Development And Standardization Of Mysore *Triguna* Scale—Advanced

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ABSTRACT

The authors have developed Mysore Triguna Scale--Advanced to assess Trigunas i.e. Sattva, Rajas and Tamas. The Trigunas are composed of the Pancha Mahabhutas, but one or the other Guna is dominant singularly or in combination. There can never be a state when one or the other PanchaMahabhutas and consequently the Trigunas are absent totally. One or the other guna is in dominance and is responsible for the behaviour expressed by an individual. The present authors have tried to validate the same in psychology, taking into account the descriptions as delineated in Indian tradition and classical textual scriptures. This is an addendum to the Mysore Triguna Scale and is not a stand-alone scale. This scale needs to be read and used in conjunction with the main Mysore Triguna scale. The psychometric properties of the present scale are presented here.

Key words: Personality assessment, *Triguna, Sattva, Rajas, Tamas*

INTRODUCTION

Roots of Psychology in India

Psychology as an organized science was studied in ancient India under the purview of human medicine which has extensive roots right from Vedic times. But understanding, classifications, methodologies, characterization, typology, etc., of human behaviour—incorporating body, mind and soul has been a corner stone of the Indian medical system, which has a significant segment on psychological aspects of human behaviour though it is not detailed under the name of "Psychology". The coining of the term is a relatively recent phenomenon compared to the medical tradition. Even though Psychology *per se* was not studied, one of the essential thoughts that burned at stalwarts of Indian intellectual traditions were: who is the person?, how does he think?, what is thinking?, what is seeing?, what is the mind?, what is it made up of? These and many more questions that delve into a person's psyche was of utmost importance to our seers and sages. These have led to immense bodies of knowledge, which are spiritual, technical, practical and empirical, which is yet to be explored and disseminated even to this day. "Indian psychology is a complex subject variously

viewed as esoteric and spiritual, philosophical and speculative, practical and ritualistic, and of course, as we believe, systematic and scientific understanding of human nature. There is truth in all these characterizations" (Rao, Paranjpe,& Dalal, 2008,p. xvii). Indian psychology can also mean the psychology practiced by psychologists in India, but is not restricted to this, though this is what people think it ismost times. Though psychology studied in Indian colleges and universities is western in nature, there are now some universities which offer a basic course on Indian psychology.

Shilpa & Murthy (2011a) opine that personality has always captured the attention of psychologists in the past, which has influenced Indian Psychology too. They opine that personality is studied and understood with reference totwo systems in Indian traditions. One is the biological system and the other is the psychological system. "The biological system is set forth and understood by the medical texts and scriptures like *Ayurveda,* which have very specific ways of understanding health and ill-health and how it is to be treated. These texts are very descriptive and exhaustive, where *Ayurveda* is considered to be a part of the *AtharvaVeda.* These rely heavily on the *Pancha Mahabhutas*, their combinations

yielding to the biological humors of*Tridoshas—Vata, Pitta* and *Kapha*and their psychological correlates of *Trigunas—Sattva, Rajas* and *Tamas*, to explain the body, the mind, their constituents and corresponding behavior patterns including the spiritual aspect involved"(Shilpa & Murthy, 2011a).

Study of Personality in India:

While *Charaka* and *Susruta* have enumerated the different psychological typologies that people can be classified under in addition to an exhaustive description of the *Tridosha*s, their balanced states and consequences of the imbalances, they have not gone into as minute detailswith regard to the *Trigunas*, as they have done with *Tridoshas*. It is to be noted here that the *Tridoshas* or the physiological humors and the*Trigunas* are fundamental constituents of *Prakriti* as enunciated in *Samkhya-Yoga* system of philosophy.The composition of both are the same, but their action and influence are on different systems that operate on man— the physical-physiological (*Tridoshas*) and the psychological (*Trigunas*). Each has their own actions, methodology of behaviour, and categorization, which is unique and one cannot replace the other, though all six of them act in tandem and one cannot exist without the other. All six of them are present in all beings at all

times, only the combinations and dominations aredifferent.(Sharma, 1981; Sharma, 2004; Murthy, 2007a and 2007b)

