[5] also claims in a slightly different way, that 'translating "*anumāna*" as "inference" misleads the general reader and skews their expectations about PA'. By 'PA' he means *anumāna* drawn for someone else, or even *anumāna* as such. He offers two reasons in support of this claim, one of which is his own and the other he derives from Karl Popper. The first reason is that cognitions, and not the sentences or propositions, occurring in an *anumāna*, as conceived by classical Indians, are the bearers of truth-values. On the other hand, according to the Anglo-European, that is, Western, conception of inference, the bearers of truth-values are the latter, that is, the sentences or propositions occurring in an inference.

This generalization about the Indian conception of *anumāna* appears to be based on a misunderstanding. Indian logicians do sometimes talk in terms of cognitions when they explicate the notion of *anumāna*, but they do not mean to say that an *anumāna*, drawn for oneself, or, for

[5]Douglas D. Daye, 'Some Epistemologically Misleading Expressions: "Inference", and "*Anumāna*", "Perception" and "*Pratyakṣa*"' in B.K. Matilal and J.L. Shaw (eds.), *Analytic Philosophy in Comparative Perspective* (D. Reidel, 1985), p. 232.

someone else, is just a causal procession of cognitions. They say, for example, that when one cognizes smoke emerging from a hill, then, recollecting the previously acquired truth that wherever there is smoke, there is fire, he draws the conclusion that there is fire on that hill. This does not mean that they treat the inference of fire from smoke as a cause–effect phenomenon in which the cognition of smoke causes the recollective cognition of there being universal concomitance between smoke and fire, and the two cognitions jointly cause the cognition of fire on the hill. It is not a case of concluding, or inferring that there is fire on the hill if there is a causal process. A causal process happens, whereas an inference is knowingly or voluntarily drawn. Inferring is a deliberate, intentional, logical or epistemic act which the inferer performs. When he concludes that, (c) the hill has fire, he does that on the ground that, (a) the hill has smoke, and (b) whatever has smoke has fire. The latter two are the grounds and not the causes, of the conclusion. To use (a) and (b) as the ground for believing, or asserting, (c) is to think in a conceptual way, that is to think of what (a) implies, what (b) implies, and what (a) and (b) jointly imply. This conceptual exercise is bound to be linguistic, or propositional, because to draw what (a) and (b) singly or jointly imply is to find out what can be said, or what cannot be said, when one says what (a) signifies and what (b) signifies. Saying does not necessarily mean speaking or vocalizing, and therefore the process of drawing the implication of (a) and (b), which is nothing other than drawing the conclusion drawable from them, can very well be done in a sub-vocal way. Therefore, *anumāna* may be done in a sub-vocal, unspoken, way, but that would not mean that it is only a psychological process in which some cognition or cognitions cause another.

Daye's second reason, derived from Karl Popper, is that a logically acceptable inference, in accordance with Western logic, has to be only formally valid. However, a formally valid inference, for example one in which one or both of the premises are false, would be called a fallacious or pseudo-*anumāna* (*anumānābhāsa*) in accordance with the Indian conception of *anumāna*. I would like to point out that the notion of formal validity is not missing in the Indian theory of *anumāna*. Every *anumāna* has to be formally valid but every formally valid inference may not be a genuine *anumāna*. This is so because an inference with a false premise may be valid in Western logic, but not in Indian logic because the Indian concept of a premise, as will be explained in Chapter 3, is such that a false proposition cannot be a premise in any *anumāna*. Every *anumāna* has to be formally valid, that is, its premises must entail its conclusion, and has to have only true (and relevant) propositions as its premises.

Popper, as quoted by Daye, says that 'A Western logician views the "inference" all animals are pigs; all pigs have wings; therefore all animals have wings' as formally valid, though unsound. ... The *Naiyājika's* view of this example is that it is a *nyāyābhāsa*, something which is only apparently an argument but really is not. It is, in short, ill-formed because its members are known to be false.'[6]

What Popper says in the last sentence is the truth. Not only the *Naiyāyika*, but all Indian logicians, including Dharmakīrti, would call it an ill-formed, a deceptive, *anumāna* because its constituents are false, that is, because none of its constituents is true. It would be ill-formed even if a single one of its constituents is false. As we shall see in the chapters dealing with *Svārthānumāna* and *Parārthānumāna*, Dharmakīrti defines a premise in such a restrictive way that a false proposition cannot be a premises, or even a constituent of a premise, and that the premise or premises must entail their conclusion. As the premises of an *anumāna* entail their conclusion, any *anumāna* in which they do this is formally valid. As the premises have to be true, the conclusion must also be true because a set of true propositions can entail only a true proposition. A classical Indian logician, like Dharmakīrti, would call Potter's example ill-formed, or a pseudo-*anumāna*, though it is formally valid according to Aristotelian logic, not because the notion of formal validity is missing in his logical theory, not even because he attaches no importance to this notion, but because the example violates his rule about what can and what cannot be a premise in an *anumāna*.

The fact of the matter is that every inference is not an *anumāna*, but every *anumāna* is an inference, a case of saying something on the ground of having said something else. 'Inference' denotes a wider class than '*anumāna*' does, or, to put the same thing in another way, '*anumāna*' denotes a sub-class of those inferences in which a set of true propositions entails another true proposition. Inference, on the other hand, includes all those cases in which a set of propositions entails another, no matter whether the set itself is true or false. Therefore, there is nothing wrong in saying that *anumāna* is inference if we bear in mind that it is a specific kind of inference, just as we say that a syllogism is a kind of inference while admitting that every inference is not syllogistic.

Neither 'inference', nor '*anumāna*', is exclusively a technical word used in logic. Both belong to ordinary language and denote the passage in thought from something to something else. It may sometimes be correctly done, sometimes incorrectly. The logician discovers the conditions

[6]Daye, 1983, p. 233.

which make the passage correct or justified, and organizes them in a system. The Indian logician does, while the Western logician does not, include in the very concept of inference the condition that the ground, the warrant, on the basis of which something is said, must have only true propositions as its constituents. Both are dealing with or theorizing about, the same cognitive, or ratiocinative, phenomenon, but they delimit the concept of it in a more or less restrictive way. The Indian logician is more restrictive because he is willing to call only that sort of inference *anumāna* in which a set of true propositions entail another true proposition. The Western logician is less restrictive because he would call any set's entailing another proposition to be an example of inference. Both would however agree that no inference is valid, or correct, if its conclusion is false while all the premises are true.

What I mean to say is that 'inference' can perform the tasks that '*anumāna*' does, or vice versa, though philosophers, Western and Indian, have philosophized about these tasks in not exactly similar ways. I am not saying that the two words are exact synonyms, but only that 'inference' can perform, if not all, at least most of the tasks which '*anumāna*' performs and which are important from the logical point of view. Therefore, 'inference' can be used as an English equivalent of the Sanskrit '*anumāna*'. In a sense, quite frequently it is extremely difficult, if we take into account all the cognitive and non-cognitive tones and overtones of the meaning of a word, to find an exact synonym for any word even in its own language, leave alone locating one in another. This however is not an insurmountable handicap when it comes to discussing in one language a philosophical theory formulated in another language.

TWO

Knowledge and Human Ends

1. Knowledge as a Precondition for Successful Action

According to DK there are two and only two ways of knowing (*pramāṇa*) things rightly; they are perception (*pratyakṣa*) and inference (*anumāna*). There is no distinction, or difference, between a way of knowing and a result or product of knowing (*Pramāṇa Phala*). We cannot say that perception or inference is a means, and perceptual or inferential knowledge is its result. Rather, we can say that perceiving or inferring is knowing. Therefore, when we say that perceiving or inferring is a way of knowing, it would be the same as saying that perceiving or inferring is knowing, or a kind of knowing. To say therefore that there are two *pramāṇas* is also to say that there are two forms or kinds of knowledge (*samyak jñāna*).[1] *Samyak jñāna* means right or true knowledge. Sometimes I will use 'right knowledge', but even where I use only 'knowledge', I would mean right knowledge. I would, thus, use 'knowledge' even for DK's '*samyak jñāna*'. This would be in keeping with the current usage of 'knowledge' because nowadays it is considered redundant to qualify knowledge with the adjectives 'right', 'true', etc. Whenever I use 'right knowledge', 'true knowledge', etc., I shall do that only to emphasize the element of truth or veracity, as something built into the concept of knowledge, and not to mean anything different from what 'knowledge' means.

Some modern writers on Indian logic or epistemology use the word 'cognition' in a broad sense with the possibility of its being true or valid,

[1]SNS, NBT, p. 82.

or false or invalid, and 'right cognition', 'valid cognition', 'veridical cognition', etc. for what DK, and other Indian philosophers, mean by '*samyak jñāna*'. Sometimes I do so too, depending on linguistic or contextual suitability.

Being a way of knowing things rightly, inference deserves to be studied, or inquired into, as does perception. This is so, says DK, because knowing things rightly deserves to be studied or inquired into. The latter does because an individual's possession of relevant knowledge is a precondition of, or necessary for, his attainment of any end of his, any object of a human desire (*puruṣārtha*).[2] DK uses '*puruṣārtha*' to mean, as explicated in DU, any object of any desire a human being may have. An object is the object of a positive desire when an individual wants to have it, that is, to own, possess, or obtain it. It is then considered to be useful, expedient, or fit to be had (*upādeya*). An object is the object of a negative desire when an individual wants to avoid owning, possessing, or obtaining it, that is, he wants not to have it. In that case it is considered to be useless, inexpedient, or fit to be not had (*heya*). Everything, says DU, is either fit to be had or not had, *upādeya* or *heya*, and there is nothing in between the two. For everything we have either a pro-desire, that is, a desire to have it, or a con-desire, that is, a desire not to have it. What is called indifferent or ignorable (*upekṣanīya*), towards which an individual has neither a pro-desire nor a con-desire, which he neither cares to have, nor not to have, is also, according to DU, *heya*. It is *heya* because, he says, it is not the object of any pro-desire of his.[3] As knowledge is necessary for the fulfilment of a pro-desire as well as a con-desire, to obtain an *upādeya* or to shun a *heya*, and whatever an individual does he does to obtain an *upādeya* or to avoid having a *heya*, it is necessary for whatever he does.

