SYĀDVĀDA THEORY OF JAINISM IN TERMS OF A DEVIANT LOGIC

Abstract

This paper seeks to investigate whether a 3-valued deviant (extended) logic can represent the Syādvāda theory (the doctrine of ' may be ' or the relativity of judgements) of Jainism. If so, can the epistemological implications regarding the description of an object in the phenomenal world in terms of a pramāṇa (complete judgement) which, according to the Jainas, is an always true statement, be interpreted in terms of a 3-valued deviant logic leading to a tautology ?

1. Introduction :

Syādvāda, the doctrine of the relativism of judgements states that all actual and possible assertions in regard to an object are relative and therefore conditionally true or false. An individual's judgement about a thing or event need not only be valid for anyone other than the subject himself, but is also conditioned by its relationship to a point of space and time, and by its mode and substance.

Pramāṇa or complete judgement describes the object in the phenomenal world with all its possibilities which are stated by the Jainas[1 and 2] as follows :

(i) May be, it is (Syādasti);

(ii) may be, it is not (Syād-nāsti);

(iii) may be, it is and it is not at different times (Syād-asti-nāsti);

(iv) may be, it is and it is not at the same time which means that its indescribable (Syād-avaktavya);

(v) may be, it is and yet indescribable (Syād-asti avaktavya);

(vi) may be, it is not and also indescribable (Syād-nāsti avaktavya);

(vii) may be, it is and it is not and also indescribable (Syād-asti-nāsti avaktavya).

The above seven possibilities comprise the theory of Syādavāda (Saptabhaṅgi naya) and describe an object X of the phenomenal world subject to the factors of space, time, mode and substance from seven standpoints. However, the above seven predications must be consistent with the facts of objective reality and be based on the principles of affirmation and negation. We note that an object is conditioned by the factors of space, time, mode and substance, hence the affirmation and the negation of a proposition regarding it are to be assigned suitable truth-values. Also, *since the third, fifth, sixth and seventh, predications involve the concept of simultaneity and nonsimultaneity*[3] (which accounts for the object being conditioned by time), we have changed the meanings of the connectives ' and ' and ' or '. As a matter of fact, we have introduced two varieties of ' and '; one symbolised by ' ∧ ' (simultaneous conjunction), the other ' and ' is symbolised by ' ° ' (nonsimultaneous conjunction). As for the connective ' or ' symbolised by ' ∨ ' we shall use the meaning assigned to it by Reichenbach[4] in his 3-valued logic introduced by him to describe various anomalies in quantum mechanics.

2. Logical Analysis of Saptabhangi-naya :

Mallisena[5] distinguishes a pramāṇa from a durnaya and a naya. According to him, a pramāṇa is always true and for which we assign the truth-value T, but a durnaya is always false for which we assign truth-value F. The truth value of a naya (incomplete judgement) is different from the truth-value T or the truth-value F hence it is intermediate between these two truth-values. This gives rise to a third intermediate truth value I.

According to Vadi Devasuri's Pramāna-naya-Tattvalokālamkāra, (3 *loc cit.*) the above seven predications can be interpreted as follows :

The first predication consist of an affirmative statement· This may mean that an object *exists in some respects*. The expression ' in some respects ' is to be taken in the context of various factors like space, time, substance and mode. For instance, the substance of an object X could be related to the material of which it is made. The space relates to the spatial location of X. The time of existence of X is the present time at which it exists. The mode of X describes its configuration.

Let us represent, the first affirmative predication by a proposition P which takes a truth value T.

The second predication consists of a negative statement that ' in some respects ' an object X is non-existent. Here the word ' may be ' (syād) or ' in some respects ' is crucial in respect of assigning the truth-value to this predication. To elucidate that the object X may not exist with reference to either space, time, substance or mode we note that on account of restraint ' in some respects ' we shall consider the connective of negation (⌐) as a ' complete ' negation and not as a ' dimetrical ' negation in the sense of Reichenbach.[4] Let us represent the second predication by the proposition ⌐ P which takes the truth–value I, as shown by the following truth–table :

(Reichenbach 4 loc.cit.)

Truth–Table No. 1

P	⌐ P
T	I
I	I
F	T

The third predication consists of affirmative and negative statements conjunctively made one after another. Since the affirmative proposition P and negative proposition ⌐ P are taken *conjunctively one after another* we assign the truth–value T to the non-simultaneous conjunction of the affirmative proposition P and the negative proposition ⌐ P. We denote this non-simultaneous conjunction of P and ⌐ P by the notation (P∘ ⌐ P).

The fourth predication consists of affirmative and negative statements made *simultaneously*. Since an object X is incapable of being expressed in terms of existence and non-existence at the same time, even allowing for Syād, it is termed ' indescribable '. Hence we assign to the fourth predication which is the simultaneous conjunction of the affirmative proposition P and the negative proposition ⌐ P, the indeterminate truth–value I and denote the statement corresponding to the fourth predication as (P ∧ ⌐)P.

The fifth predication consists in an affirmative statement conjoined with an indescribable statement at the *same time*. We denote this fifth predication by P ∧ (P ∧ ⌐ P).

Referring to the column for simultaneous conjunction in the truth-table that follows :

Truth-Table No. 2

A	B	A ∘ B	A ∧ B	A ∨ B
T	T	T	T	T
T	I	T	I	T
T	F	T	I	T
I	T	T	I	T
I	I	T	I	I
I	F	F	F	I
F	T	T	I	T
F	I	F	F	I
F	F	F	F	F

We see that since P takes the truth-value T by the first predication and (P ∧ ⌐ P) is assigned the truth-value I by the fourth predication, the proposition P ∧ (P ∧ ⌐ P) takes the truth-value I.