Shilpa & Murthy (2012a) state that "the *Ayurvedic* concepts of *Tridosha* and *Triguna* are well delineated and appear to be a consolidation of the concepts that have been borrowed from the other schools of thought or rather *Darsanas.* Even so,there is no coherent consolidation of the different aspects of personality from the various sources of Indian philosophical systems. Admittedly the Indian literary corpus is a vast ocean—of systems, philosophies, schools of thought, literary influences, artistic influences and what not. But the commonality in each of them is there to be found. The characteristics of man or the *Lakshanas* of great men as *Varaha Mihira* puts it in his *Brhat Samhita*, which is an extension of his *Brhat Jataka* is one such example. In the same way, each of the different sources of India, be it the *Vedas*, the *Upanisads*, the *Bhagavad Gita*, the *Mahabharata*, the *Nirukta*, the *Puranas, Samkhya* and *Yoga*to name a few, all have interpretations of the different characteristics of how people are to be assessed and understood to be of different kinds. Psychology as a field, of human understanding, which is the main focus of Psychology would be enriched as a consequence of studying the nature or psyche of man through this elemental method of scientific and ancient tradition which is a treasure trove of psychological concepts which are waiting to be tapped".

"According to *Ayurveda*, the human body (the physical entity) is composed of three fundamental categories called *Doshas, Dhatus and Malas.* The *doshas* are three in number, the *dhatus* are seven, and the *malas* are three. The three *Doshas (Tridoshas)* are *Vata, Pitta and Kapha*. Their psychological correlates which play a role in the functioning and behavior of humans is the *Trigunas— Sattva, Rajas and Tamas.* These psychological attributes are not restricted or confined to humans alone, but are also attributed to almost all living beings including the food we eat, and all other elements in the environment we live in, which are said to have a predominance of one or the other characteristic *guna/ Prakriti* which gives that matter its unique quality"(Shilpa & Murthy, 2011b).

Background information about the study:

This paper consists of the standardization procedure that was undertaken by the authors while developing a scale to assess personality of people based on *Trigunas.* This scale is the Adavanced scale of *Triguna* scale, but it is

not a stand-alone scale and is an adjunct to the main Mysore *Triguna* scale.

There are 189 Traits (common for both the physical and psychological aspect, hence there are 189 physical or VPK traits and 189 psychological or SRT traits) that have been identified which comprises the gamut of human behaviour. They are 100 *Sattva* traits, 60 *Rajas* traits and 29 *Tamas* traits. Based on answers 189 traits can be measured. (The answers are re-arranged in a pre-determined combination which yields the 189 VPK and SRT traits). The raw scores for each of the 189 VPK +189 SRT traits are calculated and converted to Stanine scores. The interpretations for the Stanine scores are also delineated. This comprises the second level analysis.

The same 189 VPK + 189 SRT trait raw scores are added to give one consolidated score. Then these 189 traits are again combined in a set logic, wherein each trait is a characteristic behaviour exhibited by one (or more) of the 16 Classical Personality Types (16 CPT) as delineated in classical texts and Ayurvedic texts. So these 189 traits are all characteristics of these principal 16 CPT (these personalities too can be combined to give various combinations, to understand and classify people). This comprises the third level of analysis.

Every individual, though answers three scales, the answers undergoes three different levels of analyses. After these analyses, the unique and specific *Tridosha* and *Triguna* combination of the person is tabulated and salient characteristics mentioned. Next his/her scores and interpretations for the 189 Traits (both physical as well as psychological) are delineated. Next he is compared to the 16 CPT—both raw scores as well as Stanines are tabulated. Additionally, the percentage of each of the 16 CPT is also calculated. This calculation happens in three different aspects of *Sattva* types, *Rajas* types and *Tamas* types of personality and their relative dominance in each individual. This details the dominance of each category of personality in the individual and can be compared with the first level analysis for a further reinforcement of combinations of *Trigunas* in people. Because the VPK as well as SRT answers are encrypted in the 16 CPT analysis, there is no question of faking, social desirability index, etc., which are commonly thought to have effect on answers, as all raw scores are also converted to Stanine and also because each and every answer the individual gives is also rated by him/her self.

