

COMPARISON OF SANKHYAKARIKA TRANSLATIONS

Taking only the very first Sutra as the starting point for this comparative study the translations of the various authors show a certain hesitation in coming to a committed meaning of this verse. In a system of presentation that is terse and precise the student has no option but to assume and search for a profound and leading meaning in the very first Sutra, especially when a number of translators have been unable to see a justifiable reason for the differences in its interpretations. Also there is enough evidence from other Sanskrit Vedic treatises that the very first set of verses indicate the trend of contents of the ensuing subject matter. Since Sankhya pre-dates all other works (acknowledged by the majority of translators) it should be DECODED rather than translated by referring to other works. There is a definite clue in Sutra 69 that it is a secret doctrine meaning that it should not be dealt with in a standard way. Moreover there is direct evidence from the Sankhya Karika itself that the meditative or holistic thinking process should be followed in interpreting the Sutras, for any language is built up by a structured logic based on human experience and is conditioned by the environment and period in which it is developed. Since it is difficult to pin down with absolute certainty the meaning of key words that may have changed with the passage of time, holistic imaging leading to three dimensional visualisation of complex phenomenon is the next closest means to interpreting reality, correctly. As a case to point, almost all the major epics like the Mahabharata and Ramanya are presentations of complex and profound scientific concepts through dramatic enactment. It is a substitute for a modern video presentation. Maharishi Kapila has specially dealt with the process of verifying the correctness of information through a number of Sutras that teaches the student to use holistic imagery through meditation. The proof of the previous statement lies in the current explosion in graphic techniques as a means of presenting complex information visually to enhance understanding. It confirms the well known cliché that a picture is worth a thousand words and meditation amplifies it a millionfold by making it a dynamic real time process. It is also the reason that all important religious and philosophical principles are set out in the form of parables, stories or mythical constructs.

Many translators have given this special work a derogatory meaning by describing it as being pedantic, dogmatic, repetitive etc. The main

Secrets of Sankhya

reason, giving rise to such an impression, is that the intrinsic meaning of specific words remain precisely the same throughout because they are HOLISTIC picture-definitions of compact, condensed ideas and principles. A reader who lacks a knowledge of meditative techniques, gets the feeling of it being pedantic mainly because of his inability to understand the true import of the verse. In the write-up below, the very first verse is presented as a decoded sentence so that the divergence in the meanings given by several translators can be readily seen.

Sutra 1.

The holistic meaning of the words are given here. See the Sanskrit lexicon in appendix L specially developed to make this treatise understandable. The implied meanings of each word has been verified by using statistical techniques.

DU:KHA- TRAYA- ABHIGHATA - JIJNASA
Stress triple- interaction- investigate

TAD- ABHIGHATAKE HETAU
Such- interactive modes exist

DRISHTHEY SA- APARTHA - CHENNA
Detection such- would have been meaningless- were it not for the

AIKANTHA- ATHYANTHA- ATHO- ABHAVATH
Synchronised - perpetual - Dynamic - Unmanifest state.

Summarised meaning:

INVESTIGATING THE TRIAD OF INTERACTIVE STRESSES SHOWS THAT SUCH INTERACTIVE MODES OF STRESSES EXIST BUT IT WOULD NOT HAVE BEEN DETECTABLE, HAD IT NOT BEEN FOR THE EXISTENCE OF THE SYNCHRONISED - PERPETUAL - DYNAMIC - UNMANIFEST STATE OF EXISTENCE (OF THE SUBSTRATUM).

Gaudapada's version:

Transliterated into English by H. T. Colebrooke:

The first Sutra is interpreted by Gaudapada as follows:

"THIS INQUIRY IS INTO THE MEANS OF PRECLUDING THE THREE SORTS OF PAIN; FOR PAIN IS EMBARRASSMENT:

Secrets of Sankhya

3

NOR IS THE INQUIRY SUPERFLUOUS BECAUSE OBVIOUS MEANS OF ALLEVIATION EXIST, FOR ABSOLUTE AND FINAL RELIEF IS NOT THEREBY ACCOMPLISHED."

From the above exposition, the key elements of Gaudapada's subsequent commentary and elucidation are "embarrassment due to the three sorts of pain"; classification of the three types of pain as "adhyatmika or natural, adhibhautika or extrinsic and adhidaivika or superhuman", "the means of precluding them", "the superfluous nature of this exercise" and its uselessness as it is "not absolute, final, certain and permanent"

Summarising his subsequent commentary on this Sutra consequent to the interpretation given above: It classifies the three types of pain and the medical modes of alleviating them but it is concluded that as these means are not final, other permanent means are to be inquired into, implying the existence of an esoteric method to cure such pains and sufferings. From the above it became amply clear that the first Sutra dealt with pain and suffering.

