III-26. Philosophy and Logic for Action

Never doubt that a small group of thoughtful committed citizens can change the world. Indeed it is the only thing that ever has.

- Margaret Mead

Decisions for rational behavior require perception to turn isolated acts and parts of knowledge to generate a trajectory of action. Strategies are needed to reduce the level of doubt and eliminate contradictions. The underlying concept and dynamics is best appreciated through an ancient parable. Practice of principles identifies and recognizes limitations of the extant reality. Beyond that deeper human insights create value out of the prevailing reality and achieve potential. It is in our interest to assure integrity of the key ideas as well as the process through which viable ideas evolve.

If the concept of a concern is a part of the shared experience, that is a useful starting point as one strives to know, know to understand, and understand to judge. For a suitable representation we assert with parts, and verified assertions are integrated to represent the whole. Valid assertions are grounded in the physical reality accessible to the senses. Yet our interpretations, inferences and perceptions are often colored by the experience of all those who interact in the process of representation.

Information conveyed by an assertion is necessarily partial, incomplete, and doubtful, and hopefully not inconsistent with what is known about the world. Multiple assertions about a concern are helpful in reconciling independent facets of available information. We conceptualize within this landscape.

An Ancient conception of conservation Principle

In a book from 11th century CE, Rishabhnath (ca. 2700 BCE) is credited with the insight:

उपप्पानेई वा विगमेई वा धुवेई वा

As a conceptual template it has several interpretations:

- Above all it rules out something for nothing.
- In the ordinary literal sense, it is a simple economic accounting: the net gain (*dhuvei*) is related to what is produced (*uppanei*) and what is spent (*vigmei*). It can also be extrapolated to the supply and demand relationship to the price, or risk and reward for an action.
- Note its correspondence to the Second Law of Thermodynamics: The total change in the energy of a system is the sum of the energy conserved as useful work and lost as the disorder (entropy).
- For the reasoning it invokes that new evidence reinforces an argument.
- It acknowledges a limitation of existence of all entities and the resources on which we depend.
- In a finite world sustainable growth is not possible except by creating value by a qualitative change.

Accounting to identify the unknown.

The known can be accounted for in terms of the input and outputs. If there is any unknown that will also influence the balance. On the other hand a nonexistent will not have any effect on such accounting. Consider the thrust of the following:

Gandhar: Can *tattv-swarup* (the intrinsic reality) be known (represented) with what we know about it (*gyan*) or from what we do not know about it (*agyan*)?

Mahaveer: Certainly, it is not possible without what we know about it. However to see the whole (the known and the unknown) it is also necessary to know what we do not know.

What we know remains incomplete until we also know what we do not know. That is complete accounting. A rational path for the search for the unknown begins when it can be bounded by establishing what *it is* (*asti*) and what *it is not* (*nasti*) on the basis of affirmative evidence. Implications are not sufficient. As also developed before, orthogonal and independent assertions are also useful to explore the plausible alternatives. Anything that is not existent would not show up in such accounting.

Reality based algorithms, syllogisms and criteria for the evaluation of beliefs avoid traps and detours. What is not asserted becomes significant only if what is asserted is based on rigorous evidence.

Against Gods and Humbug