

CHAPTER – IV

REVIEW OF SCIENTIFIC LITERATURE

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CHAPTER -IV

REVIEW OF SCIENTIFIC LITERATURE

4.1 MILE STONES IN PERSONALITY ASSESSMENT:

- In the years 1794-1796 Charles's Darwin's grandfather Erasmus Darwin and his friend Francis Galton suggested that disparities in all human individualities are imbedded in development, which became the initial point for modern personality study.
- During the year 1869, Francis Galton put a foundation for contemporary study of behaviour inheritances by publishing a book titled "Hereditary Genius". This book established that talent and success runs in families who have profuse talented people in their families' and must, therefore have natural basis.
- Karl Pearson (1896) was a Professor of Mathematics in the University college of London. He created a statistical index called correlation co-efficient.
- Charles Spearman (1904) who was also Professor of Mathematics in the University college of London developed factor analysis based on Karl Pearson correlation.⁴
- Raymond Cattel embraced factor analysis to study the structure of personality in 1933 and establish modern multivariate personality valuation.
- Allport and Odbert (1936) devised the word trait to describe the human behaviour. This became the source of five –factor- Model of Personality. (FFM)
- Raymend Cattel and Hans Eysenck (1950) constructed their first model of personality based on factor analysis.

- Gough (1957) published multivariate inventory of personality to find the outcomes of traits.
- Trupes and. Christal (1958) demonstrated that the personality can be fully explained by five general factors-and now accepted as five-factor Model of personality. This became the standard personality model.
- Barrick and Mount (1965) showed personality measure organized in five-factor Model of personality. This research became a useful in predicting the occupational performance of different range of jobs and industries.

4.2 RESEARCHES FROM WESTERN LITRATURE

Wilhelm Wundt of Germany in the year (1879), prepared a clear difference between human body and personality. According to him there are four outlooks; sanguine, phlegm, cholera and melancholy are four proportions of the human personality. He also originated the first psychology laboratory in Germany.

Francis Galton (1869), claimed that there are “measurable differences between individuals’ minds, thus hosting the idea of psychological testing.

Adicke (1879) conceived four different points of view to see the world. He categorised these four as traditional, innovative, doctrinaire and skeptical. German Philosopher Springer 1905 posited four approaches towards ethical values. He named those value insolences as artistic, religious, theoretic and economic.

Kretchmer, a German philosopher (1920), presented a theory of four personality styles. He assumed that people can be hypomanic, miserable, hyper aesthetic or anesthetic depending upon their character styles. Another German philosopher Erich Fromm penned that there are four human directions: exploitative, hoarding, receptive and marketing.

Two research scholars (1979), from University of Virginia, Cooper –Carolyn and Irenl Allen made a very systematic study on personality under the guidance of Dr. Curtes and Shell. The objectives of their study was

To find whether students who possessed similar scholastic aptitude score and similar grade points were in similar in personalities traits and

To find personality trait differences between four abilities. The abilities were 1) high ability and success 2) high ability and low success 3) low ability and high success 4) low ability and low success.

Findings of the study: 1) Personality's traits of students who possessed similar scholastic aptitude score was independent of similar grade point.

2) There was no relationship between personality trait and four abilities.

Haltz Mary Ann from University of Minnesota (1980) under the guidance of Peterson made a study on personality characteristics in their thesis titled "A comparison of the personality characteristics and background factors among women administrators in education, business and Government". The objective of study was to identify and analyse the personality traits and background factors which constituted and discriminated among women administrators in education, business and Government sectors. Six hundred women administrators in Minnesota were selected from 100 each from educational sectors, and business establishment and 400 from government office as sample.

Findings: The personality traits and background factors were independent of each administrative group.

Brian Forchner (1981) made study in the University of Ohio state, under the guidance of Dr. Riccio Anthony. The topic of research was "An analysis of personality characteristics of under-

graduate criminal justice major and their field counter parts. This study provided an understanding into the individual's personality characteristics and the varied job they perform. The sample for the study consisted of 45 students indicating police as a career preference, 45 indicating corrections as a career professional, 44 police cadets, 40 police officers. The study concluded that among the students, personality characteristics were found to be significantly different between under-graduate criminal justice major and their field counters parts (at the 05 level of significant).The other sample groups do not indicate any noticeable difference personality characteristics.

Allmoneliza in the University of Akron (1982), conducted a study on "Mentoring Relationships in organization behaviour and personality characteristics."

The study was designed to find out answer to three questions pertaining to behaviour and personal attribute influence that distinguish mentors from non-mentors and protégés from their un-mentored peers.

Results of the study put-forth comparative physiological profiles (physiological profiles drawn were from factor analysis) from the sample of 123 which indicated that the difference between mentored and non-mentored dyads is due to their behaviour than their personal attributes.