Observation:

Gaudapada's version predates the other translations and has unfortunately influenced later authors to take up his slant. While one can forgive his interpretation as the state of science was still in its nascent stage then, subsequent authors could well have had the courage to decode the real meaning and the perspicacity to factually relate it to the trends in scientific knowledge prevailing in their time. His conclusion is that it relates to human physical suffering and fails to see any connection to nature and phenomenon. It is surprising that this conclusion has been presented, for in his translation of the second Sutra, he refers to discriminative knowledge of manifest and unmanifest principles and the soul. His commentary on the third sutra is even more explicit about nature and its mathematical structure but no effort had been made to translate the first sutra from this level nor had the meaning of 'abhigatha' been examined critically in conjunction with 'chenna'. The 68th Sutra (effectively the last) gives a clear indication of the nature of the statements by repeating the key words, but this sense has not been assimilated contextually into the first Sutra. The clear opening trend of Sankhya as an investigation into the nature of the SUBSTRATUM of space has been completely missed and the entire set of 68 verses turned into disparately connected explanation trying to

Secrets of Sankhya

justify the prevailing philosophical thoughts of his period. The importance of "AIKANTHA-AATHYANTHA-ATHO-ABHAVATH" as a key phrase has not been recognised by him nor has he seen the profound meaning it gives on extending it to the 68th. Sutra . The term DU:KHA has been misinterpreted despite its descriptive term " TRAYA" that is evidently connected with the TRIGUNA principles. Such a deviation in the very first Sutra underscores the error in not perceiving Sankhya as a pre-glacial creation as hypothesised by Lokmanya Tilak (see appendix G)

2. H. H. Wilson's comments:

He states that the first verse proposes the subject of the work and also of the system it belonged to namely the Hindus. They sought exemption from repeated births as life was a state of pain and suffering, bondage and evil, and escape from which was devoutly to be wished. He also refers to the different interpretation given by Lassen to the two important terms "abhigatha" and "chenna" and after a lengthy analysis, takes exception to it on the grounds of its implied meaning deviating grossly from that of Gaudapada and Colebrooke.

Observation:

He expresses views almost identical to Gaudapada and the supportive Colebrooke commentary but sees vaguely the possibilities of an esoteric scientific logic being expressed to explain the soul etc. The second and third Sutras are dealt with on Gaudapada's lead but he seems oblivious to the inconsistency in the run of logic and subject matter. The importance of the "AIKANTHA-AATHYANTHA-ATHO-ABHAVATH" as a key phrase is not recognised by him.

3. Lassen's version:

In his commentary in Latin, he has been the only person among all other translators, to raise the doubt that the real meaning of the term "chenna" leads to the conclusion that the final word could be "abhavat" but seems unable to alter the rest of the structure to make this change meaningful. He further deduces the meaning of 'abhigatha' as 'impetus' but uses 'removal' for the same word later, thereby acknowledging the meaning given by Gaudapada. The commentary is concluded on a controversial note with no definite outline of the true meaning. He seems to see the term "chenna" being an incongruous addition and rightly suspects the first Sutra as having a significant scientific meaning. But these views are not given weightage by any of his critics. Despite his doubts based on the possibility of an elliptical meaning, the importance

of the "AIKANTHA-AATHYANTHA-ATHO-ABHAVATH" as a key phrase has not been recognised by him either .

4. Gerald Larson's version:

Translation:

" BECAUSE OF THE TORMENT OF THE THREEFOLD SUFFERING, (THERE ARISES) THE DESIRE TO KNOW THE MEANS OF COUNTERACTING IT. IF (IT IS SAID THAT) THIS (DESIRE --I.E. INQUIRY) IS USELESS BECAUSE PERCEPTIBLE (MEANS OF REMOVAL ARE AVAILABLE) , (WE SAY) NO, SINCE PERCEPTIBLE MEANS ARE NOT FINAL AND ABIDING."

Commentary:

While he has dealt with it at length in his commentary, the last sentence in his preamble in chapter 3 gives the true tone of his subsequent explanations. He says " Hopefully our interpretation will reveal that Sankhya is dealing in a significant manner with some of the most difficult problems of religion and thought." He further adds in appendix B note 2. " Generally, the present writer has followed the commentaries of Guadapada, Vacaspatimisra and Paramartha's Chinese version with respect to problems of interpretation ."