The sixth predication consists of a negative statement conjoined with an indescribable statement at the *same time*. We denote this sixth predication by (⌐ P) ∧ (P ∧ ⌐ P). Referring to the column for the simultaneous conjunction (∧) in the table given above, we see that since ⌐ P takes the truth-value I by the second predication and (P ∧ ⌐ P) is assigned the truth-value I by the fourth predication we see that the proposition ⌐ P ∧ (P ∧ ⌐ P) takes the truth-value I,

The seventh or the last predication consists of an affirmative and negative statements made non-simultaneously conjoined simultaneously with the affirmative and the negative statement conjoined simultaneously. This statement is denoted by $(P_o \daleth P) \wedge (P \wedge \daleth P)$. Referring to the columns for the connectives for simultaneous conjunction and for non-simultaneous conjunction in the truth-table No. 2 and noting that P takes the truth-value T by the first predication and $\daleth$ P takes the truth value I by the second predication. We see that $(P_o \daleth P)$ takes the truth-value T (third predication) and $(P \wedge \daleth P)$ takes the truth-value I (fourth predication). The seventh predication thus takes the truth-value I according to the same truth-table.

Hence, we see that the pramāṇa saptabhangi of the Jainas is a table of seven statements which are derived from a true statement by the operations of negation, non-simultaneous and simultaneous conjunctions that are denoted by $\daleth$, o, $\wedge$ respectively.

Let us consider P as a true statement then the pramāṇa-saptabhangi can be represented as follows :

(1) P (assertion of P)

(2) Not P ('complete' negation of P) denoted by $\daleth$ P

(3) P and non-simultaneously not P (non-simultaneous conjunction of P and $\daleth$ P) denoted by P o $\daleth$ P.

(4) P and simultaneously not P (simultaneous conjunction of P and $\daleth$ P) denoted by $(P \wedge \daleth P)$.

(5) P and simultaneously (P and simultaneously not P) denoted by $P \wedge (P \wedge \daleth P)$.

(6) Not P and simultaneously (P and simultaneously not P) denoted by $\daleth P \wedge (P \wedge \daleth P)$.

(7) (P and non-simultaneously not P) and simultaneously (P and simultaneously not P) denoted by $(P o \daleth P) \wedge (P \wedge \daleth P)$.

Pictorially we can depict the pramāṇa-saptabhaṅgi as follows with the truth–values to the right :

$$
\begin{array}{ll}
\text{P} & (\text{T}) \\
\neg\,\text{P} & (\text{I}) \\
\text{P} \circ \neg\,\text{P} & (\text{T}) \\
\text{P} \wedge \neg\,\text{P} & (\text{I}) \\
\text{P} \wedge (\text{P} \wedge \neg\,\text{P}) & (\text{I}) \\
\neg\,\text{P} \wedge (\text{P} \wedge \neg\,\text{P}) & (\text{I}) \\
(\text{P} \circ \neg\,\text{P}) \wedge (\text{P} \wedge \neg\,\text{P}) & (\text{I})
\end{array}
$$

O— OBJECT X

An object X can be viewed from any one of these seven standpoints. However, since the totality of all these seven possibilities comprises the pramāṇa–saptabhaṅgi (complete judgement of the phenomenal world in terms of seven possibilities), the disjunction, denoted by $\vee$, of these seven predications should lead to a tautology. We can represent this disjunction as follows :

$$
(\text{P} \vee \neg\,\text{P}) \vee (\text{P} \circ \neg\,\text{P}) \vee (\text{P} \wedge \neg\,\text{P}) \vee
$$
$$
[\text{P} \wedge (\text{P} \wedge \neg\,\text{P})] \vee [(\neg\,\text{P}) \wedge (\text{P} \wedge \neg\,\text{P})] \vee
$$
$$
[(\text{P} \circ \neg\,\text{P}) \wedge (\text{P} \wedge \neg\,\text{P})].
$$

As we have noted earlier, the seven predications, conjoined by the disjunction above, take the truth-values T, I, T, I, I, I respectively. Referring to the column for the disjunction in the truth–value No. 2 and noting that the disjunction is associative as can be easily checked using the same truth-table, we see that the disjunction of all these seven predications is indeed a tautology taking the truth–value T.

3. Conclusion :

Accordingly the seven–fold argument of Syādvāda theory of Jainism which is supposed to exhaust all the possibilities of describing the objective reality and lead to a complete description (pramāṇa) of the phenomenal world in terms of an always true statement can be represented as a tautology with respect to our deviant logic.

The Jainas were not unaware of the fact that the relativism they were propounding suggests a verdict of disfavour of all knowledge obtained and obtainable by us in the phenomenal

world. For a world which is divisible into an ever inexhaustible number of points of view and whose entirety we never comprehend is just inaccessible to empirical sensibilities or rational statements. Does this suggest that we require an infinite-valued deviant logic to represent the Jaina epistemology or perhaps it is beyond the scope of logic ?

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NOTES

1. S. Radhakrishnan : *Indian Philosophy*, Vol. I, pp. 298-308 (George Allen and Unwin Ltd., London, 1977).

2. S. L. Pandey : *Whither Indian Philosophy*, pp. 49-61, (Darshana Peeth, Allahabad, 1978).

3. Vadi Devasuri : *Pramāṇa-Naya-Tattvalakalaṁkara* (English translation and commentary by Dr. H. S. Bhattacharya) (Jain Sahitya Vikas Mandal, Bombay).

4. H. Reichenbach : *Philosophical Foundations of Quantum Mechanics* (University of California Press, Berkeley and Los Angels, 1948).

5. Mallisena : *Syādvāda Manjiri*, verse no. 28.

6. R. Sinari : " A Pragmatic Critique of Jaina Relativism ", *Philosophy East and West*, Vol. 19, No. 1, Jan. 1969.