Researcher Aitken Margaret Folomof Pittsburgh University conducted a study on 120 freshmen, psychology students to study "Personality profile of college students who procrastinate". Focus of this study was to review the existing literature that has contribution towards understanding procrastination. Results of the study showed that students who procrastinate have low achievement motivation, an increased tendency to day dream and difficulty in concentration on whatever work they are doing.

Chi-Shun Liao (2009), led a study titled "An Empirical Study of Employee Job Involvement and Personality Traits" This study assumes an cohesive evaluation of earlier writings and theories concerning the Big Five personality behaviors and job immersion in an effort to classify their relationship, using questionnaire data collected from 272 employees. First-hand findings showed that neuroticism narrates adversely to employee job involvement, whereas gregariousness, openness, amicability, and meticulousness narrate positively to it.

Gatlin Kerry Polk and Lavra, (1982), in the University of Oklahoma, conducted a study on the topic of "An empirical study of the effect of back ground personality traits on the productivity of real estate sales personnel". This study had two major objectives firstly, to determine if there was a correlation between the performances of real estate sales personnel and selected back ground characteristics and personality traits. Second objective is to develop a model to predict the performance of real estate personal and the sales applicants. Sample size was 155 real estate and sales personnel. The result indicated difference in relationship between productively, background variables and personality traits. (as analyzed with the Maan Whitney U test, Z test and chi-square test were used.)

Sisny Erlianto et al.(1982), from the University of East Texas state, conducted study on "A study of vocational choice of male Indonesian college students as related to personality patterns."

The objective of the study was to determine whether a relationship existed between personality patterns and vocational choice sponsors. Also to identify if there is correlation between occupational daydream and the inter correlations between personality pattern and vocations.

Conclusions drawn from the paper were that inter correlation among Holland's six types were found to be indicative of the difference between vocational choice sponsors and personality trait was large. (the analysis followed was -chi-square test was used to find independence of attributes.

The personality correlation coefficient was used to compute the correlation among Holland's six types. Fisher Z transformation was used to convert the value of each correlation).

Schwartz Jan and Bruce Hall, (1982), in the university of South Florida, conducted a study on "Personality characteristics of college students planning to enter male and female dominated occupations." Each group was composed of an equal number of males and females. The female dominated occupational group has significantly higher means scores. A sample of students was drawn from University of South Florida who enrolled into graduate's courses, in the colleges of business administration and the college of education. Results of the study indicate that two occupational groups differed significantly on a linear combination of the 15 personality characteristics measured by the EPPS. Further analysis revealed the nurturance difference, abasement, dominance and change mode which were the greatest contribution of differentiation between two groups.

Wise Audery Mhureen and Chairs from University of Boston (1983), conducted a study on "Personality characteristics of student users and non-users of university counseling centers". The sample for the study was drawn from university users of counseling center (New research instrument (questionnaire), was specially designed, electing information about the socio-economic background of users and non-users of university counseling. The sample population was each divided between users and non-users all under graduates at Boston University.). Results show (Statistical inference was that there is significant difference in personality characteristics between the two groups.

Karl Otto Gotz and Karin Gotz, (1979), examined some personality traits of a group of professional performers by means of the Eysenck Personality Questionnaire. A sample of 337 painters and sculptors were sourced for the study. Analysis showed that male and female

respondents were lower on extraversion and higher on neuroticism. The male and female non-artists were nearly undistinguishable with their means on neuroticism being high.

Brent Roberts and Richard Robins, (2000), led a study to comprehend the relation between personality characters and key life goals, which are comprehensive, far-reaching outlines for significant life spheres. The research was driven with a respondent size of 672 individual's verdict on setting and establishing life goals. The resultant goal knots form a pilot nomenclature of motive units built on the essential value spheres recognized in the works.

Results from the study reinforced and endorsed the earlier researches on socio-analytic and narcissism theories.

Naijean Bernard et al. (2002) in their study linked to the impostor phenomenon (IP) to the Five-factor model of personality. The study sourced college students. Feedback was gathered on Clance Impostor Phenomenon Scale.

Outcomes of the study displayed correlation and regression analyses upkeep the projected associations of impostor measures with high Neuroticism and low Conscientiousness. Facet-level correlations presented that dejection and nervousness were mainly significant features of those with impostor spirits as well as low self-discipline and perceived capability.

Tomas Chamorro-Premuzic and Adrian Furnham, (2003), explored British university students (N=247) finished the NEO-PI-R personality inventory at the start of their course and acquired numerous written examinations during their three year degree. The results indicated significant correlations between a lesser number of these characters and academic achievement.

