Amity Business Journal
2013, Vol. 2, No. 1

Copyright 2012 by ABS,
Amity University Uttar Pradesh, Lucknow Campus (ISSN 2278-0904)

Samkhya Guna's Impact on Working Process: A Mathematical Model For Organizations

Dr. Sachin Kumar Srivastava*

An organization having a large number of persons employed in it, has two types of working groups - managerial and working. Such categorization of workers has three distinct output environments - achievement environment, frustrating environment and dictatorial environment. It gives three distinct states of working but when Samkhya philosophy is applied to analysis, it gives different levels of work environments - achievement, dictatorial, and frustrating. The present paper discusses management techniques, which have a profound impact on the systems.

Key words: Samkhya philosophy, Human Gunas, Mathematical Model of Samkhya Gunas, Sattav Guna, Rajas Guna, Tamas Guna.

Introduction

India has a rich and diverse philosophical tradition dating back to the composition of the Upanisads in the later Vedic period. According to Radhakrishnan, the oldest of these constitute "the earliest philosophical compositions of the world."

Traditionally, schools (Skt: *Darshanas*) of Indian philosophy are identified as orthodox (Skt: *astika*) or non-orthodox (Skt: *nastika*) depending on whether they regard the Veda as an infallible source of knowledge. There are six schools of orthodox Hindu philosophy and three heterodox schools. The orthodox are Nyaya, Vaisesika, Samkhya, Yoga, Purva mimamsa and Vedanta. The Heterodox are Jain, Buddhist and materialist (Cārvāka). However, Vidyāraya (Sarvepalli Radhakhishnan, 1948) classifies Indian philosophy into sixteen schools where he includes schools belonging to Saiva and Raseśvara thought with others. The main schools of Indian philosophy were formalized chiefly between 1000 BC to the early centuries AD. Subsequent centuries produced commentaries and reformulations continuing up to as late as the 20th century by Aurobindo and Prabhupada among others. Some philosophies are very relevant to Industry and in management. One most relevant philosophy is "Samkhya Philosophy" for the industry. If we use Samkhya as a tool for the betterment of the employees it will provide leverage to any organization. This paper discusses some relevant tools & use of Samkhya philosophy for the betterment of any organization.

Hinduism owes a great deal to the Samkhya school of thought. Samkhya philosophy is 'the most significant system of philosophy that India has produced' (Richard Garbe, 2007). It exerted profound influence on many scholars in ancient India, China and even Greece. Through it originally began with an atheistic note, on the nature of creation and existence of God, some of its notable concepts and ideas were gradually absorbed in to the mainstream of Hinduism and Buddhism with suitable modification.

According to the Samkhya philosophy the source all reality and experience is Prakriti or nature. In its pure original form, it is the unman-fest (Avyaktam), primal resource, the sum total of the universal energy.

The Object of the Samkhya Philosophy

The objective of this system of philosophy is to find out the means for eradicating the three sorts of pains, viz., internal or Adhyatmika (e.g., fever and other diseases), Celestial or Adhidaivika (thunder, cold, heat, rain, etc.), and external or Adhibhautika (pain from animals, scorpion, etc.), besides getting rid of the rebirth cycle. Pain is an embarrassment. (William, 2002) It stands in the way of doing Yoga Sadhana and attaining Moksha or salvation. Kapila Muni, the main propounder of the concept, imparted knowledge on the twenty-five principles which annihilate this pain. According to the Samkhya philosophy, he who knows the twenty-

* *Sr. Lecturer, Amity University, Uttar Pradesh, India. Ph. 00-91-9415317597.*

Correspondence E- mail:contact2sachinsrivastava@gmail.com

five principles attains liberation. The ultimate cessation of the three kinds of pain is the final goal of life. (Worthington V, 1982).

