

IS *TARKA PRAMĀN* A OR AN ACCESSORY TO A *PRAMĀN* A? SOME OBSERVATIONS

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I

The Naiyāyikas unanimously accept that *tarka* is not an independent instrument of knowledge; rather it is just a helping condition to it. That is why they are saying that *tarka* itself is not a *pramān* a but a promoter to a *pramān* a. But the *Mādhvas* raise strong objections against this view and maintain that, as a matter of fact, *tarka* itself is an independent means of knowledge i.e. a *pramān* a but not a helping condition to an independent instrument of cognition, i.e. a promoter to a *pramān* a. In this context it is worthy to point out that the fact that sometimes *tarka* does play the role of a helping condition to an independent organ of cognition can not be denied. But here the other *pramān* as are not exception to it. The other *pramān* as, such as *Anumāna* and *Śabda* also do the same. The *Nyāya* School, unlike Buddhism, believes in *pramān* a *sam* plava. Keeping the spirit of *pramān* a *sam* plava in view it can be maintained that sometimes one *pramān* a serves as a promoter to other *pramān* a. This view will be explained with suitable example in the course of our discussion. So, the fact that sometimes *tarka* plays the role of a promoter to a *pramān* a does not establish that *tarka* can not be an independent *pramān* a itself. The *Mādhvas* observe that *tarka* fulfils all the necessary as well as sufficient conditions for being an independent means of knowledge. Jayatirtha deals with this elaborately and beautifully in his two epoch-making works *Pramān* apaddhati and *Nyāyasudhā*.

Jayatirtha regards *tarka* as an independent means of knowledge and subsumes under inference. In the chapter of inference of *Pramān* apaddhati, he deals with the classification of inference. Here several ways of classification of inference have been suggested by him. One of them brings inference under two broad heads – (a) inference for establishing a conclusion (*sādhana*numāna) and (b) inference for refutation of the opponent's view (*dus* •ānānumāna). The latter one has again be subdivided into two kinds, viz. (i) inference for proving the defect in the argument employed by the opponent (*dus* •tipramitisādhana) and (ii) reasoning or *tarka*.¹ The first one is employed in proving the incompetency of the probans which is used to establish the probandum. And reasoning or *tarka*, the second one, is called in to refute the position of the opponent in the form of *reductio-ad-absurdum*. So, as far as our discussion is concerned we see that *Tarka* has been considered by Jayatirtha as a variety of inference for refutation of position of the opponent (*dus* •an •ānumānaviśes •a). *Tarka* has been defined as an admission of an

undesirable contingency necessitated by the admission of false issue. To understand *tarka* as conceived by Jayatirtha, the observation of the commentator, Janardan Bhatta, is worthy to note. He maintains *tarka* as the enforced admission of a contingency as the condition and presupposition by the admission of a fact necessarily conditioned by the former, through the reason of the necessary concomitance between them. When 'A' is necessarily occurred by B, that is to say, A cannot be taken place without B, and then A is considered to be a necessary concomitant (*vyāpya*) and B as the determinant of the concomitance (*vyāpaka*). Here B, the determinant of concomitance (*vyāpaka*) is inferred on the ground of the determinate in concomitance (*vyāpya*). So, the meaning of Janardana's aforesaid comment stands thus: The admission of a determinate concomitant makes the admission of a determinant concomitant inevitable.² Janardana like Jayatirtha uses to think that *tarka*, in fact, is nothing but inference. And he proves his contention through inference in the following way:—"tarka is a species of inference, because it generates mediate cognition by virtue of necessary concomitance, in the same way in which the well known case of the inference of fire from smoke is taken place in terms of the necessary concomitance, held between smoke and fire".³ *Tarka* has a great similarity with inference in its form and nature. Say for example, the ground of *tarka* which is hypothetically assumed stands for the probans of inference for both of them work on the basis of necessary concomitance. Besides, necessary concomitance is the foundation and nerve centre for both of the inference and *tarka*. So, it is quite proper and justified to consider *tarka* as an inference.

Jayatirtha thinks that some objections may be raised against his aforesaid view. So, he notes those possible objections and also replies to them from his own view point. One may observe that though *tarka* appears to be an inference but actually this is not the case. We think that *tarka* should be considered to be inference for it fulfils all the necessary conditions for being an inference. But if we ponder over the problem, we shall see that the fact is otherwise. Two conditions are taken to be necessary for an inference – (i) the probans is shown to stand in necessary concomitance with the probandum in major premise (*vyāpti*), and (ii) Probans is shown to be actually present in the subject in the minor premise (*paks *adharmatā*). The former one is seen to be fulfilled by the *tarka* too. For the ground of *tarka* is necessarily related to its consequent. But the latter one is not satisfied as the ground is never actually present in the subject in the case of a *tarka*. On the contrary the subject is qualified by the absence of the probans, the ground. Here, in *tarka*, the ground is hypothetically superimposed upon the subject and the arguer is quite conscious of this super imposition. To make this point more clear an instance may be cited. "If the lake were possessed of smoke, it must be possessed of fire," is a case of *tarka*. In this *tarka*, in fact, the ground, the presence of smoke, is absent in the subject, i.e. in the lake. And the arguer is definitely aware that smoke is not actually present in the lake. The lack of the minor premise, that is to say, the lack of the actual presence of the probans in the subject is known as the fallacy of the non-existent probans. Thus, *tarka* becomes the subject of this fallacy and therefore cannot be regarded as an inference proper as maintained by Jayatirtha. Moreover, in an inference, the knowledge of the probans is the ground depending upon which the knowledge of the probandum is established. For example, in the inference "There is fire in the hill because there is smoke