2. Three Categories of Objects: (a) Pro-desired, (b) Con-desired, and (c) Non-desired, and Untenability of DU's Reducing (c) to (b)

We normally classify things into three types from the point of view of their possible links with our desires, that is, when viewed from the

[2]*Samyagjñānapūrvikā puruṣārthasiddhriti tad vyutpādyate.*
SNS, NB, p. 1.1.
(In this work, i.e. NB) Right knowledge is inquired into because the attainment of any object of any human desire is had only with (i.e. never without) the prior use of it.

[3]SNS, NBT, p. 22.

possibility of their being ends of human actions. I would call them pro-desired, con-desired, and non-desired. Pro-desired things are those we want to have, con-desired are those we want not to have, and non-desired those to which we are indifferent, that is, things we neither want to have, nor want not to have. For example, I may want to meet A, to avoid meeting B, and be indifferent to both meeting or not meeting C. It may then be said that I need to know where A is and where B is because only by knowing their whereabouts can I effectively or successfully attempt to meet A and to avoid meeting B. However, as I neither want to meet C, nor wish not to meet him, I do not need to know where is he. Neither meeting nor not meeting him is the object of my desire. Therefore, I need to do nothing with regard to him and consequently need no knowledge of his whereabouts. On this common-sense analysis, knowledge of any object would be required only if the object is one arousing a pro-desire or a con-desire, and not when it is an object of neither. There is nothing like an indifferent desire, or one that is neither a desire to have, nor one not to have, a thing. To be indifferent to having a thing, as well as towards not having it, is to have no desire, pro or con, in respect of it. It is this sort of a thing which we call ignorable or *upekṣaṇīya*, and which even DU calls *upekṣaṇīya*.

Towards the *upekṣaṇīya* therefore we have no desire. To have no desire towards it is not identical to having, as DU thinks, a desire not to have it. It is because he wrongly equates having *no desire* towards a thing with having a *desire* not to have it, that is, with having a con-desire towards it, that he equates, equally wrongly, the *upekṣaṇīya* with the *heya*, the non-desired with the con-desired. It is true that one has no desire, pro or con, towards the *upekṣaṇīya*, and a con-desire, that is, a desire not to have it, towards the *heya*. However, having no desire towards a thing is not the same as having a con-desire towards it. Therefore, the category of the non-desired, the *upekṣaṇīya*, cannot be merged into the category of the con-desired, the *heya*, as DU does.

The conceptual difference, or difference in category between the *upekṣaṇīya* and the *heya* is clear from the fact that when, by accident, without any effort made by him an indiviudal has to have something he considers *upekṣaṇīya*, that is, a thing he is indifferent to, he would not feel unhappy. He would however feel unhappy when, even accidentally, he has to have something he considers *heya*, that is, a thing he wants to avoid, or not to have. In the latter case, a desire of his, namely, the desire not to have it, would get frustrated, whereas in the former case, no desire of his would get frustrated (or fulfilled), as he has none.

DU's motivation for equating the *upekṣaṇīya* with the *heya* appears

to be his keenness to conclusively prove DK's claim that knowledge is a prerequisite for the successful pursuit of all *puruṣārthas*, for the fulfilment of any desire, positive or negative, that is, to successfully perform any purposive action. This he could have done even without coalescing the *upekṣaṇīya* into the *heya*. An *upekṣaṇīya* object is non-desired, an object of no desire, pro or con and, therefore, tautologically not a *puruṣārtha*. Thus, if it is shown that knowledge is required to obtain the object of every pro-desire (*upādeya*) and to abjure that of every con-desire (*heya*), that is, in order to achieve the avoidance of the *heya*, it is shown that it is required in order to obtain all *purusārthas*. This would mean the same as saying that it is required for the fulfilment of all desires, or in order to perform all purposive actions. There is no need to make the *heya* include the *upekṣaṇīya* because that is not, being non-desired, a *puruṣārtha*. By making the *heya* include the *upekṣaṇīya*, DU makes the latter also a *puruṣārtha*. Doing that is a contradiction in terms. It is self-contradictory to call the *upekṣaṇīya*, the object of no desire, the *heya*, the object of a con-desire. He does it because, it seems to me, he does not realize that *wanting not to have* something (that is, considering it *heya*) is not the same thing as not *wanting to have* it (that is, considering it *upekṣaṇīya*). The *upekṣaṇīya is* something one does not want to have, but it is *also* something one does not want not to have.

The *upekṣaṇīya* is comparable, in a normative scheme of categories, to the permissible which is neither obligatory nor forbidden. If we speak in terms of positive and negative obligations, we can say that we fulfil a positive obligation when we do the obligatory, that is, do what we ought to do, and that we fulfil a negative obligation when we forbear from doing the forbidden, that is, forbear from doing what we ought not to do. Neither in doing the permissible, nor in forbearing from doing it, we fulfil any obligation, positive or negative. Therefore, it does not matter, speaking normatively, whether or not we do it. In a similar way, as far as the fulfilment of a desire, positive or negative, that is, attainment of a *puruṣārtha*, obtaining the possession of an *upādeya* or the avoidance of a *heya*, is concerned, it does not matter whether we happen to have, or fail to have, the *upekṣaṇīya*. This is so because, by definition, the *upekṣaṇīya* is that which we neither want to have, nor want not to have, or avoid having.

As an aside from DK and DU, suppose someone says that having no desire, pro or con, towards an object, not minding having or missing it, is also to have an attitude towards it. Then it would not be a *puruṣārtha*, an *upādeya*, or, a *heya*. To be a *puruṣārtha* it must be an object of some desire, pro or con. What happens when one is advised to inculcate an

attitude of desirelessness, of indifference, towards X and he does as he is advised to do, he tries to have this *attitude towards* X and *not*, to have or not to have, X itself. Even if we call this attitude of desirelessness towards X a *puruṣārtha*, it would not mean that X is a *puruṣārtha*. Rather, it would mean that X is not a *puruṣārtha* because an attitude towards X is not the same as X. Therefore, doing that would be of no help in reducing the *upekṣaṇīya* to the *heya*. Rather, as will be shown below, it would show that the reduction cannot be achieved.

The attitude of indifference towards X, would contain no desire, pro or con, towards X. Its core would be disinterestedness towards X. If the attitude itself is to be called a *puruṣārtha*, whether *upādeya* or *heya*, it would mean that either it is the object of a pro desire of the person concerned if he wants to inculcate it if he does not already have it, or the object of a con desire if he wants to get rid of it if he already has it. He would not then be indifferent to the attitude, and the attitude would not for him be *upekṣaṇīya* but *upādeya* or *heya*. This detour of making the attitude of indifference itself a *puruṣārtha* does not, therefore, enable us to deny the existence of the *upekṣaṇīya* as a separate category from the categories of the *upādeya* and the *heya*. Rather, it shows that the *upekṣaṇīya* cannot be reduced to the *heya*, as DU tries to do. Indeed, it establishes that there must be an X towards which it is right for an individual to have no desire, pro or con, that is, an *upekṣaṇīya* X in order that he may be advised to have for himself as a *puruṣārtha* (an object of desire) the adoption of an attitude of disinterestedness or indifference towards it. This is the point I want to make: DK's assertion about the indispensability of knowledge (*samyak jñāna*) for the attainment of all *puruṣārthas* (*sarva-puruṣārtha*) can very well be maintained without reducing the category of the *upekṣaṇīya* to that of the *heya* and that even otherwise it is logically unfair to make this reduction.

3. False Belief and Action: Self-deception

It may seem that a false belief is also sometimes instrumental in the attainment of a *puruṣārtha* (*puruṣārtha siddhi*). Suppose I believe that a railway train T arrives on the platform P at 5 p.m. when its scheduled time of arrival is 5 a.m. In accordance with my (erroneous) belief I reach the railway station at 5 p.m., find T on P and occupy a comfortable seat in it. When the train moves, my neighbour narrates his terrible experience of having had to wait at the platform from 5 a.m. which, as he informs me, is the correct time of its arrival. I now realize the falsity of my belief, but thank the false belief for having saved me from the ordeal of a long wait. It has apparently helped me to achieve my objective of boarding the train comfortably.

A false belief might sometimes not only help an indiviudal to achieve an objective, but may also make him so self-complacent and uncritical of himself that he might develop unwillingness, or lack of courage, to question it. The false belief that his wife is absolutely faithful to him, when she is not, may help A to have a happy home and the discovery of the truth may throw his life into utter turmoil. Alternatively, he might not feel any need to know the truth or, of course, not dare to know it.

