

Relationship between Temperament and Personality

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Abstract

The present study is an attempt towards examine the pattern of relationship between temperament and personality the sample comprised of 200 subject (100 boys &100 girls) with age range from 13 to 17 years .The subjects were drawn randomly from four schools of kurukshetra district in Haryana. The subjects were administered Sixteen Personality Factor Questionnaire (16 P.F.) developed by Cattell,Saunders and Stice (1966) to provide almost complete coverage to Personality in a brief time and Pavlovian Temperament Survey, originally the scale has been developed by Strelau et.al (1990) in English .In order to develop Indian version of the scale kaistha (1995) performed item analysis on original 252 item pool translated in Hindi. Finally, a total of 63 items used. Results of the study revealed that the correlation between temperament traits and personality factors indicate that these two constructs share very little in common with each other.

KeyWords : *Personality, Temperament*

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Introduction

Humans show panoply of individual differences in their typical behavior, emotion, and thoughts. Beginning in infancy, individuals vary in traits such as energy and activity level, positive emotional engagement with others, feelings of distress and irritability and persistent attention and interest in absorbing tasks. Older children, adolescent and adults vary in their typical self discipline, responsibility, empathy, imagination and intellect. Traits show some degree of situational specificity (Mc Adams & Pals, 2006).

Cotemporary research on temperament and personality traits addresses fundamental questions about these individual differences .What are the biological and environmental sources of variation in Traits? To what extent and how do traits remain the same and change over time? How do individual's traits affect their physical and mental health, relationship, work and well being?

Although people display individual differences in traits across the life span, these

traits are described some times as "Temperament" and other times as "Personality".

The concept of temperament has a long history, beginning in ancient times. Notions of temperament date atleast from the ancient Greek idea that person's typical mood and behavior result from the balance of four humors in the body: blood bile, yellow bile and phlegon. In this ancient model, temperament was viewed as deriving from biological and emotional processes, a view consistent with current conceptualization of temperament (Clark & Waston, 2008, Zuckerman, 1995). In more recent times the empirical study of temperament in childhood was galvanized by the work of Alexander, Thomas and Stella Chess, who started a longitudinal study of children's early emerging behavioral styles in 1956 (Thomas Chess, Birch, Hertzizig & Korn, 1963).

At the time that Thomas and Chess began their study, most researchers on personality development was based on the assumption that children's socialization

experiences were the most important sources of their individual differences in personality. Thomas and Chess work helped to convince researchers, practitioners and parents that children vary biologically from one another from early in life and that these biological differences are important for the course of children's development.

At present, temperament researchers and practitioners are not yet unanimous in their definition of temperament perhaps the most influential contemporary definition of temperament comes from Mary Rothbart, Rothbart & Colleagues argue that temperament includes individual differences in affect activity, attention and self regulations (Rothbart and Bates, 2006).

Most of the experts agree that temperament can be altered, within limits by medical and nutritional influences as well as in the course of learning and life experiences. A number of workers have made satisfactory use of the four temperaments; among these are Galen, Kantt, Wundt, Hoffding, Herbart and Pavlov.

Currently, one of the most popular personality theories is the Big Five theory of Paul Costa and Robert McCrae. Based on repeated factors analysis of personality traits, these authors have concluded that personality is comprised of five universal dimensions: Extraversion, Agreeableness, Neuroticism, Openness and Conscientiousness. They believe that these five factors can be found in self ratings of personality in youngster as soon as they are able to rate themselves and remain invariant through adulthood. Allport (1937) defined personality as "the dynamic organization within the individual of those psychophysical systems that determine his unique adjustment to his environment.

This definition supports the study of common traits with traits defined by Allport

(1961) as "a neuropsychic structure having the capacity to render many stimuli functionally equivalent and to initiate and guide equivalent (meaningful consistent)" forms of adaptive expressive behavior". Allport (1937) further put forward two primary goals for personality research: The identification of individual differences and the explication of the psychological processes underlying those differences.

Several aspects of Allport's (1937, 1961) approach point to the centrality of temperament in understanding personality. One is his emphasis on process: another is his consideration of adaptive qualities that may be linked to evolution. A third is his concern with dynamic organization.

