

BOOK - REVIEW

Bharadwaja, Vijay : *Form and Validity in Indian Logic*, Indian Institute of Advanced Study, Simla, in association with Munshiram Manoharlal Publishers, New Delhi, 1990, pages 127, Rs. 100/-.

One of the striking features of Vijay Bharadwaja's book, *Form and Validity in Indian Logic* is the peculiar method he uses in approaching the phenomenon called Indian Logic. Except in the last Chapter, the author does not consider the logical theories of Buddhism, Nyāya, Mīmāṃsā and Vedānta in their abstract forms, but tries to construct them afresh in the light of the concrete examples given in these theories. This unconventional way can give new insights into the nature of Indian logic. The examples, for instance of certain modes of good or bad reasoning given by certain philosophers are sometimes likely to be more expressive of their metaphysical commitments than the strength of the logical theories they exemplify. In that case what appeared to be logic may be found to be a rationalisation of metaphysics or a metaphysics projection on logic. Vijay Bharadwaja's programme of unearthing the true nature of Indian logic needs, therefore, to be welcome, although one may disagree with the results of the working out of this programme by him.

Bharadwaja's approach to Indian logic may be called materialist in that it starts with concrete examples and constructs (or deconstructs) abstract models from them. It may be contrasted with the conventional approach which is formalist in that it starts with the abstract forms and substantiates or examines them with or without the help of concrete examples. Bharadwaja, by using the materialist method discovers many mistakes committed by the formalist Scholars of Indian logic. He almost shows that it is wrong to search for the so called 'logical form' or 'formal validity' in Indian theories of *anumāna*. The title of the book is therefore to be taken as ironical.

The author is unhappy even with the term Indian Logic. The appropriate words according to him are '*pramāṇasāstra*' or 'methodology of knowledge'. It seems amply clear that *pramāṇasāstra* or methodology of knowledge as a whole cannot be identified with formal logic, because *pramāṇasāstra* is concerned not only with *anumānapramāṇa* but many other *pramāṇas* such as *pratyakṣa* and *śabda*. But what about that part of *pramāṇasāstra* which is concerned with *anumānapramāṇa* alone? Is it not concerned with formal logic? Here too the author's answer is in the negative. If we use the word logic in a broad sense in the sense of a theory of inference/argument principally concerned with the determinants of goodness and badness of inference/arguments then we can certainly regard Indian theory/theories of *anumāna* as logic/logics. Now we can legitimately ask the next question whether Indian logic is formal, where by the term 'formal logic' we understand that logic which regards formal validity as the only or at least an important determinant of goodness of an inference/argument.

The author discusses this last question in the first three Chapters of his work, with particular reference to Buddhist logic. He analyses the concepts of good and bad inference according to the Buddhist logicians Dīnnāga, Dharmakīrti and Mokṣākaragupta, with the help of the various examples of good and bad inferences cited by them. He contends that the acceptability of an argument according to Buddhist logicians does not consist in its deductive validity but it has to be understood in terms of relevance, truth and support (given by reason to the thesis). So all the efforts of the formalist scholars to understand Indian logic in general and Buddhist logic in particular in the image of Aristotelian Syllogism or Deductive formal logic have gone in a wrong direction.

The author's account of Buddhist logic can be appreciated as an antithesis of the modern interpretations of the same modelled on formal deductive logic (whether Aristotelian or Modern), but whether it leads to the correct interpretation of the Buddhist logic is a problem.

One problem about the author's account is that it is essentialistic and unhistorical. In Chapter I he discusses "the Buddhist theory of *trairūpya* or three conditions of justification mentioned mainly by Dīnnāga and Dharmakīrti" and he does so without taking into account the major differences between the views of Dīnnāga and Dharmakīrti and also the historical development of logic from

Dinnāga to Dharmakīrti. To talk of Buddhist logic without acknowledging the major differences is to essentialise it. In Chapter III also he does 'not take into account the historical differences that might have appeared during the period from 500 A. D. to 1200 A. D.' (p.31). This problem becomes serious because the author's characterisation of Buddhist logic as something concerned with the ideas of relevance and support but not with deductive validity, seems applicable to Dinnāga's logic in particular and pre-Dharmakīrti Indian logic in general, it is not applicable to Dharmakīrti's theory of inference. In Dharmakīrti's version of *trairūpya* the second and the third condition of a good *hetu* get identified as the positive and negative expressions of the universal and necessary rule of *vyāpti*, and the statements of *pakṣadharmatā* and *vyāpti* become necessary and sufficient elements (*avayavas*) of an argument (*parārthānumāna*) on the ground that the thesis/conclusion necessarily follows from them. This view of Dharmakīrti indicates his awareness of deductive aspect of the problem of inference. The author does not pay due attention to this important fact.