Hart Daniel et al.(2003), premeditated that personality concentrating on types of person defined by profiles of personalities is applied to childhood personality development with 28 diverse samples of 3, 4, 5, and 6 year olds, three personality types, labeled resilient, over controlled and

under controlled. The outcome presented that personality type was found to be a moderator of the connotation of head start involvement with cerebral development and behavior problem in childhood.

Leah Kaufmann and David Rawlings, August (2004) observed the role of personality and musical familiarities in determining tertiary musicians aims to become performers, assume music-related careers or non-music related careers. The outcome presented that noteworthy differences in participant's musical experience were found as a function of envisioned career and a differentiate function analysis was applied to observe these changes further and discovered Industriousness, Amicability, and significance of security projected goals to follow a performance career. Lastly, sustenance was found for the prominence of both personality and experiential factors in shaping students' career intentions.

Roberts et al., (2005), considered meta-analytic techniques to examine whether attribute stability exploits and alleviates at an exact period in the life sequence. From 152 longitudinal studies, 3,217 test-retest correlation coefficients were accumulated. Outcome evaluated the arbitrators of reliability displayed that the longitudinal time interval had an adverse relation to trait consistency and that temperament proportions were less consistent than adult personality characters.

Marc J. M. H. Delsing et al., (2008), in their study examined the Dutch adolescents' music preferences. The authors made an effort to understand - Stability of music inclination and the relation between Big-Five personality features. Outcomes showed that 1, 2 and 3-year intermissions, music inclinations were found to be steadily connected to personality features, normally endorsing earlier research in the United States and personality features were also establish to forecast deviations in music inclinations over a 3-year intermission.

Manju Mehta et al. July (2008), explored a comparative study of the personality patterns of SC, ST and non-backward higher secondary boys. For the study, on a sample of 600 rural and urban

male students of XI standard from Jaipur district belonging to SC, ST & non-backward classes , the Cattell's High School Personality Questionnaire (HSPQ), Form A by Kapoor, Srivastava and Srivastava was administered. Results revealed significant differences in personality patterns among SC, ST and non-backward boys. These differences were more prominent in rural areas in comparison to urban areas.

Carol Dweek (2008), scrutinized the personality and its adaptive functioning that could transform exclusive understanding into how personality and its functioning could be altered. The study engrossed on two categories of beliefs— beliefs about the pliability of self-attributes and prospects of social approval versus rejection. The outcome can be determined that central to the way in which people raft their understandings and take them forward, and that opinions should play a more fundamental role in the study of personality.

Leigh Wilks (2009), observed the substitute theories elucidating the level of personality modification over time. Personality was primarily hypothesized in terms temperament and traits, which showed predominant personality constancy throughout the lifetime. Regardless of high rank-order correlations of characters scores, depths of individual alterations and group mean traits scores exposed change over time. Beyond the possibility of temperament and traits, features such as evolutionary contrivances, characteristic versions, life descriptions, and culture also added to personality variation or constancy. Even though small deviations in personality surface across conditions; a considerable quantity of research reinforced the idea of continuing personality constancy over the life span.

Tomas Chamorro-Premuzic et al. (2009), conducted a study on personality and applications of music using SEM from 227 students of Malaysian university. The outcome presented that scrupulousness did not envisage use of music for emotional directive and Extraversion was positively rather than negatively linked with that usage of music.

Manuel Garcia-Sedeno et al., (2009) dogged the relationship between professional inclinations and personality traits was studied. The study based on these groupings, differences in 16PF-5 personality traits were examined and variances related with three first-order personality characters (warmth, dominance, and sensitivity), three second-order factors (extraversion, control, and independence), and some areas of professional interest (mechanical, arithmetical, artistic, and welfare) were recognized.

Geoff Luck et al., (2009), were undertaken a study to show whether personality traits were related to the way in which individuals progressed impulsively to music. The study employed a total of 20 respondents and was asked to move impulsively to a 12 bar blues classification, and their actions were pursued with an optical motion capture system. The outcome of the study showed trends were found in associations between personality traits and music-induced movement and neuroticism inclined to be correlated to jerky and accelerated movement, while both candidness to experience and thoughtfulness tended to be related to smoother movement whereas extroversion and conscientiousness, meanwhile, were related to greater speed of movement.

Stephanie Dudek et al., (2009), reviewed whether the 'Personality is a critical component in the progress and upkeep of commitment to occupation of art'. The result from the study showed that both artists who are loyal and casual presented a distinctive personality structure. Classically the casual performers were characterized by low self-esteem, a negative self-image, impaired motivation, low staying power and an incapability to identify a clear direction.