In chapter 1, he groups the first three Sutras and gives a combined interpretation pointwise as follows:

1. Human existence means suffering;
2. Sankhya system offers a way of salvation from suffering;
3. The way of salvation is by means of discriminative knowing;
4. The concept of saving knowledge is through discrimination of the differences between avyakta-vyakta (prakriti) and jna (purusha).

Under the heading of "Philosophical " he says "little light is shed on the content of classical Sankhya as it is found in the Karika itself. Part of the problem, of course, is that the Karika is a difficult text which presents the system in a dogmatic, condensed fashion. Thus it is natural to use any other available texts in order to get at some of the underlying suppositions and arguments not explicitly set forth in the Karika itself. Yet the fact remains that the Karika is the oldest systematic text available and it represents the content of classical Sankhya. Important to remember is that what the Karika fails to include is as interesting as what it does include. It is the contention of the present writer that the

Secrets of Sankhya

Karika can and should be given a unified, consistent interpretation in and of itself without recourse to later texts. It is also the contention of the present writer that the system in the Karika is decidedly different from later statements about the system, and furthermore, is quite different from the most commonly accepted summaries and outlines of the system presently available in the secondary literature."

OBSERVATION :

From the foregoing it is evident that Larsen realises the originality and uniqueness of the Karika but fails to follow his own findings but takes the lead given by others like Gaudapada. He does not give weightage to the first Sutra and particularly the last line. Though in the 68th Sutra the same words recur as an elliptical proof following the lead given by the word "chenna", this connection is not pursued by him either. Though his translations of Sutras 2 and 3 are more indicative of the scientific nature of the treatise and his grouping in items 3 and 4 of the first 3 Sutras clearly suggest that it is a science, the importance of the "AIKANTHA-AATHYANTHA-ATHO-ABHAVATH" as a key phrase is not recognised by him. If any one could have seen its true import Larsen was the most likely person because of the care he has shown to give contextual weightage to each word of the Sutra but for some inexplicable reason had failed to apply his intuitive understanding in his commentaries. In fact his final conclusion is quite incongruous to his philosophical description of Sankhya when he translates Sutra 68 as "At death, however the man who possesses salvation knowledge attains 'certain' and 'final' isolation'".

There is no comment about the term 'DU:KHA' or "AIKANTHA-AATHYANTHA-ATHO-ABHAVATH" even though he expresses deep dissatisfaction at his results. In expressing his dissatisfaction, he has taken the Adi Sankaracharya's criticism of Sankhya as being based on interpretation unfounded by any stretch of logic but seems to have succumbed to the same attitude he accuses the Sankaracharya of holding the VEDAS as being unquestionable because of its allegedly divine origins. From his lengthy analysis and conclusions one is able to glean his dissatisfaction with the overall meanings given both by him and his colleagues to the Sutras but is unable to breakout onto a different lead. Of all the translators he seems to have been the only one to feel the NEED to DECODE the Sankhya verses.

5. Richard Garbe's version:

While admitting it was a philosophical work by one person, he emphasises its apparent atheistic leanings, based on reasoning to solve

the universal problems. In this context he suggests its suitability for modern study. His commentaries are based on those of Aniruddha and Vijnanabhikshu on classical lines giving in to the same pitfalls. However he intuitively comes to the conclusion that it is the earliest treatise and as proof he points out the lack of a brahmanical tradition that is established strongly in later works. Despite his intellectual foresight he does not give enough weightage to the critical term in the first Sutra, "AIKANTHA-AATHYANTHA-ATHO-ABHAVATH" nor the word "DU:KHA".

6. Joseph Dahlmann's version:

He describes Sankhya as the first systematic formulation of ancient speculations, that included dimensions of cosmology and psychology of creation /dissolution. He interprets it as a doctrine of salvation based on the concept of an absolute Spirit with techniques for self control and behaviour. He found it methodical and consistent. But his views of the Sutras themselves are not clearly enumerated to show his depth of understanding. No weightage has been given by him to the term "AIKANTHA-AATHYANTHA-ATHO-ABHAVATH" or the word DU:KHA.

