

Interrelatedness of *Tridoshas* and *Trigunas* in Personality *An Empirical Investigation*

Shilpa S.

Research Scholar
Regional Institute of Education
Mysore

C. G. Venkatesha Murthy

Professor of Education
Regional Institute of Education
Mysore

Tridoshas and Trigunas are composed of the Pancha Mahabhuta. One or the other Dosha and Guna is dominant singularly or in combination in man. There can never be a state when one or the other Pancha Mahabhutas and consequently the Tridoshas and Trigunas are absent totally. All are essential to sustain life. Though Tridosha and to a lesser extent Triguna is studied, understood and applied in Ayurveda, the present authors have studied their interrelatedness in the present study. They have studied the interrelatedness of the Tridoshas and the Trigunas and their implications for our understanding of an integrated personality composition at the physical and psychological level wherein both are intrinsically related to one another.

Key words: *Tridosha, Vata, Pitta, Kapha, Triguna, Sattva, Rajas, Tamas, Personality assessment.*

One of the basic tenets of all systems of Indian philosophy is that man is a microcosm of the macrocosmic world that he inhabits. This implies explicitly that whatever man is made up of, the world too is made up of those same things or elements, but with different combinations and degrees. Here, by elements is meant the five mahabhutas—that is *Akasa, Vayu, Tejas, Ap* and *Prithvi*. (Ether, air, fire, water and earth proto-elements respectively). These five elements combine with each other to form the three humors of *Vata, Pitta* and *Kapha*, (also called the *Tridoshas* in unison) which is the corner stone of Ayurvedic philosophy. (Sharma, P., 1981; 2004; Murthy, K.R.S. 2007). The *Tridoshas* are composed of all the *Pancha Mahabhutas*, but one or the other is predominant, with the other four in lesser dominance. There can never be a state when one or the other *Pancha Mahabhuta* is absent totally. All five are essential to sustain life. The *Tridoshas* constitute the physical-physiological components and are designed to understand

the physiology and pathology of living organisms including human beings.

Prakriti is composed of three *gunas*, *Sattva* (white, knowledge, happiness, pra), *Rajas* (red, activity, pain, kr) and *Tamas* (dark, resistance or inertia, confusion, ti). Thus it is endowed with all the necessary and sufficient powers of production, preservation and dissolution of the phenomenal world. Mainly, it is the material cause of multiplicity (Rao, 1987;161). The three *gunas-Sattva, Rajas* and *Tamas* also promote different kinds of temperament based on the dominance of one or the other *gunas*. The temperament of a person can be discerned based on the "mode of worship, the type of food consumed and other activities of everyday life" (Krishnan, 2002). The *Trigunas* constitute the psychological components and govern all animate and inanimate existence. They also influence forces of living which are conceptualized as *Vata, Pitta* and *Kapha*. The behavior of human physiology, psychophysiology and patho-physiology

reflect the *Vata-Pitta-Kapha (Tridosha)* dynamics, and this understanding helps in devising various assessments, treatments and management strategies.

The present authors have attempted to study the relationship between the *Tridosha* and *Triguna*. They have developed and standardized scales to assess psychological aspects of *Tridosha* and *Triguna*. This paper is the result of the study conducted wherein the ancient scriptures of Indian origin and tradition were consulted in devising Scales to understand and assess personality-both physical-physiological (*Tridoshas*) and psychological (*Trigunas*). *Tridoshas* are the physical components of the personality and the *Trigunas* are the psychological components of the personality. Both need to be studied and understood in tandem for a holistic understanding of personality. Negating the effect of either on the other is detrimental to the health and well being of an individual. With the above understanding in the backdrop, the present authors have studied the interrelationships of *Tridoshas* and the *Trigunas* in human personality empirically.

Review of Literature

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

Attempts have been made to bring into public and scientific scrutiny the basic tenets of Ayurvedic physiology and its ramifications for modern understanding again from Ayurvedic viewpoint to bring home the implications for current understanding and future knowledge creation (Hankey, A. 2001, 2005a, 2005b, 2008., Dwivedi, C.B. 2002., Joshi, R.R. 2004., Lyssenko, V. 2004., and Dilipkumar, K.V. & Vaidyaratnam V.P. 2007). These studies have dealt with the *Tridoshas* and their actions on human behaviour and how

they contribute to mental health. They also study the dominance of the *Tridoshas* in ill health and give suggestions for their treatments (Dube, K.C., et.al., 1983, and Rao, V. A. 2002a, 2002b).