Prakriti

Prakriti means, one which is primary and that precedes what is made of! It comes from - Pra - (before) and - Kri - (to make). It resembles the Vedantic Maya (Spiritual lust) (Angeles, 1996) It is one of the roots the universe. It is termed Pradhana or the chief, because all effects are founded on it. According to *Swami Jnaneshvara Bharati* (www.swamij.com, 2010)understanding of this process is extremely useful, if not essential in the practice of Yoga; the process of Self-realization is one of attention reversing the process of manifestation, of retracing consciousness back through the levels of manifestation to its source. (Sri Keshava ji Math, 2000)

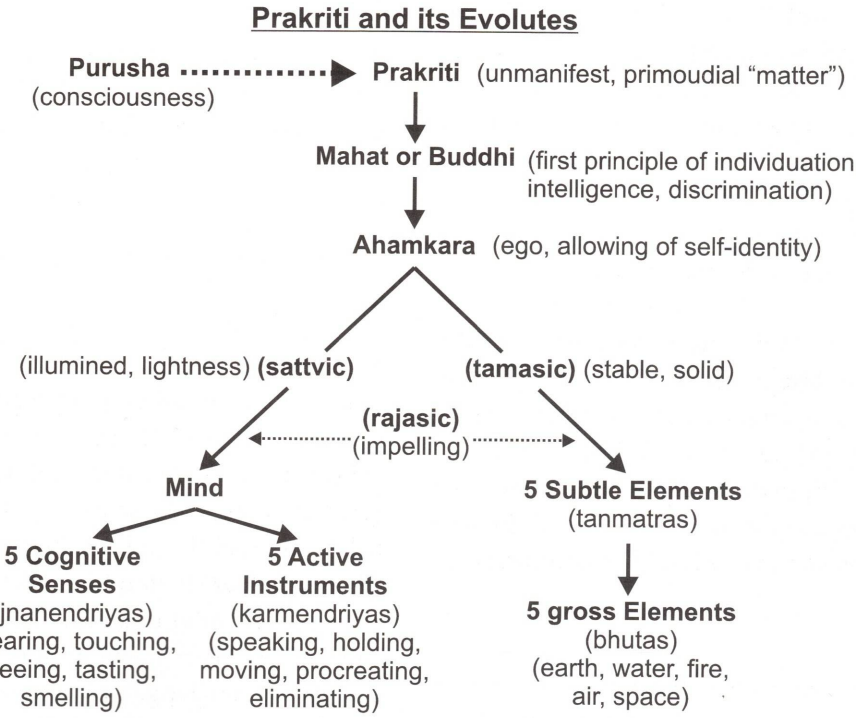
Characteristics of Prakriti

Pradhana or Prakriti is eternal, all-pervading, and immovable. It is one. It has no cause, but is the cause of all effects. Prakriti is independent and uncaused, while the products are caused and dependent. Prakriti depends only on the activity of its own constituent Gunas (metaphysical properties). (Carroll, 1999)

The Gunas

According to the Samkhya philosophy, Prakriti is composed of three Gunas or forces, called Sattva (purity, light, and harmony), Rajas (Passion, Activity, Motion) and Tamas (Inertia, Darkness, Inertness, Inactivity). Guna means a cord. The Gunas bind the soul with a triple bond. These Gunas are not the Nyaya- (The Nyaya is intended to furnish a correct method of philosophical enquiry into all the objects and subjects of human knowledge, including the process of reasoning and laws of thought) Vaiseshika (In the Vaiseshika system, the formation of the world is supposed to be effected by the aggregation of atoms. (Watts, 2000) These atoms are countless and eternal. They are eternally aggregated, disintegrated and re-disintegrated by the power of Adrishta (unseen). The Vaiseshika has, for its chief objective, the analysis of experience. It begins by arranging its enquiries under categories (Padarthas), i.e., enumeration of certain general properties or attributes that may be predicted of existing things. It formulates general conceptions, which apply to things known, whether by senses or inference, or by authority) (Process of identifying what is correct & what is not correct) Gunas. They are the actual substances or ingredients, of which Prakriti is constituted. They constitute the entire world evolved out of Prakriti. They are not

Figure 1: Prakriti and its Evolutes



Source: *Swami Jnaneshvara Bharati in www.swami.com/acccessed on 23/07/2010*

conjoined in equal quantities, but in varying proportions, one or the other being in excess. Just as Sat-Chit-Ananda (pleasure associated with soul) is the Vedantic trinity, so also the Gunas are the Samkhyan trinity. (Brooke, 1992)

Characteristics of the Three Gunas:

Sattva's equilibrium is pleasing, and is capable of manifesting others, When Sattva prevails, and there is peace or tranquility. Rajas is dynamic, which is expressed as Raga-Dvesha, likes or dislikes, love or hatred, attraction or repulsion. Tamas is that binding force with a tendency to lethargy, sloth and foolish actions. It causes delusion or non-discrimination and is static in nature.

