Chapter 2

Review of related literature

Nothing ever will be attempted, if all possible objections must first be overcome.—Samuel Johnson.
CHAPTER 2

Review of related literature

Personality study from Western tradition

Background:

The term personality is derived from the Greek word 'persona', or 'mask', associated with the dramatic masks worn by actors in ancient Greek comedies and tragedies. Ironically today, personality testing is designed to uncover the true personality a job candidate or employee may be masking.

Personality concerns the most important, most noticeable parts of an individual's psychological life. Personality concerns whether a person is happy or sad, energetic or apathetic, smart or dull. Over the years, many different definitions have been proposed for personality. Most of the definitions refer to a mental system—a collection of psychological parts including motives, emotions, and thoughts. The definitions vary a bit as to what those parts might be, but they come down to the idea that personality involves a pattern or global operation of mental systems.

**Personality psychology** is the scientific discipline that studies the personality system. The discipline seeks to understand a person's major psychological patterns and how those patterns are expressed in an individual's life. Personality psychologists conduct scientific research on personality, teach about personality (usually at the college and university level) and participate in the broader discipline of psychology.

There is a renaissance going on in the discipline of personality psychology today. This is reflected in the burgeoning research in the field, and in research conducted in disciplines related to the field. Part of understanding personality psychology is knowing about the discipline that studying it.
The theories of Hippocrates and Galen continued to influence the medicine for many centuries. The philosophical and medical concepts took new shapes. Temperaments started to depart from physical side of the body. Avicenna, a Muslim physician not only introduced four body temperaments to the Arab world but also analyzed many other reasons of human illness.

However, Wilhelm Wundt (1879 A.D.) was the first man to make a clear distinction between human body and personality. He realized that temperaments can’t be limited to the body fluids. He theorized that four temperaments; sanguine, phlegm, cholera and melancholy are four dimensions of the human personality. He also founded the first psychology laboratory in Leipzig Germany. Perhaps because the famous European philosopher Immanuel Kant described the Hippocrates’ terms in his 1798 book Anthropologie we still use terms that describe them today: an excess of blood made a person sanguine, too much yellow bile choleric, too much black bile melancholic, and an excess of phlegm of course made one phlegmatic. Francis Galton (1869) argued that there are measurable differences between individuals’ minds, introducing the idea of psychological testing.


History of personality tests had already taken a psychological turn with Wilhelm Wundt. But there is a long list of psychologists who contributed in the personality assessment methods. Some of them include are as follows. Physiologist Wilhelm Wundt (1879) was the first person to separate personality from human body functions. Further, he theorized that temperaments could not simply be limited to the bodily fluids. He believed that no individual was completely of one temperament; rather that everyone typically has varying proportions of two or more. He believed that all four temperaments were basic dimensions of the human personality and that the temperaments fell along the axis of "changeability" and the axis of "emotionality". In 1900 Sigmund Freud (1859-1939) published The Interpretation of Dreams and exerted
unprecedented influence on both psychiatric and popular approaches to understanding personality for the next fifty years. The father of psychoanalysis, Freud gave the world such concepts as the ego, free association and the Oedipus complex. From 1902 to 1912, Freud’s two most important colleagues were the Viennese physician, Alfred Adler, and the Swiss psychiatrist, Carl Jung. Adler became famous for such concepts as the inferiority complex and sibling rivalry. Jung devised one of the earliest personality instruments, the word association test.

In 1905 Adicke (1879 A.D.) theorized four different viewpoints to look at the world. He termed these four approaches as innovative, traditional, doctrinaire and skeptical. At the same time, Spranger (1905), a German Philosopher, theorized four attitudes towards ethical values. He named those value attitudes as artistic, religious, theoretic and economic.

Munsterberg (1913) was a professor of the Harvard University. He made a survey to the executives of the different organizations. He asked them for qualities which they want to see in their employees. He listed them and devised first personality test. He intended to help the employers to make the best hiring decisions. The American Psychological Association asked Woodworth (1917) for a test to assess emotional stability. The first modern personality test was the Woodworth Personal data sheet, which was first used in 1919. It was designed to help the United States Army screen out recruits who might be susceptible to shell shock.

In the age of industrial revolution, Link (1919) wrote a book “Employment Psychology”. He wrote that the ideal personality testing method can be a big machine which received data on one end and sorted out suitable candidates for specific jobs on the other. In the next year, the German philosopher Kretchmer (1920) presented a theory of four character styles. He thought that people can be hypomanic, depressive, hyperesthetic or anesthetic depending upon their character styles. Another German philosopher Erich Fromm wrote that there are four human orientations: exploitative, hoarding, receptive and marketing.

As a very different testing technique, one of the most powerful projective tests, the Rorschach inkblot test was introduced in 1921 as a way to determine personality by the interpretation of abstract inkblots, which was named after its creator, Swiss
psychologist Hermann Rorschach. In the 1960s, the Rorschach test was the most widely used projective test. Its popularity is still soaring.

Jung (1921), a Swiss psychologist and the founder of analytical psychology, in his book Personality Types was the first man to theorize that people always prefer certain identifiable behaviors if they are given a free choice. He also said that on the basis of human preferences, they can be divided into different personality types. Jung's unique and broadly influential approach to psychology has emphasized understanding the psyche through exploring the worlds of dreams, art, mythology, world religion and philosophy. Although he was a theoretical psychologist and practicing clinician for most of his life, much of his life's work was spent exploring other realms, including Eastern and Western philosophy, alchemy, astrology, sociology, as well as literature and the arts. His most notable contributions include his concept of the psychological archetype, the collective unconscious, and his theory of synchronicity. Some say Jung developed a personality typology that has become so popular that many people don't realize he did anything else. Jung's begins with the distinction between introversion and extroversion. Introverts are people who prefer their internal world of thoughts, feelings, fantasies, dreams, and so on, while extroverts prefer the external world of things and people and activities.

The Myers-Briggs Type Indicator method was developed over a period of forty years by Isabel Briggs Myers and her mother, Katharine Cook Briggs, and grew from their encounters, in 1923, with the ideas of Carl Jung's psychological types: Sensing, Intuitive, Feeling and Thinking. Myers further developed Jung's ideas into a system to provide an easy way for everyone to understand and appreciate the Jungian types. These two women applied Jung's theory in their surroundings. They not only realized importance of these types but also refined them to enhance their effectiveness. Myers Briggs types base upon four questions: a. Preferred source of energy (Internal or external); b. Preferred source of perception (Senses or Intuition); c. Preferred decision making system (logics or feelings); d. Preferred life style (ordered or adaptable). The MBTI identifies four cognitive functions: sensory perception, sensory judgment, intuitive feeling and intuitive thinking. The Myers-Briggs Type Indicator, which is taken by over four million people annually, in over 16 different languages, is today's most popular method (albeit not the
best one for hiring). During 1926, Marston, a psychologist at Harvard University, published a book in 1926 describing the DISC system titled The Emotions of Normal People. (At that time most behavior work was being done to explain the actions of the criminally insane.) The system first came to prominence as part of the US Army's recruitment process during the years preceding WWII, and then became a popular tool in the commercial sector. The four categories of the DISC human behavior response system are (D) Dominance, (I) Influencing, (S) Steadiness, and (C) Compliance. Louis Thurstone, in 1933, noted that a list of 60 adjectives on an assessment he developed could be reduced to five meaningful factors. Yet amazingly, little work was done by Thurstone himself or others to follow up and replicate this finding. Allport and Odbert (1936) combed through the English language and found over 4,500 adjectives that are used to describe personality, and formed the primary starting point for Cattell, renowned psychologist and creator of the 16 PF assessments in 1946.