Donna Marie Caro (2007) conducted a study on the relationship between temperament and personality over time and across the generations and founded that a significant relationship emerged by sociability scales in offspring and their parents. Defiant infant behavior also correlated with parental social independence and difficult behavior in infants correlated with high levels of self perceived control in parents. A significant relationship emerged between non persistent behavior in childhood and extravagance in adulthood. Poor attention span in childhood related to apprehension in the face of novelty and risk in adulthood. No significant relationships emerged between parental childhood temperament and offspring infant temperament for the total sample.

Cloninger (2003) revised 7-factor model of personality showed incremental validity over his four dimensions of temperament. A sample of 2517 Australian twins aged over 50 between 1993 and 1995 returned completed self reported measures of self directedness, co-operativeness, and self transcendence from Cloninger's Temperament and character inventory. Many of

these twins had participated in a 1988 study containing Cloninger's temperament measures of Harm Avoidance, Novelty, Seeking, Reward dependence and Persistence. Contrary to theoretical expectations univariate analyses revealed that familial aggregation for the character dimensions could be entirely explained by additive gene action alone. Although temperament explained 26,37 and 10% of additive genetic variance in self defectiveness, co-operativeness and self-transcendence, respectively, seven genetic factors required to explain the genetic variance among the TPQ dimensions almost all of the non-shared environmental variance was unique to each dimension of character. The results indicate that the inclusion of all seven dimensions in taxonomy is warranted.

Mary K. Rothbart (2007) reviewed how a temperament approach emphasizing biological and developmental processes can integrate constructs from sub disciplines of psychology to further the study of personality. Basic measurement strategies and findings in the investigation of temperament in infancy and childhood are reviewed. These include linkage of temperament dimensions with basic affective – motivational and attentional systems, including positive affect / approach, fear frustration/anger, and effortful control. Contributions of biological models that may support these processes are then reviewed. Research indicating how a temperament approach can lead to researches of social and personality development to investigate important person environment interactions. Adult research suggesting links between temperament dispositions and the Big Five Personality factors.

Ivan Mervielde, Barbara De Clercq, Filip De Fruyt, and Karla van Leeuwen (2005) contributed to the case for a dimensional conceptualization of the psychopathology in

general and maladaptive personality or personality disorders in particular, reviews the evidence for a dimensional representation of childhood temperament and personality. The review of temperament and variable centered as well as person centered approaches to childhood personality leads to propose five broad band dimensions that capture individual differences in children and adolescents, extraversion, emotional stability, agreeableness, conscientiousness and openness intellect. The analysis of the CBCL (Achenbach, 1991) and the DIPSI (Currently under development at Ghent university), two dimensional models for childhood psychopathology suggests two common broad band factors, internalizing and externalizing. The relation between the dimensional representation of childhood temperament, personality and psychopathology are documented with data from general population and clinical samples of children and adolescents. They concluded with a proposal on how the higher order dimensions emerging from studies of adaptive and maladaptive individual differences in childhood could be integrated in a common dimensional model.

Helen J. Michielsen, Jolanda De Vries, Guus L. Van Heck (2002) examined the relationship between temperament and personality on the one hand and chronic fatigue, on the other hand. The temperament variables were the Five-Factor-Model dimensions Emotional Stability and Extraversion as well as Pavlovian temperament traits. The personality variables were the Five-Factor-Models dimensions Agreeableness, Conscientiousness and Autonomy, plus hardiness and Type A behavior pattern. It was expected that these person characteristics were negatively linked to fatigue except for (1) Type A and (2) conscientiousness and Autonomy, which were scrutinized in an exploratory way. Respondents (N=351), working at least 20 hrs per week,

completed two surveys. The first survey contained the temperament and personality questionnaires and the fatigue scale, while the second one, 2 years later, included the fatigue scale. Results indicated that high scores on the Five-Factor-Model dimensions Emotional stability and Extraversion, the Pavlovian temperament strength of Inhibition and the hardiness component commitment predicted lower fatigue scores. However, when in the analysis fatigue measured two years earlier was controlled for, only Extraversion and Strength of Inhibition appeared to be good predictors. Even so, these two predictors did not explain a large proportion of the variance. When men and women were examined separately, personality and temperament predicted almost nil. In conclusion, when fatigue measured earlier is controlled for, the direct role of temperament and personality decreases enormously.