in it” one gets the inferential knowledge of fire, probandum, on the basis of the perceptual knowledge of smoke i.e. probans. And this condition again is seen not to be fulfilled by *tarka*, since, there is no such thing as knowledge of the ground or the knowledge of the consequent but only an assumption in either. Inference is a case of definite and authentic knowledge. It is also categorical. But *tarka* is a case of assumption and hypothetical supposition and therefore not knowledge at all. Why assumption cannot be a case of knowledge can be explained here in terms of western criteria as well as the criteria of knowledge imposed by *Nyāya* School. So it is proved once again that *tarka* cannot be considered as inference.⁴

Jayatirtha replies to these objections mentioned above clearly as well as beautifully. He maintains that the aforesaid objection has been raised due to the lack of the proper understanding of the logical value of the fallacy called the ‘non-existent probans’. The second condition that the probans be actually present in the subject is held to be a necessary condition for inference. But actually this is not the case. This is nothing but a logical convention. And this convention is mistaken for a necessary condition. Though the actual presence of the probans in the subject is the general rule of inference, it is not an essential condition at all. What is essential is the belief in the presence of the probans in the subject and this belief again is the condition of the belief in the presence of the probandum. And this condition is fulfilled by the *tarka*, so far as the opponent is concerned, as he believes that the probans or the ground under consideration is present in the subject and again this probans, ground, actually stands in the relation of a necessary concomitance to the probandum or the consequent. As the opponent believes in the presence of the ground and its necessary relation to the consequent, so just on the basis of this belief, the belief in the consequent can be deduced.⁵

One point is very important to note here. Though *tarka* is an inference, it is not an ordinary type of inference. Consequently, it does not exactly match with an ordinary inference in all its characteristics. So, just on the basis of the differences mentioned, if one concludes that *tarka* is not an inference, and then it will be a great mistake. *Tarka* is an inference of a special type, having some special properties and acting as *reductio-ad-absurdum*. As it is a special type of inference and its significance does not resemble the ordinary ones we are generally acquainted with we think that *tarka* is not a case of inference. And the significance of this inference lies in the fact that this inference is applied by a person to stand his own position indirectly by showing the absurdity of the position of his opponent, and here, the probans is accepted not by both of the opponent and proponent. The probans is accepted to be true only by the opponent and it is only hypothetically assumed by the proponent. So as far as our discussion goes it is quite clear that the arguer or the proponent does not believe in the presence of the probans in the subject in such cases of inference. But this lack of belief from the part of the proponent has nothing to do with affecting the validity of inference so far as the opponent is concerned, for the latter believes in the presence of the probans. And the probandum is shown to be only a logical necessary conclusion by the proponent just on the basis of the opponent’s belief in the probans. So, the validity of this type of inference is determined only by the belief of the opponent. Even the proponent’s belief makes this type of inference useless and impossible. Because, it is already seen that type of inference is caused by an arguer who holds a different view from that of the opponent. The main

objective is to show the later view as absurd and unacceptable and hence the former view is true and acceptable. So, the difference of the views between the arguer and the opponent is the only cause due to which this inference is used and applied. If the arguer like the opponent believes in the presence of the probans in the subject then it means that both of the parties agree in their views. Consequently, the very question of applying this type of inference does not arise. So, it can be concluded that the belief in the presence of the probans in the subject from the part of the opponent and disbelief in the same from the part of the arguer are essential conditions for the application of such inference.⁶

To understand the above view more clearly an example may be cited. "If the lake were possessed of smoke, it would be possessed of fire. But as a matter of fact it is not possessed of fire. So it cannot be possessed of smoke."

This argument represents both absurdity of the opponent's position and the truth of the position of the arguer. The opponent's view consists in the belief in the presence of smoke in the lake, whereas, the arguer's view is just opposite to it, that is to say, arguer believes in the absence of smoke in the lake. Here this argument is applied to show the absurdity of the opponent's view. More clearly to say, if the opponent's view i.e. the presence of smoke in the lake is taken as granted then as a logical necessity an absurdity will follow. The presence of smoke stands in relation to a necessary concomitance with the presence of fire. So, to believe in the former amounts to believe in the latter and this latter belief in turn gives birth to an absurdity. Thus through the application of this type of argument the position of the opponent is reduced to an absurdity and thereby through the backdoor the arguer's view is proved to be true and acceptable. So, if the proponent would believe in the presence of smoke in the lake as the opponent does, and yet would apply this argument, then it would become self-defeating for it would cancel what he likes to establish. Thus, the foregoing discussion shows that the probans of the *tarka* is believed to be present in the subject only by the opponent and not by the proponent and yet it should be considered as an inference proper, as far as it fulfils all the necessary conditions for being an inference.⁷

Jayatirtha thinks that another objection from a different point of view may be raised against him. He shows that objection and also replies to it. *Tarka* becomes the subject of another logical fallacy called the fallacy of contradicted probans (*bādhā*) as long as the absence of the probandum in the subject in conclusion is concerned.⁸ But the *Mādhvas* react to this objection by saying that this objection too is applicable only to the categorical type of inference and it is already stated that *tarka* is not a categorical inference at all. So, this objection cannot be applied to *tarka* which is an inference of the type called *reductio-ad-absurdum*.⁹ Even to endorse this inference to make free from the fallacy in question is to push it into another fallacy called acceptance of a position opposite to his own accepted conclusion (*apasiddhānta*). For, in the example given above, the absence of fire in the lake is an established fact of which the arguer is fully conscious. Now if the arguer intends to establish the probandum in the subject, i.e. the existence of fire in the lake then, no doubt, it would give birth to the said fallacy.