The history of applied/ modern Multivariate Personality Assessment can be described in terms of eleven milestones as follows: (a) Erasmus Darwin, the grandfather of Charles Darwin and Francis Galton, proposed in 1794-1796 that the variations in all important human characteristics are rooted in human evolution. This is the starting point for modern personality assessment. (b) Francis Galton published Hereditary Genius in 1869. The book is the foundation for the modern study of behavior genetics; it demonstrated that talent and success runs in families and must, therefore, have a biological basis. (c) Karl Pearson, a mathematician who was appointed to the chair of eugenics, endowed by Francis Galton at University College London, invented the statistical index called the correlation coefficient in 1896. (d) Charles Spearman, at University College London, invents the statistical method called factor analysis based on Pearson’s correlation, and shows (1904) that one major factor underlies scores on all measures of mental ability. (e) Raymond Cattell, Spearman’s most famous graduate student, adapted factor analysis to study the structure of personality (1933), and founded modern multivariate personality assessment. (f) G. W. Allport and H. Odbert (1936) assembled a comprehensive lexicon (or list) of “trait terms”, words used to describe other people. This becomes the source for the later development of the Five-Factor Model (FFM). (g) Raymond
Cattell (1946) and Hans J. Eysenck (1947) propose competing models of the structure of personality based on factor analysis. They also publish the first multivariate inventories of normal personality. Eysenck’s test purports to measure three traits while Cattell’s test purports to measure 16 traits. (h) H. G. Gough (1957) publishes the first multivariate inventory of normal personality designed to predict outcomes rather than measure traits. The test becomes the gold standard for predicting effective occupational performance. (i) E.C. Tipes & R.E. Christal (1958) argue that personality can be adequately described in terms of five general factors—this is seen as the first statement of the Five-Factor Model, now generally accepted as reflecting the structure of personality. (j) Robert and Joyce Hogan proposed that the multivariate personality inventory of the future should be based on the Five-Factor Model and Gough’s measurement goals—it should predict outcomes rather than measure traits. They published the Hogan Personality Inventory in 1986. (k) Murray Barrick and Michael Mount published the first in a series of meta-analyses showing that personality measures, organized in terms of the Five-Factor Model, predict occupational performance across a wide range of jobs and industries.

**Personality study from Indian Tradition**

Personality is basically understood by three major domains or methods in Indian Philosophy from which Indian Psychology has evolved. They are *Pancha Kosha, Tridoshas* and *Trigunas*. The *Tridoshas* and the *Trigunas* are both made up of the *Pancha Maha Bhutas* in varying combinations and degrees.

The first domain is that of understanding the person from the viewpoint of the *Pancha Koshas*, which has been written about for the first time in the *Taittiriya Upanishad*. This is the earliest reference to the study of human personality from the Indian psycho-philosophical point of view.

The second domain is that of understanding personality from the *Samkhyan* principles of *Pancha Mahabhutas*—which is common to all *Darshanas* of Indian Philosophy—wherein the personality is said to be a composition of the five “elements” (elements are just an approximation
of the term *Mahabhutas* and not an exact meaning) of Ether/ Sky, Air, Fire, Water, and Earth. The Sanskrit equivalents of these names are *Akasa, Vayu, Agni, Ap* and *Prithvi* respectively. These five elements combine with each other to form the *Tridoshas*—the physiological traits of *Vata, Pitta* and *Kapha* which give each and every one of us the unique characteristic that makes us what and who we are and the reasons for our behaviours.

The **third** domain is that of understanding personality from the view point of the *Trigunas*—the psychological attributes responsible for the exhibition and behaviour of traits and types of human personality—consisting of *Sattva, Rajas* and *Tamas*. *Sattva, Rajas* and *Tamas* too are composed of the *Pancha Mahabhutas* of *Akasa, Vayu, Agni, Ap* and *Prithvi*, in varying combinations and degrees. These *Trigunas* are again common psychological representation of human behaviour across all the orthodox Indian traditional systems of Philosophy. In fact each and every action, talk, food we eat, and behaviour can be classified as being a representation of one of the three *Gunas*. These three methodologies—*Pancha Koshas, Tridoshas* and *Trigunas*—form the most important and comprehensive methodology of understanding Human Personality from the Indian Traditional view point and perspective.

While the *Pancha Kosha* method of understanding personality has not been dealt with here, we deal with the *Pancha Mahabhuta* and consequently the *Tridosha* and *Triguna* perspective of understanding people in detail.

The *Tridoshas* form a bottom-up processing from the atomic and cellular level to give us an understanding of the person as a whole while the *Trigunas* form a top-down processing from the intellectual/ psychological level to give us an understanding of the person in totality. These two systems form the body-mind-spirit holistic unit of understanding personality that is very important and is a well-developed and tested methodology from *Ayurvedic* (principles)---(the medical aspect of Indian tradition) perspective, which has been handed down through the millennia, leading to a better understanding of human traits, types, behaviours, interests, attitudes, and natures. These two comprehensive methodologies of understanding people is pan-global and is applicable to people of all races, religions, ethnicities, genders, languages, cultures, geographical indicators and any and all divisions across the world and human civilization,
without distinction. This respects that we are all a part of the same species while also allowing us unique personalities with different combinations of the same *Pancha Mahabhutas*.

“With the increasing realization that many of the western psychological concepts and methods lack relevance to different cultural systems, the need for developing indigenous psychologies was recognized all over the world (Kim & Berry, 1973). In India, attempts have been made for almost a century to develop indigenous models and theories from the rich source of knowledge viz., the *Vedas, Upanisads*, the *Bhagavad -Gita* and other philosophical texts. In recent times more and more researchers have taken active interest in indigenizing and developing indigenous psychology (Kumar, in press; Misra & Mohanty, 2000; Paranjpe, 1999; Srivastava, 2002)” (Murthy & Kumar, 2007 p.103).