Researchers have studied the personality dynamics quite fondly through the years, and how personality has been understood from different schools of Indian thought like the perspective from the view of Samkhya metaphysics (Balodhi, & Singh, 1985); the Vedic understanding (Werner, 1978); Maharishi's Vedic psychology (Dillbeck, 1990); a discussion as to how personality theories can be constructed according to Vedanta (Paranjpe, 1988); traditional Indian personality concepts and the unrealized potential for a paradigm shift (Naidu, 1994); the probabilistic orientation of personality (Narayanan, & Annalakshmi, 2001); personality, self and life events (Naidu, 2001); typological conceptions in ancient Indian thought in the classification of people/personalities (Krishnan, 2002, Singh, 2007; and Shilpa & Murthy, 2011a); the different personality types-both Indian and Western (Deo, & Kulkarni, 2004); Indian concepts of personality (Dash & Rout, 2004; Mohan, 2005); the Indian concepts of self and personality (Srivastava, U. 2004); the Indian approach to personality development (Vimala, 2004); and personality, organizational climate and job involvement (Elankumaran, 2004).

The relevance of the guna theory in the congruence of Eastern values and Western management practices have been explored (Innes-Brown, & Chatterjee 1999) as also personal memory telling and personality development (Thorne, 2000). An attempt is also made to compare and contrast the description of personality types given in Indian and Western trait psychology with special reference to addictive personality (Deo, & Kulkarni, 2002); a critical analysis of the guna concept has also been undertaken (Murthy, & Kumar, 2007); while guna being the three modes of nature have been explored along with the soul force and the four fold personality

(Cornelissen; Personal Communication); and the psycho-dynamics of pursuit of excellence is efficiently explored as a movement towards expanding and refining four basic human endowments (Tripathi, 2007).

From a psychological standpoint, the trigunas might be considered to be the three fundamental components of the human mind (Kulkarni, 1972), as the "tendencies exhibiting themselves at different levels of consciousness" (Pathak, 1932, p.110), as the three aspects of human temperament and personality (Boss, 1966; and Parameswaran, 1969), or as a theory of individual differences (Paranjpe, 1988, Sitamma, 2005). Thus, a lot of efforts have gone in understanding Triguna and Tridosha.

Tridosha: Each dosha gives certain characteristic qualities to the person, based on which an individual can be classified as belonging to that particular dosha type. *Charaka* and *Susruta* recognize seven types or categories into which people can be classified, depending on the dominance of the doshas in their body. They are said to belong to a particular *Prakriti* or Constitution, as follows:

1. People with dominant *Vata* (constitution or) *Prakriti*.
2. People with dominant *Pitta Prakriti*.
3. People with dominant *Kapha Prakriti*.
4. People with dominant *Vata-Pitta Prakriti*.
5. People with dominant *Vata-Kapha Prakriti*.
6. People with dominant *Pitta-Kapha Prakriti*.
7. People with balanced *doshas* or with *Vata-Pitta-Kapha Prakriti*.

Trigunas: 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.

Table 1 about here

Conceptual framework

The Ayurvedic literature has sufficiently enabled us to understand that *Tridosha* and *Triguna* are two aspects of psychophysical and psychological aspects of man. In this backdrop, there is a need to verify it empirically. If it is established empirically, it can not only add a new empirical knowledge but also can take personality testing from Indian Psychological perspective a step ahead. Keeping in view the above the present researchers have attempted to study the relationships between *Tridosha* and *Triguna* empirically. Accordingly, the following hypothesis was formulated and tested.

Hypothesis : "The *Tridoshas* and *Trigunas* are significantly correlated."

METHOD

Sample: The sample comprised 407 adults who belong to different occupational groups covering Teachers, IT Professionals and Police Personnel of Bangalore City.