Tarka as maintained by Jayatirtha, has two conclusions side by side – a false conclusion and a negative conclusion. The former one remains in the explicit form,

whereas, the latter one lies in the implicit and hidden form. Both of the conclusions are implied by the *tarka* but not in the same way. The false conclusion is implied directly but the negative conclusion, on the contrary, is implied indirectly. As the negative conclusion remains in the implicit form, generally it is over looked by us. And we think that *tarka* like the categorical inference has only one conclusion. Thus, only the one half which is, infact, incomplete is mistakenly held by us to be whole and complete.¹⁰ This misconception leads us to think that *tarka* becomes the subject of the charges mentioned. As soon as we can be free from this misconception we can understand that the aforesaid objections are groundless and pseudo.

Jayatirtha's view can be substantiated through the clarification and consideration of the Western view regarding *reductio-ad-absurdum*. The European logicians also consider *reductio-ad-absurdum* as a kind of inference. Hence their view is somehow similar to that of the *Mādhvas*. But one point is worthy to note here. A vital difference is found between the Western and the Indian logic. The Western logic is concerned only with the formal validity, while the Indian logic is concerned with both the formal and material validity. The logic of *Madhva*-school belongs to the Indian one. So, the material condition cannot be ignored by them in the case of the determination of the validity of inference. *Tarka* does not satisfy any material condition, as long as the minor premise and the conclusion do not correspond to the fact. Hence, the *Mādhvas* are not justified in regarding *tarka* as an inference in the true sense of the term. But this objection can again be beautifully met from the viewpoint of Jayatirtha. If we look into the full formed *tarka* as conceived by him already mentioned then only the minor premise is seen not to be materially true. But both the major premise and conclusion do correspond to the fact and therefore materially true. So, the objection in question raised against Jayatirtha's view does not hold good.

In order to have a clear conception of Jayatirtha's view regarding *tarka* another point should be highlighted. Jayatirtha partially agrees and partially disagrees with the *Naiyāyikas* in observing the nature and status of *tarka*. He agrees with *Naiyāyikas* in maintaining that *tarka* acts as a helpful condition by eliminating doubt and thereby it helps in paving the impediment from the way of the means of knowledge. But he disagrees with them in pointing out that *tarka* sometimes acts as an independent organ of knowledge. So, according to the *Naiyāyikas*, only one type of activity is performed by *tarka*, but to Jayatirtha two fold activities are seen to be performed by *tarka*.¹¹ For the sake of better understanding two instances may be cited. : When a person is deterred from inferring fire in a hill on the ground of the perception of smoke by a doubt of the necessary of fire's occurrence, *tarka* stands by him to eliminate that doubt. *Tarka* here acts as an auxiliary factor to an independent categorical inference. But in another instance let us suppose a controversy is seen between two persons in the form - "The hill is either possessed of fire or not". Here *tarka* may be resorted to in the following way:- "If the hill were devoid of fire, it would be devoid of smoke. But it is a fact that hill is not devoid of smoke and so it is not devoid of fire too". Here in this case, *tarka* as a hypothetical argument establishes the conclusion that the hill cannot be devoid of fire and so by the negation of absence of fire establishes by implication that the hill is possessed of fire.¹²

Here *tarka* serves to establish a conclusion independently of a categorical inference and therefore performs the second type of activity mentioned.

Jayatirtha further observes that the function of *tarka* as a helping factor can not be a bar for its being an independent organ of knowledge. The same thing is admitted by the *Naiyāyikas* themselves when they declare the possibility of convergence of several cognitive organs on a self same object of knowledge (*pramān āsam plava*).¹³ To make this position more clear a concrete instance can be taken. A is told by a reliable person B that there is fire in the hill nearby. As A goes closer to the hill sees smoke there and infers the existence of fire in it. Ultimately he reaches the hill and perceives fire. Here, in this case, one and the same knowledge i.e. the knowledge of fire is derived through three different independent means of knowledge, testimonial, inferential and perceptual. And the first knowledge is confirmed by the second and the second by the third. So, last two i.e. the inferential and the perceptual knowledge act as an auxiliary factor. But yet they are properly considered as independent organs of knowledge. The same is true in the case of *tarka*. No doubt some times *tarka* is seen to act as an auxiliary factor to other independent means of knowledge. But this does not mean that it is incapable of being an independent organ of knowledge itself. Thus, Jayatirtha establishes his own view that *tarka* is an accredited means of knowledge which can be subsumed under inference by rejecting the view that it is only an auxiliary factor as maintained by the *Naiyāyikas*.