7. Paul Oltramare's version:

His views are similar to Garbe but sees Sankhya as a unique system expressing the dualism of matter and spirit and a derivative from the brahminical tradition with the concept of Yoga predating it. No weightage is given to the term "AIKANTHA-AATHYANTHA-ATHO-ABHAVATH"

8. Hermann Oldenberg's version:

He refers to the existence of a pre-classical Sankhya that predates the oldest upanishads. He also mentions the complementary use of logic in Sankhya like unity and multiplicity, subject and object, self and nonself etc. The sense of Sankhya logic is brought out by him uniquely, but no weightage is given to the term "AIKANTHA-AATHYANTHA-ATHO-ABHAVATH" that indeed contain the same sense of complementarity.

9. Arthur Barriedale Keith's version:

He sees Sankhya as a bundle of contradictions contemporaneous to the Vedas and Upanishads. His involvement has been with semantics rather than the holistic meaning.

10. Franklin Edgerton's version:

He views the treatise as just a method of attaining salvation without any theory behind it. He comes to this conclusion because there is no mention of a Sankhya system in what he considers as earlier works.

Secrets of Sankhya

11. Surendranath Gupta's version:

He has delved into Sankhya details in the most systematic way to realise its true scientific logic but sees the whole system as post Vedic. Despite his enthusiasm for looking at the evolutionary logic of Sankhya in the correct way he misses the point about suffering really meaning stress in the universal sense and fails to see the important connection to the substratum or "AIKANTHA-AATHYANTHA-ATHO-ABHAVATH" state.

12. E.H.Johnston's version:

His writings concern the history and the terminology and seems to identify Sankhya as a complex mixture of contemporary thought.

13. Eric Frauwallner's version:

Offers the view that Sankhya is the earliest speculation on cosmology and philosophy. The special attention to some words and its connected concepts are realistic and his attribution of the development of Sankhya to Pancasika is illuminating. However he offers no insight into the term "AIKANTHA-AATHYANTHA-ATHO-ABHAVATH" nor does he see the term pain as being out of place here.

14. Others

There are a number of other translators like J.A.B. van Buitenen, J.W. Hauer, Mircea Eliade, Debiprasad Chattopadhyaya, K.C. Bhattacharya, who have displayed erudition in analysing the Sankhya terminology historically and contextually against several later Vedic treatises and left mixed conclusions in the mind of the reader. Others like Dr.Radhakrishnan, C.Sharma give only a comparative critique against a background of Advaitic Vedanta. Most Indian translators have treated Sankhya in a reverential way which obviously prevented the authors from interpreting it objectively. Most of the other Indian translators can be placed into two camps, "for" and "against". Among the "for" the direction has been to extract startling conclusions from disconnected sections without any effort at unification to highlight the coherent and continuous adherence to a single core principle in Sankhya and most of their works tend to leave the reader more confused than enlightened.

15. Conclusion

One important point emerges from an overall analysis and generalised understanding of the commentaries given by the various translators. All of them have noted the existence of a deeper philosophical principle in the Sankhya presentation, which naturally implies that the meaning of the first Sutra should also be re-interpreted to seek such a connection as the given version of the first Sutra certainly does not emphasise its profoundness.

Looking at the meaning of the first Sutra in the holistically connected way , as shown in the fourth paragraph of this appendix:

Du:kha-traya- abhighata -jijnasa
Tad- abhighatake- hetau
Drishtey-sa-apartha-chenna
Aikantha-aathyantha-atho-abhavath

Investigating the triad of interactive stresses shows that such interactive modes of stresses exist but it would not have been detectable, had it not been for the existence of the synchronised - perpetual - dynamic - unmanifest state of existence (of the substratum).

The proof is as follows:

The term 'DU:KHA' has a VERY SPECIFIC meaning of “stress related to the SUBSTRATUM or space” for the following three important reasons:

1.The term TRAYA defines a numerical condition of the subsequent term as being threefold. ABHIGHATHA has the meaning of "striking or extirpating" The sense of this word has a certain degree of intenseness or violence implied. The process of an interaction by impact or collision in three different ways namely by compressive, expansive and shuttling action of the GUNA characteristics would seem to be the most appropriate one since the concept of Gunas are extensively dealt with, from Sutras 11 to 22. Further Sutra 30 refers to simultaneous and sequential modes in a cycle which mathematically translates to a third order damping constraint due to obstruction. Words usually associated with pain, like removal, elimination, curing could have been covered by other precise Sanskrit terms; for instance 'APASAARANN.' The term 'ABHIGATHA' has been specifically chosen to imply a colliding, impacting, interactive type of stress acting in three ways and not pain. The precise definition of the Guna characteristics in later Sutras confirm the above meaning and gives the entire work a cohesiveness that enables the student to realise its profoundness. This interpretation is well supported by the subsequent Sutras, as shown below.