Neither DK nor DU seems to have taken any notice of such possibilities, and definitely not of the subtler, unconscious, uses of false beliefs in what is called self-deception, in protecting oneself from some emotional setback, conflict, etc. DK does not however have to deny such uses of false beliefs to hold his theory of right knowledge as a precondition for the attainment of all *puruṣārthas*. It can be argued from his point of view that false beliefs are used by a person unconsciously, or unknowingly, to provide him with some protective cover. The pursuit of a *puruṣārtha*, as well as the use of relevant knowledge to aid it, on the other hand, is a conscious, purposive, planned, process in which one cannot use a false belief while knowing that it is false. It can be said, therefore, that an act of self-deception cannot be called a counter-instance to DK's assertion of the necessity of right knowledge for the attainment of any *puruṣārtha*.

4. Essential Instrumentality of Knowledge and its Implication

For DK, therefore, the value of right knowledge (*samyak Jñāna*) consists in the fact that the realization of all that we aim at (*sakala puruṣārthasiddhi*) is accompanied with it in the sense that, without the former, no *puruṣārtha* can be attained. This feature of right knowledge, that is, its instrumentality, he says, is a good justification for inquiring into its nature, sources, etc., that is, in order to conduct an epistemic, logical, inquiry. The fact that DK and DU make only this feature of knowledge, and no other, the subject of a philosophical study conveys the impression that knowledge, for them, has only instrumental and no intrinsic value; that it is not to be acquired, or inquired into, simply because of its being what it in itself is but only for its utility. This view would imply that an indiviudal who has no *puruṣārtha* has no need to have any knowledge. It may be said that such a person does not exist, but it cannot be said that his existence is an impossibility. In the event that he does exist he may say that he

needs no knowledge. Secondly, he, who has attained all his *puruṣārthas*, may equally say that he now needs no knowledge. This possibility cannot be countered by holding *a priori* that it is impossible for anybody to have no *puruṣārtha* or having attained all his *puruṣārthas*.

How many, or which, of his *puruṣārthas* an individual attains depends on his capabilities, the nature of his *puruṣārthas*, the nature of his world, etc., and therefore can be ascertained only empirically, and not on an *a priori* basis. Moreover, it is empirically possible that an individual has very few *puruṣārthas* all of which are attainable and have been attained by him. Apart from the *Cārvāka*, all the classical Indian schools of philosophy hold that an individual should control his desires, which means that he should have a limited number of *puruṣārthas*. They also maintain that an individual ought to attain all four types of *puruṣārthas*: *artha* (material goods necessary for a worthwhile existence in the world); *kāma* (satisfaction of desires worth satisfying); *dharma* (adherence to the moral code), and *mokṣa* (liberation or spiritual self-fulfilment). As 'ought' implies 'can', they must, and I think they do, also, maintain that an individual *can* attain all his *purusārthas* which are worth attaining. Only by maintaining that is worthwhile can, they say, that an individual ought to, or even ought to try to, attain all his *purusārthas*.

To convince a person of either one of the two kinds—he who has no *puruṣārtha* as well as he who has attained all his *puruṣārthas*—that he ought to attain all, or at least one or more of his *puruṣārthas*, and therefore ought to attain right knowledge which is a necessary condition for attaining a *puruṣārtha*, DK or DU would have no arguments to offer.

It may be argued that this is not a serious blemish in DK's theory because he may very well attribute to knowledge both instrumental and intrinsic values. Supposing he does, in that case knowledge would be cherishable, or worth acquiring, or inquiring into, even if it were of no use in *puruṣārthasiddhi*. However, DU interprets DK as maintaining that the instrumentality of knowledge in the attainment of all *puruṣārthas* (*sarvapuruṣārthasiddhi*) is the only or primary reason for acquiring it, or for inquiring into its nature and ways of attaining it.[4] This claim about knowledge made by DK, or DU, would lose a lot of its force if at any time knowledge is worth having, or inquiring into, without being required for some *puruṣārthasiddhi*. It seems to me that DK would not consider knowledge as having intrinsic value. Further, one may assert that all other classical Indian philosophers, except the Advaitin, would likewise deny to knowledge intrinsic value. For all non-Advaitins, even

[4]Ibid., p. 4.

knowledge of ultimate reality, which is the highest kind of knowledge, has only instrumental value in so far as it is to be sought because, and only because, it is a means to attaining salvation (*mokṣa*). Only for the Advaitin, knowledge of ultimate reality is not a means to, but identical with, salvation.

Moreover, there may be raised another logical problem with DK's or DU's conception of knowledge: If knowledge is a necessary condition for the attainment of every *puruṣārtha*, then in itself it cannot be called a *puruṣārtha*, instrumental or intrinsic. Calling it a *puruṣārtha* would lead to an infinite regress as shown below:

(A) (1a) To attain a *puruṣārtha* P we ought to have knowledge (*samyak jñāna*) of P.
(2a) Therefore, if knowledge itself is a *puruṣārtha*, in order to attain knowledge we ought to have knowledge of knowledge.
(3a) This would mean that then knowledge of knowledge would be another *puruṣārtha*.
(4a) Therefore, we ought to have knowledge of knowledge in order to attain the *puruṣārtha* of knowledge of knowledge, and so on *ad infinitum*.

Looking at DK's conception of the relation between knowledge and *puruṣārthas*, in a slightly different but related way, we may derive another set of paradoxical consequences which DK, or any Buddhist thinker, cannot ignore, or be complacent about. Proceeding from the side of knowledge, we can get the following:

(B) 1 (b) If one does not already know what P is, he would not aim at it, that is, he would not make it a *puruṣārtha* of his (as one cannot desire to have, or not to have, P if he does not know what P is).
2 (b) If he would not make P a *puruṣārtha*, he would not seek to know P (knowing which he would have needed to attain it as a precondition of attaining it had it been his *puruṣārtha*).
3 (b) If he would not seek to know P, he would not know P.
4 (b) Therefore, if one does not already know what P is, he would not know what P is. (This means that one would not know more than what he already knows, that his zone of knowledge is strictly limited to what he already knows, that is, he cannot expand it.)

Proceeding from the side of a *puruṣārtha*, in a similar way, we reach an equally unpalatable conclusion:

(C) (1c) If P is not already one's *puruṣārtha*, one would not seek to know it (as he would have sought to know it had it been his *puruṣārtha* because without knowing what it is he would not have been able to get it).

(2c) If he would not seek to know P, he would not know P.

(3c) If he would not know P, he would not make it a *puruṣārtha* (because one cannot desire to have, or not to have, P without knowing what P is).

(4c) Therefore, if P is not already one's *puruṣārtha*, he would not make it a *puruṣārtha* of his. (This means that one would not make anything a *puruṣārtha* if it is not already a *puruṣārtha* of his, that he would not have any new *puruṣārtha*, that is, his zone of *puruṣārthas* is strictly limited to what he already has.)

All of the three unpalatable, or annoying conclusions, (4 a), (4 b) and (4 c), it seems to me, can be avoided by making a distinction between ordinary, working, or common-sense, knowledge and comprehensive, right, knowledge, that is, *samyak jñāna*, and using it in the following way:

Every normal person has an ordinary, working, common-sense, knowledge of things around him, as a result of his normal, not necessarily philosophical, schooling, formal or informal, in course of his living a normal life in his social and physical surrounding. It is this common-sense knowledge of P, which one naturally has, whether P is knowledge itself, or something else, and which alone one needs to make P a *puruṣārtha*. To *start* the process of holding something to be a *puruṣārtha* and even to *begin* the process of trying to have it, common-sense knowledge is all that he needs and that he has. He requires right knowledge, *samyak jñāna* to ascertain whether P is really worth pursuing and to make the pursuit successful. For example, his common-sense understanding of what is right knowledge is enough to motivate him to ascertain what right knowledge is. Therefore, to make *samyak jñāna* itself a *puruṣārtha* he would not need to have *samyak jñāna* of *samyak jñāna*, etc. and consequently would not be caught up in the sort of infinite regress which (A) has indicated. To make anything a *puruṣārtha* he would need, if the suggestion made here is introduced in DK's theory, only a common-sense knowledge of what it is. It is to successfully attain it for which he would need its *samyak jñāna*. His zone of knowledge is not, thus, strictly limited to what he

already knows because the possibility of transforming his common-sense knowledge, which he already has, into *samyak jñāna*, or of replacing the former by the latter, is always there.

In a similar way, on the basis of his common-sense knowledge of what any P is, he may make it a *puruṣārtha* and then acquire its *samyak jñāna*. After acquiring its *samyak jñāna* he may conclude that it is not really worth having and therefore give up its pursuit. Or, he may conclude that it is and continue its pursuit. It may also happen that he discovers that not P, but something related to it, or opposed to it, is really worth pursuing, and then may replace P by the newly-discovered *puruṣārtha* and start pursuing it. This means that his zone of *puruṣārthas* is also not strictly limited to those which he already has, or aims at.

Buddhism being a philosophy much closer to common sense than some other Indian philosophies are, I think DK, or DU, would have no difficulty in adopting the device suggested above to avoid the paradoxical conclusions of A, B, and C. It also seems to me that they can do that without being self-inconsistent, that is, without being required to drop, or modify, any of their epistemological or logical doctrines.