**‘Psyche’ in different systems of Indian thought:**

According to all schools of thought in Hindu philosophy (all *Darsanas*) *mula Prakriti* is considered as a composite unit of three *gunas* viz., *Sattva, Rajas* and *Tamas* which is the source for the universe. They are inseparable and never found separate from one another. They are ever mutually interdependent. When they are in a balanced state they are inert and static. The three *gunas* are not simple qualities (*gunas*) but they are also potential energies. The *mula Prakriti* is a three-dimensional creative energy in a potential or resting state and is responsible for matter (*Cosmic elements/Pancha-Maha-Bhutas*) to appear and later form inanimate and animate objects. The potential *mula-Prakriti*, three *gunas* (the composite state of the three different energies) become dynamic when their balanced state (*samyavastha*) is disturbed and hence were created *Pancha-maha-bhutas*-the cosmic five elements. These *Pancha-bhutas* are the materialistic forms of three *gunas*. (Rao, 2003 p. 8). If the three *gunas* are in balance at all times, there would be no creation possible. For creation to take place, there has to be an imbalance of these three *gunas* leading to disturbances and evolution, eventually.

*Ayurveda* talks about seven different combinations of *doshas* and *gunas* from the original three *doshas* (*Tridosha*) and three *gunas* (*Triguna*). All people are supposed to belong to one of these seven combinations of *doshas*, with a concurring combination of *gunas* leading to an interaction between the *doshas* and *gunas* leading to a unique personality development based on
the *dosha-guna* combination-domination-suppression in every person. This will be discussed in detail in the section on *Ayurveda*.

The reference to different kinds of personalities in the whole *Vedic* corpus is most clearly delineated in a systematic and scientific manner in the *Ayurvedic* texts, more prominently in *Charaka Samhita* and *Susruta Samhita*. According to these two texts there are sixteen different personalities—seven types in *Sattva*, six types in *Rajas* and three types in *Tamas* categories of the *Trigunas*—the *Trigunas* as has been accepted to be one of the foremost evolutes of the dual forces of *Purusa* and *Prakriti*. *Ayurvedic* philosophy is based to a large extent on *Samkhya* philosophy which delineates the evolution of the world from the duality of *Purusa* and *Prakriti* and can be briefly explained as follows:

*Purusa* is the only sentient principle and *Prakriti* is insentient. From this *Prakriti* emanates *Buddhi, Mahat* or the Great Principle, from which proceeds *Ahankara* or the I-principle. From this again evolve the eleven senses and the five subtle elements of sound, odour, taste, colour and touch. And from these latter five, proceed the five gross substances – Earth, Water, Fire, Air and Ether or Sky. First in this scale comes *Buddhi*. It would thus appear that the functions of this principle are the same as those attributed by Western psychologists to will. But the *Samkhya Buddhi* is not mere will, it is will and Intellect combined. That *Buddhi* resembles will is further made clearer by the properties assigned to it, by the *Samkhyas*. These properties are virtue, Wisdom, Dispassion and Power. As immediate effects of this I-principle we have the eleven sense organs and the five subtle elements. The eleven sense-organs consist of the five intellectual (subjective) senses – the eye, the ear, the nose, the tongue, the skin, and the five of action (objective) viz. – the hands, the feet, speech, the excretory organ and the organ of generation. The eleventh sense is *Manas*, (individual mind). The five subtle rudimentary elements are those of odor, touch, taste, colour and sound. From these latter again proceed the five gross substances – earth, air, water, fire and ether. *Manas* is the only faculty that partakes of the nature of both kinds of the senses—the objective and the subjective and hence it is called “sense”. (Jha, 2004).
Though the complete analysis of the Tridoshas and the Trigunas is comprehensively dealt with in a scientific manner only in the Ayurvedic texts, there are mentions of the different kinds of personalities in various texts.

In the Vedas, (Macdonell & Keith, 2007) one finds reference only to some of the personalities as mentioned in Ayurveda. They are: Brahma, Brahmana, Rishi (Rsi), Yama, Rajas, Raksas, Paisaca, Preta, Sakuna, Pasava, Matsya, Vanaspatya, Apana (a kind of Vayu/air), Udana (a kind of Vayu), Kosa, Ksatriya, Ksetra, Tejas, Purusa, Prithvi, Prana (a kind of Vayu), Brahmacharya, Maha Bhuta, Mleccha, Varna, Vata, Vaisya, Vyana (a kind of Vayu), Sarira, Sudra, Slesman (a kind of Kapha) and Samana (a kind of Vayu). These words are referred to here as they are the ones relevant to this area of study.

On an analysis of the Upanisads, (about two hundred and thirty of them including the thirteen Principal Upanisads), (Sadhale; no year given) there are some words that appear in them variously and they are as follows: Sattva, Rajas, Tamas, Yama, Asura, Akasa, Vayu, Agni, Ap, Manas, Aindra/Indra, Raksasa, Pisaca, Sakuna, Matsya, Pasava, Udana, Pitta, Kapha, Kledaka, Bodhaka, Sadhaka, Swadharma, and Vaisya to name a few.

The Taittiriya Upanisad talks for the first time of the different Kosas or sheaths that enclose a man. While the Taittiriya talks about five of them, the Maitreyaupanishat talks about six kosas. But the sixth kosa is not explained.

The Nirukta has the etymologies of a few of the words as used in the Vedas that are relevant to us here. In Jyotisya, we have Varaha Mihira’s Brhat Samhita which delineates the Lakshananas of the Pancha Maha Purusas, along with the anthropometric measurements for different classes of people. The Kalpa Sutras, Purva Mimamsa, Uttara Mimamsa and Nyaya-Vaisesikha texts have not been consulted for obvious reasons.

The next major corpus that yields a wealth of information is the Puranas. Out of the eighteen Maha Puranas, seventeen were consulted, only one (Bhavishyat Purana) being unavailable in print for reference. Again, from the eighteen Upa-Puranas, only about five were
consulted as they are not considered to be of great relevance and are supposed to be repetitions or abstractions from the principal eighteen Maha Puranas. In all about twenty-two Puranas are able to give various dimensions to the personalities to the ones that are delineated in the Ayurvedic texts. Some of the names that have appeared in the Puranas (both Maha Puranas and Upa-Puranas combined) are as follows: Sattva, Rajas, Tamas, Brahma, Arsha (Rsi), Aindra (Indra), Yama, Varuna, Kaubera (Kubera), Gandharva, Raksasa, Paisaca, Sarpa and Praita.

The Puranas also give the attributes and functions of the Pancha Mahabhutas. The colours that each of the Pancha Mahabhutas are to be associated with is given in the Skanda Purana (Vol.10, pg. 464). The Svetasvatara Upanisad talks about the colours of the three gunas for the first time along with some of the more ancient Puranas like Brahma Purana and others.