Stanley Marzolf and John H. Kirchner, (2010), directed a study using Sixteen Personality Factor Questionnaire (16PF). The result showed that a number of important but low correlations were identified between characteristics and traits but little alteration was found between the drawings apparently suggestive of commotion and the remaining drawings.

Virginia Bennett (2010) conducted a study on 'Personality to identify its graphic traits'. Based on the results of the study, achievement test scores accounted for 15.6 per cent of the variance between high achievement score student and the low achievement score student. The study recommended that the existence of the six variables might cautiously be used to categorize the drawer who may have had low achievement score resulting to lower self-concept.

Peter Vuust et al., (2010), examined into the relation between sensation seeking, a apparently distinctive personality trait, and career choice in classical and 'rhythmic' students at the schools of music in Denmark. The outcome presented that 'rhythmic' students had suggestively higher sensation seeking scores than classical students. The result could be also inferred that the higher level of anxiety is related only to stage performance in classical musicians but also a significance of differences in musical reviewing and performance practices of the two styles of music.

Malgorzata Kopacz, (2011), piloted a study and resolute how 'personality traits, as classified by Cattell, effect preferences concerning musical elements'. The respondents were sourced from different Polish universities. The result showed that some personality traits: Liveliness (Factor F), Social Boldness (Factor H), Vigilance (Factor L), Openness to Change (Factor Q1), Extraversion (a general factor) had an influence on likings regarding musical elements and important in the subjects' musical preferences were found to be those musical elements having simulative value and the capability to govern the necessity for stimulation.

Brown, January (2012), conducted a research outside of the European– North American cultural area concerning the personality-based determinants of musical genre preferences. Results of the study indicated that openness (to experience) and particularly the facet of "aesthetic appreciation" were related with a preference for "reflective" music, while one extraversion facet (sociability) was associated with the preference for pop music and other personality dimensions were less consistently associated with musical preferences.

Langmever et al., (2012), conducted a study to examine the relationship between music preferences and personality. The result showed that relationship between music preferences and personality of individuals are open to experience. Preference for music is either reflective or complex. Introverts dislike upbeat and conventional types of music, whereas Extroverts, favor upbeat and conventional and energetic and rhythmic types of music.

Benjezana Dobrota and Ina Reic Ercegovac, (2014), accompanied a study which observed the relationship between music preferences of different mode and tempo and personality traits and measuring Big Five personality traits. The study results indicated that female in comparison to male students reported a higher degree of music preferences, regardless of tempo and mode, while the male and female presented a higher degree of inclination for musical fragments in the fast tempo and major key.

Ana Butkovic et al., (2015), conducted a study that explored personality related traits such as openness, motivation and flow proneness, IQ potential as predictors of music practice. The outcomes directed that IQ and intrinsic motivation became non-significant in the full personality trait association model. It was inferred that music as a specific flow was the toughest predictor of music practices. The two other personality traits that is openness and music flow presented relationship with music practice were mostly due to collective genetic influences with some supplementary non-shared environmental influences.

Frank Bakker (1988), studied the leisure activities, interests and personality traits of young dancers, spending about 15 hours weekly on classical and modern ballet education. The results of the study showed that leisure activities and interests of dancers varied only slightly from those of non-dancers. Change between dancers and non-dancers of both age groups was seen particularly on personality traits as self-concept and self-esteem where dancers were low on this trait than the non-dancers.

Linda Hamilton et al., (1989), conducted a study amongst soloist and principal dancers from America's two most celebrated ballet companies by administering questionnaires measuring personality (API), occupational stress (OES), strain (PSQ), and coping mechanisms (PRQ), and injury patterns. The results of the study indicated that male dancers established significantly more negative personality traits and psychological distress than female dancers.

Frank Bakker, (1991), investigated young female classical and modern ballet dancers for their temperamental and motivational traits. The results from the study confirmed that typical personality profile of dancers, as introverts, relatively high on emotionality, strongly achievement motivation and exhibiting less favorable self-attitudes.

Anders Ericsson et al., (1993) explained expert performance as the end result of individuals' prolonged efforts to improve performance while negotiating motivational and external constraints. Individual differences, even among elite performers, were closely related to assess amounts of deliberate practice. Many features once believed to replicate innate talent were actually the result of intense practice extended for a minimum of 10 years and examination of expert enactment provides unique evidence on the potential and limits of extreme environmental adaptation and learning.

John Slobodan et al.(1996) conducted a study to determine whether there exists a strong relationship between musical achievement and the amount of formal practice undertaken. The study showed that a strong relationship between musical achievement and the amount of formal practice also weaker relationships were discovered between achievement and amount of informal playing.