Even though some of the *Tamoguna* items would incur social desirability answers thereby leading

people to answer in ideal scenarios, the authors noticed that it did not really have much impact. This is because, based on the answers the person gave, and the different levels of analyses that were conducted both analyses at the first level and the third level matched.

Inter-correlation of VPK and SRT was also undertaken based on the answers obtained. The inter-correlations were found to follow the same pattern as delineated in Ayurvedic texts (with some minor changes).Shilpa & Murthy (2012b) conclude that "the *Ayurvedic* literature does indicate and state that the *Tridoshas* (VPK) are physical and that the *Trigunas* (SRT) are psychological aspects of human beings. *Ayurveda* also states that the body, mind and the *Atma* are like a tripod in beings, especially the humans. Hence, they both are significantly related….. Hence the Cartesian dichotomy of the body and the mind is negated while establishing the total inter-relatedness of the body and the mind. What affects the body effects the mind and vice versa. They both are indivisible parts of a whole and need to be studied in tandem and in relation with one another. Studying one without the other will not give us a true and clear understanding and picture of a person as a whole. Hence we can conclude that the *Tridoshas* and *Trigunas* are inter-related.

This also empirically validates the interaction of physical and psychological aspects of personality."

Development of Mysore Triguna Scale— Advanced

In this paper, it is attempted to describe the test construction and its standardization procedures andresults that were obtained for the development of the scale based on *Trigunas*, their permutation and combination and relative domination in personality assessment. This scale will hereafter be referred to as Mysore *Triguna* Scale- Advanced.

Information about the *Pancha Mahabhutas* and *Trigunas* was collected from various sources of Indian Philosophy, ancient texts and all other material related to Psychology from an Indian perspective. These texts and scriptures include the *Vedas, Upanishads, Mimamsa Sutras, Samkhya, Yoga Sutras of Patanjali, Yoga Vasistha of Valmiki,* Seventeen *Maha Puranas* (the researcher was unable to find one *Maha Purana* which was out of print), Five *Upa-Puranas*, *Srimad Ramayana of Valmiki, Mahabharata, Shrimad Bhagavad Gita, Dharmashastras, Ayurveda*, Encyclopedia of Indian Medicines, *Nighantu* and *Nirukta*, *Bhaktirasamrta Bindu of Rupa Goswamin, Natya Sastra of Bharata,*

Iswara Samhita, Manu Smriti, Brhad Devata, Elements of Hindu Iconography, to name a few.

In the Indian Psychological literature, *Guna* theory is already empirically tested and accepted (Murthy& Kumar, 2007).Each *guna* gives certain characteristic qualities to the person, based on which an individual can be classified as belonging to that particular *guna* type. *Charaka* and *Susruta* recognize seven types or categories into which people can be classified, depending on the dominance of the *gunas* in their body. They are said to belong to a particular *guna* combination, as follows:

1. People with dominant *Sattva Guna.*
2. People with dominant *Rajas Guna.*
3. People with dominant *Tamas Guna.*
4. People with dominant *Sattva-Rajas Guna* combination.
5. People with dominant *Sattva-Tamas Guna* combination.
6. People with dominant *Rajas-Tamas Guna* combination.
7. People with balanced *gunas* or with *Sattva-Rajas-Tamas Guna* combination.

On observing this above mentioned classification that can be used for categorizing people, we can confidently say that there can never be a state when either one or two of the *gunas* are absent in any person at any point of time what-so-ever. Hence all people are only combinations of these three *gunas* in varying combinations and permutations. Depending on the circumstances, the dominance of the *gunas* are changing, but in relatively small quantities which give rise to our expressions of anger, fear, anxiety, sadness, joy, etc. If there were no movement of the *gunas*, then there would not be this expression in our behaviour too. No person is always happy or always sad or always depressed, etc. Hence the study of the *gunas*, their movement in people and how they affect our daily life and behaviour makes for fascinating study. Thus, the relative dominance and relevance of the gunas in people can be studied and classified accordingly to ensure a better understanding of human behaviour. This paper is just the beginning of this journey.

Review of literature:

There have been various attempts by researchers to develop tools from these three methods ofmodels *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 by Modh, (2008).