Tools: Respondents were administered the Mysore *Tridosha* Scale and the Mysore *Triguna* Scale. The Mysore *Tridosha* Scale

Table 1*Salient Characteristics of Tridoshas and Trigunas*

	Constructs	
Tridosha	Vata	Unpredictable, erratic in all behaviour, fast, restless
	Pitta	Short tempered, precise, sharp and decisive
	Kapha	Stable, predictable, slow, dedicated and thorough in all activities
Triguna	Sattva	Intelligent, fortitude, gentle, truthful, benevolent, virtuous
	Rajas	Energy, harsh, angry, excessive activity, strong emotions, inclining towards violence and aggression
	Tamas	Mass, heavy, obstructing, ignorance or lack of knowledge (confused), inactivity, sleep (more), generally dejected always, indecent

is a 51 item, 3 point rating scale with a combined Alpha score of 0.959 (Shilpa & Murthy, 2011b). The Mysore Triguna Scale is a 63 item, 3 point rating scale with fairly high concurrent validity and a combined Alpha score of 0.965 (Shilpa & Murthy, 2012). The obtained responses were scored and tabulated and were subjected to inter-correlations.

Results and Discussion

The V, P, K, and S, R and T scores were subjected to inter-correlations and their coefficients were obtained. The obtained responses were subjected to descriptive statistics and correlations. It yielded the following.

Table 2*Descriptive statistics of VPK and SRT*

Descriptive Statistics		
N = 407	Mean	SD
Vata	11.38	4.00
Pitta	19.24	3.82
Kapha	21.44	4.64
Sattva	39.12	9.50
Rajas	18.19	5.72
Tamas	7.60	6.46

An analysis of the above table indicates that the above sample is more Kapha dominated followed by Pitta and Vata relatively. This is the general trend seen of VPK. For SRT the sample has more of Sattva, followed by Rajas and Tamas. It was attempted to see how VPK was related to SRT through inter correlations which yielded the following.

Table 3 about here

An analysis of Table 3 indicates that *Vata* is found to be significantly and negatively correlated with *Pitta* and *Kapha*. This means that *Vata* is inversely related to *Pitta* and *Kapha*, and also that when *Vata* increases, *Pitta* and *Kapha* decreases. Further, it is seen that *Vata* is significantly and positively related to *Rajas* and *Tamas*, which means that *Vata* is directly related to *Rajas* and *Tamas*. As *Vata* increases, *Rajas* and *Tamas* increase and when one decreases the other also decreases. According to Ayurvedic literature, *Vata* is correlated to *Rajas*. *Vata* is also correlated to *Tamas*, as can be seen in the following citation "*Niyatastvanubandho rajastamasou parasparaà na hi arajaskaà tamaù pravartate*" (*Charka Samhita; Vimana*

Table 3
Salient Characteristics of Tridoshas and Trigunas

Correlations							
N = 407		Vata	Pitta	Kapha	Sattva	Rajas	Tamas
Vata	Pearson Correlation	1	-.147**	-.448**	-.458**	.324**	.456**
	Sig. (2-tailed)		.003	.000	.000	.000	.000
Pitta	Pearson Correlation	-.147**	1	-.039	.200**	.136**	-.078
	Sig. (2-tailed)	.003		.432	.000	.006	.114
Kapha	Pearson Correlation	-.448**	-.039	1	.414**	-.052	-.201**
	Sig. (2-tailed)	.000	.432		.000	.297	.000
Sattva	Pearson Correlation	-.458**	.200**	.414**	1	-.478**	-.769**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
Rajas	Pearson Correlation	.324**	.136**	-.052	-.478**	1	.238**
	Sig. (2-tailed)	.000	.006	.297	.000		.000
Tamas	Pearson Correlation	.456**	-.078	-.201**	-.769**	.238**	1
	Sig. (2-tailed)	.000	.114	.000	.000	.000	

** . Correlation is significant at the 0.01 level (2-tailed).

Sthana, 6/9). Moreover, *Tamas* features like *Stena* (stealing), *Maatsarya* (*Para guna asahanasheela* - intolerance to merits of others), *Anarya* (*Asatpurusha* - not a noble man) are also referred in *Vata* body types (Su. Sha. 64-66). On studying the characteristics of *Vata*, *Pitta* and *Kapha*, (Table 3), it can be seen that the characteristics of *Vata* do not correlate with that of *Pitta* or *Kapha*. This shows that *Vata* is totally different from *Pitta* and *Kapha*. Hence according to the classics this correlation stands empirically validated.