II

As long as the observations of Jayatirtha, as found in his works *Pramān āpaddhati* and *Nyāyasudhā* and of his commentator, Janardana Bhatta from the view point of *Mādhvas'* school are concerned it is seen that they vehemently criticize the status of *tarka* as an auxiliary factor to the instrument of knowledge as given and stated by the *Naiyāyikas*. They hold that *tarka* or reasoning should be considered as an independent and separate means of knowledge for it fulfils all the necessary as well as sufficient conditions for being so. Therefore, as *tarka* itself is an independent means of knowledge, it cannot be taken as an auxiliary factor to it as the *Naiyāyikas* hold. They maintain that the form of *tarka* exactly tallies with that of inference. The ground of *tarka* which is hypothetically assumed and the conclusion of it stand for the probans and the probandum of inference respectively. Besides, necessary concomitance is the foundation and nerve centre for both of the inference and *tarka*. That is why they regard *Tarka* as a species of inference. Being a species of inference *tarka* like inference is a separate and independent instrument of knowledge, but is not a helping condition to it.

Here a number of objections raised by the *Naiyāyikas* against the view of Jayatirtha and the defenses from the part of him are noted down and ultimately my personal reflection against these defenses of Jayatirtha be recorded.

No doubt, the arguments produced by Jayatirtha and Janardana Bhatta to substantiate their own view by negating the view of *Naiyāyikas* are apparently seemed to be excellent and sound. But if we ponder over them then it can be understood that actually they are not as excellent and sound as they appear to be. Those arguments are shown to be groundless if they are considered in the light of the definition, characteristics and the conditions of a proper instrument of knowledge as suggested and stated by

Naiyāyikas particularly. One of the vital questions the theory of knowledge deals with is how the validity of *pramāṇa* be established? The *Niyayikas* say in reply that it is inference through which the validity of *pramāṇa* be established. The inference is as follows:- *Pramāṇam arthavat, Pravr̥ttisāmarthyāt* which means *pramāṇa* is invariably connected with the object it indicates, since it gives rise to successful activity. And by *pramāṇa* which is invariably connected with the object it indicates' it means that an object as well as its nature as indicated by the *pramāṇa* are really so and never otherwise. A pseudo - *pramāṇa* or instrument of knowledge cannot be invariably related to the object it indicates. So, the object and its nature as indicated by a pseudo *pramāṇa* is not really so. The validity of the instrument of knowledge is the inference of the invariable relationship between instrument and the object it indicates. The probans of this inference is *pravr̥ttisāmartha* which means the capability of producing successful activity. *Pramāṇa* produces successful activity for it is invariably related to the object it indicates, whereas, a pseudo-*pramāṇa* does not do so, as it is not invariably related to the object it indicates. Say for example, the pseudo perception of water in mirage cannot lead to the quenching of the thirst but a genuine perception of water leads to the quenching of the thirst. Now if the validity of *tarka* as *pramāṇa* is tested in terms of the inference mentioned then it can easily be understood that *tarka* cannot be regarded as *pramāṇa* proper. It is not *pramāṇa* for it is not invariably connected with the object it indicates. That is to say, object as well as its nature as indicated by *tarka* are different from what they actually are. And owing to that reason *tarka* cannot lead to a successful activity. This can be illustrated by citing an example to get a clear conception that *tarka* cannot properly be considered as *pramāṇa* since it does not fulfil all the necessary and sufficient conditions for being a *pramāṇa* as it is held by Jayatirtha and Janardana. "If there were smoke in the lake then there would be fire too" – is a form of *tarka*. Here, the object indicated by *tarka* is the presence of fire in the lake. But, in fact, there is no fire in the lake. So, *tarka* is not invariably connected with the object it indicates and thereby it cannot lead to a successful activity. As far as our foregoing discussion is concerned it is clear that the necessary condition for being a *pramāṇa* is not satisfied by *tarka* as long as it is not invariably connected with the object it indicates. That is why *tarka* cannot be taken as *pramāṇa* proper. So, the view of Jayatirtha and Janardana cannot be accepted.

Secondly, to my mind, the view of Jayatirtha and Janardana that *tarka* is a species of *anumāna* falls from its ground if it is considered from the point of view of the very meaning of the term '*anumāna*'. The term '*anumāna*' consists of two different terms '*anu*' and '*māna*'. '*Anu*' means latter and '*māna*' means knowledge. So, the etymological meaning of the whole term '*anumāna*' is the knowledge that follows some other knowledge. In other words, *anumāna* is a kind of knowledge that comes depending upon some other knowledge. So, it is an indirect knowledge. But the knowledge depending upon which *anumāna*, the indirect knowledge comes into being, must be direct one. And being direct it necessarily is perceptual knowledge, since perceptual knowledge is the only direct knowledge as particularly the *Navya-Naiyāyikas* maintain. Let us explain this by citing an example. Let us suppose one perceives smoke arising from hill and infers that there is fire in it. Here the knowledge one ascertains through inference is the knowledge of the existence of fire in the hill. And this knowledge is based upon the