While explaining the role of knowledge in *puruṣārthasiddhi*, DU says that knowledge is only a *jñāpaka*, that is, cognition-producing or information-supplying cause, and not a *kāraka*, that is, effectuating or object-yielding, cause. To know the nature and other details of an object of desire (*puruṣārtha*) is only to know what it is, where it is, how it can be obtained, etc. All this knowledge is necessary for being successful in acquiring it. But having the knowledge is not the same as having the object. Knowing or cognising the object does not bring the object known within the seeker's reach.[5] For the Advaitin, on the other hand, knowledge of reality is effectuating, or object-yielding (*kāraka*). To know the reality, that is, to *know* that one is Brahman, is to be Brahman which he really is. When the knowledge of Brahman or Self is said to destroy ignorance (*avidyā* or *māyā*), it is not a means to the destruction of ignorance, conceivable as separate from the latter. Rather, it is identical with the latter. It is true that, for the Advaitin, empirical, worldly knowledge (*vyāvahārika jñāna*) is only a *jñāpaka kārana* (cognition-yielding cause); only knowledge of ultimate reality (*pāramārthika jñāna*) is a *kāraka kāraṇa* (object-yielding cause). But for all others even the latter is a *jñāpaka kāraṇa*. To know the nature of suffering or the truth that there is suffering in the world, is not, for the Buddhist, to be freed from suffering. But, for the Advaitin, *to know*

[5]Ibid., pp. 10–11.

the nature of *ānanda* (bliss) is *to be ānanda* (bliss). This does not appear to be an odd statement, when we consider that when the Advaitin says that the Brahman, or the Self, is existence–consciousness–bliss, he does not mean that Brahman is a trinity, a compound consisting of three things, existence, consciousness and bliss. He rather holds that it is a pure unity which can be denoted by the term 'existence–consciousness–bliss', or even by any one of the three: We can say that it is existence–consciousness–bliss, or simply that it is existence, or consciousness, or bliss, because from the analysis of any one of the three, the other two can be obtained.

5. Criteria of Knowledge: Concordance with Experience and Newness, making Knowledge Essentially Empirical

It may be noted that for DK and other Buddhist philosophers, inference, as well as perception, gives knowledge only of things belonging to the phenomenal world, the empirical world in which we live, move and have our being, with which we are concerned in our day-to-day transactions. It is the world of objects, properties and relations. Neither inference nor perception gives us knowledge of the noumenal, ultimate, realities which are momentary occurrences, or events, and not stable objects having any duration. But we are indispensably concerned with the phenomenal world because to live is to live in interaction with it. It is in it that we try to attain, and do attain at least some of the objects of our desires, our *puruṣārthas*. To understand the role of inference and of perception as givers of right knowledge of the phenomenal world is very important because they and they alone can make available to us the knowledge necessary for the attainment of what we aim at, that is, of our *puruṣārthas*. We must, therefore, be clear about the nature of right knowledge, that is, about its criteria, the property or properties which it must have in order to be called right knowledge, or knowledge.

According to DU's interpretation of DK, a cognition, to be knowledge (that is, right knowledge, or *samyak jñāna*), must have two features or characteristics: (a) it must be uncontradicted by experience (*avisamvādī*) and (b) its object must be one which has not yet, that is, prior to having this cognition, been known to the cognizer.[6] Knowledge is a means to the attainment or avoidance of its object. It can be an effective means

[6] *Avisamvādakam jñānam samyak jñānam*. SNS, NBT, p. 10.
Right knowledge is cognition uncontradicted by experience.
Anadhigata viṣayam pramāṇam. Ibid., p. 11.
Only that cognition is right knowledge the object of which had not been cognized prior to it.

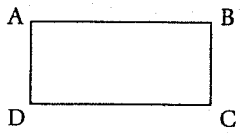
only if the object which it makes known is found to be the same as the object the cognizer actually meets with in his experience of, or encounter with it, when he approaches this to act on it, or with regard to it, as per his desire about it. Secondly, only the first cognition of an object motivates the cognizer to move towards the object cognized. Knowing the already known is not really knowing anything. A knowledge-giving sentence must therefore be synthetic, or informative. The logical link between the two features of knowledge is very clear. Only about a cognition which is *avisamvādī*, that is, one the object of which is the same as the object encountered in experience, we can ask whether its object was or was not, known earlier. *Avisamvādī* (empirically contradicted or falsified) cognition does not yield any knowledge because the object cognized in it is not what is actually, or empirically, encountered with. Therefore, the question does not arise whether or not it is the cognition of a new, or of an already known, object. It gives cognition of no (real) object, or rather, no knowledge at all. At the most, it can be called cognition in a broad sense, but not in the sense of right knowledge.

A logical corollary of the above view is that the second perception of an object perceived earlier is not a *pramāṇa*, nor is the inference of what has already been perceived, or inferred in an earlier act of inference. For example, the first cognition, namely, the inference of fire in the mountain when validly drawn would be a *pramāṇa*. But the subsequent perception of the same fire would not be, even though no error has been committed in the perceptual process. According to Buddhist epistemology, the division of labour between the two *pramānas*, perception and inference, is complete: Anyone of the two cannot operate on what the other has operated; the same object cannot be the object of more than one *pramāṇa*. This view, which the Buddhists hold, is called *pramāṇavyavasthā* (objective exclusivity among the sources of knowledge). The view contrary to it, according to which more than one *pramāṇa* can operate on the same object, is called *pramāṇa-samplava* (objective inclusivity among the sources of knowledge), and is held by the *Nyāya* school.

The second corollary of DU's characterization of knowledge is that only empirical knowledge can be called knowledge proper, or right knowledge, because only empirical knowledge can be required to be uncontradicted by experience, or to give some new information about the object it makes known to the cognizer. In linking knowledge with the attainment of the objects of our desires (*puruṣārthasiddhi*) too, DK and DU seem to imply that right knowledge is empirical knowledge because only empirical knowledge, that is, knowledge of things or facts as they actually are, according to them, can enable the knower to attain, or to desist from attaining, the object known, which may be the object

of a pro, or a con desire. DU says[7] that the agent of a purposive action seeks the knowledge of the object which can enable him to fulfil a particular purpose or desire, or a particular set of purposes or desires, of his. That is why right knowledge is the cognition of the object cognized in, or by which has the causal efficiency or competence (*artha-kriyā-kāritva*) of yielding the kind of effect which the agent or the cognizer believes, expects, or wants, it to yield. That is, the object known in a right cognition is capable of being used by the knower to fulfil the concerned purpose or desire of his.

It is obvious now that DK and DU have in their mind only empirical knowledge when they speak of *samyak jñāna* as a necessary condition of the attainment of any object of desire (*puruṣārtha siddhi*). It is worth mentioning, however, that even non-empirical knowledge can also render some help to, or even be a necessary condition of, *puruṣārtha siddhi* in some cases. If it were not the case, logic and mathematics would have had very little practical utility. To illustrate what I mean, let us suppose that a young disciple S is standing at the corner B of the rectangular plot ABCD, his guru (teacher) G at the corner D, the point diametrically



opposite of B, and S wants to reach G in the shortest possible time. This means that he must know the shortest possible route from B to D because only by traversing the shortest possible route he can reach G in the shortest possible time. One way to possess this knowledge would be to equip himself with the geometrical truth that the diagonal of a rectangle is the shortest distance between the points (D, B) it connects. This is a logical, or conceptual, truth, and certainly not an empirical one about which empirical confirmation is necessary. Neither does DK, nor DU, mention the utility of logical, conceptual, knowledge for attaining any *puruṣārtha*. But they could have admitted it without relinquishing their claim about the necessity of empirical knowledge for *puruṣārtha siddhi*. There would have arisen no self-inconstancy in their system because of their admitting that both, empirical and conceptual or logical knowledge,

[7]*Arthakriyārthibhiścārthakriyāsamartha—vastuprāptinimittam jñānam mrigyte. ... Tatoarthakriyāsamarthavastupradarsakam samyagjñānam.* Ibid., p. 16.

For obtaining the object capable of fulfilling a purpose of his, its knowledge is sought by the person desirous of getting the purpose fulfilled.

Therefore, only that sort of knowledge, which is a knowledge of the object capable of getting the purpose fulfilled, is right knowledge.

were necessary for the latter, nor because of their adding that the criteria of the validity of the two kinds of knowledge were different. This move would have added a new dimension to Buddhist logic or epistemology by motivating Buddhist philosophers to ascertain the nature of logical, mathematical, that is, non-empirical, truths.

6. Probative Equality of Inference and Perception, and its Adverse Implication for Inference

Inference, being a *pramāṇa*, therefore is itself, or yields, knowledge uncontradicted by experience and of objects not already known. This is equally true of perception, as both are of equal strength or competence (*tulyabala*). The reason for an inquiry into the nature of inference, like that of perception, is its role as a giver of knowledge (*samyak jñāna*). This means that an alleged act of inference which does not yield knowledge uncontradicted by experience (*avisamvādaka*), or the object of which is not until then unknown (*anadhigata*), is not genuine inference, or inference (*samyak anumāna*).