The other category of the Puranic corpus is the Itihasa Puranas consisting of the Srimad Valmiki Ramayana and the Mahabharata. While there is very little on study of personality in the Srimad Valmiki Ramayana (though the attributes and personality of Sri Rama has been exceptionally elucidated), the Mahabharata has innumerable references to personalities, their types, their attributes and their delineation. While the Bhagavad Gita is a part of the Mahabharata (Bhism Parvan), it deserves a separate mention as it is considered to be one of the classics of Indian philosophy which deals in exceptional detail about human behaviour and the types—Sattva, Rajas and Tamas—which consists of the core of personality study in Indian philosophy. In fact some consider Bhagavad Gita to be one of the foremost texts that talks about psychology as understood in the Indian tradition. Another such classic which deals with Manas, mind, Citta, Buddhi, Swapna, and the different dream and sleeping states is an important work called the Yoga Vasistha of Sri Valmiki. The whole text is a masterpiece of psychological thought and principles which teach a person the interpretation of different kinds of people and their behaviour and all the nuances in between. The intellect on the whole with the emotional attributes is masterfully explained, which has not been studied in detail in the modern world for a validation and confirmation of all its tenets.
The *Mahabharata* including the *Bhagavad Gita* (along with the *Bhagavata Purana*) deals in detail about the personalities and their polity and also gives us the kinds of attributes that one should look for to assess the *gunas* of a person.

Amongst the four *Upa-Vedas* of Ayurveda, *Artha Shastra*, *Dhanur Veda* and *Gandharva Veda*, the *Ayurvedic* literature consists of detailed accounts of the *Pancha Mahabhutas*, their evolution into the *Tridoshas*, the *Trigunas* and also the types of *Trigunas*. By types of *Trigunas* is meant the different kinds of *Sattvic*, *Rajasic* and *Tamasic* temperaments. They also delineate the characteristics that the *Pancha Mahabhutas* confer, as also the different combinations of the *Tridoshas* and the combinations of the *Trigunas* that people can be grouped under. The other three *Upa-Vedas* do not contain the necessary information and hence have not been referred to.

*Ayurveda* contains the clear elucidation of the evolution of the universe, which is again based on the *Samkhya* philosophy, and also clearly delineates the activity of the *Pancha Mahabhutas* and their combinations that lead to the *Tridoshas* as also the *Trigunas*, in a scientific manner. Also, a systematic elucidation of the types of personalities, their characteristics, the reasons for the exhibition of these characteristics in normalcy and the changes in abnormal behaviour has been explained in detail in the *Ayurvedic* texts, which has been one of the foremost points of reference of the present work.

**Personality and convergence of different perspectives of Indian philosophies:**

The *Pancha Mahabhutas* form the most elemental composition of the universe. This is accepted in all the *darsanas* or schools of Indian philosophy. This is the core area which is in total congruence in all the schools of thought. This also forms the core of our understanding for the purpose of delineating a comprehensive theory or model of personality from which to explain the physical, physiological, psychological and spiritual dimensions of man and his behaviour. It is hence, easy to see how the *Pancha Mahabhutas* are elementary, found all over the world—albeit in varying combinations and degrees—and can form the basis for the proposition of personality understanding that is applicable to people across countries and socio-demographic situations to give us an understanding of people that is neither culturally specific nor constrained by geographical demarcations, giving us a psychology that is truly pan-global in nature.
Admittedly, man and the universe are each composed of the same elements, but in differing permutations and combinations, as also are all species of living and non-living things. *Samkhyan* and consequently *Ayurvedic* philosophy gives us the most comprehensive description of the evolution of the *Tanmatras* into the *Pancha Mahabhutas*, which in turn evolves into the different organs and organ systems and the senses in the case of man. The different schools of thought delineate the working of the mind and the senses and how to understand them in a comprehensive manner. The *Puranas* and other books from the *Vedic* corpus delineate the different characteristics of *Sattva*, *Rajas* and *Tamas*. This adds layers to the personality traits and features for each of the “category” of the different *Trigunas*, to add to the existing foundation of the scientific analysis of the *Tridoshas* and the *Trigunas*. This gives a rich texture, dimension and feel to the flat canvas of personality study and gives it a multi-dimensional and a multi-faceted analysis to Personality dynamics.

*Ayurvedic* tenets, which is a medically oriented philosophy for the categorization, understanding and treatment of individuals is scientifically oriented though not empirically tested in today’s sense of the word. By adopting its basic principles in these areas one can start a bottom-up processing of individuals from the elementary and biological level for a better understanding of people. By incorporating the taxonomic classification from the psychological perspective that has already been delineated, a comprehensive picture can be developed. The psychological perspective can be operated upon from the foundations of *Ayurvedic* propositions or from the *Samkhyan* perspective as being an evolute of the *Ahankara* principle. Both lead us to the same understanding of the *Trigunas* and their manifestations. So adopting a top-down or a bottom-up approach will give us the same result but with more details from one level to another. While the bottom-up approach gives us the fundamental biological basis of behaviour and its manifestations, the top-down approach will give us the psychological correlates for both the biological and the psychological manifestations of the behaviour complexes. So a double pronged approach for the study of personality is more comprehensively dealt with, where the physiological impacts the psychological domain and vice-versa.

The working of these senses, sense organs and their structures can be described, detailed, understood and predicted to a large extent based on the readings from the various schools of
Indian philosophy, each of which give detailed definitions and explanations for the working of the mind and the senses from each of their perspective. The combinations of these Pancha Mahabhutas which form the Tridoshas is also delineated and accepted which paves the way for an understanding of the behaviour of people based on physical characteristics and their dominance. This in turn is correlated to the Trigunas which are the psychological correlates of the Tridoshas as the Trigunas too are composed of the same Pancha Mahabhutas. Hence we see that the Pancha Mahabhutas have a large role to play in determining the physical as well as the psychological attributes of an individual. By understanding the different and the specific attributes of the Pancha Mahabhutas and the way they express themselves in the physical and the psychological context one can understand, predict and modify behaviour to suit different situations and needs. Hence, the delineation of the Pancha Mahabhutas, the Tridoshas and the Trigunas plays a large role in the understanding of the personality from the Indian methodological viewpoint.

Hence it is desirable to first delineate the characteristics of the Tridoshas and its expressions in the human body and then go on to delineate the characteristics of the Trigunas and its expressions in the human psyche. This gives a comprehensive picture of the psycho-physical system operating on an individual. Based on this information, one can develop and administer tests to assess people on the type of Tridoshas they belong to—Vata, Pitta, Kapha or the blends of these three core categories and on the broad and specific types of Trigunas they belong to—Sattva, Rajas, Tamas or the blends of these three categories they belong to, to give a deeper understanding of the person, his likes, dislikes, aptitudes, interests and the like.