When Sattva is predominant, it overpowers Rajas and Tamas. When Rajas is dominant, it overpowers Sattva and Tamas. When Tamas is predominant, it overpowers Rajas and Sattva. Prakriti is comprised of three qualities (Gunas), which interact in the make up of physical things in a manner not unlike the relationship between atoms and molecules. (John, 1998) The characteristics of the three Gunas are illustrated in the following table:

Table 1: Meaning of Gunas

Sattva	Rajas	Tamas
Virtue	Passion	Dullness
Beautiful, good, wise	Active, fierce	Dark, stupid, ugly
Intelligence & self consciousness	Energy	Sloth

How a person is Affected by the Three Gunas

As per table 1, three Gunas are found in each person. Sometimes, Sattva prevails in him. Then he is calm and tranquil. He reflects and meditates (Johnson, 1993). At other times, Rajas prevails in him and he does various sorts of worldly activities. He is passionate and active (Arthur, 1993). Sometimes, Tamas prevails. He becomes lazy, dull, inactive and careless. Tamas generates delusion (Pennock, Robert T, 2002).

One of these Gunas is generally predominant from person-to-person. A Sattvic (Pious/Saintly activity) person is virtuous. He leads a pure and pious life. A Rajasic (Worldly affairs) man is passionate and active. A Tamsic (Nefarious activity) man is dull and inactive (Dawkins, 1986). Sattva makes a man divine and noble, Rajas makes him thoroughly human and selfish, and Tamas makes him bestial and ignorant. There is much Sattva in a sage or saint and there are many Rajas in a soldier, politician and businessman. Prakriti is destitute of intelligence. It is like a string of three strands. The three Gunas form the three strands. Prakriti is mere dead matter, which is equipped with certain potentialities due to the Gunas.

These three Gunas dominate one's personality and have impact on the overall performance and productivity at workplace. In recent times corporate have taken cognizance of these factors and look forward for suitable models that can be used to train their manpower and in extracting the best out of them. The present study shall apply this model in an organization.

An organization, where substantial numbers of people are engaged at work, can broadly be classified into two different groups. i.e. the 'Managerial Group' & 'Working Group'. A group of people can have different feelings based on working methodology. Perspective may be right or wrong. Let working group be represented by "W". If they have an opinion that working methodology is right, it may be denoted by W(r) and if their opinion about the working methodology is wrong, it may be denoted by W (w). Similarly, the person belonging to managerial group may be denoted by "M". If the opinion of the managerial group about the working methodology is right then it may be denoted by M(r) and if the opinion about the working methodology is wrong, it may be denoted by M(w). The joint impact of their opinion may be expressed in following format in four possible combinations. The result is denoted by word R.

a) If a managerial group opines that working methodology is right and the working group has also a similar opinion.

   Then this can be represented as:

   $M(r) * W(r) = R(r^2)$ ... (equation 1)

   Here term $R(r^2)$ represents the output of the Organisation. Where, r^2 indicates the right option given by both groups.

b) If management group opines right, while the working group opines wrong. This can be represented as:

   $M(r) * W(w) = R(r.w)$ ... (equation 2)

   Where, M(r) i.e., managers opinion about the methodology is right and the opinion of the working group about the working

methodology of the company is W(w), then M(r) * W(r) indicates that working methodology may be dictatorial.

R(r.w) = Dictatorial.

c) When the managerial group opines, it's wrong i.e., M(w) while the working group opines that the procedure of working is right, i.e. W(r).

Such type of case is represented by expression as:

M(r) * W(r) = R(w.r) ... (equation3)

Where R(w, r) represents a output, which may have an impact of frustration.

d) Managerial group opines procedure of working is wrong and the working group also opines it to be wrong such situation is represented by:

M(r)*W(r) = R(w^2)... (equation 4)

The case is of crisis and the system will collapse.