An analysis of Table 3 also indicates that *Pitta* is positively and significantly correlated to *Sattva* and *Rajas*. It means, as *Pitta* increases, *Sattva* and *Rajas* also increases, and when *Pitta* decreases, they also decrease. *Pitta* is also negatively and significantly correlated with *Vata*. According to Ayurvedic literature, as *Pitta* is called Agni, *Agni Mahabhuta* is structured as *Sattva-Rajo*

bahulo Agni, this correlation is perfect. This is as per the scriptures, and this correlation too is justified and stands empirically validated. On studying the characteristics of *Vata*, *Pitta* and *Kapha*, (Table 3), it can be seen that the characteristics of *Pitta* do not correlate with that of either *Vata* or *Kapha*. Hence according to the classics this correlation also stands empirically validated.

An analysis of Table 3 indicates that *Kapha* is found to be positively significantly correlated to *Sattva*, while it is negatively and significantly correlated to *Vata* and *Tamas*. It means, as *Kapha* increases, *Sattva* increases and also that as *Kapha* increases *Vata* and *Tamas* decreases. According to Ayurvedic literature, it is possible, because *Kapha* in normal state performs the *manasa karma* as *Kshama*, *Dhriti*, *Alaulya* which are characteristics of *Sattva* also. On studying the characteristics of *Vata*, *Pitta* and *Kapha*, (Table 3), it can be seen that the

characteristics of *Kapha* is contrasting with that of *Vata* and *Pitta*. Hence according to the classics and the characteristics also, this correlation stands empirically validated.

However, as per classics *Manda* (slow), *Guru* (heaviness), *Asheeghraarambha* (delayed initiation) features attributed to *Tamas* are also referred in *Kapha* body type but these features could not be obtained in this study. Here, in this study the *Sattvic* features in *Kapha* body type are observed but none of the *Tamasic* features are observed in *Kapha* body type.

An analysis of Table 3 indicates that *Sattva* is found to be positively and significantly related to *Pitta* and *Kapha* while it is negatively and significantly related to *Vata*, *Rajas* and *Tamas*. It means, as *Sattva* increases, *Pitta* and *Kapha* increases while *Vata*, *Rajas* and *Tamas* decrease. They are inversely related. According to Ayurvedic literature, *Sattva* is a combination of *Pitta* and *Kapha* and hence this correlation stands to be empirically validated. In the same way, the table indicates that as *Sattva* increases, *Rajas* and *Tamas* decreases. On studying the characteristics of *Sattva*, *Rajas* and *Tamas* (Table 3), it can be seen that the characteristics of *Sattva* does not go hand in hand with the characteristics of *Rajas* and *Tamas*. Hence this correlation also stands empirically validated.

An analysis of Table 3 indicates that *Rajas* is found to be significantly positively related to *Vata*, *Pitta* and *Tamas*, while it is significantly negatively correlated with *Sattva*. It means that as *Rajas* increases, *Vata*, *Pitta* and *Tamas* also increase. Also, it means that while *Rajas* increases, *Sattva* decreases. According to Ayurvedic literature also, generally *Rajas* is correlated with *Vata* and *Pitta*. *Rajas* can also be correlated to *Tamas* according to Charaka, "*Niyatastvanubandho rajastamasou parasparaà na hi arajaskaà tamaù pravartate.*" *Charka Samhita; Vimana Sthana*, 6/9. Hence according to the classics this correlation also (*Rajas* with *Tamas*) stands empirically validated. On studying the

characteristics of *Sattva*, *Rajas* and *Tamas* (Table 3), it can be seen that the characteristics of *Rajas* do correlate with that of *Vata*, *Pitta*, but not with that of *Sattva* or *Tamas*. This can be understood by the conclusion that *Tamas* is an occurrence/repercussion of the increase of *Vata* and *Rajas* which lead to *manasik doshas* and are responsible for awry psychodynamic presentations in normal subjects as well as in diseased states. They contribute equally and together in the manifestation of a thought or behaviour. In other words, a thought or behaviour is the sum total of *Rajas* and *Tamas* psychodynamics ("*niyatastvanubandho rajastamasou parasparaà*") and not a mathematical result of minuses and pluses of *Rajasic* and *Tamasic* characteristics. The positive correlation between *Rajas* and *Tamas* in the present study proves that in the *manas* as the *Rajas* characteristics reach high, *Tamas* features also increase. It is important therefore to employ measures that can regulate both of these than to contemplate on measures for each of *Rajas* or *Tamas* separately. But on the other hand, the characteristics of *Rajas* do not read well with that of *Sattva*, thereby validating the scriptures empirically.

