Summary
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The notion of temperament is used to describe relatively stable differences in human behaviour, which might be explained in term of biological mechanism. In behavioural sciences, temperament has been dealt at two levels: a developmental theory of temperament and a theory of adult temperament. The former offers a generally well-accepted premise that the basic temperament (constitutional or genetic make up) determines one's personality in interaction with experience (environmental influences) during the course of development. Temperament is biologically rooted regulatory mechanism of behaviour, manifested in all kinds of reactions (actions) independent of their direction or content. Temperament, conditioned by structural and functional properties of an individual, has an effect on the course of action by determining, alone or in conjunction with other factors, the energy level and the temporal characteristics of action. The present work/thesis deals with adult temperament only.

Vedic literature too offers a parallel two fold mechanism in the form of 'dosha' and 'guna' popularly known as tridosha theory and triguna theory representing prakriti (basic constitution or nature and original form) and personality (Charaka and Shushruta Samhita, 600-300...
B.C.). The present thesis again deals only with tridosha theory. It is parallel to humoural theory of Hippocrates and Galen etc in western world.

Each of the three doshas (Vata, Pitta and Kapha) have certain quantity, qualities and functions. When all of these are balanced, it is called normal or balanced state. This condition is conducive to well being, health and wellness. The doshas will become either decreased or increased. Both of these states lead to ill health or disease. However, increased doshas have much more power to cause problems than to decreased doshas. The three main temperament based on three doshas (humours) are Vataja (wakeful, averse to bathing, vain and dishonest, impulsive, capable of accumulating very little memory), Pittaja (irritable in temper but cools down very soon, intelligent and possess good memory) and Kaphaja (self controlled, for-bearing, unselfish, does not hastily form opinions, capable of sustaining pain and fatigue.)

A perfect balanced constitution of three dosha is four Vata, two Pitta and one Kapha, such a person is typed as "Sannipatika". However Charaka believed that mostly the prakriti is the combination of three doshas with poorly represented third. Such persons are typed as "Dawandwaja". They exhibit action and behaviour as per the
characteristics of two predominant dosha e.g. Vata-Pattik; Vata-Kaphik and Kapha-Pattik. Hence there may be three types of 'Dawandwaja'. At the same time there may be three pure types having disproportionately represented single dosha: vata type, pitta type and kapha type. Thus, one of the objectives of the thesis is to verify the typology as espoused in tridosha theory.

Review of related literature amply demonstrates that a few attempts have been made to examine the tridosha theory of temperament, which took up only biological/bio-chemical properties. There is a total gap in regard to behavioral traits and types.

The problem of the study was stated as “Construct validation of the tridosha theory of adult temperament”.

Main objectives of the study were: -

1. To validate the dosha specific factors of behavioural traits as hypothesized in tridosha theory, and

2. To validate the clusters of people (types) as hypothesized (seven types) in tridosha.

In order to meet major research objectives, an incidental sample of 200 consented (128 males & 72 females) subjects was used from a wide
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variety of working background from Rohtak and Mahendergarh (Haryana). Their mean age was 28.75 years and SD was 8.61.

A single sample, correlational, repeated measure design was used. Following an eclectical and rational theoretical approach, a battery of 15 various psychophysiological, psychometric, physical and experimental measures was prepared which yielded 27 measures. Data revealed marked deviation from normality on several measures. Therefore, the entire data was transformed and normalized by T-scaling (mean = 50 and SD = 10). The data were then arranged into R-matrix.

R- matrix of (25x200) of 25 variables for 200 subjects was factor analyzed by principal component and varimax rotated with Kasier normalization. The analysis yielded ten components explaining about 65% of the total variance. The first component represented measures showing reactivity and activity, while the second expressing the quickness/speed (walking) and motor output/strength (tapping). Third factor was hybrid factor representing blood pressure and second order personality factors (Cattellian). Tough-poise and low anxious correlated with blood pressure. The fourth factor can be described as confident loud speech with supportive cognitive processes of attentive memory. The factor-fifth was showing second order personality factor extraversion &
independence (Cattellian). Sixth factor was a pure physiological factor showing skin conductance, output and variability (indication of autonomic i.e. sympathetic arousal). Speedy speech, low intelligence and high skin temperature were loaded on seventh factor. Another pure physiological factor of muscle tone was revealed in terms of eighth component. Poor mental health was associated with quick walking which loaded significantly on ninth component. Lastly, body mass index (BMI) was obtained as a pure univariate factor. When two more variables of pulse rate were included in the factor analysis (27x100 matrix), they loaded with blood pressure and tough-poise personality variable. It was again revealing the same relationship as in third component i.e. to be tough-poise requires high cardiovascular output.

By and large, it can be concluded that the empirical groupings of measures were antithesis to the characteristics (behavioural or physiological said to be expression of various doshas. Many factors loaded with characteristics of one or two doshas. At times characteristics like body mass index, an indicative of kapha, remained as isolate. Similarly, skin conductivity, muscle tone, pulse rate, blood pressure considered to be the representative of the high pitta type too did not appear on a single axis. Along the same lines measures of quickness in
physical and cognitive activities considered to be representative of vatta also diffused along many axes.

Cluster analysis was though restricted to seven clusters. However, only 1st (n=96), 2nd (n=41), 5th (n=41) and 6th (n=14) clusters seemed to be significantly represented by sizeable members. The cluster analysis of 200 unselected sample virtually categorized them into 4 clusters only. Three clusters had not even more than 2 per cent cluster membership.

Thus, the deviation from the theory was noticed in terms of the number of types of people. The four major clusters which were obtained were either pure type or dawandwaja type. The pure types were so described as there was a predominance of one dosha while other two doshas were secondary. But in case of dawandwaja, the third dosha was of low quantity.

The findings did not attest to the principle of typological aspects of tridosha theory, namely, population is likely to be distributed in seven types based on dosha. It was a blended study of rational – theoretical approach (to select dosha specific variables) and an eclectic approach (for the operationalization of the selected variables) which resulted into a big battery of measures. The size of the present sample was moderate (200) and quite possible that if the sample is taken into thousands, these 3
clusters might have greater membership sufficient enough to describe them. But this was one of the limitations of the present study.

In the end, it can be suggested that in order to identify the prakriti types in the population much bigger population with limited measures should be studied e.g. body mass index, intelligence, pulse volume, pulse rate, skin conductance and personality features, like, anxiety and extraversion should be included. Psychomotor activities may be included in such studies, which show a distinct role of endurance i.e. power and also of speed.

To conclude it can be said that dosha specific constitutional parameters and behavioural parameters exhibited poor concordance. Instead clusters of subjects revealed admixture of all the three doshas specific traits. The findings were limited to the facility of operationalizing the behavioural concepts of the construct. Tridosa offers a challenge for its verification with lot of scope and potential for the behavioural and health scientists.