Hence assessing people from the physiological-physical perspective, the psychological perspective which also incorporates the spiritual perspective to some extent, and going deeper to analyze people and categorize them into an elemental taxonomy of type-specific behaviour leading to a prediction of the behaviours of people belonging to the different, specific and admixture of types of people would give a clearer understanding of people and their behaviours and also give an elemental methodology to categorize people across the world without losing out on the relevance across cultures and countries. This has been the rationale for the study and for the development of various tools to assess the same.
**Yoga and Personality study:**

Etymologically, “Yoga” is derived from the root “yuj” which means “to bind” or “to yoke”. This binding is at three levels, where the first is the connecting of the body and the mind; the second level is the binding of the mind and the consciousness; and the third level involves the unifying the manifest (individual) consciousness of the person with consciousness-as-such. “In addition to the sense of “yoke” and conjunction”, derived from the *yuji-a*, as explained by *Vacaspati Misra* (1.1), means concentration and *samadhi*. *(Rao & Dalal, 2008; p. 186).* Yoga also refers to one of the six orthodox systems of Indian philosophy and is closely linked to the *Samkhya* philosophy. “Yoga takes for granted most of the ontological, epistemological and psychological doctrines as propounded in *Samkhya*. In fact it starts from the *Samkhya* principles and proceeds further to expound a number of subjects not dealt with in *Samkhya*. It is thus a complimentary compendium of *Samkhya*, and it begins where *Samkhya* ends, without finding any need to discuss any further the *Samkhya* doctrines. Thus it begins with the postulates i.e., the twenty-five categories of universe, the three *gunas*, the three proofs of valid cognition, the interaction between *Prakriti* and *Purusa*, and the nature of *Moksa* (as the cessation of *Prakriti* from *Purusa*)” *(Safaya, 1976; p. 264).*

While Yoga-psychology as understood from *Vedantic* concepts has been another area of focus *(Reddy, 2001)*; the relation between *yoga* and consciousness and the relation between the body and the mind between the conscious and the unconscious has been explored and discussed *(Joshi, 2001)*; *Yoga’s* contribution in psycho-analysis of the self and its difficulties *(Pal, 1997)* has also been delved into while in another empirical study, the invisible synthesis of Eastern and Western managerial thoughts through the subtle principles of *yoga* has also been delved into *(Arun & Dhar, 2007).*

**Samkhya perspective of Personality study:**

*Sankara* explains the word *guna Samkhya*na (*Bhagavad Gita*, XVIII, 19) as the system of the *Kapila*, the subject matter of which is the exposition of the three *gunas* viz. *Sattva*, *Rajas* and *Tamas*. In the *Manu-smrti* also which is a contemporary with the *Mahabharata*, there is a detailed description of *Sattva*, *Rajas* and *Tamas* (XII. 24-52) and reference to the three *pramanas*.
Though the use of the word Samkhya is found first of all in the Svetasvatara Upanisad, (VI, 13), yet Samkhya reflections are found even in the Rig Veda and the other Upanisads. The word Samkhya is used in the sense of thinking and counting. Among the modern Upanisads, the mention of Sattva, Rajas and Tamas by name, the exposition of the five subtle elements, the enunciation of the five gross elements and reference to the Samkhya categories of ksetrajna, samkalpa, adhyavasaya, abhimana and linga clearly show that these Upanisads come after the formulation of the Samkhya system. In the Mahabharata and the Puranas, we find Samkhya philosophy fully reflected. At one place we find the mention of the five gross elements, the twenty-four categories in their manifested or un-manifested character and the three gunas (Mbh. III 209, 16-21; 211, 4). The distinction between Prakriti and Purusa has been extensively expounded in Santiparvan. Here the word Sattva stands for Prakriti and not Brahman.

“To begin with, the Samkhya lays down a fourfold division of categories based on their respective causal and productive efficiency. This division is into- (1) Productive – (2) Productive – and – Produced – (3) Produced – (4) Neither – Productive – nor Produced. This classification includes all the twenty-five Principles called Tattvas, Prakriti or Nature being the purely productive, since the Samkhyas allow of no other purely productive agency. The Productive – and – produced are the other Principles – Buddhi & c. These partake of the nature of both; - thus Buddhi is productive in as much as out of it evolves Ahankara, and it is produced in as much as it itself evolves out of Prakriti. The purely non-productive principles are the eleven sense organs and the five material substances. These are purely non-productive because none of these can give birth to a substance essentially different from themselves. The Purusa (Spirit) is neither productive nor produced. In fact it is without attributes. All accessories are the effects of the Gunas, and the Spirit is by its very nature free from these and as such without any accessories” (Jha, 2004, p. 26).

Samkhya talks about the psycho-physical entity at the cosmic level and the individual level for the first time and gives a detailed description for both along with detailing the intelligent principle in both. It gives a comprehensive explanation for the mind-body relationship and looks at it in an empirical manner, which stands up to analytical thinking and methodology. The theory of interaction and mutual reflection between Purusa and Buddhi is a major
contribution to personality study, which has not been denied by other schools of philosophy. So also is the theory of the plurality of souls which is “a bold adventure in the Indian philosophical realm… While Samkhya makes one stride forward from the Upanisadic thought, in the explanation of three types of sources of knowledge, greater details have been presented in later philosophical systems such as Nyaya” (Safaya, 1976, p. 122).

**Upanishadic Pancha Kosa perspective of Personality:**

The *Upanisads* discuss human personality as a whole and not separately about the different mental functioning and the physiological processes. The body, mind (or Manas which is a clearer concept than the English translation of it) and the spirit or consciousness principle is dealt with on the whole as being dependent on each other and not as independent entities—different parts that come together to make a whole, with many things left over and unexplained as is the case with piece meal theorizations. Some of the words that occur in the *Upanisads* related to the functioning of the mind are Manas, Prajna, Vijnana, Samkalpa, Citta. (*Aitareya, Chandogya, Taittiriya, Svetasvatara and Brihadaranyaka Upanisads*).

The universe is a microcosm of Brahman, which is a macrocosm of this world. So also is this persona of man which is an expression of Atman. The characteristics of the individual soul or Jiva, is mentioned in the *Svetasvatara Upanisad* as consisting of three gunas of Sattva (equilibrium and enlightenment), Rajas (energy and passion) and Tamas (inertia and mass). The *Svetasvatara Upanisad* also talks about the colours associated with the three gunas—white, red and black respectively. The soul transcends all spatial limitations but is associated with the heart in the individual.

The *Upanisads* talk about the world in two aspects—organic and inorganic. All organic things, whether plants, animals or humans, have souls. The Brahman, with a desire to create, created the fire, water and earth. Then the self-existent Brahman entered into these three and by various combinations all other bodies are formed. “In this theory of the three fold division of the primitive elements lies the earliest germ of the later distinction (especially in the Samkhya school) of pure infinitesimal substances (tanmatra) and gross elements, and the theory that each gross substance is composed of the atoms of the primary elements. And in the Prasna (iv.8) we
find the gross elements distinguished from their subtler natures e.g., earth (*Prithvi*), and the subtler state of earth (*Prithvi-matra*). In the *Taittiriya*, (II. 1), however, ether (*Akasa*) is also described as proceeding from *Brahman*, and the other elements, air, fire, water and earth, are described as each proceeding directly from the one which directly preceded it (Dasgupta, 2006; Vol. 1, p. 51).

According to Auluck (2002, p. 374), “Despite vast amounts of knowledge about the external world, one is still faced with a big question about oneself, to whom this world presents itself as a mystery. The universe and its experiencer, the man, both are fantastic phenomena of nature…. Man is both the knower and the Creator of knowledge. It is this profound complexity of “I” which inspired the galaxy of thinkers in India whom we call “Rishis”, to delve deep into the great question, “who am I?” It was the central enquiry in Indian Psychology enshrined in *Upanisads*, which are universally acknowledged for their profound metaphysical insights. This question is undoubtedly the most fundamental and profound one and is expected to be at the heart of psychology, particularly the field of Personality…Personality, and ego and self are interchangeably used in the mainstream psychology.”