perceptual knowledge of smoke in the hill accompanied by the knowledge of necessary concomitance between smoke and fire. If one does not perceive smoke in the hill and does not know that where there is smoke there necessarily be fire then the very question of one's inferring the existence of fire in the hill does not arise at all. So, the perceptual knowledge is a necessary pre-requirement for the inferential knowledge. Now keeping this in view, let us examine whether *tarka* satisfies this necessary precondition for being an inference. In the case of *tarka* also it is seen that the knowledge established through it necessarily follows some other knowledge i.e. the knowledge of the ground along with the knowledge of the necessary concomitance between the ground and the consequent. But it is worthy to note that the knowledge of the ground is not a perceptual one like that of inference. Rather it is just an assumption. So, *tarka* cannot fulfill the said necessary pre-requirement of having the perceptual knowledge as its ground which is the case with inference. Moreover, unlike inference *tarka* negates its conclusion what is perceptual depending upon the assumption in its ground. In inference, indirect knowledge is established on the ground of the direct knowledge. Whereas, in *tarka* direct knowledge is negated on the basis of indirect knowledge or assumption. Now let us explain this point with the help of an example. Let us suppose that A infers the existence of fire in the hill on the basis of his perceptual knowledge of smoke in it. Let us again suppose that 'B' in spite of entertaining 'A's perceptual knowledge of smoke in the hill does not accept his inferential knowledge of fire in it (hill). Now to stand his own view and to negate his opponent's i.e. 'B's view 'A' resorts to *tarka* in the following way :- 'If there were no fire in the hill, then there cannot be smoke in it.' Here this *tarka* can be divided into two parts – 'If there were no fire in the hill' and 'then there can not be smoke in it.' The first part is called *āpādaka* or ground and the second part is known as *āpādya* or conclusion. Here in this *tarka*, like in inference, conclusion or *āpādya*, i.e. the absence of smoke is deduced on the basis of the ground or *āpādaka* i.e. the absence of fire accompanied by the knowledge of the necessary and universal concomitance between the ground (*āpādaka*) and the conclusion (*āpādya*). But here the knowledge of the ground, i.e. the knowledge of the absence of fire is not perceptual like inference rather it is an assumption. In *tarka* depending upon the assumption, i.e. the absence of fire in its ground the direct or perceptual knowledge of smoke in its conclusion is negated.

Thirdly, Jayatirtha and Janardana can be charged from the view point of another special characteristic of Indian Logic called *paks adharmatā* i.e. the presence of probans in the subject. This characteristic is not satisfied by *tarka* as the ground of it which stands for the probans of inference is not present in the subject. In the example already cited the smoke is not present in the lake. So, *tarka* cannot be considered as a case of *anumāna*. But here Jayatirtha observes that this characteristic is not a necessary condition for an *anumāna*. He further maintains that what is necessary is the belief in the presence of probans in the subject. And this condition is fulfilled by *tarka* as far as the opponent is concerned, since he believes in the presence of the ground in the subject. Say for example, the opponent believes in the presence of smoke in the lake. So, according to Jayatirtha, all the necessary conditions of inference are fulfilled by *tarka* and that is why it is a species of inference.

Fourthly, The *Naiyāyikas* observe that a charge of a fallacy of contradicted probans (*bādha*) be advanced against the inferential status of *tarka* as maintained by

Jayatirtha as the probandum which is necessarily deduced in *tarka*, does not actually belong to the subject. Say for example, in the case of *tarka* “ If there were smoke in the lake then there would be fire too” both the probans, namely, the presence of smoke and the probandum, namely, the presence of fire, do not exist in the subject, lake. The *Naiyāyikas* further hold that another objection called the fallacy of the admission of a contrary conclusion (*apasiddhānta*) be raised against the view of Jayatirtha, since, the arguer concerned infer an unreal probandum in opposition to his previous commitment regarding the absence of the probandum.

Jayatirtha replies to the aforesaid objections by maintaining that the charges of contradiction be applied only in the case of inference where the person in question intends to establish the conclusion independently. But in the case of *tarka* the arguer does not like to establish the conclusion independently, rather he seeks to establish the same on the ground of the admission of the opponent. The arguer, in *tarka*, demonstrates only the logical connection between the ground and the consequent. In other words, the arguer likes to imply that the admission of the ground necessarily entails the admission of the consequent, but he does not like to imply that the ground and the consequent are actual historical truth. Thus Jayatirtha shows that the charges of contradicted reason and contradiction of the accepted position do not hold well in the case of *tarka*.

Fifthly, the *Naiyāyikas* argue that in the case of *tarka* the necessary concomitance between the probans and the probandum is not real, since the probans, namely, the presence of smoke and the probandum, namely, the presence of fire do not co-present in the subject, lake. And this falsity of the necessary concomitance invalidates the claim of Jayatirtha that *tarka* is a case of inference. But Jayatirtha, from the view point of *Mādhvas*, replies to the objection by saying that the said objection is nothing but a result of misconception of necessary concomitance. He observes with the *Mādhvas* and the *Jainas* that necessary concomitance between the probans and the probandum is not necessarily one of co-existence in the same substratum. Necessary and universal concomitance be established where the one term cannot be conceived to be possible without the presence of the other. Spatio-temporal co-presence is not a necessary factor of universal concomitance. Besides this, the *Mādhvas* and the *Jainas* hold that the objective concomitance between the ground and the consequent is not a necessary requirement in *Reductio-ad-absurdum* called *tarka*.

Sixthly, another vital objection has been shown by the *Naiyāyikas* against the inferential status of *tarka*. The conditions of inference proper and that of *tarka* are basically different and this difference, in turn, brings a fundamental difference in the character of the result. Accredited inference entails categorical assertions and the probans of it is admitted to be materially true by both parties, the opponent and the proponent, whereas, *tarka* consists of a hypothetical minor premise and the probans affirmed of the subject is materially false. This difference gives birth to another material difference in the result. In the inference proper the result is a true conclusion, but in the case of *tarka* the conclusion is a false issue. But, in response to this objection Jayatirtha maintains that though the difference in conditions appears to be fundamental but actually this is not the case. The fundamental conditions of both of the categorical inference and the hypothetical inference called *tarka* are one and the same. So, the aforesaid difference of

conditions actually is nothing but a negligible one. And this negligible difference in conditions does not entail a fundamental difference in the character of the result.