Perception of an object is a valid, direct, (*sākṣātkārī*) cognition of it, unmediated by, or independent of, any other kind of cognition. But inference is a valid, indirect, cognition of the object inferred since it is mediated by, or dependent on, another cognition, namely the cognition of another object called *linga, hetu,* or *sādhana* (sign, logical reason, or just reason, logical mark) with which the *sādhya* (inferred object) is invariably, unexceptionally, universally, related. But as far as their epistemic or probative status is concerned, inference and perception are of equal importance. That is why, says DU, DK puts the conjunctive 'and' ('*ca*') between 'perception and inference' in stating that they are the two kinds of *samyak jñāna*.[8] DU refers to the logical truth that each conjunct of a conjunctive statement is as important as the other. Therefore, by placing 'perception' as the first conjunct and 'inference' as the second, DK does not imply that perception is in any way superior to inference. Just as there cannot be any (veridical) perception without the object perceived being actually there, there cannot be any (valid) inference without the object inferred being actually there. That is why each one of the two is as

[8]*Dvividhamsamyak jñānam.* SNS, NB, p. 26.2.
Right knowledge is of two kinds.
Pratyakṣam anumānam ca iti. Ibid., p. 28.3.
(They are) perception and inference only.
[9]*Cakārah pratyakṣānumānayostulyabalatvam samuccinoti. Yathā arthabinābhāvitvād artha*

effective a means to the attainment of the object cognized as is the other.[9]

A short comment on DK's and DU's treatment of the two kinds of knowledge, perceptual and inferential, as carrying equal strength, is called for here. Any piece of cognition has two end-points, the object cognized and the subject or person who cognizes it. The reason for making the above claim, given by DU and which has already been mentioned, derives from the alleged nature of the object cognized in the two types of knowledge: The object cognized in each one of the two, he says, is equally *artharkriyā samartha*, that is, capable of satisfying the expectations aroused in the cognizer by its cognition. DU does not adequately take into account the other end-point of knowledge, namely, the subject or cognizer, more specifically the kind of logical attitude each one of the two cognitions authorizes the cognizer to take towards the object cognized by him by means of it. The question which particularly arises in this regard is that of the authority given to the cognizer by his cognition to attribute certitude to the truth of the product of his cognition: Is the cognizer justified in attaching the same kind of certitude to the truth of the judgement, the end-product, arrived at as the result of perception and to that arrived at as that of inference? For example, does the inference of the judgement, 'There is fire on that hill', drawn by him from the conjunctive premise, 'There is smoke on that hill and wherever there is smoke, there is fire', authorize him to attribute to the truth of his conclusion the same degree of certitude which his perception of fire on the hill authorizes him to attribute to that of the perceptual judgement, 'There is fire on the hill'?

After his perceiving fire on the hill in a manner in which perception ought to be done, one cannot doubt the existence of fire on the hill. If he sees fire on the hill, there is fire on the hill. Therefore, we would say, and so would DK and DU, that his perception gives him the full epistemic or logical authority to attribute truth with complete certitude to his perceptual judgement, 'There is fire on the hill'. DK and DU would say that when he infers, 'There is fire on that hill' in the way he ought to have inferred, that is, from the premise, 'There is smoke on that hill and wherever there is smoke, there is fire', his inference gives him the full

prāpayat pratyakṣam pramāṇam, tadvad arthabinābhāvitvād
anumānamapi paricchinnamartha prāpayat
pramāṇam iti. SNS, NB. Ibid., p. 31.

The word 'and', conjoining 'perception' and 'inference' (in the sentence 'Perception and inference') signifies the equal status of perception and inference (as givers of knowledge). Just as perception, by not taking place without the object of perception being there, helps the attainment of the object perceived and is therefore a giver of right knowledge (*pramāṇa*), so is inference a giver of right knowledge because it too, because of not taking place without the object inferred being there, helps the attainment of the object inferred.

epistemic or logical authority to attribute truth with complete certitude to his inferential judgement, 'There is fire on the hill'. Therefore, the perceptual and inferential judgements are true with the same degree of certitude, and perception and inference are of equal strength (*tulyabala*).

But the truth of the inferential judgement can be asserted with complete certitude only if, (a) the premise is true, *and* (b) the premise entails the conclusion, the inferential judgement in question; that is, only if the inference is deductive. But this would mean that the inferred judgement does not say anything new, anything not already said by the premise. One proposition, or judgement, can entail another proposition, or judgement only if the assertum of the latter is already involved in its assertum, in what it asserts, may be implicitly. The object cognized in such an inference, for example, presence of fire on the hill, would then be *adhigata* (already known) and not *anadhigata* (unknown). But when this is the case, inferential cognition cannot be called right knowledge (*samyak jñāna*) because, on DK's and DU's definition of right knowledge, one of the two criteria of right knowledge is that it must be a cognition of an object not already known.

The conclusion of an inductive inference can assert something not asserted by its premise or premises. But the possibility of its being false, that is, contradicted by experience, can be ruled out. Therefore, its epistemic or logical strength would not be equal to that of perception. For the same reason, it cannot be called right knowledge because it lacks the other criterion, as per DK's and DU's definition of right knowledge, namely, the criterion of being uncontradicted by experience (*avisamvādakatva*). The inductive inference, 'There is a hermit living on that hill', from 'That hill has a lot of greenery like a large number of hills on which hermits live', says something not entailed by its premise. But there is no certainty of its being true, that is, of its not being contradicted by experience. The conclusion is, in fact, a probabilistic sentence equivalent to, 'It is highly probable that there is a hermit living on that hill'. Such a sentence neither DK nor DU would accept as communicative of right knowledge. The upshot of all this is that neither deductive, nor inductive inference can be said to have epistemic or logical strength equal to that of perception because the former is not a giver of any new knowledge (*anadhigatārthabodhaka*) and the latter is not a giver of any knowledge which cannot be contradicted by experience (*avisamvādī*). Therefore, it is not completely trouble-free to treat perception and inference as having equal strength (*tulyabala*) while requiring that a cognition must satisfy the two criteria of right knowledge as laid down by DK and as explicated by DU.

THREE

Division of Inference (Anumāna) *into Inference for Oneself* (Svārthānumāna) *and Inference for Someone Else* (Parārthānumāna)

1. DK's Method

Quite a few classical Indian logicians first define inference and then discuss its kinds. For example, Annambhaṭṭa first defines inference as the means of attaining inferential knowledge (*anumiti*) and expands this definition by further defining inferential knowledge and other related concepts. Inferential knowledge is, he says, generated by *parāmarṣa*, and *parāmarṣa* is the knowledge that the object (say, P), of which a particular thing (say, S), is inferred to be true, has that (say, H) which has the relation of invariable concomitance with the inferred thing (S).[1] That is, P is inferred to have S on the ground that P has H and that anything which has H also has S.

But DK proceeds in a different way. He begins with the statement that inference (*anumāna*) is of two kinds and calls them, as others do, *svārthānumāna* (SA), inference for oneself, and *parārthānumāna* (PA), inference for someone else.[2] He then discusses the nature and varieties

[1]Annambhaṭṭa, *Tarkasangraha* in Chandrodaya Bhattacharya's *The Elements of Indian Logic and Epistemology* (Calcutta, 1966), p. 58. The latter contains a portion of the text and of the commentary on it, entitled *Dīpikā* written by Annambhaṭṭa himself, and an English translation of both.

The same procedure of first defining inference (*anumāna*) and thereupon discussing its kinds is followed by Keśava Miśra in his *Tarkabhāṣā* (Motilal Banarasidass, Hindi translation by Badari Nath Shukla, 1976), pp. 97–107.

[2]SNS NB, pp. 96–98.

of each one of them. Anticipating from an opponent the query why he begins with its kinds when he is expected to give a general definition of *anumāna*, DU says that its two kinds are so different from each other that there is nothing common between them. A general definition of *anumāna*, equally true of all of its kinds, must state the property, or the set of properties, present in all of them. Since there does not exist any such property, it is not possible to give a general definition of *anumāna*. The only course open to the master, therefore, in order to explain the nature of *anumāna*, is to explain individually the nature of each of its two kinds. To explain the nature of each one of them is to explain what *anumāna* is.[3]

There is nothing palpably wrong with DK's procedure. When the nature of both SA and PA is explained, and there is no third kind or type of *anumāna*, the nature of *anumāna* is explained. And, if the two are absolutely different from each other, there is no other way, as DU says, to explain what *anumāna* as such is. But it seems to me that the two are not absolutely different. I am not suggesting that if they are not, DK's procedure of explaining the nature of *anumāna* would be wrong; it may still be right. But then DU's way of justifying DK's procedure would not hold good. I say that DK's procedure may still be right, or a more down-to-earth method of explaining how *anumāna* in fact works, than the method of first giving a general definition of it and thereafter explaining the nature of its different kinds or forms, as Annambhaṭṭa and some other Indian logicians do. What is more important here is DU's or DK's substantive claim that SA and PA are absolutely different from each other. It will be examined in this chapter in the course of discussing the viability of the division of *anumāna* into SA and PA. I hope the discussion would show that the claim is not as unquestionable as DU thinks it is, and therefore, that the division into SA and PA is not as viable as the classical Indian logical, or epistemological, tradition, or its modern interpreters, take it to be.

2. Division of Inference into SA and PA as Untenable

SA is said to be, as explicated by DU, the kind of inference in which the inferer draws a conclusion from a set of premises for his own knowledge

[3]*Parārthānumānam śabdātmakam, svārthānumānam tu jñānātmakam. Tayoratyantabhedāt naikam lakṣanamasti. Tatastayoh pratiniyatam lakṣanam ākhyātum prakāra-bhedah kathyate.* SNS, NBT, p. 97.

Inference for someone else is linguistic (or verbalized), inference for oneself is knowledge-yielding (or epistemic). The two being absolutely different from each other, there does not exist any characteristic common to both of them. Therefore, to indicate the

and PA the other kind in which he demonstrates to another person that a certain conclusion follows from a set of premises in order to generate in the latter the knowledge of the truth of the conclusion so demonstrated.[4] SA is thus an internal, cognitive, process of reasoning conducted by the inferer in the privacy of his mind. It is knowledge-giving (*jñānātmaka*) to him because it gives to him the knowledge of the inferred truth. PA, on the other hand, is a public exercise because it is the demonstration of the truth of a proposition by the demonstrator to another person. The latter, that is, the demonstratee, in PA must be someone different from the demonstrator. The demonstrative exercise, which any PA is, can only be achieved by the demonstrator by doing the demonstration in the public language shared by him and the demonstratee. Therefore, it is propositional or linguistic (*śabdātmaka*).