Secrets of Sankhya

2. The second occurrence of the term DU:KHA (the first occurrence is in the first sutra) in Sutra 55 has been used twice in the same Sutra, emphasising its role as a technical term within the contextual meaning of all the Sutras from 52 to 60. If it is objectively and critically viewed, in the background of these Sutras, the applicable meaning of the word DU:KHA cannot be pain. Though the term DU:KHA does not recur in any of those other Sutras, the trend of ideas preceding and following 55, pertain to the descriptive definitions of various factors surrounding the nuclear core, PURUSHA.

Sutra 52 deals with dual phases of phenomenon;

Sutra 53 deals with the classification of phenomenon;

Sutra 54 deals with the Guna characteristics of the manifest field;

Sutra 55 deals with the gradation of stresses (DU:KHA) upto the nuclear core as a self-similar process.

Sutra 56 deals with the evolution of the isolation of the nucleus from the interactive field.

Sutra 57 deals with the collapse of the nuclear entity as the primary force

Sutra 58 deals with the release of the potential that causes the nuclear collapse.

Sutra 59 deals with the process of balance as the equaliser of the forces

Sutra 60 deals with the static and dynamic qualities that bring about the balance.

As can be seen plainly from the foregoing, the term DU:KHA is not used in the context of human sensory feelings like pain, suffering etc. but it does not exclude the inclusion of human suffering as a form of stress due to a departure from normal, natural and correct action or behaviour.

3. The current dictionary meaning of DU:KHA is pain or difficulty. However the term "DU:" is to burn or to afflict or cause difficulty and "KHA" has a number of meanings which include the sky, heaven and BRAHMA. Therefore the contextual meaning of the term DU:KHA is stress or difficulty related to the sky, heaven or BRAHMA which is equal to the fundamental field of the SUBSTRATUM in the fluid state. In Vedic creations Shiva is a pedagogical acronym for the (log) numerical value 8 (Shi) descending to 4 (Va) that epitomises the Tamasic state of total inertial power of the Andhatamisrah (Blackhole) state of 18 orders of magnitude, symbolised by the Shivalinga with 18 shivagannas. Brahma, is an acronym for (log) numerical 3 (Ba) and 5

(Ma) shuttling around 4, epitomises the Rajasic fluid state of resonance symbolised by the 1000 petalled lotus floating in placid waters. Vishnu is an acronym for (log) numerical 4 (Va) expanding to 8 (sha) epitomises the radiative Satvic state symbolised by the axiomatic vibratory rate of 259 cycles from a conch shell rising to the axiomatic 8th order of magnitude from the luminous chakra. Therefore the term DU:KHA could be correctly applied to the stress or force generated in fundamental space or the dynamic SUBSTRATUM in which all phenomenon originate and even more appropriate is the concept of the three GUNAS as interactive stresses generated within it to maintain a balance.

Further, if one accepts the term DU:KHA equals pain due to human suffering, then a very glaring break in the logical continuity, of an extremely cogent set of Sutras, is exposed; which requires a coherent and rigorous explanation as to WHY this term has not been amplified and explained in detail in any of the later Sutras? When Sutras 46 to 53 lists out in detail variations in different types of interactive actions and reactions that are not referred to anywhere else, why would an intellectual giant like Maharishi Kapila leave out an important classification of 3 modes of pain allegedly referred to in the very first Sutra? The three descriptions of pain are given only in the commentary by Gaudapada but there is no other connection or usage of these terms in the entire set of 70 Sutras, implied or otherwise. The connection with human suffering and pain has been brought in as a pure conjecture by the authors. As shown earlier, the term DU:KHA occurs again only in Sutra 55 but with reference to context of the sequence of adjoining Sutras, it has no connection (even remotely) with human pain. Further the term TRAYA has a direct and important connection to the Guna definitions mentioned exhaustively, which then rules out even a semblance of relationship to a stray term like pain or suffering that have been neither emphasised nor touched upon in any of the other Sutras. From this critical analysis one can conclude with logical certainty that the term DU:KHA refers to the three modes of stress or states of non-synchronisation in the SUBSTRATUM for ONLY then the rest of the Sutras yield a wealth of information that goes even beyond the boundaries of our current scientific knowledge. The most striking and conclusive proof that it refers to the SUBSTRATUM is the fact that Sutras 47 to 53 identifies precisely the numerical sequence of the atomic periodic table evolved in physics and chemistry and goes further to identify the hidden coherent quark sequential blackhole structure that physics is currently searching for in vain. The outstanding algorithm given in Sutra 3 could never have been translated if human suffering