According to Manickam (2005) *Sattva, Rajas* and *Tamas*, as stated in the *Upanisadic* texts should be considered and a relation between the five sheaths is to be explored, for a better understanding of these concepts and their relevance to the Personality debate in the Indian context. He is also of the opinion that items related to the functions of the five sheaths, their response formats along with *Sattva, Rajas* and *Tamas* as categories is to be generated and developed, leading to a better understanding of personality issues. He also states that the five sheaths as well as the *Mahabhutas* are connected and anything that affects the *Brahman* or the universe can affect the *Atman* and vice versa. Also, the five sheaths are neither independent nor inseparable, though each of them has a separate entity. Changes in one of the sheaths will affect the equilibrium of all the five sheaths. He is of the opinion that the connectedness between the *kosas*, the *trigunas* and the *Mahabhutas* is experienced by persons in different contexts which is yet to be explored from a psychological perspective. He further suggests that “an assessment tool that incorporates the *Taittiriya Upanisadic* concept of person, the *trigunas* and the connectedness has to be developed. The methodology to study the concept could be a structured
interview using a prepared tool. The development of the tool could be envisaged as a two-stage process. The first one is to develop the tool in English on an adequate sample for standardization. In the first stage, experts could meet for several rounds of consultations to operationally define the concepts, to finalize the appropriate methodology, to generate items, to conceptualize the sampling design, select appropriate statistical techniques, and standardize the tool. In the second stage, a multi-center study could be initiated, incorporating researchers from each state and union territory. The developed tool could be translated into major languages, administered to a larger sample, at the national level. The tool could be applied to a general and clinical population, and would help psychological researchers in India and abroad to explore other psychological concepts of the Indian thought”. Thus, the need for importing Tridosha concepts in psychology is emphasized clearly.

**Tridosha model of Personality understanding:**

Though *Ayurveda* is a medical science that has flourished in India through many thousands of years, its principles are only now being studied in an empirical form and scientific analysis of some of the tenets of *Ayurveda* are being carried out only in the last century or so. Furthermore, *Ayurvedic* principles have not been imported into the domain of Psychology from the physical-physiological basis for better understanding of human behaviour and expression.

Disease or *Vyadhi* is also a word that occurs several times in the *Vedas*. The specific diseases and their treatment are dealt with, along with many bodily defects. The *Maitrayani Samhita*, *Satapatha Brahmana*, *Vajasaneyi Samhita*, The *Taittiriya Brahmana* along with the *Atharva Veda* all have descriptions of different kinds of diseases.

The *Nirukta* and the *Aitaraeya Upanisad* denote *Mahabhuta* as being composed of the gross elements of ether, air, fire, water and earth.

The *Rig Veda* refers to *Vata* as wind regularly and later also mentions five winds. Zimmer sees a reference to the north-east monsoon as *Vata* in one of the passages of the *Rig Veda*. (Cf. *SalilaVata*, Macdonell & Keith, 2007).
Slesman which is a kind of Kapha in Ayurveda, finds reference as “meaning something joined together with reference to a hide, bonds or cords are also probably meant… glue is also perhaps the sense in which it is meant”. (Macdonell & Keith, 2007).

Of the Mahabhutas, Prithvi is the only one that finds mention in the Rig Veda meaning earth or as the “broad” one. It is later personified as a deity. There is often a mention of three earths, wherein human beings live in the highest one.

While different kinds of personalities are listed in Ayurvedic texts, a mention is found only of some of them in the Vedas and their subsidiary texts. They are Rsi, Pasu, Pisaca, Preta, Matsya, Yama, Vanaspati, Vanaspatya, Sakuna, Sakuni, Sarpa and Raksas.

Tridoshas and Personality studies:

There have been many studies which have discussed the relevance of the Ayurvedic theories and their interpretation and contribution to the study of psyche (Balodhi, 1987.; Reddy, et.al.; 1987; Balodhi, 2005; and Kapur, 2008) from the psychological view point, both from the perspectives of health and ill-health.

Attempts have been made to bring into public and scientific scrutiny the basic tenets of Ayurvedic physiology and its ramifications for modern understanding again from Ayurvedic viewpoint to bring home the implications for current understanding and future knowledge creation. (Hankey, 2001; 2005a; 2005b, 2008; Dwivedi, 2002; Joshi, 2004; Lyssenko, 2004; & Dilipkumar and Vaidyaratnam, 2007). These studies deal with the Tridoshas and their actions on human behaviour and how they contribute to mental health and ill health. They also study the dominance of the Tridoshas in ill health and give suggestions for their treatments (Dube, et.al., 1983; and Rao, 2002a, 2002b).

Other than the above mentioned tools, there have been many other measures developed from the Ayurvedic perspective to assess the doshas. Most of them are checklist type of scales where the Ayurvedic doctor makes a tick mark against the trait exhibited by the patient. Finally the number of tick marks against each dosha is tallied to give an indication of the dominance of
the *doshas* present in an individual. Though these checklists are available, they have not been standardized and none of the *Ayurvedic* doctors use these checklists to assess the *dosha-prakriti* of an individual, preferring to orally ask questions and decide the *dosha-prakriti* of the individual they are seeing. These cannot be used by psychologists though they may be used by mental health professionals to correlate items developed from psychological domain with the pure *Ayurvedic* concepts and their assessment. These tests assess varied functions in people like genetic constitution (Prasad, *et al.*), psychosomatic constitution (Udupa; Singh, *et al.*; Chandola; Tripathi, & Udupa, 1984; Thatte, 2003; and Baghel, 2004); classification of human population based on HLA gene polymorphism which is based on the Prakriti concept according to *Ayurveda* (Patwardhan, *et al.*, 2005a); a test has also been developed which establishes genetic basis for mind-body typologies based on *Ayurvedic* genomics (Patwardhan, & Bodeker, 2008); whole genome expression and biochemical correlates of extreme constitutional types as defined in *Ayurveda* (Prasher, *et al.*, 2008); and mental constitution of cancer patients based on *Ayurvedic* concepts of the Trigunas (Tripathi & Pandey, 2005).

There have been very few tests or measures that have been developed with psychometric properties for the assessment of the *doshas*. One of which is a tool which studies individuals and associates it to occupational stress (Glickman, 1998) wherein two tests—the DII and the DARSOF have been developed; the other assesses *doshas* according to *Maharishi Ayurveda* (Theresa, 1999); and the last is an empirical investigation of the effects of *Maharishi Gandharva Veda* music during live concerts (Olson & Sorflaten, 2005).