But as far as our own observation is concerned the aforesaid five defenses of Jayatirtha against the five objections mentioned above are not actually sound and firm footed as they appear to be. One of the fundamental differences between the Western and the Indian logic lies in the fact that while the former aims at satisfying only the formal condition, the latter aims at satisfying both the formal and material ones. In so far as an inference follows all the rules prescribed for it, the inference is said to have fulfilled its formal condition, whereas, as long as the premise or premises and the conclusion correspond to the fact an inference is said to have satisfied its material condition. Now keeping this point in view it can be maintained that *tarka* can not be regarded as a case of inference for even if it satisfies the formal condition, it can never meet the material one as neither the ground nor the consequent of it which are taken to stand for probans and probandum or conclusion of inference respectively correspond to the fact. In the case of the example mentioned above neither smoke nor even fire is seen to exist in the lake. Thus Jayatirtha's defenses are proved to be groundless.

Besides these, some additional arguments may be put forward against the view of Jayatirtha that "*tarka* is a *pramān *a*". First, *tarka* conforms to the definition of invalid cognition given by the *Naiyāyikas*. The definition of invalid cognition (*apramā*) given in TS stands thus : " Non – veridical *anubhava* is a cognition which has for its determinans (*prakāra*) something, when its determinandum (*viśes *ya*) is characterized by the absence of that something." Let us suppose, someone is going to infer the existence of fire in the hill on the perception of smoke in it. Here if one doubts the existence of fire in the hill in spite of the perception of smoke in it, then the inferer concerned resorts to *tarka* in the following way, to establish his own view proving his opponents' view as impossibility. "If there were no fire, then, there would be no smoke". Here *tarka* has for its determinans (*prakāra*), absence of smoke, but its determinandum (*viśes *ya*) is actually characterized by the absence of the absence of smoke. That is why, the *Naiyāyikas* regard *tarka* as an invalid cognition. And an invalid cognition can never be a *pramān *a*.

Secondly, a *pramān *a* must have a direct bearing upon the ascertainment of truth. The main characteristic features of the object of knowledge are deliberated through *pramān *a*. But *tarka* has no any direct bearing; rather it has an indirect bearing upon the determination of truth. *Tarka* by pointing out some real grounds asserts one of the alternatives, but it does not point out this alternative definitely as having such and such characteristics. In other words, *tarka* does not definitely assert a particular alternative, in the form, 'This object is of such nature'. So, the main characteristic features of the object are not deliberated through the method of *tarka*. The real nature of an object be known only through the relevant cognitive instrument like perception, inference etc.

Thirdly, *pramān *a* is adopted to ascertain the knowledge of an object, whereas, *tarka* is applied to eliminate doubt which acts as an impediment to the attainment of knowledge. *Pramān *a* is applied independently to other *pramān *as*. But the application of *Tarka* is not independent of other *pramān *as*. Say for example, to know the colour of

the flower in my garden I have to resort to perception. Here application of other *pramān* *as before hand is not essential. That is to say, the application of a *pramān* *a does not necessarily pre-suppose the application of other *pramān* *as. The application of one *pramān* *a may be preceded by that of another *pramān* *a. Say for example, I can infer the existence of fire in the hill on the perception of smoke in it. But to be sure of it, I may go to the hill and have a perception. Here inferential knowledge is confirmed by perceptual one. Prior application of one *pramān* *a of the other is desirable but not essential. But *tarka* is adopted only when some independent means of knowledge is applied before hand. In other words, the application of *tarka* necessarily pre-supposes the application of other *pramān* *as. If some means of knowledge is already applied but it cannot operate its proper function due to the imposition of doubt only then *tarka* is resorted to in order to eliminate the doubt in question.

Fourthly, if *tarka* is judged from the view point of the defining characteristics of knowledge as suggested and stated by the Western philosophers, *tarka* cannot be taken as a case of knowledge in the true sense of the term. Even if we put aside the fourth condition of knowledge as suggested by E.L. Gettier, knowledge is defined as justified true belief. As far as this definition is concerned the following three conditions are the necessary and sufficient conditions for knowledge:

- Belief condition,
- Truth condition and
- Justification condition.

More clearly to say, if one claims to know a proposition called p, then his claim be valid if and only if firstly he believes that p is true , secondly, p is really true and thirdly, he is justified in his belief that p is true . Now let us examine whether *tarka* fulfils these three necessary and sufficient conditions of knowledge. The *Mādhvas* and the Jainas maintain that *tarka* is a case of knowledge proper and it subsumed under inference. The ground and the consequent in *tarka* stand for the probans and the probandum respectively in inference. Inference aims at providing the knowledge of the probandum on the basis of the knowledge of the probans accompanied by the knowledge of the necessary concomitance between the probans and the probandum. Likewise, *tarka* demonstrates the knowledge of the consequent on the basis of the knowledge of the ground accompanied by the knowledge of the necessary concomitance between the ground and the consequent. Keeping this similarity in view Jayatirtha also observes that *tarka* is a case of knowledge and a sub-species of inference. But only keeping this aforesaid similarity in view it should not be justified to identify one with another. If we ponder over the problem we see that inference and *tarka* differ, one from another, in a fundamental way. Inference satisfies all the necessary and sufficient conditions of knowledge mentioned, whereas *tarka* does not fulfill the same. This can be illustrated clearly by citing a concrete example. Let us suppose, 'A' infers the existence of fire in the hill on the basis of his perception of smoke in it. Here in this inference, first, he believes in the existence of fire in the hill, secondly, his belief is true since fire really exists in the hill and thirdly, his belief is justified by virtue of his perceptual (perception of smoke) and rational (necessary concomitance between smoke and fire) evidence. Inference is a case of knowledge proper, for it fulfils these three conditions. But *tarka* does not meet