In normal individuals, the *gunas* are auto-regulated. This means that in normalcy, when the activity of *Rajas* (initiator) is increased, *Tamas* (regulator) also increases in order to compensate the activity and bring the *Rajas* to normal level in healthy individuals. But in diseased subjects, this auto-regulation may be deranged.

An analysis of Table 3 also indicates that *Tamas* is found to be significantly positively correlated with *Vata* and *Rajas*, while being significantly negatively correlated with *Kapha* and *Sattva*. It means that as *Tamas* increases, *Vata* and *Rajas* too increase. It also means that if *Tamas* increases, *Kapha* and *Sattva* decrease. The previous correlation states that *Rajas* is significantly positively related to *Vata*, *Pitta* and *Tamas*, while *Rajas* is significantly

negatively correlated with *Sattva*. If this were to be converted to a mathematical equation, then the present correlation too holds good and is empirically validated in light of the validation of the previous correlations of *Rajas*. However, *Kapha* features like *Alasya* (laziness) have also been referred in *Tamas Prakriti* in the classics which could not be seen in this sample. On studying the characteristics of *Sattva*, *Rajas* and *Tamas* (Table 3), it can be seen that the characteristics of *Tamas* cannot be correlated with that of *Sattva*. Hence this correlation also stands empirically validated.

Hence when both the scriptures and characteristics of each of the *Doshas* and *Gunas* are studied, it can be observed and concluded that all the correlations are empirically and scripturally validated and justified.

As discussed earlier, 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. The present study validates this point empirically. 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 affects 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.

References

- Balodhi, J.P. (1987). Constituting the outlines of a philosophy of *Ayurveda*: mainly on mental health import. *Indian Journal of Psychiatry*, 29(2), p. 127-131.
- Balodhi, J.P. (2005). Classical Indian approaches to psychological dysfunction. (p. 337-344). In, K. Ramakrishna Rao & Sonali Bhatt Marwaha (Eds.). *Towards a spiritual psychology*. New Delhi: Samvad India Foundation.
- Bhattacharya, R.S., Chattopadhyay, Sukumar, & Singh, L. M. (1999). Guna-Dosa. (p. 143-228). In, *Kalatattvakosa. Vol. 4. Manifestation of Nature: Srsti Vistara*. Vatsayana, Kapila. (Gen. Ed.). Advaitavadini Kaul & Sukumar Chattopadhyay, (Ed.). New Delhi: Indira Gandhi National Centre for the Arts and Motilal Banarsidass Publishers Private Limited.
- Dash, A.S. & Rout, Mamata. (2004). *Indian concepts of personality*. Paper presented at National Conference on Indian Psychology, Yoga and Consciousness, Pondicherry, Dec.
- Deo, Savita & Kulkarni, Nirmala. (2002). *Addictive Personality and its Counterpart in Indian Psychology*. Paper presented at the National Conference on Yoga and Indian Approaches to Psychology, Pondicherry, India.
- Deo, Savita & Kulkarni, Nirmala. (2004). *Personality types: Indian and western*. Paper presented at National conference on Indian psychology, Yoga and Consciousness, Pondicherry.
- Dillbeck, M. C. (1990). The concept of self in the Bhagavad-Gita and in the Vedic Psychology of Maharishi Mahesh Yogi: A further note on testability. *Psychologia: An International Journal of Psychology in the Orient*, 33(1), p.50-56.
- Dilipkumar, K.V. & Vaidyaratnam V.P. (2007). *Ayurvedic perspective of psychotherapy*. Paper presented at National Seminar on Indian Psychology Theories and Models, SVYASA, Bangalore.
- Dube K.C., Kumar A. & Dube S. (1983). Personality types in *Ayurveda*. *Am J Chin Med*. 11 (1-4); p. 25-34.
- Dwivedi, C.B. (2002). *Ayurvedic concepts of the Purusa, dehaprakrti and Sattvaprakrti*. (p. 305-325). In, Girishwar Misra & Ajit K. Mohanty. Perspectives on indigenous psychology. New Delhi: Concept Publishing Company.
- Elankumaran, S. (2004). Personality, Organizational Climate and Job Involvement: An Empirical Study. *Journal of Human Values*, 10: pp. 117-130.
- Hankey, A. (2001). *Ayurvedic physiology and etiology: Ayurvedo Amritanaam*. The *Doshas* and their functioning in terms of contemporary biology and physical chemistry. *The Journal of Alternative and Complementary Medicine*. 7, No. 5, p. 567-574.
- Hankey, A. (2005a). The scientific value of Ayurveda. *The Journal of Alternative and Complementary Medicine*. 11, No. 2, p. 221-225.
- Hankey, A. (2005b). A test of the systems analysis underlying the scientific theory of *Ayurveda's*

