

Development and Standardization of Mysore *Triguna* Scale

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Abstract

The authors have developed a personality tool to assess *Trigunas*, that is, *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 *Pancha Mahabhutas*, and consequently the *Trigunas*, is absent totally. One or the other *guna* is in dominance and is responsible for the behavior 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. In this process, the psychometric properties of the scale are established.

Keywords

assessment, human resource development, humanities, industrial/organizational psychology, organizational development/organizational change, personality, psychology

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, and so on of human behavior—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 behavior, although it is not detailed under the name of “Psychology.” The coining of the term is a relatively recent phenomenon compared with the medical tradition. Although psychology *per se* was not studied, some of the essential thoughts that burned at stalwarts of Indian intellectual traditions were the following: “Who is the person?” “How does he think?” “What is thinking?” “What is seeing?” “What is the mind?” and “What is it made up of?” These and many more questions that delve into a person’s psyche were of utmost importance to our seers and sages. These have led to immense bodies of knowledge—spiritual, technical, practical, and empirical—which are 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, although this is what most people think it is. Although the psychology studied in Indian colleges and universities is western in

nature, there are now some universities that offer a basic course on Indian psychology.

Indian psychology refers partly to aspects of psychology that are directed to understanding the

behavioural perspectives and psychologically relevant existential problems of Indians. Again, this is only partially relevant. . . . Indian psychology is an indigenous psychology in that it is a psychology derived from indigenous thought systems and therefore is clearly best suited to address India specific psychological issues and problems. It is, however, more than indigenous psychology for the reason that it offers fruitful psychological models and theories, though derived from classical Indian thought, that hold pan human interest. (Rao et al., 2008, p. 2, 3)

The rich phenomenology of consciousness contained in classical Indian thought, Hindu as well as *Buddhist*, is useful in a variety of ways and is immensely helpful in promoting cognitive science and for psychodiagnostic purposes. The epistemological dualism implied in Indian psychology has profound implications for learning. . . . It also fills the current value vacuum in education. Indian psychology has thus

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theories, technologies and techniques for personal growth and well being as well as for enhancing the human potential. All these and more open up new frontiers for serious psychological study and research anchored in Indian conceptual system. (Rao et al., 2008, p. 8)

Study of Personality in India

Personality has always captured the attention of psychologists in the past. This tradition has influenced Indian psychology too. Personality is studied and understood with reference to two 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 *Atharva Veda*. These rely heavily on the *Pancha Mahabhutas*, their combinations yielding to the biological humors of *Tridoshas*—*Vata*, *Pitta*, and *Kapha* (VPK)—and their psychological correlates of *Trigunas*—*Sattva*, *Rajas*, and *Tamas* (SRT)—to explain the body, the mind, their constituents, and the corresponding behavior patterns including the spiritual aspect involved.

While *Charaka* and *Susruta* have enumerated the different psychological typologies that people can be classified under in addition to an exhaustive description of the *Tridoshas*, their balanced states and consequences of the imbalances, they have not gone into minute details with 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 the *Samkhya-Yoga* system of philosophy. Both are composed of the *Pancha Mahabhutas*, 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 unique actions, methodology of behavior, and categorization, and one cannot replace the other, although 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 are different (Murthy, K.R.S., 2007a, 2007b; Sharma, P., 1981, 2004).

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 remains 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 scriptural sources of India, be it the *Vedas*, the *Upanisads*, the *Bhagavad Gita*, the *Mahabharata*, the *Nirukta*, the *Puranas*, the *Samkhya*, and the *Yoga* to name a few, has 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 waiting to be tapped.

Background Information About the Study

This article consists of the standardization procedure that was undertaken by the authors while developing a scale to assess personality of people based on *Trigunas*. This forms only part of the work that was undertaken by the first author as a part of the thesis submitted for award of a doctoral degree, while the second author is the guide and mentor for this doctoral work.

The thesis consisted of developing and standardizing a set of scales to assess personality of people from the Indian psychological perspective, namely, *Tridoshas* (physical-physiological component) and *Trigunas* (psycho-spiritual component). The scale that was developed to assess the *Tridoshas* has also been standardized; the same has been accepted for publication in a reputed international peer-reviewed journal. This article comprises the standardization procedure that was followed for the scale based on the *Trigunas*. Both these scales, one based on the *Tridoshas* and the other based on the *Trigunas*, are stand-alone scales that can be used alone (to assess the *Tridoshas* or *Trigunas* in a person) or in conjunction with each other to arrive at a complete and holistic understanding of personality from the Indian concepts. What is presented here is the first-level analysis that is conducted to assess the dominant *guna* combination of a person. The raw scores of the person is calculated (simple addition) and converted to Stanine scores. The salient characteristics of each of the *gunas* are also delineated.