Samkhya's Guna's impact on working process :-

These Gunas can exist individually or co-exist collectively. The Gunas in co-existence collectively have a profound impact on the working of an organization. This impact may be evaluated by setting questions, and computing the results.

If the opinion of the managerial group is that the working procedure is right, then the value M(r) can assume values depending upon the Gunas of the group.

1. The Sattva Guna denotes that a person has a moral aptitude, is fully dedicated to work, with and is in complete peace and rest.
2. The Rajas Guna denotes that the persons mind is not stable and is flickering.
3. The Tamas Guna denotes that the person at work has a feeling of anxiety and is not able to take a decision. Certain values may be assigned to these Gunas based on their characteristics and their significance in human and in social life.

The Gunas based on the computations can be assigned as

Sattva = 3 (Excellent)

Rajas = 2 (Satisfactory)

Tamas = 1 (Poor)

Analysis on Impact

The working results have been referred to the equation 1, 2, 3 and 4 respectively. Based on Samkhya score, the final results can be computed to:

$M(r) * W(r) = R(r^2)$

Now, M(r) = 3, 2, 1

W(r) = 3, 2, 1

When these values are substituted, it leads to:

$R(r2)\ {}^{(X)}_{(y)} = M(r)\ W(r)$

Where X = Sattva, Rajas, Tamas

Y = Sattva, Rajas, Tamas.

All possible combinations are given below:

(a) $R(r^2)\ {}^{Satva}_{Satva} = M(r)_{Satva} * w(r)_{Satva}$
$= 3 \times 3 = 9$

$R(r^2)\ {}^{Satva}_{Rajas} = 3 \times 2 = 6$

$R(r^2)\ {}^{Satva}_{Tamas} = 3 \times 1 = 3$

$R(r^2)\ {}^{Rajas}_{Satva} = 2 \times 3 = 6$

$R(r^2)\ {}^{Rajas}_{Rajas} = 2 \times 2 = 4$

$R(r^2)\ {}^{Rajas}_{Tamas} = 2 \times 1 = 2$

$R(r^2)\ {}^{Tamas}_{Satva} = 1 \times 3 = 3$

$R(r^2)\ {}^{Tamas}_{Rajas} = 1 \times 2 = 2$

$R(r^2)\ {}^{Tamas}_{Tamas} = 1 \times 1 = 1$

(b) $R(r,w)\ {}^{Satva}_{Satva} = 3 \times 3 = 9$

$R(r,w)\ {}^{Satva}_{Rajas} = 3 \times 2 = 6$

$R(r,w)\ {}^{Satva}_{Tamas} = 3 \times 1 = 3$

$R(r,w)\ {}^{Rajas}_{Satva} = 2 \times 3 = 6$

$R(r,w)\ {}^{Rajas}_{Rajas} = 2 \times 2 = 4$

$R(r,w)\ {}^{Rajas}_{Tamas} = 2 \times 1 = 2$

$R(r,w)\ {}^{Tamas}_{Satva} = 1 \times 3 = 3$

$R(r,w)\ {}^{Tamas}_{Rajas} = 1 \times 2 = 2$

$R(r,w)\ {}^{Tamas}_{Tamas} = 1 \times 1 = 1$

(c) $R(w,r)\ {}^{Satva}_{Satva} = 3 \times 3 = 9$

$R(w,r)\ {}^{Satva}_{Rajas} = 3 \times 2 = 6$

$R(w,r)\ {}^{Satva}_{Tamas} = 3 \times 1 = 3$

$R(w,r)\ {}^{Rajas}_{Satva} = 2 \times 3 = 6$

$R(w,r)\ {}^{Rajas}_{Rajas} = 2 \times 2 = 4$

$R(w,r)\ {}^{Rajas}_{Tamas} = 2 \times 1 = 2$

$R(w,r)\ {}^{Tamas}_{Satva} = 1 \times 3 = 3$

$R(w,r)^{Tamas}_{Rajas} = 1x2 = 2$

$R(w,r)^{Tamas}_{Tamas} = 1x1 = 1$

(d) $R(w^2)^{Satva}_{Satva} = 3x3 = 9$

$R(w^2)^{Satva}_{Rajas} = 3x2 = 6$

$R(w^2)^{Satva}_{Tamas} = 3x1 = 3$

$R(w^2)^{Rajas}_{Satva} = 2x3 = 6$

$R(w^2)^{Rajas}_{Rajas} = 2x2 = 4$

$R(w^2)^{Rajas}_{Tamas} = 2x1 = 2$

$R(w^2)^{Tamas}_{Satva} = 1x3 = 3$

$R(w^2)^{Tamas}_{Rajas} = 1x2 = 2$

$R(w^2)^{Tamas}_{Tamas} = 1x1 = 1$

When both group feel working process is right:

Work can be called as an achievement process and can assume value as follows:

(1) $R(r^2)^{Satva}_{Satva} = M(r)_{Satva} * W(r)_{Satva} = 3x3 = 9$

When managerial group says procedure is incorrect and working group says procedure is correct

On such case, the scenario of work is termed as frustrating. The frustrating values are computed as.

(1) $R(w,r)^{Satva}_{Rajas} = 3x2 = 6$

(2) $R(w,r)^{Satva}_{Tamas} = 3x1 = 3$

When managerial group says procedure is ok but working group says procedure is incorrect

Such type of atmosphere within organization may be termed dictatorial.

The dictatorial levels computed on the basis of Samkhya Gunas are summarized as follows:

(1) $R(r,w)^{Rajas}_{Satva} = 2x3 = 6$

(2) $R(r,w)^{Rajas}_{Rajas} = 2x2 = 4$

(3) $R(r,w)^{Rajas}_{Tamas} = 2x1 = 2$

When both-group feels the working procedure is incorrect or unsatisfactory

There situation leads to close or shift the organization because both the groups are totally frustrated and not interested to continue the work as per their Gunas value.

(1) $R(w^2)^{Tamas}_{Tamas} = 1x1 = 1$

Analysis on Impact of Gunas

There are three states of working within an organisation.

Achievement State

In this state of working, both groups opine that working procedure is ok. If the Gunas in both groups are Sattva Guna, the output will be maximum reaching i.e., level 9. If there is a variation in these Gunas, the output will be either 6 or 4. The policy framers must continuously attempt in controlling the downfall of Gunas. To limit the Gunas between Sattva and Rajas; celebration, incentive, sports, excursion trips the workers may be facilitated. Refresher courses should be conducted by the organization, wonder to maintain the levels and combination of Sattav and Rajas Gunas.

Dictatorial State

In this case the output falls to as low as 1. This hampers the production however the organization is stable.

Frustration State

In this state, output should be maintained. The lowest value of this state is 1. This state has low production and working environment is dissatisfactory. This requires change in the opinion. Creating an atmosphere of confidence on procedures and through constant pursuance can dissolve the situation.

Implications of Research

Generally most organizations are working partially in reducing the stress and frustration within their employees. This management of Gunas is very effective for the improvement of productivity for an organization. If Gunas level will increase, the involvement of workers will also increase. The equations derived as in section 3 are very unique in nature. With the help of these equations, the management can quantify the level of motivation of their employees.

Management must prepare a questionnaire for collecting the raw data. Questionnaire must have between 15 to 30 questions related to inner Gunas. The questions must focus on the habits, likes and dislikes of workers, to be developed by Senior Management and experts on Psychology.

Management should assign the numbers for each question. After collecting the questionnaire; management will be able to quantify data for calculation purpose. Through this calculated value management may quantify the motivation level of each individual and at the same time may also identify which type of motivation dose is required.

After calculation, the management will be able to quantify the motivation level. We can also divide the motivation level in five parts. These are- 1- Exceptional Category, 2 Category One, 3- Category Two, 4- Category Three and 5- Category Four. A certain percentage level may be assigned to each category.

1- Exceptional Category - up to 0%

2- Category one - more than 0 to 25%

3- Category two - 26 to 50%

4- Category three - 51 to 75%

5- Category four - 76 to Less than 100%

Based on mathematical model a framework for motivation in an organization may be proposed. Since the idea is to "think globally and act locally". This framework proposed works from an initial level (lower level worker) to the higher side of the organization (Top management).

Table 2 indicates the type of motivational treatment required for specific employees, classified under different categories.