- Tridosha. The Journal of Alternative and Complementary Medicine*. 11, No. 3, p. 385-390.
- Hankey, A. (2008a). *Dosha vikriti, Ayurveda's holistic system of etiology: A means to combat the global crisis in chronic disease*. Plenary paper presented at IGCC conference.
- Hankey, A. (2008b). *Establishing the scientific validity of Tridosha*. Unpublished paper, personal communication, Sept.
- Innes-Brown, Malcolm & Chatterjee, Samir. (1999). The relevance of the *Guna* theory in the congruence of Eastern values and Western Management practice. *Journal of Human Values*, 5; pg. 93-104.
- Joshi, R.R. (2004). A bio-statistical approach to Ayurveda: Quantifying the *Tridosha*. *The Journal of Alternative and Complementary Medicine*. 10, No. 5, p. 879-889.
- Kapur, M. (2008). Psychological Theories and Practices in *Ayurveda*. p. 299 - 312. In, Ramakrishna Rao, K., Anand, C, Paranjpe, & Ajit, Dalal, K. (Eds.). *Handbook of Indian Psychology*. New Delhi: Cambridge University Press India Pvt. Ltd.
- Krishnan, B. (2002). Typological conceptions in ancient Indian thought. (p. 292-304). In, Girishwar Misra & Ajit K. Mohanty (Eds.). *Perspectives on indigenous psychology*. New Delhi: Concept Publishing Company.
- Lyssenko, V. (2004). The human body composition in statics and dynamics: Ayurveda and the philosophical schools of *Vaisesika* and *Samkhya*. *Journal of Indian Philosophy*. 32. p. 31-56.
- Mohan, Jitendra. (2005). Personality research: an Indian perspective. (p. 249-261). In, K. Ramakrishna Rao & Sonali Bhatt Marwaha. (Eds.). *Towards a spiritual psychology*. New Delhi: Samvad India Foundation.
- Murthy, K.R. S. (Third edition, 1996). (Translator). *Vagbhata's Astanga Hrdayam. (1)*. Varanasi: Krishnadas Academy.
- Murthy, K.R.S. (Third edition, 2007). (Translator). *Susruta Samhita. 1*. Varanasi: Chaukhamba Orientalia.
- Murthy, K.R.S. (Translator). (Reprint, 2008). *Bhavaprakasa of Bhavamisra*. Varanasi: Chowkhamba Krishnadas Academy.
- Murthy, P.H.C. (Translator). (2nd edition, 2007). *Sarngadhara Samhita of Sarngadharacarya*. Varanasi: Chowkhamba Sanskrit Series Office.
- Murthy, Pannaga. K. & Kumar, Kiran, S.K. (2007). The concept of Triguna: A critical analysis and synthesis. *Psychological Studies*, 52, 2, 103-113.
- Naidu, R.K. (Mar. 1994). Traditional Indian Personality Concepts and the Unrealised Potential for Paradigm Shift; *Psychology Developing Societies*,. 6, 71-85.
- Naidu, R.K. (2001). Personality, self and life events. In, Janak Pandey.(Ed.). *Psychology in India Revisited, 2: Personality and Health Psychology*. New Delhi: Sage Publications.
- Narayanan, Jayanth & Krishnan, Venkat R. (2003). Impact of sattva and rajas gunas on transformational leadership and karma-yoga. *Journal of Indian Psychology*, 21(2), 1-11.
- Paranjpe, Anand C. (1988). A personality theory according to Vedanta. In, Anand Paranjpe, C. David Ho Y. F. & Robert Rieber, W. (Eds.). *Asian Contributions to Psychology*. New York: Praeger Publishers.
- Rao, Ramachandra, S.K. (1987). *Encyclopedia of Indian Medicine*. (Vol.1-3).Bombay: Popular Prakashan. p.161.
- Rao, V.A. (2002a). Mind in *Ayurveda*. *Indian Journal of Psychiatry*, 44 (3); p. 201-211.
- Rao, V.A. (2002b). 'Mind' in Indian Philosophy. *Indian Journal of Psychiatry*, 44(4), p. 315-325.
- Reddy, N. G. N., Ramu, M. G. & Venkataram, B. S. (Jul 1987). *Concept of manas (psyche) in Ayurveda*. NIMHANS Journal, 5(2), p. 125-131.
- Sharma, P. (1981). (Translator). *Charaka Samhita. (1-4)*. Delhi: Chaukhamba Orientalia.
- Sharma, P. (Reprint, 2004). (Translator). *Susruta Samhita. 1-3*. Varanasi: Chaukhamba Visvabharati.
- Shetty, M & Babu, S. (Editors and Translators). (2005). *Yoga Ratnakara*. Varanasi: Chowkhamba Sanskrit Series Office.
- Shilpa S., & Murthy, C.G.V. (2011a). Conceptualizing personality dynamics from the Indian thought. *Indian Social and Psychological Studies*, 4 (1), 6-19.
- Shilpa S., & Murthy, C.G.V. (2011b). Development and standardization of Mysore *Tridosha* Scale. *AYU- An International Quarterly Journal of Research in Ayurveda*, 32(1), 12-19.
- Shilpa S., & Murthy, C.G.V. (2012). Development and standardization of Mysore *Triguna* Scale. *Sage Open*. Published online on February 8, 2012, doi:10.1177/2158244012436564.
- Singh, Jitendra K. (2007). *Personality types in Indian tradition and their relevance in contemporary period*. Paper presented at National Seminar on Indian Psychology Theories and Models, SVYASA, Bangalore.
- Sitamma, M. (2005). Trigunas: a review of empirical studies. (p. 262-271). In, K. Ramakrishna Rao & Sonali Bhatt Marwaha (Eds.). *Towards a spiritual psychology*. New Delhi: Samvad India Foundation.