If, however, we restrict the scope of the author's comments on Buddhist logic to Dinnāga's theory of inference, we may be able to appreciate them better. Now we can understand how it is thoroughly misleading and wrong to understand Dinnāga's concept of inference on the model of Aristotelian syllogism because the former gives no room for universal *vyāpti*-statement which is necessary for the validity of *anumānavākya*. So the author seems to be right in rejecting the formalist interpretation of Dinnāga's logic. But he does not stop at that. He also offers an alternative interpretation of Dinnāga's theory of inference. Whether he is right in it is the further question.

Different questions can be raised at various stages of development of the author's interpretation. Let us take the three formulae of the three *rupas* of *hetu*.

- (a) *Hetu* must be present in *Anumeya*
- (b) *Hetu* must be present in *Sapakṣa*
- (c) *Hetu* must not be present in *Vipakṣa*

Dinnāga and others clearly use ontological language, i.e., the language of existence and non-existence of *hetu* with respect of *Anumeya/Pakṣa*, *Sapakṣa* and *Vipakṣa*. Consider for instance the inference : "Sound is impermanent, because it is a product". Here the *hetu* viz. being a product satisfies all the

three conditions because it is present in the sound (*Anumeya/Pakṣa*), it is also present in the impermanent things like pot (*Sapakṣa*) and it is absent from the permanent things like space (*Vipakṣa*) This is the commonly accepted understanding of *trairūpya* which implies that in the context of *trairūpya*, *hetu*, *anumeya* (or *pakṣa*), *sapakṣa* and *vipakṣa* all stand for objects or classes of objects. The author, however, takes *anumeya* as thesis and *hetu* as reason (which are both propositions and not objects) and then interprets *trairūpya* in the following way :

- (a) The reason must be relevant to the thesis.
- (b) It must support the thesis.
- (c) It must not support what is opposite of the thesis.

The author need not be regarded as solely responsible for this 'propositional turn' in his interpretation of *hetu*, *pakṣa* etc. because the ancient logicians themselves have used these terms in more than one sense. For example the thing smoke is called *hetu* in the context of *svārthānumāna* whereas the statement '(because) there is smoke' is called *hetu* in the context of *parārthānumāna*. It is for us not to be carried away by this ambiguity and to see the situation in a clear way. Similar ambiguity is there with respect to the term '*pakṣa*'.

In other words the non-propositional concepts of *hetu* and *pakṣa* which are central to *svārthānumāna* need to be distinguished from the respective propositional concepts which are central to *parārthānumāna*. It also needs to be noted that *trairūpya* refers to the triple character of the thing *hetu* and not to *hetu* and *pakṣa* in their propositional sense and the relationship between them. Many modern scholars of Indian logic, however, seem to have neglected the distinction between the two concepts of *hetu* and those of *pakṣa* and have propositionalised the concepts of *hetu*, *pakṣa*, *trairūpya* etc. under the influence of modern logic. In spite of his honest intention of rescuing Indian logic from the influence of formal deductive logic, the author too has not freed himself from this propositionalist bias.

To be fair to the author, we can suppose for the time being that though *trairūpya* of *hetu* is an objective, material set of conditions and it is not propositional or linguistic in nature, when it is brought to the notice of another

person it does assume a propositional/linguistic form of an argument. The question, however, can be raised at this stage as to whether we can appreciate the conditions of good reason as they are described by the author. It is not at all easy to appreciate the author's interpretation of *trairūpya* even at this stage. We have seen that the author interprets *trairūpya* in terms of relevance, support and non-support to the opposite of the thesis. The author does not make it clear as to what he means by the terms relevance and support. The ideas of relevance and support are not mutually exclusive (because support presupposes relevance) whereas the three conditions of *hetu* are supposed to be mutually exclusive. On author's interpretation every example of *asiddha* fallacy will be an example of *anaikāntika* (because lack of relevance implies lack of support). And this is never accepted by any Buddhist logician. It is also not clear as to what the author would say about the relation between the first and the third condition, because the reason violating the third condition will automatically fulfil the first condition. For how can a reason support the opposite of a thesis without being 'relevant' to it? The author's interpretation, therefore, does not make out any clear case for Dīnānaga's theory of inference.