The third scale is also a *Triguna* scale, but it is not a stand-alone scale and is an adjunct to the main *Triguna* scale (the present article and scale is the main one). It is not necessary for the first-level analysis but is an integral part of the second- and third-level analyses.

There are 189 traits (common for the physical and psychological aspect; hence, there are 189 physical or VPK traits and 189 psychological or SRT traits) that have been identified, which comprise the gamut of human behavior. These are 100 *Sattva* traits, 60 *Rajas* traits, and 29 *Tamas* traits. Based on answers that are obtained in the questionnaires, these 189 traits can be measured. (The answers are

rearranged in a predetermined combination that yields the 189 VPK and SRT traits.) The raw scores for each of the 189 VPK and 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 and 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 behavior exhibited by one (or more) of the 16 classical personality types (16 CPT) as delineated in classical 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.

Although every individual answers three scales, the answers undergo three different levels of analyses. After these analyses, first, the unique and specific *Tridosha* and *Triguna* combination of the person is tabulated and salient characteristics mentioned. Next, his or her scores and interpretations for the 189 traits (physical as well as psychological) are delineated. Next, he or she is compared with the 16 CPT—Raw scores as well as Stanines, after they are tabulated. In addition, 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, and so on, which are commonly thought to have effects on answers, as all raw scores are also converted to Stanine and each and every answer the individual gives is also rated by himself or herself.

In this background, the present article is the standardization procedure followed for the *Triguna* scale. Although some of the *Tamo guna* items would incur social desirability answers, thereby leading people to answer in ideal scenarios, the authors noticed that it did not really have much of an 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. Also, a statistical intercorrelation of VPK and SRT was also undertaken based on the answers obtained. The intercorrelations were found to follow the same pattern as delineated in ayurvedic texts (with some minor changes). This too has been submitted as an article to another international journal, and has been accepted for publication.

The mandate of one of the authors (whose doctoral work this comprised) was to study the personality patterns of people from three different professions, namely, teachers, IT

professionals, and police personnel. This was required so that a personality profile of these three professions could be developed and compared. Hence, the different inclusion/exclusion criteria were exercised so as to enable them to take only those respondents who fitted these conditions, so as to develop a personality profile of people working in these different professions.

Development of the Mysore Triguna Scale

In this article, an attempt is made to describe the test construction and the standardization procedures and results 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 the Mysore *Triguna* scale.

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*, 17 *Maha Puranas* (the researcher was unable to find one *Maha Purana*, which was out of print), 5 *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, P.K., & 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 the aforementioned 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 whatsoever. 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 that give rise to our expressions of anger, fear, anxiety, sadness, joy, and so on. If there were no movement of the *gunas*, then the expression of different emotions would not be there in our behavior too. No person is always happy, always sad, or always depressed and so on. Hence, the study of the *gunas*, their movement in people, and how they affect our daily life and behavior make 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 behavior. This article is just the beginning of this journey.

Review of Literature

There have been various attempts by researchers to develop tools from these three models, *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 behavior, 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, Lakshmi, & Parameswaran, 1971; Marutham, Balodhi, & Mishra, 1998; Mathew, 1995; Mohan, & Sandhu, 1986; Pathak, Bhatt, & Sharma, 1992; Wolf, 1998, 1999), *gunas* as predictors of workplace ethics (Bhal & Debnath, 2004, 2006), and the *Vedanta* concept of personality development (Modh, personal communication, 27 September, 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 behavior and dynamics based on which there has been a tool developed (Singh, R., 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 (Das, R.C., 1991; Laxmibai, Murthy, & Nagalakshmi, 1975; Dillbeck, 1983, 1990).

Infant temperament from an Indian perspective has been studied by Kapur, Hirisave, Reddy, Barnabas, and Singhal (1997), using a previous tool developed by Marutham et al. (1998) for the 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*, psi experience, and personality dimensions (Sebastian & Mathew, 2002), and the tool developed by Pathak et al. (1992) was used in another study that delved into the *Trigunas* and how they associated with psychological problems (Das & Venugopal, 2008).

The role of the three *gunas* among anxiety disorders (Velayudhan, Balodhi, & Mishra, 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 biofeedback techniques in the management of stress and high blood pressure (Latha & Kaliappan, 1991); and *Yogic* techniques that would promote mental health and alleviate mental and emotional distress (Kapur, R.L., 1994) were 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, Nagendra, & Raghuram, 2008), and conclusions drawn.