- Srivastava, Usha. (2004). *Indian concepts of personality and higher levels of mind*; Paper presented at Pondicherry; National conference on Indian psychology, Yoga and Consciousness.
- Thorne, Avril. (2000). Personal memory telling and personality development. *Personality and Social Psychology Review*, 4, No. 1, p. 45-56.
- Tripathi, A. A. (Dec. 2007). *Pursuit of human excellence and the Indian psycho-spiritual insights*. Paper presented at National Seminar on Indian Psychology Theories and Models, SVYASA, Bangalore.
- Vimala, T.D. (2004). *The Indian approach to personality development*. Paper presented at National conference on Indian psychology, Yoga and Consciousness, Pondicherry.
- Werner, Karel. (1978). The Vedic concept of human personality and its destiny. *Journal of Indian Philosophy*, 5 (1978). p. 275-289.

Acknowledgements: *The authors are deeply indebted to the experts consulted in the field of Ayurveda who have helped enormously with their technical inputs and invaluable assistance. The authors gratefully acknowledge the help rendered by Prof. H. M. Chandola, and Drs. Yogesh Deole, Ila Tanna, Shyam Prasad, P.K. Gupta, Jyoti Gubbanavar and Kavita Vyas (IPGT&RA, Jamnagar); and Dr. Kishore Kumar, Research officer, NADRI, Bangalore in preparing this paper. Any mistake in the paper is that of the authors only.*