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 has also been the basis for a good number of tools to be developed to study personality (Laxmibai,

& Nagalakshmi, 1975.,Dillbeck, 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, P. (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, R. 1999).The IAS Rating Scale developed by Matthew, (1995) 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 briefly. In the same vein, the effect of chanting the *Hare Krishna Maha Mantra* to increase *Sattva* and decrease *Rajas* and *Tamas* (Wolf, 2000; Wolf & Abell, 2003), the effects of *Yoga, pranayama* and thermal bio-feedback 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 *guna*s (personality) and health in normal healthy volunteers of both sexes has been conducted (Deshpande, *et.al.* 2008) and conclusions drawn.

METHODOLOGY

Mysore Triguna Scale—Advanced: Construction of the scale:

The constructs to assess the *gunas* in a person were identified based on previous tools and from the vast amount of literature available in the Indian tradition, like the *Vedas, Upanishads,* the *Mahabharata* including the *Bhagavad Gita* which forms a part of it, *Samkhya, Yoga*, *Puranas*, and *Ayurveda*to name a few. The scale underwent several revisions. Each one was corrected for grammatical errors, ambiguity, syntactic errors, etc. The scale was thus finalized for the final Pilot Study.

The Mysore *Triguna* Scale—Advancedhas 46 items. These items could not be included in the main test which had a requirement of having different items for S, R, and T.

Sampling framework:

The researchers intended to study three different sets of adults of occupational groups covering Teachers, IT Professionals and Police Personnel. Along with this another group of people from different professions other than the three already mentioned was also selected from the Bangalore city. Adults from the above groupswere drawn randomly, based on a set of criteria indicating job satisfaction, absence of any psychiatric problems, and a minimum of five years of continuous practice in their chosen vocation.

Table 1: Showing The Sample For The Final Data Collection (1548 Respondents)

Sl. No.	Group	Total No. of people
1	Teachers	358
2	Police	414
3	IT Professionals	346
4	General Adults	430
	Total	**1548**

As can be seen in Table 1, there were a total of 358 teachers, 414 police, 346 IT professionals and 430 people from the general adult category, thus making the total number of respondents for the study as 1548. The *Triguna* scale was thus standardized on this sample, and results and inferences drawn therein.

Criteria for inclusion and exclusion:

The criteria followed for the inclusion of people's data into the final study and standardization of the scale was as follows.

1. Only those people who had job satisfaction were included in the final analysis. To assess job satisfaction *Job Satisfaction Scale:* (Singh & Sharma, 1999) was employed.

2. Only those who had no problems on mental health issues as assessed by *Modified MINI*: (Sheehan, *et.al.*, 1998) were included.

3. Only those who had no problems on drinking behaviour as assessed by *The Alcohol Use Disorders Identification Test* (AUDIT): (Babor, *et.al.,* 2001) were included.

4. Only non-smokers as determined from *Fagerstrom Test for Nicotine Dependence* (FTND): (Heatherton, *et.al.*, 1991). were taken into consideration and included.

5. Only those people practicing in the profession for a minimum of 5 years consecutively were included.

Only those people who satisfied all the above mentioned criteria were included in the study. There were 2142 respondents for initial screening and finally 1548 were selected after satisfying various inclusion criteria. The researchers wanted to study the domination of *gunas* in people belonging to different professions like Teachers, IT Professionals and Police Personnel. Hence all the above mentioned criteria were used for inclusion and those who did not qualify were excluded from the study. This was to ensure that as "pure" a sample as possible of individuals who classically fit into the profession was obtained for comparison with people from other professions.

An example of the kind of items included in the Mysore *Triguna* Scale – Advanced

1. I praise people for my benefit.

   Min. Avg. Strong

2. I love to use creams, powders, etc. every day.

   Min. Avg. Strong

3. I eat food even if I am not hungry.

   Min. Avg. Strong

The respondents were asked to tick all the statements, whether "Yes or No". When the statement was "Yes" they had to also mark the degree to which it is present in them, making the respondents rate their own behaviour in different situations. No statement could be ignored. Since software was developed for the purpose of assessment of Personality, this could be controlled.

Establishing the Psychometric properties of the Scale:

(A) *Reliability:* On administering the Scale to the sample of 1548 people, the following consolidated Cronbach's Alpha scores for all the SRT items of Mysore *Triguna* Scale –Advanced were obtained.