In Chapter IV the author discusses several inter-connected issues concerning the 'four logical alternatives' (*catuskoṭi*) as used in Buddhism. In early Buddhist literature, the enlightened one is said to have observed silence on certain metaphysical questions which were presented to him in the form of four alternatives : assertion, negation, both and neither. The author explains in this chapter how those metaphysical questions were called *avyakata* (unanalysed, unexplained, unclear, incomprehensible) and hence *sthapanīya* (those to be set aside). By taking a critical review of earlier and contemporary accounts of these questions, the author develops his view in consonance with K. N. Jayatilleke that the Pali Canonical position is characterised by *rejection* of the four alternatives and not by their negation. Unlike Jayatilleke he pursues this insight further and contends that the *avyakata* questions are rejected according to the canonical position not on any logical ground but on the pragmatic ground. This is done, according to the author, in the pragmatic criterial framework of four noble truths. By discussing the *avyakata* questions in this way, the author brings home the spirit of early Buddhism by rescuing it from the logicist interpretation of some of the modern scholars.

Though the author's attempt to dissolve the logical problem involved in

the *catuṣkoṭi* as used in early Buddhism seems convincing, his extension of the same strategy to Nāgārjuna's use of *catuṣkoṭi* does not. Here the author tries to dissolve the problem by referring to the conceptual frameworks of *pratītyasamutpāda*, *śūnyata* and *nirvāṇa* on the one hand and four noble truths on the other. But he rather forgets that --

- (a) Nāgārjuna addresses the concepts like origination, *nirvāṇa* and four noble truths to the same critical method (which amounts to split the concept into two or four alternatives and reject them one by one) to which he does other concepts. So *nirvāṇa*, *pratītyasamutpāda* or *āryasatyas* are not beyond the scope of application of his method; they do not constitute the framework within which his method operates.
- (b) *Śūnyatā* also is not supposed to be a part of the framework beyond or behind the application of his method, but it is supposed to manifest itself through the application of the method.
- (c) Nāgārjuna has used the same critical method even with respect to *pramāṇas*. This is clear from his *Vigrahavyāvartanī*. So it is not correct to say : "He accepts only two criteria of knowledge. He uses them to decide whether a certain piece of knowledge is true or false" (p. 61)

In Chapter V, the author analyses the Nyāya-Vaiśeṣika conception of *tarka*. He understands the form of *tarka* as that of a contrafactual conditional and criticises the natures and roles of *tarka* as understood by both the Nyāya logicians themselves and by some modern scholars of Indian Logic. He ably shows that (a) *tarka* being itself supported by a law-like statement (*Vyāpti*-statement) cannot be used for supporting *vyāpti*; (b) to regard *tarka* as a kind of *apramā* is inconsistent with assigning to it the two fold role of rejecting the opponent's thesis and removing the doubt about the possibility of *vyabhicāra*; (c) the form of *tarka* being that of contrafactual conditional cannot be identified with that of a material conditional or that of *vyāpti*.

In Chapter VI the author analyses 'arthāpatti' as introduced by Mimāṃsakas and Vedāntins. He rejects the traditional understanding of *arthāpatti* as a means to knowledge (*pramāṇa*) and also some of its modern interpretations in terms of 'implication', 'hypothesis' and 'transcendental argument'. His

interpretation of *arthāpatti* as 'Contextual interpretation' is novel and interesting, but it needs to be critically examined in view of the following considerations :

- (a) 'Contextual interpretation' as the author explains it is basically an interpretation of a sentence/linguistic expression. This obliterates the basic distinction that Vedāntins and Mīmāṃsakas make between *dr̥ṣṭa-arthāpatti* and *śr̥uta-arthāpatti*. For example, one experiences silver in place of a conch-shell and when he looks closely, finds that it is not silver but a conch-shell. The apparent inconsistency between the two experiences is removed by thinking that the silver seen in the first experience must be illusory. (*mithyā*). This according to *Vedāntaparibhāṣā* is a case of *dr̥ṣṭa-arthāpatti*, but the author construes it as *śr̥uta-arthāpatti* because he makes it a matter of consistent interpretation of two contradictory statements : 'This is silver', 'This is not silver' (p. 79).
- (b) There is another difficulty in regarding '*arthāpatti*' as 'interpretation'. Here the distinction between *abhidhānānupapatti* and *abhihitānupapatti* (as made in *Vedāntaparibhāṣā*) is relevant. According to this distinction the question of *arthāpatti* can arise at two stages.
 - i) One may find it difficult to understand the full and consistent meaning of an expression. *Arthāpatti* may help one to understand the meaning in the light of the context. So the expression 'Door' may be interpreted as 'Close the door', depending upon the context. This is the case of *abhidhānānupapatti*. Here *arthāpatti* clearly plays the role of (contextual) interpretation.
 - ii) One may understand the complete meaning of an expression without any difficulty. But the difficulty may arise about the justifiability/truth of the statement. In that case something over and above the meaning of the expression may be accepted for justification of the truth of the statement. For example in order to justify the statement "Jyot̥soma sacrifice may be performed by the one who desires for heaven" some link between the performance and fruit of the sacrifice is accepted and this link is called *apūrva*. Here *arthāpatti* plays the role of an explanatory device, rather than an interpretative one.
- (c) Whether *arthāpatti* is to be understood as an interpretation or an

explanation or both, a strong relationship between what is interpreted/explained and the terms in which it is interpreted/explained is accepted by both Mīmāṃsakas and Vedāntins which they call *anyathānupapatti*. There is no mention of this relationship in the whole analysis of *arthāpatti* given by the author.