Mysore Triguna Scale Construction

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* that 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, and so on. The scale was thus finalized for the final pilot study. This scale was later modified, by putting all constructs assessing similar traits into a cluster. The markings indicating the statements to be *Sattva*, *Rajas*, or *Tamas* were removed. In each construct itself, the three statements were jumbled up so that there was no definite order of appearance of the three types of statements in all the construct-wise questions. The scale comprised 63 statements each to identify SRT. The total number was thus 189.

Sampling Framework

The researchers intended to study three different sets of adults of occupational groups covering teachers, IT professionals, and the police personnel of Bangalore city. Along with this, another group of people from different professions other than the three already mentioned was also selected.

To this end, many different colleges, IT companies, and the police department were approached for their cooperation. Adults from the above groups were drawn

Table 1. Showing the Sample for the Final Data Collection (1,548 Respondents)

Sl. No.	Group	Total no. of people
1	Teachers	358
2	Police	414
3	IT professionals	346
4	General adults	430
	Total	1,548

randomly, based on a set of criteria indicating job satisfaction, absence of any psychiatric problems, and a minimum of 5 years of continuous practice in their chosen vocation.

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 1,548. The Mysore *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 were as follows.

1. Only those people who had job satisfaction were included in the final analysis. To assess job satisfaction, the *Job Satisfaction Scale* (Singh, A., & Sharma, 1999) was employed.
2. Only those who had no problems with mental health as assessed by the *Modified MINI* (Sheehan et al., 1998) were included.
3. Only those who had no problems with drinking behavior as assessed by the *Alcohol Use Disorders Identification Test* (AUDIT; Babor, Higgins-Biddle, Saunders, & Monteiro, 2001) were included.
4. Only nonsmokers as determined from the *Fagerstrom Test for Nicotine Dependence* (FTND; Heatherton, Kozlowski, Frecker, & Fagerstrom, 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 aforementioned criteria were included in the study. There were 2,142 respondents for initial screening, and finally 1,548 were selected after satisfying various inclusion criteria. Although some of the *Tamo guna* items would incur social desirability answers, thereby leading people to answer in ideal

Table 2. Reliability Coefficients for Mysore *Triguna* Scale

Constructs	Cronbach's α coefficients	Items
<i>Sattva</i>	.969	63
<i>Rajas</i>	.911	63
<i>Tamas</i>	.876	63
Combined SRT coefficient	.965	189

scenarios, the authors noticed that it did not really have much of an impact.

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 aforementioned 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 *Triguna* scale:

Description of my speech:

- | | | | | |
|---|--|------|------|---------|
| A | When I talk to other people, I get agitated easily but control myself. | Min. | Avg. | Strong. |
| B | When I talk to other people, I am calm, peaceful and tolerant. | Min. | Avg. | Strong |
| C | I don't think before I talk. | Min. | Avg. | Strong |

The respondents were asked to tick the statement (1, 2, or all 3 if it is true of the respondents) that is most applicable to them, and also mark the degree to which it is present in them, making the respondents rate their own behavior in different situations. No triplet of answers could be ignored. Because software was developed for the purpose of assessment of personality, this could be controlled.

Establishing the Psychometric Properties of the Scale

Reliability, validity, and norms for the Mysore *Triguna* scale were developed as follows:

Reliability

The researchers have attempted to establish different possible types of reliability.

Cronbach's alpha reliability. The reliability statistics that were observed on administering the scale to the sample of 1,548 people for the standardization of the scale are shown in Table 2.

Table 3. Mysore *Triguna* Scale Statistics

Scale statistics	M	Variance	SD	No. of items
Part 1	59.71	924.62	30.40	95
Part 2	57.44	815.69	28.56	94
Both parts	117.16	3,423.53	58.51	189

SRT scale is a self-rating scale, which has 189 items, with 63 items each for assessing SRT in a respondent. The Cronbach's alpha for the scale was .969 for *Sattva*, .911 for *Rajas*, and .876 for *Tamas*. Thus, the reliability coefficient is very high.

Split-half reliability. Split-half reliability of the scale was also found. The scale was divided into two parts, wherein Part 1 had 95 items and Part 2 had 94 items.

The mean for Part 1 was found to be 59.71 and that of Part 2 was found to be 57.44, as shown in Table 3. The alpha value for Part 1 was found to be .93 and that of Part 2 was .92. The correlation between forms was found to be .96. The Spearman-Brown coefficient was applied; the value for equal length was found to be .98 and that of unequal length was found to be .98. The Guttman split-half coefficient was also computed and it was found to be .98. Thus, the high level of correlation indicates that the scale is highly reliable (Table 4).