As an example of one of the varieties of SA, DK gives,

(1) Here is fire
Because here is smoke

DU's explication of (1) is that this inference is an application of the common-sense view of the effect–cause relation according to which where there is an effect, there is its cause, and where there is no effective (*samartha*) cause, there is no effect.[5]

As an example of one of the varieties of PA, he gives,

(2) Wherever there is smoke, there is fire, for example, in a kitchen and wherever there is no fire, there is no smoke, for example, in a pond, and here is smoke.

In (2) the conclusion, 'Therefore, here is fire' is left unstated since it is obvious, as it is entailed by the conjunctive statement 'Wherever there ... smoke'. The latter is nothing but the conjunction of all the premises

distinctive nature of each one of them, the (two) kinds of inference have been mentioned (and separately discussed).

[4]*Svasmāyidam svārtham. Yena svayam pratipadyate tat svārtham. Parasmāyidam Parārtham. Yena param pratipādayati tat parārtham.*

SNS, NBT, p. 98.

Inference (drawn) for one's own cognition is inference (drawn) for oneself. That (inference) by which one oneself obtains knowledge is (inference drawn) for oneself. Inference (drawn) for someone else's cognition is inference (drawn) for someone else. That (inference) by which one conveys (some) knowledge to someone else is inference (drawn) for someone else.

[5]SNS, NB, NBT, p. 126.

required to yield the conclusion. Similarly, in (1) the universal premise 'Wherever there is smoke, there is fire ...' is left unmentioned though it is equally needed in SA and PA to legitimize the inference of the conclusion. Since the inferer draws the conclusion for his own cognitive benefit, he does not need to state to himself the universal premise which he is definitely cognizant of and makes use of. But in PA he has to state it to the demonstratee, who is another person, because without it he cannot demonstrate that the conjunction of his premises entails the conclusion the truth of which he aims at demonstrating.

In both (1) and (2), fire is the object inferred, or to be inferred (*anumeya*, or *sādhya*), smoke is the logical mark or reason (*hetu*), and the place or object denoted by 'here' the thing of which fire is inferred to be true. The latter is called *pakṣa*, the locus of the logical reason, and it is the *pakṣa* which, in the conclusion is asserted to have the *sādhya* or *anumeya*, that is, to be the locus of the latter too. This transition from the *pakṣa*'s having the logical reason (*hetu*), smoke, to its having the inferred object (*sādhya*), fire, is made on the ground that where there is smoke, the *hetu*, there invariably is fire, the *sādhya*, that is, on the ground of a relation of invariable concomitance between the *hetu* and *sādhya*. The universal proposition stating this invariable concomitance is called *vyāpti*. It can be stated positively as 'Wherever there is smoke, there is fire, as in a kitchen', and negatively as 'Wherever there is no fire, there is no smoke, as in a pond'. The positive and negative versions are logically equivalent because the negative version is the transpositive of the positive version as per the rule of transposition, '$(P \supset Q) \equiv (\sim Q \supset \sim P)$'. In both the positive and negative versions of the *vyāpti*, there is present a clause mentioning an example. This part is called *udāharaṇa* or *dṛṣṭānta* (example). Its function is to exemplify the universal proposition of which it is an adjunct. It shows that the universal proposition has existential instantian, that its subject term does not denote an empty class, that there exists an example of an object, say, a kitchen, which has fire when it has smoke, and of an object, say, a pond, which does not have smoke when it does not have fire. Sometimes the entire universal sentence, including the illustrative part, is also called *udāharaṇa*. But I shall refrain from doing that, though I shall call the entire universal sentence, including the illustrative part, *vyāpti*. I shall use '*udāharaṇa*' to refer only to the illustrative part, and discuss, a little later, its logical role in some detail.

The sentence or proposition in which the *pakṣa* is said to have the *hetu*, I will call *pakṣa vākya* (PV) and that in which the *sādhya* is said to be true of, possessed by, or predicated of, the *pakṣa*, *nigamana* (conclusion).

The complete conjunction of the *vyāpti* and the *pakṣa vākya*, the complete set of the premises, I will call the *hetu vākya* (HV) because it is a complete statement of, as we will soon see, the three features of the *hetu*.

As this point I would only reassert that for DK, and all other Indian logicians, in both SA and PA, that is, in every inference the *pakṣa vākya* and the *vyāpti* are necessary to yield the conclusion. Further, to be elaborated later on, the presence of the *hetu* (for example, smoke) must be cognized in the *pakṣa* (for example, a particular place), and the *vyāpti* must state the relation of universal concomitance, both positive and negative, between the *hetu* and the *sādhya*. The *hetu* (or *linga*) has, DK says three features: (a) it is necessarily present in the *pakṣa*, (2) it is present only in things similar to the *pakṣa*, and (3) it is always absent in things dissimilar to the *pakṣa*. Since it has these three features, it is called *trirūpa linga* (three-featured, or three-faceted, logical mark of the *sādhya*). Its three features guarantee that there is a relation of universal concomitance between it and the *sādhya*. All these things will be discussed in detail later. But let us always keep in mind that the *vyāpti* is indispensable for SA as well as PA. It may not be mentioned, but only assumed in SA and explicitly mentioned in PA, but it is equally used in both and functions alike in both.

The classical Indian logician's way of putting all possible inferences into the two groups, SA and PA, has been hailed by almost all modern writers on classical Indian logic as a very purposeful and neat logical division. None of the well-known historians of Indian philosophy, nor any of the early, or recent, modern writers on Indian logic, seem to have felt the need for examining the very principle on which the division is based. Therefore, the deficiency, or lack of clarity, if any, concealed in it, is likely to have remained unscrutinized, or unnoticed. In the course of discussing DK's statement on the division and DU's elaboration of it, the critical observations made here would apply not only to DK's statement on it but to the division as such, that is, to its characterization by anyone, Buddhist and non-Buddhist alike. This is so because its characterization by all who accept this division runs on similar lines. The objective of these observations is to ascertain whether or not it is as illuminating a logical way of dividing inferences as it has been taken to be.

2. (a) Knowledge-yielding SA and Language-involving PA: A False Duality

DU's explication of the difference between SA and PA by saying that SA is knowledge-yielding (*jñānātmakam*) and PA is linguistic (*śabdātmakam*)

may suggest that SA is non-linguistic, or pre-linguistic, in the sense that it does not involve the use of any language. But that cannot be true. No inferring can be done without the use of language. No matter for whose cognition it is done and howsoever elementary it may be, it involves consciously, intentionally, passing from some thought, some item of information, to some other, and this cannot be done without giving a linguistic form to each one of the necessary steps involved in the passage from one step to another. As has been said, DK admits, as others do, that SA too necessarily involves the use of a *hetu vākya* asserting the presence of the *hetu* in the locus (*pakṣa*), only in the similar to the locus (*sapakṣa*) and never in the dissimilar to the locus (*vipaksa*). This is clear from his explicitly saying that SA is the knowledge yielded by the three-featured logical mark.[6]

It is the cognition, or sub-vocal assertion, of the presence of the *hetu* in the *pakṣa*, and the recollected awareness of the universal concomitance between the *hetu* and the *sādhya* which, when synthetically comprehended, or taken together, yield in SA the conclusion, the cognition, that the *pakṣa* has the *sādhya*. In SA, the whole process, the entire drama, may be silently, or sub-vocally enacted, but certainly not without involving any use of any language. All the steps need not be stated, or uttered, but that would not make it non-linguistic. And, if out of glee in arriving at a pleasant conclusion, the inferer blurts out 'Here is fire', this use of language, this vocalization, would not make his inference cease to be a case of SA if it has been drawn by him for his own cognition.

2. (b) Inference and Intention

Since SA means inference drawn for oneself, and PA inference drawn for someone else, it is sometimes held that what distinguishes one from the other is the inferer's intention. In the former, his intention is to draw the inference for his own information, or knowledge, and in the latter to demonstrate it to another person for his information or knowledge. Such intentions may be there, but they do not play any logical role. They have nothing to do with the conditions of validity, soundness, or unsoundness, of an inference, or with putting it into this, or that, class. Moreover, in the case of SA as well as of PA, there may occur very many different

[6] *Tatra svārtham trirūpā lingād yadanumeye jñānam tad anumānam.*
SNS, NB, p. 98.
Of the two (SA and PA), inference for oneself is the knowledge of the inferred object obtained by means of the three-featured logical mark.

kinds of intentions. For example, the inferer may draw the inference in his SA to add to his knowledge, to remove a doubt, to support a pre-existing belief, to find some solace, to feed an existing prejudice, etc. Similarly, he may demonstrate a PA to a neighbour to give him some new information, to strengthen a prejudice of his, to break his romance, to cause in him some unhappiness, etc. Since intentions have nothing do with the validity or logical worth of an inference; they cannot play any role in making an inference of this kind or that kind. One may draw an SA inference only with the intention to be able to successfully demonstrate it, as soon as an opportunity to do that presents itself, to his neighbour. He may even draw it, when the latter is near, in a slow voice, but audible enough to the latter with the intention of making him feel nervous, believing that his knowing the conclusion would make him nervous. Any inference can be drawn with any sort of intention without affecting its logical character. That is why there is no point in classifying inferences, when one is conducting a logical enquiry into their nature, on the basis of the inferer's intentions in drawing them, or demonstrating them. If an inference is valid and its premises are true, it would yield a true information to the inferer, or to the hearer, whatever may be the former's intention in drawing it.