Gerra et al., (1998), investigated the possible combination of emotional and endocrine changes in response to techno-music and to define personality variables as predictors of respective changes. The outcome displayed that listening to techno-music persuaded changes in neurotransmitters,

peptides and hormonal reactions, related to mental state and emotional involvement: It was concluded that personality traits and temperament may influence the wide inter-individual variability in response to music.

4.3 PERSONALITY STUDY FROM INDIAN LITERATURE

Personality is principally understood by three major areas in Indian Philosophy They are 1) *Pañca Kośa*, 2) *Triguṇas* and 3) *Tridoṣa*. The *Tridoṣa* and the *Triguṇa* are both made up of the *Pañca Mahā Bhūtas* in changing blends and degrees.

The first area is that of understanding the person from the view point of the *Pañca Kośas*, which is given in the *Taittirīya Upaniṣad*. This is the first reference to the study of human personality from the Indian psycho-philosophical point of view.

The second sphere is that of understanding personality from the *Sāṃkhya* principles of *Pañca Mahābhūtas*—which is mutual to all *Darśanas* of Indian Philosophy—wherein the personality is said to be a configuration of the five “elements” they are Ether/ Sky, Air, Fire, Water, and Earth. The Sanskrit counterparts of these names are *Ākāśa*, *Vāyu*, *Agni*, *Ap* and *Pr̥thvī* respectively. These five elements combine with each other to form the *Tridoṣa*—the physiological traits of *Vāta*, *Pitta* and *Kapha* which give every human being the exclusive characteristics and shapes his behavior.

The third sphere is that of accepting personality from the view point of the *Triguṇa* which is the psychological characteristics that are accountable for the manifestation and behavior and types of human personality, comprising of *Sattva*, *Rajas* and *Tamas*. *Sattva*, *Rajas* and *Tamas* too are collection of the *Pañca Mahābhūtas* of *Ākāśa*, *Vāyu*, *Agni*, *Ap* and *Pr̥thvī*, in changing blends and degrees. These *Triguṇas* are again common psychological depiction of human behaviour through all the orthodox Indian traditional systems of Philosophy.

The *Mahābhārata* is also considered for understanding of human behaviour (Singh, 1971), while The *Bhagavad Gīta* which is globally recognized as an established text in understanding human personality and psychology (Laxmibai, Murthy, & Nagalakshmi, 1975; Michael, 1983, 1990; and Das, 1991).

The concept of *Triguṇa* has attracted researchers to develop theories and models of human personality. In India too attempts have been made to develop indigenous theories and model based on *Vedas, Upaniṣads, The Bhagavad-Gīta* and other Philosophical Texts.

Chintan Betal (2015), made an investigation to find whether *Triguṇa* has any role in forming different personality pattern. The research led to the conclusion that *guṇa* effects behavioral pattern within the individual and there by develops an individual's personality characteristics. When *Sattva* is predominant, one's intellect works steadily and exhibits fearlessness, calm and compassionate to others. When *Rajas* is predominant one tries to satisfy his desires. When *Tamas* is predominant he displays the characteristics of ignorance and delusiveness.

Kishan, (2002), made a study on *guṇas*. He observed different kinds of temperament of people based on the dominance of one *guṇa* over other *guṇas*. This difference he observed by observing the food consumed and other activities in daily life.

Eberth, (2012), in his research found out that when *Sattvagūṇa* predominates, the individual has self-control and all his actions are focused for universal good. Meditation will be his virtues.

Jude et.al (2013), discussed the concept of *Triguṇa*, characteristics of success personality and challenges in *Triguṇa* research and setup eight guidelines for further research.

“The Perspective of personality” by Khanna Pulkit et.al, (2015) made a three dimensional classification on trigon, involving physical, mental and spiritual components of personality and their relationship with *Triguṇa* and well-being such as personality, satisfaction and happiness. The

results of the study showed that *Sattva* is positive correlated with well-being. Higher level of *Sattva* and wellbeing were described in older age groups, males scored higher on *Rajas* while no gender difference were found in well-being.

Das, (1975), made a study on concept of personality as found in *Sāṃkhya* philosophy and *Gīta*, using analytic and synthetic method. The study revealed 1) personality is psycho-physical construct of nature, having a self or sprit as inherent principle of consciences. 2) The personality has two aspects, the conscious and unconscious. The first is principle of knowledge and second is the principle of activity. The study concludes that *Sāṃkhya Karika* and *Gīta* mainly stressed the training of will or intellect so as to function according to the principle of reason and to avoid the forces of restless and ignorance.