Table 2: Reliability Coefficients for Mysore *Triguna* Scale –Advanced

Constructs	Items	Cronbach's Alpha
Sattva	26	.926
Rajas	13	.730
Tamas	7	.187
N	**1548**	
SRT	**46**	**.922**

An analysis of the above table indicates that the combined Cronbach's Alpha coefficient is high being 0.922. Thus, this scale could be considered to be a highly reliable one. Though there are 46 items in the Mysore *Triguna* Scale – Advanced, only 37 items are shown to respondents. There are 24 *Sattva* items, 11 *Rajas* items and 2 *Tamas*items. The other items of the Scale are repeat answers that is common for other traits and hence are not repeated for the respondent to answer, but is adjusted at the back end while tabulating the answers.

(B) *Validity:* The **content validity** of the scale was also computed by getting the items assessed by (17) traditional scholars of Philosophy and twenty-three (23)

experts in the field of *Ayurveda,* which yielded the following.

Table 3: Ratings Of Scholars And Philosophers To Items Of Mysore *Triguna* Scale --Advanced

Rating		Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
No. of People	f	0	17	0	0	0	17
	%	0	100	0	0	0	100

An analysis of the above table indicates that all the 100% of the scholars of Philosophy and Sanskrit have agreed that all the SRT items measure SRT only, and thus, it has a high **Content Validity**. Added to this, since it is exhaustively mentioned in *Ayurvedic* texts, the researcher also attempted to obtain the ratings of *Ayurvedic* specialists, which yielded the following.

Table 4: Ratings Of *Ayurvedic* Specialists To Items Of Mysore *Triguna* Scale -- Advanced

Rating		Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
No. of People	f	16	7	0	0	0	23
	%	70	30	0	0	0	100

An analysis of the above table indicates that out of the 23 *Ayurvedic* experts consulted, they all agreed that the items do measure *Sattva, Rajas* and *Tamas.* Thus, the scale has very high

Content Validity

Since there is no other measure that assesses people based on the 16 CPT from the Indian classical literature and scriptures, the researchers had no option but to establish only the content validity for the present scale.

The scores obtained after answering this scale are added to the Mysore *Triguna* Scale, and then the 189 Trait analyses and the categorization of the person to be similar to one of the 16 CPT is derived.

Table 5:   Salient Characteristics Of *Trigunas*

Sl. No.	Const- ructs	Salient Characteristics of S, R and T
1.	*Sattva*	Intelligent, fortitude, gentle, truthful, benevolent, virtuous
2.	*Rajas*	Energy, harsh, angry, excessive activity, strong emotions, inclining towards violence and aggression
3.	*Tamas*	Mass, heavy, obstructing, ignorance or lack of knowledge (confused), inactivity, sleep (more), generally dejected always, indecent

After the analyses of Personality wherein the identification of a person's

Traits from the 189 that have been identified, next part of analysis consists of the combination of the respondent's answers to the *Tridosha* and *Triguna* tests. There are 189 different Traits which in turn have different combinations of *Tridoshas* and *Trigunas* which comprise the physical (VPK) and psychological (SRT) aspects for each person. This gives the respondent's score for a particular trait, the group mean for each of the traits, and the analysis for the respondent's score for each and every one of the 189 physical (VPK) and 189 psychological (SRT) traits.

The next part analysis consists of addition of and then re-organization of the respondent's 189 physical (VPK) and 189 psychological (SRT) traits into the 16 Classical Personality Types (CPTs). The respondent's traits are compared to each of the 16 CPT so as to derive the maximum similarity—dissimilarity likelihood between the respondent and the 16 CPT. Based on the analysis, group trends can be sought and confirmed for every group of Profession/ vocation. This in turn gives answers as to the conformity of the respondent to the particular profession engaged in or sought for. Norms and descriptions of characteristics and their delineation, and score ranges for categorization into professional groups were also developed.

Conclusion:

The authors have been able to develop a scale to assess *Sattva, Rajas* and *Tamas*—the concepts taken from the Indian intellectual tradition and *Ayurveda* and validated it from the domain of psychology using psychometric procedures. The developed scale has satisfactory reliability and validity indices.

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