Test-retest reliability. Test-retest reliability of the scale was established by administering the test to a group of 60 people with a gap of about 20 days from the first administration.

The Pearson correlation for *Sattva* items was found to be .83, for *Rajas* items .866, and for *Tamas* items .734, all being positive and significant at the .01 level, as can be seen in Table 5. Thus, it can be concluded that this scale is a reliable one.

Validity

Two kinds of validity were established, as follows:

Content validity. Content validity was established by subjecting the items of the scale to the scrutiny of ayurvedic, philosophy, and Sanskrit specialists, and their concordance was obtained. Wherever possible, their suggestions to enhance the items were incorporated, and the items were rephrased so as to elicit better responses.

The items were developed for the *Triguna* scale and shown to experts and other scholars in the field of Sanskrit and philosophy along with Ayurveda, to get their ratings, which were the bases for developing the scale other than referring to other tools that assess *gunas* in a person.

Table 6 indicates that 100% of the ayurvedic experts have agreed that these items are measuring SRT. Thus, the items have very high content validity.

Table 4. Reliability Statistics of the Mysore *Triguna* Scale

Reliability statistics	
Cronbach's alpha	
Part 1	
Value	.93
No. of items	95
Part 2	
Value	.92
No. of items	94
Total No. of items	189
Correlation between forms	.96
Spearman-Brown coefficient	
Equal length	.98
Unequal length	.98
Guttman split-half coefficient	.98

The items of the Mysore *Triguna* scale were shown to experts in the field of Sanskrit and philosophy, and their ratings are indicated in Table 7.

The items of the Mysore *Triguna* scale were shown to Sanskrit scholars and philosophers to get their approval, as this was a multidisciplinary work involving knowledge derived from the fields of Ayurveda, Sanskrit, and philosophy—from the psychological perspective of understanding human behavior and its dynamics. There was concordance from all the specialists about the items as all of them have agreed that the items are acceptable.

Apart from getting the ratings on the items by the above specialists, the ratings of psychologists were also sought to validate it from the domain of psychology. The ratings received from psychologists are indicated in Table 8.

An analysis of Table 8 indicates that 90% of the psychologists have agreed that the items developed for assessing *Triguna* do really assess *Triguna*. Hence, the scale has a high measure of content validity.

Concurrent validity. Concurrent validity of the scale was also established by comparing the responses of the same respondents on the Mysore *Triguna* scale and those on the Renu Sharma's SRT Scale, which assesses SRT in an individual. Renu Sharma's tool was administered to 60 people apart from the present tool. Thus, all the 60 respondents took both the tests. The obtained results were subjected to correlation, which yielded the following.

An analysis of the Table 9 indicates that the correlation coefficient was found to be .776 for *Sattva*, .835 for *Rajas*, and .427 for *Tamas*, and the coefficients were found to be statistically significant at the .01 level. This means that, because the correlation between the two scales is high and statistically significant, the validity of the Mysore *Triguna* scale developed by the researchers is highly valid. This indicates that the present scale is a valid one.

The salient characteristics of SRT were identified and can be seen in Table 10.

Table 5. Test–Retest Correlations of Mysore Triguna Scale

n = 60		R_L2_S	O_L2_S	R_L2_R	O_L2_R	R_L2_T	O_L2_T
R_L2_S	Pearson correlation	1	.831 ^a	-.314 ^b	-.313 ^b	-.524 ^a	-.560 ^a
	Significance (two-tailed)		.000	.015	.015	.000	.000
O_L2_S	Pearson correlation		1	-.304 ^b	-.321 ^b	-.466 ^a	-.635 ^a
	Significance (two-tailed)			.018	.012	.000	.000
R_L2_R	Pearson correlation			1	.866 ^a	.130	.314 ^b
	Significance (two-tailed)				.000	.321	.015
O_L2_R	Pearson correlation				1	.229	.313 ^b
	Significance (two-tailed)					.078	.015
R_L2_T	Pearson correlation					1	.734 ^a
	Significance (two-tailed)						.000
O_L2_T	Pearson correlation						1
	Significance (two-tailed)						

Note: R_ = retest value; S = *Sattva*; O = original test value; R = *Rajas*; T = *Tamas*.

^aCorrelation is significant at the .01 level (two-tailed).

^bCorrelation is significant at the .05 level (two-tailed).