- (d) The term 'contextual' in the author's description of *arthāpatti* is not clear. Does the context in which a statement is made always play a distinctive role in deriving another statement from it by *arthāpatti*? Does it do so, for instance, in knowing by *arthāpatti* that Devadatta must be eating at night time from the statement : 'Devadatta has grown fat though he does not eat at day-time'. The knowledge of context certainly plays an important role in the case of *abhidhānānupapatti* (Cf. the door-example as cited above) but not in all cases of *arthāpatti*. So *arthāpatti* is neither necessarily an interpretation, nor is it essentially contextual in nature.

In the last chapter of the book the author makes a critical survey of Jaina logic. He makes many ingenious remarks which need to be considered seriously. I would like to discuss only two of them.

- (a) *Pramāṇa* and *Nyāya* are generally accepted in Jainism as two different kinds of understandings of (the same) reality, one being complete and the other partial. The author goes a few steps further and says that these two devices have different areas of application. *Pramāṇas* are concerned with the things in the world whereas *Nayas* are concerned with the Non-Jaina points of view. He further distinguishes the areas of operation of *Pramāṇa* and *Naya* from that of *Sapta-bhaṅgī* (*Syādvāda*). The area of operation of the latter according to the author is the metaphysical reality. Though this view of the author provides us with a convenient way of dealing with Jaina epistemology and logic, it is not supplemented by sufficient textual evidence, because Jaina logicians (including Yasovijayagaṇi whom the author quotes frequently) also distinguish between *Pramāṇa*-hood understood from common place (*laukika*) point of view and that from ultimate (*tāttvika*) point of view, in which case *Nayavāda* will go with the former and *saptabhaṅgī* with the latter. Moreover Jainas are fond of using the concept of *nayabhāsa* (rather than *naya*) while discussing the Non-Jaina points of view.

- (b) The author discusses Syādvāda in considerable details. He opposes the commonly accepted view that the sentences prefixed by 'syāt' give us the statements of a special kind (such as modal, conditional or probabilistic). He maintains that *Syātvākya*s do not have the status of statements or assertions at all. However, his criticism of the view that *Syāt-Vākya*s are conditional statements is not clear. It is hard to see the difficulty he envisages in assimilating the three kinds of expressions introduced by B. K. Matilal as the interpretations of a Syāt-sentence :

- (i) If p then A is B.
- (ii) A Conditional 'yes'.
- (iii) In a certain sense, Yes. The following example may be used to show that a *syāt*-sentence can be restated in all the three ways.

(A) *Syāt, ghaṭah asti*. This means :

(A₁) The pot is real in a certain way.

This 'certain way' is made clear in (A₂)

(A₂) The pot is real if 'the pot' refers to the earthen container which exists before us now.

(More technically : Pot exists in *sva-dravya*, *svakṣetra* and *sva-kāla* sense of the word 'pot'). A₂ implies that -

(A₃) 'The pot exists' is true under certain conditions.

If the 'The pot exists' is symbolised as q and the condition in which q is true is symbolised as p, then the whole sentence can be expressed in the three ways :

- (i)' q, if p
- (ii)' q is conditionally true.
- (iii)' q is true if a certain expression contained in q means so and so. It is not hard to see that (i)', (ii)' and (iii)' are similar in form to (i), (ii) and (iii) above.

The above symbolisations bring another important fact to our notice. It

is that the condition under which q is true pertains to the meaning of the sentence q itself. So the conditional sentence which *prima facie* appears to be a statement about the thing pot , is also a statement about the meaning of a sentence (or a part of a sentence) which describes the pot . This is the meta-linguistic aspect of the *Syāt*-sentence.

So the problem with Matilal's interpretation is not that it construes *Syāt*-sentence to be conditional, but that it does not bring out clearly the disguised metalinguistic character of the *Syāt*-sentence. Hence the author's suggestion that *Syāt*-sentence is not an empirical statement at all may be appreciated not because of the reasons he gives, but because of the fact that *Syāt*-sentence lacks a purely object-linguistic character.

Generally speaking, the author seems to have undertaken a two-fold task in this book. On the one hand he has tried to expose and criticise the pseudoformalist and pseudo-logicist interpretations of various concepts and doctrines of Indian logic. On the other hand he has tried to pave a new way for the right understanding of Indian logic. He has certainly achieved remarkable success in his first task. But his success in the second task is mixed and unclear.

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