Mutha (1980) made a study on “An Attitudinal-Personality Study of Effective Teachers”. She has constructed a test to measure *Triguṇa* and compared the personality of individuals in terms of *Triguṇa* and verified the scores of a person on *Triguṇa* in light of his or her personal qualities. Description of *Triguṇa* as given in *Bhagavad-Gīta* was referred. The findings of the study were the teacher with high *sattvic guṇa* were more effective teachers. The effectiveness of teaching was independent of sex, professional training, educational qualification and income. The teachers with high *Rajasic* score demonstrated anxiety and less job satisfaction.

Nikumba Ravindra (2003) published a research article “Role of *Yoga* Training for Behavioral Modification of prisoners, Common men, and women”. The sample included 25 prisoners, 25 men and 25 women. All of them were given 1 hour *Yoga* training. The study yielded the following result.

- Confidence of the respondents was increased.
- Feelings, hatredness, jealousy and revenge considerably reduced.

- The general feeling of friendship and goodwill for one another increased.

Pattak et.al (1992), studied the inter dependency of *Sattva*, *rajo* and *tamo guṇa*. They developed percentile scale and categorized *guṇa* into *Sattva*, *Rajas* and *Tamas*. The results revealed that there is no correlation among the three *guṇas*. Thus characteristics of each *guṇa* were different.

Mathew (1995), viewed *Triguṇa* as broad behavioral tendencies or personality components. Based on this SRT inventory was developed.

Santosh Kumar Yadav et.al (2016), in their study to find out co-relation between *Tri-Guṇa* factors of personality and risk taking behavior among undergraduate students. A sample comprising 94 males and 94 females were considered for the study. Findings of the study are-

Sattvic personality and risk-taking behavior are not correlated to each other significantly.

Rajasic personality and risk-taking behavior are not correlated to each other significantly

Tamasic personality and risk-taking behavior was not correlated with male students considerably but female students showed a significant positive correlation.

Nisha Arora (2015) made a study on SRT factors and coping strategies among women. Both working and non-working women were considered for the study. The study results indicated that predominant coping strategies in *sattvik* women were problem solving and cognitive restructuring in both working and non-working women. In *Rajasic* women, the predominant coping strategies was as cognitive restructuring in working while non-working it was problem solving.

Marutham et al (1998) conceptualized *guṇa* in terms of temperament and personality. The inventory was built on the basis of *Sāṃkhya Kārikā* and *Bhagavad-Gīta*. The study is explorative in nature and attempted to examine the correlates of three *guṇa* with personality measures of

modern psychology. The study revealed correlations between *Sattva* and *Rajas* and *Sattva* and *Tamas* are significant though not high.

Shilpa et al (2012), have attempted to integrate Physical *Tridoṣas* and Psychological *Triguṇas* so as to assess the trait and types of personality. The research institutes the traits as described in Indian literature and recognizes the characteristics traits of 16 classical personality types and compare people to identify the personality type of the person. The finding of the research is that *Triguṇa* along with *Tridoṣas* (*Vāta*, *Pitta* and *kapha*) as stated in Ayurveda literature and other ancient Indian works can give a working of human behavior and mind in detail. The authors were able to establish that, it is possible to group people based on their physical characteristics and able to forecast their psychological appearances.

Studies to investigate the effects of *Triguṇa* on the psychological composition of an individual was highlighted in the study by Pathak (1932), Akhilamanda, (1948), Dwivedi (1967), Phukar1960, Rao1962) Following these studies several studies made an effort to investigate personality types (Sharma, Gupta and Mitra(1965). Their work has been described by Gupta (1977). Item analysis discovered that the two items which were not perceptible between high and low scores, which were therefore dropped. Reliability test revealed a correlation of 0.617. A test using modern methods of calibration aimed at explanation of factor analysis is related to empirically validate these sixteen personality types.

The thought of *guṇa* is likewise appropriate to cognitive characteristics. Bhagavān Das (1955) explained an interaction theory of *guṇa* which expresses of their influence on various cognitive processes. A person with a *sattvic* outlook on life will have a nonfigurative memory, realistic and right perceptions and productive and abstract thinking. A person in whom the *Rajoguṇa* dominates will have a solid memory, ego involved perception dispersed thinking and imagination .In divergence a *Tamasic* person would have loss of memory, disturbed perceptions and confused

thinking. However, the first inventory to rate personality in terms of the three *guṇa* was developed by Parameswaran (1969) and Uma, Lakshmi and Parameswaran (1971). Their study measured the *guṇas* as independent dimensions and any interactions between them or even a predominance of one over the other *guṇa* was not observed. They validated their inventory against the criterion of Neymann-Kohlasted test of introversion and extroversion. Parameswaran found that the person who scored high on *sattvic* dimensions inclined to be introvert, while those counting high on *Rajasic* dimensions were extroverts.