Table 6. Ratings of Items by Ayurvedic Specialists for Mysore Triguna Scale

Rating		Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Total
Number of people	f	16	7	0	0	0	23
	%	70	30	0	0	0	100

Table 7. Ratings of Sanskrit Scholars and Philosophers to Items of Mysore Triguna Scale

Rating		Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Total
Number of people	f	0	17	0	0	0	17
	%	0	100	0	0	0	100

Table 8. Ratings of Psychologists for Mysore Triguna Scale

Rating		Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Total
Number of people	f	1	8	1	0	0	10
	%	10	80	10	0	0	100

Norms

As the ultimate purpose of standardization of a test is to establish norms, the present researchers have developed Stanine scores. The distribution of the SRT total scores were converted to Stanine Scores (Ferguson, 1981) as shown in Table 11.

The scores on SRT range from 0 to 189. The total scores range from 0 to 567. These score ranges can be converted into Stanine scores using Table 11. Thus, an individual can be assessed on SRT based on their responses. Stanines 1 to 3 indicates a lower presence of the *guna*, 4 to 6 indicates average, and 7 to 9 indicates a higher presence of the *guna*. Thus, individuals can be identified and categorized on different levels of *guna*.

An analysis of Table 12 indicates that the distribution of scores are closer to a normal probability curve, as all the measures of central tendency are very close to each other. Thus, it suggests that these *gunas* are distributed normally in any population. Furthermore, one can also infer that the present sample also represents the population adequately well.

Conclusion

The authors have been able to develop a scale to assess SRT—the concepts taken from the Indian intellectual tradition and Ayurveda—and validated it from the domain of psychology using psychometric procedures. The developed

Table 9. Correlations Between Renu Sharma's SRT (A) Scale and Researchers' Mysore *Triguna* Scale (B)

<i>n</i> = 60	A	B	A	B	A	B
A Pearson correlation	1	.776 ^a	-.967 ^a	-.793 ^a	-.886 ^a	-.413 ^a
Significance (two-tailed)		.000	.000	.000	.000	.001
B Pearson correlation		1	-.787 ^a	-.914 ^a	-.621 ^a	-.718 ^a
Significance (two-tailed)			.000	.000	.000	.000
A Pearson correlation			1	.835 ^a	.739 ^a	.367 ^a
Significance (two-tailed)				.000	.000	.004
B Pearson correlation				1	.578 ^a	.373 ^a
Significance (two-tailed)					.000	.003
A Pearson correlation					1	.427 ^a
Significance (two-tailed)						.001
B Pearson correlation						1
Significance (two-tailed)						

Note: SRT = *Sattva*, *Rajas*, and *Tamas*.

^aCorrelation is significant at the .01 level (two-tailed).

Table 10. Salient Characteristics of *Triguna*s

Sl. no.	Constructs	Salient characteristics of S, R, and T
1.	<i>Sattva</i>	Intelligent, fortitude, gentle, truthful, benevolent, virtuous
2.	<i>Rajas</i>	Energy, harsh, angry, excessive activity, strong emotions, inclining toward violence and aggression
3.	<i>Tamas</i>	Mass, heavy, obstructing, ignorance or lack of knowledge (confused), inactivity, sleep (more), generally dejected always, indecent

Table 11. Transformation of SRT Raw Scores to Stanines (*N* = 1,548)

Constructs	Stanines								
	1	2	3	4	5	6	7	8	9
<i>Sattva</i>	0-23	24-30	31-39	40-46	47-75	76-104	105-127	128-148	149-189
<i>Rajas</i>	0-10	11-13	14-16	17-22	23-32	33-45	46-62	63-79	80-189
<i>Tamas</i>	0-1	2	3-4	5-7	8-12	13-19	20-28	29-39	40-189

Note: SRT = *Sattva*, *Rajas* and *Tamas*.

Stanine scores interpretation:

Stanine scores 1-3 = Low degree of presence of the traits (*guna*).

Stanine scores 4-6 = Moderate degree of presence of the traits (*guna*).

Stanine scores 7-9 = High degree of presence of the traits (*guna*).

Table 12. Distribution of Test Scores After Stanine Transformation

Statistics			
<i>N</i> = 1,548	<i>Sattva</i>	<i>Rajas</i>	<i>Tamas</i>
<i>M</i>	4.99	4.99	4.97
Median	5.00	5.00	5.00
Mode	5.00	4.00	5.00
<i>SD</i>	1.96	1.98	1.96
Skewness	.01	-.07	.02
Kurtosis	-.58	-.55	-.52

scale has satisfactory reliability and validity indices. The obtained scores can also be easily converted into Stanine scores for easy classification of respondents as belonging to SRT.

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