Secrets of Sankhya

was the correct meaning. The mathematical super symmetry existing in the SUBSTRATUM could never have been exposed, by an accidental mistranslation of the word DU:KHA. Considering the published findings in current science, the numerical constants of super symmetry are not yet known yet Sankhya principles accurately derive these numerical values. Hence DU:KHA, as used in Sankhya, **is certainly not pain.**

It will be most inappropriate to leave out the analysis of the Adi Sankaracharya's (around AD 750) on the Sankhyakarika. His entire criticism of Sankhya is made with a single viewpoint of not allowing the Vedic foundation to be shaken by even the most profound logic if it did not complement it. While he used every identifiable weakness to tear down Sankhya principles to safeguard Vedic injunctions, it is apparent that it had been done on the mistaken understanding that the Sankhyakarika was post Vedic and it was based on atheistic principles that tried to question the divine foundation of Vedic aphorisms. What every Vedic treatise reiterated was that axiomatic truths or 'Aptavachana' (Sutras 4 and 5) are permanent; not every Sanskrit word in the Vedas. Hence terms like Aptavachana, Aptasrutir or the axiomatic status of permanent validity, endowed the mantle of divinity without question and the spirit of the Sankaracharya's understanding was entirely preserved. It is quite indicative of the temper of that period where a matter-oriented, mechanical description of the Universe that apparently implied the exclusion of the "spiritual" aspect, was not acceptable and summarily dismissed. The astounding part of Sankhya is that it proves unequivocally that the so called 'mechanical or material ' matter is in fact a purely 'spiritual or vibratory or non specific' state in a holographic universe. Hence an axiomatic base provides it with the divine classification that cannot be disproved even by the most complex mathematical logic and more so by any pedagogic logic.

To be fair, I must clarify a point , in defence and justification of all the diligent work of the past intellectual researchers on Sankhya. It is very evident from the mode of presentation of the Sankhya Sutras, that Maharishi Kapila has been impeccable in his derivational logic and by maintaining the strictest accuracy in defining the components of its axiomatic logic, he motivated the student to establish the connections by a process of rigorous analysis of the sutras through a meditative technique outlined in sutras 4 to 6. Hence he did not define the SUBSTRATUM of space by any single common noun but maintained his objectivity by axiomatically defining it by the four states of interactions as 'AIKANTHA- AATHYANTHA- ATHO-

ABHAVATH ' , only once in the first sutra but indirectly referred to it in every Sutra by the word ' chenna = were it not for' . Thereby , not only did he fulfil the needed logical rigor but also displayed the ultimate in reverence, respect and obeisance to the fundamental Source and Sustainer of the entire Cosmic phenomenon. Even in the Vedas it is 'That'. Hence the epithet that Sankhya is an atheistic production is not correct. On the contrary it unifies theology with science. Failure to apply the meditative technique seems to have been the cause of not understanding the Sankhya Karika by the earlier authors.

NOTE: It is evident from commentaries and reviews of the original Vedic and Puranic verses, the various authors (of that period) had no inkling of the real time gap that existed between themselves and the subject matter under their review. Only future progress in science will do full justice to the meaning of the Sutras. The current level of proficiency in holistic mathematical logic needs to be raised to its full potential and only such a process will aid total comprehension when dealing with self similar laws of nature. The saying that one picture is worth a thousand words is apt when one realises that one needs numerous iterative mathematical formulas to draw a picture mechanically on a computer. The human mind can grasp the essential meaning of the picture in an instant whereas the mathematical formulas would only indicate a trend even to the most astute mathematician. While mathematics is necessary as an important tool to enhance understanding it has to be augmented with human holistic mental intelligence to grasp nature's axiomatic principles. Man has to realise that both language and mathematics are codes that are only useful for communicating ideas or principles to others, but total understanding and comprehension of phenomenon at the personal level are beyond the limits of such codes and in fact there is no need for them in a holistic meditative thinking process. In that sense true literacy leading to abundant wisdom is not dependant only on learning these codes but on using the skills of the human cerebral system fully and completely. Sankhya Karika also called Sankhya Yoga shows the perfect meditative Siddhi technique of achieving perfection in the thinking process in Sutras 4,5 and 6.

End of Appendix D