Singh (1971) after inspecting the nature of the *guṇas* in various Indian philosophical literature has offered the features in relation to different classes such as temperamental condition, beliefs, attitude, values and cognition. The *sattvic* people demonstrated fully developed awareness very clear perceptions and cognitions abstract thinking and intuition. *Rajasic* people presented a developed awareness strident perceptions, clear cognitions, factual and tangible thinking with an importance on direct knowledge. Whereas people with *Tamasic* nature showed uncertain in awareness, false beliefs, illusion, distorted, feeble or defective memory and poor attention.

A study built on *Sāṃkhya* theory of human personality was led by Lakṣmi bai, et al, (1975), in order to test for the presence of *Sattvic*, *Rajasic* and *Tamasic* factors 30 normal 15 neurotics and 15 psychotics were sourced for the study. The results of the study demonstrated that *Rajasic* and *Tamasic* were considerably greater in the patient groups especially the psychotics than in the normal. Behavioral keys for *Rajas* and *Tamas* appear to be binding as they distinguish clinical conceptions considerably.

Rao et al, (1979) investigated the affiliation between three *guṇas* and ESP (Extra sensory perception). The study results indicated that a significant negative correlation between ESP scores and *Tamasic* person.

The elementary aspect of human personality is studied and inferred in the light of current knowledge and thoughtful by Dube, Kumar and Dube in (1983). The configuration of mind developed in *Sāṃkhya* philosophy is elucidated and its parallelism with the Freudian approach is brought out. The seminal influence in the growth of the mental composition of an individual are defined. An effort is made to validate close resemblance amongst Ayurvedan and Lewin's field (Gestalt) theories.

Chakraoborthy(1988), in his study on personality based on *Sāṃkhya Kārikā* and *Bhagavad Gīta* has mentioned *Guṇas* are properties or modes or influences of matter, including mind. *Guṇas* consists of *Sattva* as substance attribute of purity and illumination, *Rajas* as substance attribute of activity and attachment and *Tamas* as the substance attribute of indolence and delusion.

According to Mathew (2001), man's personality is constituted of both subtle and material (gross body) aspects. Mind is the outcome of the subtle awareness of these aspects of personality and is a band of vibrations. Each mind (an individual) has its own average unique vibration with constituent vibrations or sub frequencies, the combination of which gives a unique quality to that mind.

Murthy, et al in (2007) attempts to develop personality inventories and relate *Guṇas* to psychological constructs prevalent in modern psychology are briefly reviewed. The paper further analyses these attempts critically and endeavors to clarify the concept *Guṇa* based on etymology and exhaustive indigenous literature survey. A conceptual synthesis is arrived at taking into account the traditional textual interpretations and the interpretation of the psychologists.

Pulkit Khan et al in their study on "Relationship between *Triguṇa* theory and well-being indicators" aimed to inspect the relationship between *guṇas* and well-being indicators such as psychological capital, personality, life satisfaction and subjective happiness. The study was administered to two samples. Vedic personality Inventory and Mental Health Continuum-Short

Form (2) were administered to both the samples. The sample-1 were administered Psychological Capital Questionnaire and Big- Five Personality inventory. The second group were administered Satisfaction with Life Scale and subjective Happiness scale. Both the sample showed that high level *Sattva* was found to be positively correlated with well beings. *Tamas* and *Rajas* were negatively correlated with well-being. High levels of *Sattva* and well-beings were described in the older age- groups. Male counted higher on *Rajas* while no gender alteration was found in well-being.

Kiran Kumar et al made an effort to understand the relationship between *Triguṇa* and five factor model of personality. Correlations were computed among and between the *guṇas* of VPI and five domains of personality of NEO-FFI-R by applying product moment method of correlation. *Sattva Guṇa* was negatively correlated with *Tamo Guṇa* and neuroticism. *Sattva Guṇa* has marked significant positive relationship with extroversion, openness, agreeableness, and conscientiousness. *Rajōguṇa* yielded positive relationship with *Tamogūṇa*. *Rajōguṇa* negatively correlated with extroversion, agreeableness and conscientiousness. *Tamas* was positively correlated with neuroticism and negatively associated with extroversion openness, agreeableness and conscientiousness.

Tissy Mariam Thomas et al, (2013) conducted a study to identify as to what makes organization excellence and success. Based on the descriptive analysis, the following four types of personalities were identified: *Sattvic*, *Rajasic*, *Sattvic-Rajasic*, and *Sattvic-Tamasic* personalities. The study indicated that *Sattvic* personality performance is superior to other personalities, and correspondingly the results on creativity scale show that all personality groups have an impulse to be creative, but managers with *Sattvic* personality are able to exhibit their creative abilities very exceptionally than other groups, thus showing their balance and harmony of mind and soul.