When one infers something from something else, he *does* something and he does it intentionally. Inferring is an action and not an event which simply happens to him. As is the case with every intentional action, inferring too can be done with morally good, bad, or indifferent, intentions. The intention with which an inference is drawn may be relevant to its moral or ethical valuation even though it is not relevant to its logical valuation. An inference drawn with a morally-good intention may be invalid, and one drawn with a morally-vile intention valid, because the criteria of logical valuation are indifferent to moral considerations. This is the plain truth about the nature of inferences and it has no adverse implication for logic which aims at determining the logical conditions for their soundness, cogency, etc.

2. (c) PA knowledge-yielding to its Demonstrator as Well

It cannot be claimed, however, as the classical account of the SA–PA distinction, and its modern interpretation, seem to do, that only an inferer's SA yields some knowledge to him and not his demonstration of it in a PA to another person, that the latter yields knowledge only to the demonstratee. The idea behind the claim is that, since the demonstrator already knows by means of his SA the truth he demonstrates in his PA

to the demonstratee, there is no question of his use of the PA to give him any (new) knowledge. Therefore, the claim goes, PA is *jñānātmaka* (knowledge-yielding) only to its demonstratee, or recipient, and not to its demonstrator or giver.

It does sometimes happen that, when one tries to demonstrate to another person, an inference, which he considers until then impeccable, he discovers that it needs to be supplemented, strengthened, modified, or even rejected, that its conclusion has to be a little, or completely, different, from what he had himself, in SA, taken it to be. All this is likely because in PA he has to make explicit every component of the reasoning to make it convincing to the demonstratee. He may even have to add a new premise, or modify an existing one, or draw, to satisfy a query of the latter, some implication or implications, from one, or more than one, premise, which he had not drawn in SA, and thereby to modify his old conclusion. Many a time we see an implication, which we had not previously seen, as a result of a dialogue with, or a questioning from the demonstratee, of our PA. A teacher does sometimes modify the conclusion of his SA in course of, or as a consequence of, his use of a PA to demonstrate the latter to a student of his. This characteristic of interpersonal argumentation or reasoning is very convincingly illustrated in a good number of Platonic dialogues. I am sure, at least some classical Indian philosophers must have altered their SA conclusions as a result of their dialogue (*samvāda*) with a student, or an opponent (*prativādī*).

To illustrate what has been said above, let us imagine a dialogue between a Cartesian philosopher (CP) and a modern analytical philosopher (AP). The former first draws the following SA:

> God exists
> because God is perfect (since the concept of God is the concept of a perfect being)
>
> (assuming the *vyāpti*: 'Whoever is perfect exists' (because lack of existence being a lack or deficiency would make him imperfect).

Thinking his SA as impeccable, the Cartesian offers it in the form of a PA to the analytical philosopher who then reacts to it. The dialogue which ensues runs as follows:

The Cartesian philosopher	(offers the PA in the Dharmakirtian form): God is perfect and Whoever is perfect exists and Whoever does not exist is not perfect.
AP (reacts):	Your *pakṣa vākya* 'God is perfect' is defective. Being

perfect, like being red, is a real predicate, and therefore it can be affirmed or denied only of a thing which exists. There is no point in saying of a thing it is perfect, or is not perfect, if it does not exist. This means that being perfect presupposes the existence of God to which it is attributed. Therefore, it cannot be the *hetu* to prove the existence of God. Further, in *anumāna*, the existence of the *pakṣa* is to be taken as indisputable, whereas in your PA, the existence of God, when God is the *pakṣa*, is itself to be inferred, that is, the *anumeya*, or *sādhya*. Hence your PA is not in order.

If CP is convinced of the logic of AP's response, not only would he come to know of something which he did not know earlier, but may even reject his original SA, or at least begin to entertain some doubt about its validity.

Neither DK, nor DU, mentions this possibility. But none of them has to reject it. Without any adverse effect on their general theory of inference, both of them may admit the potentiality of a PA to occasion in its demonstrator a change of the above kind, or of some other kind, since it can occasion many different kinds of logical or epistemic changes depending on the demonstratee's responses and the demonstrator's mindset. A reasonable way to understand their view that PA is knowledge-yielding to the demonstratee, according to me, is to take it as claiming that the demonstrator primarily intends to communicate to the demonstratee, by means of his PA, some specific piece of knowledge conveyed by its conclusion, without implying that he himself is immune to learning from the demonstration. Likewise, in SA, the inferer, it can be said, primarily intends that he himself may acquire some specific piece of knowledge conveyed by its conclusion, without implying that the SA may never pass on some piece of knowledge to someone else. They may also admit that in some cases one's use of PA may, and in some others, it may not, give him an opportunity to learn something from its demonstration.

2. (d) A Purely Logical Reason against the Division

There is another reason, and a logically conclusive reason, for questioning the viability of the division of *anumāna* into SA and PA. The set of conditions for the validity of an inference, whether it is in the SA form,

or in the PA form, is the same. Whether an inference is meant for the cognitive benefit of the inferer, or for that of someone else, it must be valid in order to be a *pramaṇa*, a piece of *samyak jñāna*. And, to be valid, it must meet, not only according to DK, but according to all others as well who upold the SA–PA division of inference, the same set of conditions in both the cases. As DK says, any *anumāna* must have a three-featured logical mark (*trirūpa linga*), no matter whether it is SA or PA. They may differ in their forms but the bond between the premises and their conclusion in a valid SA, or PA, is of the same strength or stringency. To determine its validity, in the case of neither of them, there is a rule of inference which is to be used in the case of one and not to be used in that of the other, and there is not any kind of proposition which can be a constituent of one and not of the other.

The order in which the constituent steps or propositions occur in SA and in PA is said to be different. For example, in the SA:

(1) (a) Here is fire
Because (b) here is smoke,

the conclusion occupies the first position, and the *pakṣa vākya*, which is a part of the *hetu vākya* in DK's logic, is in the second position. In the PA:

(2) Here is smoke and wherever is smoke
there is fire, as in a kitchen, and wherever
is no fire, there is no smoke, as in a pond,

the conclusion is not mentioned. Only the full statement of the three-featured *linga*, the complete *hetu vākya*, is given. The *hetu vākya*, as will be shown in the next chapter, is the complete set of premises of the inference in which it occurs. Therefore, it can be said that in PA only, the set of premises is given.

In (1), the example of SA, the *pakṣa vākya* is there, but the *vyāpti* 'Wherever there is smoke ... no smoke ...' is not mentioned, but it is not absent. It is assumed and is used to get the conclusion. In (2), the conjunction of the *pakṣa vākya* and the *vyāpti*, which is the *hetu vākya*, or premise, is alone given. The conclusion remains unmentioned because its entailment by the conjunctive premise is obvious. But this difference in the order of constituents does not make (1) and (2) two different types, or forms, of inference. It is the conjunction of premises in any valid *anumāna* which entails its conclusion. Conjunction is commutative. Therefore, it does not matter which premise is put as the first conjunct and which one as the second, or third, etc. Entailment is asymmetrical.

Therefore, it does not matter whether the conclusion is mentioned before, or after, the premises. Neither does it matter whether any premise, or conclusion, is left unmentioned because any inference, SA or PA, may be enthymemetical. Any constituent of an inference can be left unmentioned depending on the nature of the context, universe of discourse, the logical maturity of the addressee, or of the inferer, etc. Since the order in which the constituents of a deductive inference (which SA and PA are) are arranged does not play any role in determining its validity, not only the division of inference into SA and PA, but also the entire exercise of Aristotle to determine the figures and moods of a syllogism are of no great logical value.

When we put the conclusion first, and after it all the premises, relating the conclusion with the premises by 'because' we have:

(1a) Here is fire
because
Here is smoke and wherever is smoke
there is fire, as in a kitchen, and wherever
is no fire, there is no smoke, as in a pond,

which is an example of SA. When we put the premises first and then the conclusion, relating the former to the latter by 'Therefore', we get:

(2a) Here is smoke and wherever is smoke, there
is fire, as in a kitchen, and wherever is no
fire, there is no smoke, as in a pond,
Therefore, here is fire,

which is an example of PA. (1a) and (2a) are equivalent because 'therefore' refers to the relation which is the converse of the relation referred to by 'because'. If the conclusion were not mentioned in (2a), as DK suggests, because its entailment by the premises is obvious, even then (2a) would be equivalent to (1a). Since SA and PA are not two logically different, or non-equivalent, types or forms of inference, it is not logically justified to treat them as representing two *absolutely* different, or even different, *types* of inference. An inference can be called logically different from another only if the set of rules which legitimize drawing its conclusion from its premises is not wholly identical with the set of rules which legitimize drawing the latter's conclusion from its premises. Since this is not true of SA and PA, there is no logical reason for calling them two different types of inference, or for dividing inference into SA and PA, claiming that these

two and only these two represent the two basic or the broadest types, or forms, of inference.