Table 2 Input required for the Individuals

Percentage of Motivation level	Inner Gunas Motivation
Category-1 **more than 0 to 25%**	High level of effort is desired (Management counseling, psycho-expert counseling, Yoga, medication, One to One Discussion, Stress Removal Sessions, Financial Non Financial Motivation is/ are desired)
Category-2 **26 to 50%**	Reasonable effort is desired (Management counseling, psycho-expert counseling, Yoga, medication, One –on – One Discussion) and Less amount of Financial Like- increments, bonus, financial reward etc are required and non financial motivation like- appreciations, non financial rewards, other important responsibilities, Promotions, Recognition of the work, interesting work, job security etc is/ are desired)

Table 2 Input required for the Individuals

Percentage of Motivation level	Inner Gunas Motivation
Category-3 **51 to 75%**	Reasonable effort is desired (Management counseling, psycho-expert counseling, Yoga, medication) and good amount of Financial Like- increments, bonus, financial reward etc and non financial motivation like- appreciations, non financial rewards, other important responsibilities, Promotions, Recognition of the work, interesting work, job security etc is/ are also desired.
Category-4 **76 to less than 100%**	Reduced level of effort is desired (Management counseling, psycho-expert counseling, Yoga, medication) but More Financial and Non Financial Motivation rewards and non financial motivation like- appreciations, non financial rewards, other important responsibilities, Promotions, Recognition of the work, interesting work, job security etc is/ are desired)

Conclusion and Suggestions

Samkhya Gunas of human beings can be broadly applied collectively within groups of persons working in an organization. It needs to create an atmosphere of general understanding on good working practices in both the groups, i.e., managerial groups and working groups. If this happens, the Sattva Guna in both groups leads to a better performance within the system. If Sattva Guna is found missing, efforts should be made to induce the feeling of confidence by pursuing, providing better information, work atmosphere, by providing extra work facilities and motivation.

Regular assembly of staff to facilitate discussions on their problems and generating solutions may do the trick. Regular addresses by seniors, motivating workers will also assist in leverage performance. The staff should be recognized and rewarded publicly. Monitoring the improvements and recharging motivational levels in case of need is opting by desired. Counseling sessions will also assist in leveraging performance.

References

Angeles, (1996), Bhaktivedanta Book Trust, Srimad-Bhagavatam, Los Angeles, Bhaktivedanta Book Trust.

Brooke, Hedley J, (1992), 'Natural Law in the Natural Sciences: the Origins of Modern Atheism?' in Science & Christian Belief, Vol. 4, pp. 83103.

Carroll, William, (1999), 'Aquinas On Creation and the Metaphysical Foundation of Science' in Sapientia 54, pp. 6991.

Dawkins, R. (1986), The Blind Watchmaker. New York: W. W. Norton, Dembski, W. (2002), No Free Lunch: Why Specified Complexity Cannot Be Purchased Without Design, Lanham, Maryland: Roman & Littlefield Publishers, Inc.

Garbe, R, (2007), The Philosophy of Ancient India, Whitefish, Gregersen, N. (ed.). (2003), From Complexity to Life. Oxford: Oxford University Press.

Peacocke, A, (1993), Theology for a Scientific Age: Being and Becoming-Natural, Divine and Human. Minneapolis: Fortress Press.

Pennock, R. T. (ed.), (2002), Intelligent Design Creationism: Philosophical, Theological and Scientific Perspectives. Boston: MIT Press.

Phillip, J. (1993), Darwin on Trial, USA: Inter Varsity Press. Sarvepalli, Radhakhishnan, (1948), Indian Philosophy, Volume 1-2, Sri Keshava-ji Math, (2000), Bhaktivedanta Narayana Swami, The Essence of the Bhagavad-Gita. Mathura: Worthington, V. (1982), Samkhya Philosophy; Based on: A History of Yoga.

Polkinghorne, J. (1998), Belief in God in a Scientific Age. New Haven and London: Yale University Press.

Watts, F. (2000), Faith, Science and Understanding, London: SPCK

Narayana, Bhaktivedanta, Swami, (2000), Srimad Bhagavad-Gita, New Delhi: Gaudiya Vedanta Samiti, pp. 513514

Website of Swami Jnaneshvara Bharati in www.swami.com/acccessed on 23/07/2010