**Trigunas and Personality studies:**

“The word “guna” has many connotations. Its two most common and connected usages are “quality” and “constituent”. It is in this sense that the Yoga and Samkhya schools refer to it and it means the well-known triad of forces *sattva, rajas* and *tamas*, which are thought to be the building blocks of nature. The term “*sattva*” has been derived from the root ‘*sat*’ which means “being” and is said to be difficult to be translated into English but it has been variously translated as lightness, illumination or intelligence-stuff (Dasgupta, 1922). The word “*rajas*” is derived from the root ‘*raj/ranj*’, meaning to be colored, affected, excited and charmed. It is the principle of movement or energy. *Tamas* (darkness) is said to refer to the principle of inertia or mass.
There are many observable manifestations of sattva, rajas and tamas in the physical and psychological aspects of a person.” (Sitamma, 2005).

“There is no English parallel that can be given for the Sanskrit term guna and thus it would be more appropriate to retain the original term and to understand it as referring to some fundamental component. According to Kulkarni (1972) the gunas may also be representing some basic forms of neural or neuro-chemical activity. As they constitute all mental and physical phenomena they vary along four dimensions. The gunas are believed to vary on four dimensions to be able to give rise to the immense diversity of both mental and physical phenomenon. They are: (i) intensity- they can be either strong or weak; (ii) dominant or recessive; (iii) active at different levels of operation – vishesha, avishesha, linga, or alinga: (iv) phenomenalization- what is phenomenalized through the gunas may be different from time to time. For instance, seeing or knowing, for sattva.” (Sitamma, 2005).

“The doctrine of gunas seems to have been taken up in other contexts also and its influence can be seen in the Puranas, the law books of Manu, Tantra and other philosophical traditions. Moreover, the concept seems to have remained in the Samkhya-Yoga tradition even into modern times. In the words of Raju (1962): “the doctrine of gunas became so important that the whole psychological ethics of India was based on it. Temperament, conduct, character, in short the very constitution of the human person was thought of as being constituted of the gunas” (p.232). The gunas are the active constituents of the psychophysical personality. All psychological processes seem to involve the interplay of the gunas. The gunas do not exemplify absolute states of being but seem to show the movement of continually interchanging forces in man, representing the different psychological dimensions of personality. Thus, all behavior appears to implicate the interplay of the gunas.” (Sitamma, 2005).

“In the Bhagavad-Gita the gunas are mainly used for ethical analysis, hence the terms goodness (for sattva), passion (for rajas) and dullness (for tamas) are used (Radhakrishnan, 1948). The Maitrayani Upanishad has explicit references to the gunas with the enumeration of their effects and explanation of their origins. The Charaka Samhita traces pleasure and pain to the harmony and disharmony of the elements and humors of the body (vayu, pitta and kapha –
air, bile and phlegm, respectively) and to the equipoise and disequilibrium of the *gunas* of the mind. *Charaka* divides human beings into three classes, based on the three *gunas* and further describes seven types of people in the *sattvic*, six types in the *rajasic* and three varieties in the *tamasic* group.” (Sitamma, 2005).

Sharma & Sharma (2007) state that in the *Swetaswatarar Upanishad* the existence of the whole universe is explained as constituted by *prakriti, maya* and its master, the almighty. *Maya* is supposed to be destructible while the *maheshwar* is eternal. The human species is unique, endowed with not only the mind and body (*maya*) but also the eternal ingredient known as soul (*atma*). Human development from birth to death or to another birth is governed by the soul, which carries the imprints of the actions of any human being. The birth and development of a person is decided not only biologically but also by one's ‘*karmas*’ (actions) imprinted on one's eternal ingredient (*atma*). As verse 11 of the *Swetaswatarar Upanishad* explains, one's personality is a result of the holistic self-development out of one's whole gamut of past *karmas* and present upbringing. For the holistic development of a person, Indian philosophy advises to observe *ashrama dharma* based on ten tenets. The present-day turmoil seen in different societies worldwide - whether in the form of terrorism, autocratic governance, social and economic disparities, pollution or climatic changes - can be curbed by observing a life based on Indian philosophy.

*Trigunas and their empirical studies from different schools of Indian thought:*

Researchers have studied the personality dynamics quite fondly through the years, and how personality has been understood from different schools of Indian thought like the perspective from the view of *Samkhya* metaphysics (Balodhi & Singh 1985); the *Vedic* understanding (Werner, 1978); and *Maharishi’s Vedic* psychology (Dillbeck, 1990); a discussion as to how personality theories can be constructed according to *Vedanta* (Paranjpe, 1988); traditional Indian personality concepts and the unrealized potential for a paradigm shift (Naidu, 1994); the probabilistic orientation of personality (Narayanan & Annalakshmi, 2001); personality, self and life events (Naidu, 2001); typological conceptions in ancient Indian thought in the classification of people/ personalities (Krishnan, 2002; Singh, J. K. 2007); the different personality types—both Indian and western (Deo & Kulkarni, 2004); Indian concepts of
personality (Dash and Rout, 2004; Mohan, J. 2005); the Indian concepts of self and personality
(Srivastava, 2004); the Indian approach to personality development (Vimala, 2004); personality,
organizational climate and job involvement (Elankumaran, 2004) are some of the empirical
researches into the study of personality and its dynamics.

Similarly, a yogic conception of personality (Jha, M.K. 2009); the concept of
personality developed in the Upanishads having an inbuilt mechanism to achieve real happiness
and peace (Rai & Dev, 2004) is another area of study.

Mind and its various workings and manifestations is also an area that has merited
attention. The aspects of mind in Indian philosophy (Rao, 2002b); Indian concepts of personality
and the higher levels of the mind (Srivastava 2002); the mind-mind problem and how it is not
possible to empty the mind of its thoughts (Sen, 2003); the Vedantic exploration of mind as
the object of the self (Mrinalini, 2004); an Indian theory of music and its impact on human
mind (Minhas, et.al., 2002); fundamental components of mind and consciousness, personality
and human temperament (Pathak, et.al. 1992) are some of the areas which have been studied.

The concept of different selves which is a concept unique to the Indian scenario has also
been explored with respect to Indian perspectives on self and identity (Varma, 2004).

The guna-dosha concept in Indian scriptures have been studied and the meaning of the
words in various Indian scriptures like the Vedas, Samkhya, Nyaya, Vaisheshika, Alamkara-
Sastra, Artha-Sastra, etc. have been traced and compared with each other (Bhattacharya, et.al.,
1999) along with how personality has been studied in Indian psychology (Jha, 2008).

The relation of the Trigunas with well being (Rastogi & Rastogi, 2009) is another
dimension that has been explored.

The gunas have been related to locus of control and taste preferences (Hopkins, 2002;
Venkataramaiah & Devaki, 1990); cognitive characteristics like memory, perceptual acuity,
intelligence, field dependence-independence, short-term memory, and attention-concentration
(Sitamma, Sridevi & Rao, 1995a; Sitamma & Rao, 1995b; Sitamma 1997); and the *gunas* have also been related to ESP (Rao & Harigopal, 1979; Sitamma & Rao, 1995b).