3. SA Primary but not Self-complete

In the context of DK's theory, what one demonstrates to another person in a PA must be a truth ultimately, or basically, drawn by him, or, by someone else, in an SA. Suppose A communicates to B by means of a PA the truth P. Then P must be a truth already known to A because, if he does not know it, he cannot construct a demonstration for it. And, it must be a truth known to him as the conclusion of his SA, or, of a PA, demonstrated to him by someone else. It cannot be a truth known by perception because DK, as other Buddhist logicians do, holds the theory of *pramāṇa vyavasthā* the theory of the complete objective, or, operational exclusivity of a *pramāṇa* source of knowledge. According to this theory, a thing known by the use of one *pramāṇa* cannot by known by that of any other *pramāṇa*. That is, every *pramāṇa* operates exclusively on the object which is the object of knowledge in its use. For example, if a man comes to know by perception that the hill H has fire, he cannot again know that H has fire by inferring that it has when he sees smoke coming from H. His second judgement 'H has fire' would not be a piece of knowledge, DK or DU, would say, because H has already been known, by perception, to him to have fire. One of the essential features of knowledge, we have seen, is that the object known must be one which is not already known (*anadhigata*). Therefore, his earlier, perceptual, cognition of fire on H would be, but his later conclusion of the presence of fire on H from that of smoke there would not be, a piece of knowledge. Therefore, what is known by inference, SA or PA, cannot be something known by an earlier (or even a later) perception, and vice versa. Putting it summarily, the same thing cannot be known twice, or by the use of more than one *pramāṇa*.

Every PA cannot be the demonstration of a truth known to the demonstrator by means of another person's PA, otherwise there would be infinite regress. And, as explained above, it cannot be the product of anybody's perception. Therefore, ultimately, or, in principle, there must be a prior SA had by A, or by someone else, in which the truth P was inferred, to be further communicated or demonstrated in a PA.

Neither DK, nor DU, clearly affirms that SA is primary, or more basic, when compared to PA. But, as I have shown, the primacy of SA has to be maintained. None of them says anything which goes against doing that. But they do give the impression that SA is self-complete. This, it

seems to me, cannot be admitted. To call it self-complete would mean that no SA, in principle, needs to be ever used as a PA. If this is admitted, there would arise a very unpleasant and inconvenient possibility for DK (as well as for anyone who makes the admission). It would be unpleasant because he would consider it highly undesirable. It would be inconvenient, since his logical theory would show him no way to stop it from arising nor would it give him any logical ground to call it undesirable. This can be shown as follows.

If SA is self-complete, a knower capable of drawing an SA inference may remain all his life only a *svārthānumānī* (a user of SA). He may not be deficient in any manner as far as the acquisition of inferential knowledge is concerned, even when he offers no PA, that is, communicates no bit of his inferential knowledge, to anybody else. And if his SA's are comprehensive of the truths that he needs to lead a successful practical life, he would not need even anyone else's demonstrating to him any truth by means of a PA. This is possible because to do SA, one does not need a prior PA, though to do PA one needs a prior SA, as has already been shown. If he is a philanthrope he may give a PA to someone else to communicate to him a truth. But this would be an entirely one-way process: he would enrich the latter's inferential knowledge without himself receiving anything from him to enrich his own. But he may not be a philonthrope and then may dispense with social participation which interpersonal dialogue resulting from a PA of his may occasion. Such a monadic life would not only according to Buddhism but even according to other Indian philosophies, be highly undesirable. But if SA is conceived as self-complete, then DK, or any Indian logician who holds such a view, would have no logical or epistemological reason to call it undesirable. This would be a serious lacuna in DK's theory because neither his theory, nor any other Indian theory, makes the existence of an individual leading such a monadic life logically impossible. It may be suggested here that DK (or the other logicians) may have an ethical principle declaring that it is ethically undesirable for anyone to lead a monadic life, communicating none of his SA's in any PA to another person. But still his logical theory would contain nothing which could show that it is, on a logical ground, undesirable, or deficient in any way. This sort of ground it would have if it broadens its concept of SA by admitting that at least some SA's are not self-complete and they need to be tested or reconfirmed by means of their presentation as appropriate PA's. If this is done, then a logical reason would be available to desist an individual from being a monadic knower by restricting himself to his SA's, namely, the reason that his inferential knowledge resulting out of his SA's cannot be complete or adequate because at least some of his SA's need to be

re-checked or re-confirmed by being presented as relevant PA's, by being used in some interpersonal use of logic.

4. Fusion of SA and PA in Creative Reasoning

An inferer's SA may thus sometimes get modified as a result of his giving it in the form of a PA to someone else. And, if the demonstratee does not raise any question, but accepts his PA, his conviction of the validity of his SA would get thereby further strengthened. In fact, very often one's SA gets tested when it is converted into a PA to an intelligent demonstratee.

If an inference is valid, it is valid, and not valid for one person and invalid for another. 'Valid' is not like 'expensive'. Something may be expensive for one person and not expensive for another. 'Valid', like 'true', does not take the addendum 'for X' after it. When one draws a conclusion in an SA, and considers the inference valid, he considers it valid in an objective, impersonal, sense. In every SA, there exists the implicit reference to persons other than the inferer, even though it is made for the cognitive benefit of the inferer. It implies the claim that anyone who knows how to draw an SA would find it valid, and if he does not consider an SA valid, when it is valid, there is something wrong with his logical equipment. This means, in a sense, that every SA contains a pointer to a corresponding PA, that it is not absolutely restricted to the inferer.

Creative thinking, or creative reasoning, which creative thinking invariably is, is a very good example of the fusion of SA and PA in the same exercise of thinking. The creative thinker tries to arrive at a conclusion from some premise or premises obviously for his own cognitive benefit. But he imaginatively splits himself into two persons, the asserter of the conclusion (*vādī*) and its critic (*prativadī*). As its asserter, he presents it with all the backing for it he can collect, and presents it to the critic in himself for acceptance. As its critic, he imagines all possible objections to it he can think of, and as its asserter tries to meet them as best as he can. He presents it as his final thesis only when he satisfies the critic in him, and if he still finds some objections unanswerable, he presents it as a tentative position, or as a position which can be presented, say, because of the complexities involved in the very nature of the problem he is trying to solve, only as a highly plausible position and not as a conclusively proven one. Such a thinker draws inferences for his own enlightenment, as one is said to be doing in an SA, but he also tries to enlighten others by elaborating his reasoning to a possible critic in him and trying to meet his objections. We may call it SA expanding itself into PA or PA performed as SA, if we want to characterize it in terms of the SA–PA distinction. Or, we can also say, it is an instance which nullifies

the claim that SA and PA are two absolutely different types of inference.

Every inference is not simple like that of fire from smoke. In some cases, the premises may form a complicated set with the result that without a detailed analytical examination of their logical capabilities and interrelationships, it is not possible to ascertain what they together yield. Then, even if one intends to ascertain that only for his own knowledge, he may have to present them to himself in as clear and unambiguous language as possible, and in some cases he may have to use even logical symbolism. Therefore SA may need in some cases as explicit verbal formulation as PA is said to do. Similarly, when one imagines a possible reader or critic of his views and presents them in a suitable manner to make them intelligible and convincing to him, he virtually draws a PA inference in the privacy of his mind, very much similar to the way in which he does SA. All this shows that SA may be as linguistic as PA and PA may be as knowledge-yielding to its demonstrator as SA is claimed to be to its inferer. Therefore, DU's claim that SA and PA are absolutely different from each other does not seem to be supported by the facts about the actual way or ways in which the logical act of inferring is really conducted.

It is the fact that *anumāna* is considered to be a *pramāṇa*, that is, knowledge, or a giver of knowledge, and not any feature of its logic, which seems to be largely responsible for its division into SA and PA. It is a natural question to ask of a piece of knowledge whose knowledge it is, and, similarly, of a giver of knowledge to ask to whom does it give knowledge. It is equally natural to answer the former by saying it is inferer's knowledge, or someone else's knowledge, and the latter by saying that it gives knowledge to the inferer, or to someone else. Either one of these answers makes it natural to divide *anumāna* into SA and PA, *anumāna* drawn for the inferer's cognition and *anumāna* drawn for someone else's cognition. But from it, it does not follow that as logical things SA and PA have to be absolutely different, or exclusive of each other. There may be differences between them, and it may be worth while to explain what these differences are. But to go to the length of saying that there is nothing common between them, as DU does, amounts to overshooting the target of differentiating between them. But in spite of SA and PA not being absolutely different from each other, DK's discussion of the two is worth studying and examining because the theory of inference he presents via their characterization contains a number of valuable insights.

FOUR

Inference for Onself (Svārthānumāna)

1. Structure of Inference

In Indian logic, Buddhist as well as non-Buddhist, the structural frame of any inference *Svārthānumāna* (SA) or *Parārthānumāna* (PA) is as follows: Something, say F, is indirectly or mediately known, that is, inferred, to be present (or absent) in something else, say H. That which is thus known, or is the object of inference, as we have seen, is called '*anumeya*' or '*sādhya*' and that in which it is inferred to be located, present, or absent, '*pakṣa*'. But in *Nyāyabindu* (NB) sometimes '*anumeya*' is used to denote the *pakṣa*, and sometimes to denote the *pakṣa* qualified with the *sādhya*. In which sense it has actually been used is clear from the context, or the universe of discourse, in which it occurs. The inference of the *sādhya*, F, in H, is made possible because of the presence in H, the *pakṣa*, of a logical mark or sign (*linga*, *hetu*) say S, of the *sādhya*. S would be a logical mark of the *sādhya* F when there is an invariable relation, of a certain type, between S and F.

2. Three Features of *Hetu*

According to DK, to affirm that S is a logical mark (*hetu* or *linga*) of F is to affirm that S has three features. Therefore, as already mentioned, he defines SA as indirect cognition of the inferred object in the *pakṣa* on the basis, or ground, of a three-featured logical mark (*trirūpa linga*).[1] For

[1] *Tatra svārtham trirūpalingād yadanumeye jñānam tad anumānam.* SNS, NB, p. 98:3.