these conditions. Let us suppose that 'B' also perceives smoke in the hill but yet he raises objection against the inference of the existence of fire in it. Now 'A' resorts to *tarka* in order to deny the position of 'B' in the way: "If there were no fire in the hill then there cannot be smoke too." Here in this *tarka* absence of fire is the ground or probans and absence of smoke is the consequent or probandum. Let us suppose P stands for the consequent or probandum. Here, neither the opponent 'B' nor even the arguer 'A' believes in P. Secondly, P is not true, for actually hill is qualified not by the absence of smoke but by the presence of smoke. Thirdly, since none of 'A' and 'B' believes in P the very question of the justification of their belief is absolutely absurd. So, as far as *tarka* is concerned, it is seen that the necessary and sufficient conditions of knowledge as prescribed and stated by the Western philosophers are not satisfied. Thus, it is proved once again that *tarka* is not a case of knowledge proper, and therefore, Jayatirtha's defenses mentioned are in vain.

Jayatirtha maintains that inferences can be brought under two heads - categorical and hypothetical called *tarka*. These two types of inference differ in their conditions. In the case of categorical inference all the factors of it must be accepted to be true by both of the parties, the opponent and the proponent. If difference of opinion is seen between the opponent and the proponent regarding the validity either of the probans or of the necessary concomitance or the universal proposition or of both, then inference is brought to a standstill, and it can be set in motion only by keeping aside the differences. But this is not true in the case of *tarka*. In this inference the apparatus is accepted to be true by the opponent and not by the arguer. The defect of categorical inference is not the defect of hypothetical inference called *tarka*. Rather the defect of the categorical inference is the condition of *tarka*. The falsity of the minor term and of the probans, for example, is the defect in categorical inference but these are not defects in *tarka* but rather are the conditions of it. The arguer is quite conscious of the falsity of the probans, namely, the absence of fire, yet he assumes the probans, for bringing out the absurd consequence or probandum, namely, the absence of smoke. But as far as the observation of Jayatirtha regarding the conditions of *tarka* goes we fully agree with him. We also go hand in hand with Jayatirtha in maintaining that the belief in the presence of the probans in the subject from the part of the opponent and disbelief in the same from the part of the proponent is the very condition of *tarka*. If both of the opponent and the proponent would believe the same then the very question of the application of *tarka* does not arise at all. We only disagree with Jayatirtha when he maintains that *tarka* is a case of knowledge proper and subsumed under inference. He holds that *tarka* is a case of a special type of inference. But even if it is a special type of inference it is not a special type of knowledge of course. It may be a different species of the same genus called knowledge. But it is already shown that *tarka* is not a case of knowledge. So, its being a subspecies of knowledge is absurd. And since *tarka* is not a subspecies of knowledge, it cannot also be subcategory of inference.

In the strongest and most important defense against the charge of material invalidity of *tarka* as an inference, a vital defect in Indian logic, Jayatirtha maintains that a misconception regarding the component parts of *tarka* gives birth to this charge. Jayatirtha observes that in fact *tarka* has two conclusions side by side, of which one is false and the other is negative. The false conclusion remains in the explicit form but the

negative conclusion lies in implicit form. So, two conclusions are implied by *tarka* at the same time. But they are implied not in the same way. The false conclusion is implied directly but the negative conclusion, on the contrary, is implied indirectly. As the negative conclusion remains in the implicit form it is generally overlooked by us and we tentatively think that *tarka* like categorical inference has only one conclusion. Thus, we wrongly take only the one half which is in fact, incomplete for the whole and complete. If we look into the full formed *tarka* or *tarka* then we can see that only the minor premise is materially false. But both the major premise and conclusion do correspond to the fact and therefore materially true. This can clearly be illustrated in the following way. "If there were no fire in the hill then there can not be smoke. But as a matter of fact there is smoke in the hill. So, there is also fire in it". For the sake of better understanding we can divide this full formed *tarka* into two halves. "If there were no fire in the hill then there can not be smoke" and "As a matter of fact there is smoke in the hill. So, there is also fire in it". The first part of *tarka* does not correspond to the fact but the second part of it corresponds to the fact. So, *tarka* does not satisfy the material condition of inference as long as the first half of it is concerned but it meets the same as far as the second half of it is concerned. So, if *tarka* is seen in its full form then it would be clear that the aforesaid objection of material invalidity is fully out of place in the case of *tarka*.