The *Bhagavad Gita* being an epitome of psycho-therapeutic concepts in context with Indian culture and the three basic attributes of personality have been discussed (Gupta, 1997; Dillbeck, 1983) and the *Gita* has also been studied with the purpose of gaining a sound understanding of the real nature of human personality and its development (Jayaswal, 1998).

The relevance of the *guna* theory in the congruence of eastern values and western management practices have been explored (Innes-Brown & Chatterjee, 1999); as also personal memory telling and personality development (Thorne, 2000); an attempt is also made to compare and contrast the description of personality types given in Indian and Western trait psychology with special reference to addictive personality (Deo & Kulkarni, 2002); a critical analysis of the *guna* concept has also been undertaken (Murthy & Kumar 2007); while *guna* being the three modes of nature have been explored (Cornelissen, personal communication) along with the soul force and the four fold personality (Cornelissen, personal communication); the psycho-dynamics of pursuit of excellence is efficiently explored as a movement towards expanding and refining four basic human endowments (Tripathi, 2007).

The contribution of Indian psycho-philosophy in understanding human psychological processes (e.g., cognition, emotion motivation, etc.), as well as the application of these insights in certain sub-fields of psychology (Mukhopadhyay, 2004) has also been explored. How indigenous personality research in India can be built tall on a solid foundation is discussed (Paranjpe, 2005) and directions for future researches are given; the study of personality research and its fascination for psychologists has also been a subject of interest (Shilpa & Murthy, 2008).

“From a psychological standpoint, the *trigunas* might be considered to be the three fundamental components of the human mind (Kulkarni, 1972), as the “tendencies exhibiting themselves at different levels of consciousness” (Pathak, 1932, p.110), as the three aspects of human temperament and personality (Boss, 1966; Parameswaran, 1969), or as a theory of individual differences (Paranjpe, 1988).” (Sitamma, 2005).
Psychometric tools on Indian concepts:

There have been various attempts by researchers to develop tools from these three methods of Pancha Kosas, Tridoshas and Trigunas to study and assess personality from the Indian perspective. The different studies and tools that have been taken up and developed from these three domains have been mentioned here.

The Trigunas and their manifestation, and their effect on the human mind and consequently on human behaviour are subjects that have attracted the attention of psychologists across the world with researchers not only from India, but from other countries too having studied it. Consequently, there are many tools that have been developed to study the play of the Trigunas on the human personality (Krishnamurthy, et.al. 1971; Mohan & Sandhu, 1986; Marutham, et.al. 1992, 1998; Pathak, Bhatt & Sharma, 1992; Mathew, 1995; and Wolf, 1998, 1999); gunas as predictors of workplace ethics (Bhal, & Debnath, 2004, 2006); and the Vedanta concept of personality development (Modh, personal communication). A projective-inventory method for personality assessment (Puhan, 1995) has also been attempted from the Indian perspective.

The well known and revered Indian epic, The Mahabharata has also been studied for its contribution to the understanding of human behaviour and dynamics based on which there has been a tool developed (Singh, 1971), while The Bhagavad Gita which is universally acknowledged as a classical text in understanding human personality and psychology by one and all also has been the basis for a good number of tools to be developed to study personality (Laxmibai, Murthy, & Nagalakshmi, 1975; Michael,1983, 1990; and Das, 1991).

Infant temperament from an Indian perspective has been studied by Kapur, M. et.al. (1997) which uses a previous tool developed by Marutham (1998) for its assessment; a shorter version of the tool developed by Pathak, Bhatt and Sharma (1992) was developed to study self concept and job satisfaction vis-à-vis the three gunas (Sharma, 1999); the IAS Rating scale developed by George V. Matthew was used to study the three gunas and psi experience and personality dimensions (Sebastian, & Mathew, 2002) and the tool developed by Pathak, Bhatt &
Sharma, (1992) was used in another study which delved into the trigunas and how they associated with psychological problems (Das & Venugopal, 2008).

The role of the three gunas among anxiety disorders (Velayudhan, et.al., 1998) and among patients with depression (Kumar, 2006) has also been looked into. In the same vein, the effect of chanting the Hare Krishna Maha Mantra to increase Sattva and decrease Rajas and Tamas (Wolf, 2000; and Wolf & Abell, 2003); the effects of Yoga, pranayama and thermal biofeedback techniques in the management of stress and high blood pressure (Latha & Kaliappan, 1991); and Yogic techniques which would promote mental health and alleviate mental and emotional distress (Kapur, 1994) was also explored.

A randomized control trial of the effect of yoga on gunas (personality) and health in normal healthy volunteers of both sexes has been conducted (Deshpande, S. et.al. 2008) and conclusions drawn. Transformational leadership is another area of study which utilizes the Indian concepts to address the issue from the domain of human resource management. The impact of Sattva and Rajas gunas on transformational leadership and karma yoga (Narayanan & Krishnan, 2003) is an area of study that has attracted a lot attention as evidenced by another study which considers the impact of Vedic world view and gunas on transformational leadership (Kejriwal, & Krishnan, 2004). In another study the impact of Svadharma orientation on transformational leadership and followers’ trust in leader (Preeti & Krishnan, 2005) is looked upon.

The impact of transformational leadership on followers’ duty orientation and spirituality has been studied and a scale developed to assess Karma Yoga—Sense of duty or obligation towards others (Krishnan, 2008) while Karma-Yoga, the Indian work ideal and its relationship with empathy was also studied and in this context a scale to assess Karma Yoga—absence of desire for rewards was developed (Mulla & Krishnan, 2006; 2008) was developed by the researchers.

**Psychometric properties of tools developed from the Indian milieu:**

From the above discussion it is evident that the tools that have been developed are either questionnaires with rating scales, or statements with three-category patterns of answering,
inventories or checklists. The number of items in the tools has been found in the range of 2-120. Some tests have triplet statements for each dimension that needs answering. These tools classify a person as belonging to sattva, rajas or tamas, by giving a single total score. Others give three different scores (a different one for sattva, rajas and tamas), and the person is said to be characterized by behaviour that is characteristic of the dominant guna. There could also be dual dominance of gunas.

Many of the studies do not mention the size of the samples studied and this is a drawback in analysis and understanding as also replicating the studies. They also do not mention other standardization details which are necessary for consideration. Further, the samples vary across occupations, cultures and lifestyles and other variables.

Some of the tests do not mention the reliability and validity of the scales. Some have reliability and validity, while some have only reliability or validity. One or two have also conducted regression analysis and statistical correlations. The validity of some questionnaires is established using some western personality scales and ratings from judges. According to Sitamma, (2005) some western personality inventories like the Eysenck’s Personality Inventory, do not consider the variety of behavioral aspects that the interplay of the gunas is supposed to regulate.

There is a need to develop tests based on Indian concepts using psychometric properties which can be used not only on Indian sample but also on others. Some of them could even be those which cross the barriers of language, race and cultures. The present researcher has attempted to do such a thing in a humble way.