Strelau and Zawadzki (1995) predicted that briskness is positively related to strength of excitation and mobility, to activity, flexibility, and extraversion. Perseverance should be positively correlated with all emotionality, characteristics and negatively with flexibility and mobility. Also a negative correlation may be expected with strength of excitation because of the close links between the latter property and mobility. They proposed that Endurance should be highly correlated with strength of excitation, and to a lesser degree with mobility, extraversion and sensation seeking.

The above reviewed literature indicates the relationship between temperament and personality. Hence the present study is an attempt in this direction.

Objective : The present study has one objective "To examine the relationship between temperament and personality factors".

Hypothesis : There would be differential relationships between personality traits and temperamental traits.

Method:

Sample : A total of 200 subjects (100 boys and 100 girls) with age range from 13-17 years provided data for the present study. The subjects were drawn randomly from four schools of Kurukshetra district in Haryana State. The sampling was performed in two stages. At first, four high schools were selected randomly out of all the high schools in Kurukshetra district then, out of all the students in 9th, 10th, 11th and 12th classes of these institutions, the desired number of subjects were selected randomly to obtain data for the present study.

Tools : The tests used in this study are:-

1. Sixteen personality Factors questionnaire (16 PF)

2. Pavlovian Temperament Survey

1. Sixteen personality Factors questionnaire (16 PF):- 16 PF was originally developed by Cattell, Saunders and Stice (1966) to provide almost complete coverage to personality in a brief time, this test can be scored objectively with the help of specially designed stencil keys. The test consists of 187 items. Although no time limit is enforced in testing, it takes about 50-60 minutes to complete the test.

2. Pavlovian Temperament Survey:- Indian adoption of Pavlovian Temperament survey (Kaistha, 1995) was used to assess three temperamental traits described by Pavlov. Originally, the scale has been developed by Strelau et al. (1990) in English. In order to develop Indian version of the scale, Kaistha, (1995) performed item analysis on original 252 item pool translated into Hindi. Finally, a total of 63 items are included in it.

Data Collection : After establishing the rapport with the subjects, both the tests were administered.

Result and Discussion

The obtained data has been analyzed by applying co relational analysis. The inter-correlations among these measures are reported

in the table. A correlation coefficient of 0.14 is significant at 0.05 level and a correlation coefficient of 0.18 is significant at 0.01 level

correlation between factor C and SI dimension of temperament is somewhat higher. Factor E has significant negative correlation with

Variables	SE (Strength of Excitation)	SI (Strength of Inhibition)	MO (Mobility)
A	-01	04	03
B	16**	-08	05
C	06	12	-01
E	02	-02	-19*
F	06	-02	-05
G	-06	12	-19*
H	-08	-05	-10
I	04	-02	-07
L	04	03	08
M	01	-05	06
N	09	-00	-01
O	-02	-05	-10
Q1	11	04	00
Q2	11	-04	07
Q3	08	13	06
Q4	07	11	04

- Decimal point omitted

The measures of personality (16PF) and that of temperament share very little in common. The inter correlation range between -0.19 and 0.16. Factor A of 16 PF has yielded very low correlation with temperamental dimensions. Factor B (16 PF) has significant positive correlation with SE and non significant negative correlation with ST and non significant positive correlation with MO. It shows the significant relationship b/w factor B and SE. It means the persons having characteristics like intelligence, Abstract thinking and brightness also have the characteristics of temperament i.e. strength of Excitation. Factor C shows no significant correlation with SE, SI and MO though the

temperament factor MO. It indicates that the persons who are docile, and to confirm, dependent, confessing, anxious for obsessional correctness are negatively correlated with the mobility dimension of temperament. Factor G has significant negative correlation with temperament factor MO. It shows the persons who are expedient, Evades rules, Feels few obligations show the negative correlation with the factor MO. Factors F, H, I, L, M, N, O, Q1, Q2, Q3 and Q4 (16PF) do not show any significant (negative and positive) correlations with temperament factors SE, SI and MO. In general the correlations between temperamental traits and personality factors indicate that these two constructs share very little in common with each other.

Temperament traits have shown low degree of relationship with personality traits. However, some of the correlations are significant at 0.05 or 0.01 level. Temperament dimensions SE correlates significantly with personality factor B; SI with Q3; MO with E (negatively) and with G (negatively). The results confirmed the prediction and add to the stability and validity of the phenomenon that have all ready been observed in earlier studies (e.g., Strelau and Zawadzki, 1995 & Donna Marrie Caro, 2007).

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