But here again his view can not be accepted as far as our observation is concerned, think that Jayatirtha here commits a blunder of taking two different instruments of knowledge for one. Actually, the instance of the full formed *tarka* already cited is nothing but the combination of two different means of knowledge, one invalid and another valid. Each and every half mentioned above makes a separate instrument of knowledge. The first part "if there were no fire in the hill then there cannot be smoke" is called *tarka*. This is an instrument of invalid knowledge. Now let us examine why the second half mentioned above is considered as a separate instrument of knowledge. The second half "As a matter of fact there is smoke in the hill. So, there is also fire in it", is an instrument of knowledge called inference. It is an inference for it satisfies all the necessary and sufficient conditions of an inference. In this example, hill, smoke and fire are the subject, the probans and the probandum respectively. Through this instrument the knowledge of the probandum, namely, the presence of fire is operated on the basis of the perceptual knowledge of the probans, namely, the presence of smoke coupled with the knowledge of the necessary concomitance between the probans and the probandum. And this knowledge of the probandum, that is the knowledge of the presence of fire in the hill is valid as per as the defining marks of valid cognition as suggested and stated by both of the Indian and the Western philosophers are concerned. Besides, the explanation given by Jayatirtha itself substantiates our own position and falsifies the position of Jayatirtha himself. Jayatirtha holds that *tarka* has two conclusions, one is false and the other is negative. But how can one and the same inference possess the two conclusions at the same time? It is quite plausible to maintain that one argument possesses only one conclusion. So, the statement that *tarka* in its full-form has two conclusions implies clearly that it is nothing but the combination of the two different instruments of knowledge. Jayatirtha himself fails to understand the actual implication of his own statement. And his defense mentioned above is the result of his misunderstanding just said. Thus it is shown that the full formed *tarka* as stated by Jayatirtha is nothing but a

combination of the two separate instruments of knowledge, invalid and valid. So, *tarka* as stated above never satisfies the material condition of inference as it is maintained by Jayatirtha.

But two points are important to note here. First, the two instruments mentioned are closely connected and secondly, the term ‘instrument’ has been used in the two cases in two different senses. Let us first explain the second one. The term ‘instrument’ has been used in the case of inference in question in the sense of accredited means of valid knowledge, whereas, the same has been used in the case of *tarka* in the sense of an auxiliary factor to an accredited means of valid cognition. Now let us turn to the illustration of the first point. The aforesaid inference here cannot operate its function due to some impediment, called doubt, imposed by the opponent. In this situation the arguer resorts to *tarka* to eliminate the impediment. And how *tarka* helps in eliminating the impediment and thereby becomes an auxiliary factor (promoter) to an accredited organ of knowledge has already been discussed. So, we need not deal with the same to avoid repetition.

REFERENCE:

1. *Sādhana-numānam dūs 'an' ānumānām ' ce 'ti. Dūs 'an' ānumānām ' api dvedhā. Dūs 'tipramitisāadhanam ' tarkas' ce 'ti. Pramān 'apaddhati (PP) edit. T. R. Krishnamacharya, Kumbhakonam, p.36.*
2. *Pramān 'apaddhatikā of Janardana Bhatta, edit. T.R. Krishnamacharya, kumbhakonam. P.36-37.*
3. *'Tarko' numānam vyāptibalena paroks 'ajñānajanakatvāt. Ibid, p.38.*
4. *Nānutarkasy' ānumānatve āpādakam ' nirvahnitvam ' nirdhumatvam ', pratilin 'gam iti vācyam. Nirvahnitvasya vahnimati parvatepaks 'e' siddhatven 'a katham ' tarkasy' ānumānatvam '. Pramān 'apaddhati, pp. 38-39. Vide also PPT, pp. 38-39.*
5. *Anumānatve 'pi tarkasy āpādakāsiddhir adūs 'an' am parābhyupagamamātrasya tatra siddhipadārthatvāt. Pramān 'apaddhati, p. 38-39.*
6. *Vastutah 'paks 'e vidyamānatve āpādakatva-vyāghātah '. Katham anyathā na cā'yam ' nirdhūmah ' tasmān na niragnika iti viparyaye paryavasānam '. Tadabhāve ca tarka evā' bhāsah ' syāt.*
7. *PPT, p.39.*
8. *Nānu tathā 'pi na tarkasy' ānumānatvam ' san 'gacchate. Tarkasy' ānumānatve āpādyam ' nirdhūmatvam ' lingi 'ti vācyam '. Tasya dhūmatyabhāvād bādhanah '. Ibid.*
9. *Sādhyarūpasyaiva lingino bādhdos 'ah '. Na tvāpādyarūpasya. Āpādyatvavyāghātāt. Yad āpādyam ' tat pramān 'abādhitam eva. Anist 'am ' hy āpādyam ', pramān 'abādha evā' nis 't 'atvam '. Na cā' tra nirdhūmatvam ' sādhyam '. Ibid.*
10. *Yathā sādhanānumāne na vyāptimātram ', nā'pi paks 'adhar matāmātram ' sādhyapramitisāadhanam ' kintu militam eva. evam anis 't 'apādanam ' viparyaye paryavasānam ' co'bhayam ' militam evā' numitisāadhanam ' bhavati' titarkasya prāmān 'yam upapadyate. Pramān 'apaddhati, p.40.*
11. *Kvacid viparitaśan 'kānirasanadvāren 'a pramān 'anām ' anugrāhako 'pi bhavati 'ti. Pramān 'apaddhati.*
12. *Adrir agnimān na ve 'ti vipratipattau sādhanānumānam ' vinai 'va yadi niragnikah ' syāt tarhi nirdhūmah ' syāt na cā'yam ' nirdhūma iti tarkarūpānumānen aiva' gnisiddheh '. PPT, p.40.*

13. *Tasmād yathā pramān •asam •plave dvitīyam • pramān •abhūtam eva, prathamadārdhyahetutvena pramān •anugrahakam • tathā tarko'pi pramān •am eva pramān •ānugrahakah •. PPT, p.40.*

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