Satish Modh (2016), conducted a study on conflict analysis and resolution. The study established new three energy basis of personality for conflict analysis and resolution. This structure is based on the '*guṇa*' component of *Bhagavad Gīta*, an ancient Hindu scripture. The term '*guṇa*' used here specifies the 'inherent energy' with which the human mind functions. These three energies are: Positive Energy (*Sattva*), Dynamic Energy (*Rajas*) and Potential Energy (*Tamas*). The quality and quantity of these experiences governs their personality, pattern of behaviors and conduct.

Dechen Chhomo et al (2017) made an effort to study relation between personality and spirituality. The author employed *guṇa* theory and Five Factor Model of personality for the proposed study. The results proposed that spirituality and personality are related in a multidimensional manner. *Tamo-guṇa* and Neuroticism have negative relationship with spirituality. Personality traits such as Extroversion, Openness to experience, Conscientiousness and Agreeableness and *Sattvagūṇa* displayed strong relationship. *Sattvic* people were prone more to spirituality.

Suchitra Patil et al, (2014) studied the “Effect of *Yoga* Personality Development Camp on the *Triguṇa* in Children”. Experimental group children practiced Integral *Yoga* module including *Āsanas*, *prāṇayama*, *Vedic*, chanting, and games. Control group children were under daily routine. Śuśruta Child personality inventory was administered before and after 10 days. Mann-Whitney U test and Wilcoxon Signed Ranks Test were applied. The results were *Sattva* increased significantly for experimental group, while *Rajas* and *Tamas* decreased significantly in them as compared to the control group *Tamas*

Tungalag Dondogdorj (2008), made a study to find the relation among Anger, *Triguṇa*, *Tridoṣa*, Irrational beliefs and physical and mental health. The sample comprised of 250 students between the group 20 to 25 years (131 males and 119 females). These students were studying in various colleges and universities in Pune. The students included from different streams of Arts,

Commerce, Humanities, Engineering, Management, Architecture, Social and Medical Sciences were considered.

The conclusions drawn from the study were: 1. *Sattva* personality group showed lower anger and irrational beliefs compared to *Rajas* and *Tamas* personality groups.

2. *Sattvic* personality group showed better physical and mental health than *Rajas* and *Tamas* personality groups.

3. *Rajasic* personality group showed higher anger and had lower physical health.

4. *Kapha* constitution group showed lower anger compared to *vata* and *pitta* constitution groups.

5. *Kapha* and *pitta* constitution groups did not differ on irrational beliefs, physical and mental health.

Summary:

From the analysis of above research articles, we understand that Western psychological concepts are based on theories, some of them align to the Indian understanding of the person. It is difficult to understand the person by the Indian philosophical concept of Western concept. Most of the personality studies conducted in India are based on the Western concepts, and hence, may not get a comprehensive view of the person as stated in the Indian concepts.

On the other hand, researchers conducted on Indian Concepts of psychology are considerably low which can be gauged from the published papers and articles in the Indian journals. Another reason for the neglect of Indian concepts could be due to its strong link to spirituality. After the Cartesian division of the world into material and mental substances, it is difficult to conceive spiritual dimension in connection to material substances. As a result, Western science focused on the material and mental domains, leaving aside the spiritual domains. Therefore the concept of mind, conscience and spirituality which forms the fundamental characteristics of personality has been sidelined by the science of psychology.

The spiritual dimension is the central theme of different schools of Indian philosophical psychology which is well integrated with the lives of majority of people in India. The other reason of sidelining the Indian psychology for the personality study is its strong identification with religion.

Several psychotherapists have expressed the need for exploring the concepts from Indian philosophical texts and bring these concepts for scientific investigation. Scientific study of the theoretical concepts of Indian thought through different existing methods, or developing new methodology, would turn the impasse in understanding the personality in greater detail.

Our mind is a bundle of thoughts. These thoughts are composed of three types of *gunas* (*Triguna*). They are *Satva*, *Rajas* and *Tamas*. The *Triguna* concept dealt in Indian scriptures gives

clear understanding of human behavior. Therefore Indian concept of *Triguṇa* has attracted the attention of psychologists both in India and abroad for developing theories and models of human behavior and personality.

Several scholars of Indian and Western psychology have worked scientifically to establish personality theory based on three *guṇas*, namely *Sattva*, *Rajas* and *Tamas*. *Guṇa* refers to some characteristic quality, responsible for specific behavior expressed by the individual. There are questionnaires for categorization of personality based on *guṇas*. Like any other topology, *guṇa* type theory of personality assumes that people are either *Sattvic*, *Rajasic*, *Tamasic*, whereas the literature also accepts that personality categories based on these *guṇas*.