

Effect of Cattell's Personality Factors (C & F), Intelligence and S E S on Anxiety

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Abstract

The present research tried to find out the effect of Cattell's personality factors C (emotionally unstable Vs emotionally stable) & F (Desurgency Vs Surgency), intelligence and socio-economic status on anxiety. Cattell's Sixteen Personality Factor Questionnaire (from A), Group test of intelligence by Kulshreshtha and anxiety scale by Srivastava & Tiwari were used for this purpose. The final sample consisted of 240 subjects having 30 in each subgroup, categorized on the basis of high and low scorers. The findings of the research indicated that emotional instability promotes anxiety and desurgency also enhances anxiety. Further, low intelligence promotes anxiety and low SES also leads to anxiety. Personality factor F (Surgency Vs Desurgency) interacts with intelligence in affecting anxiety.

Keywords: PFC: Personality factor C (emotionally unstable Vs emotionally stable), PFF: Personality Factor F (Desurgency Vs Surgency), Intelligence, Socio-Economic Status (SES), Anxiety.

Introduction

Anxiety is part of the fabric of everyday life and it is so widespread that it affects everyone. At work, in marital responsibilities and even in leisure time activity, anxiety may be present. Anxiety can be defined as a "state of arousal" caused by threat to one's well-being (Spielberger, 1960), 'State' means a condition involving the entire organism. "Arousal" means a condition of tension, unrest or uneasiness or readiness to act the response. "Threat" means anticipation of pain or danger or serious interference with goal seeking activities.

Freud distinguishes three main types of anxiety – objective anxiety, neurotic anxiety and moral anxiety. All three types represent reactions of weakness on the part of the ego in the face of demands made on individual by reality, the id and the super ego. Objective anxiety is the consequence of weakness towards the id, moral anxiety stems from weakness towards the super ego.

In the present study three determinants are selected which affect anxiety-personality factors C and F (as found in Cattell's 16 personality factor Questionnaire), intelligence and socio-economic status.

Personality designates the patterns of behaviour and predisposition and it determines how a person will think, feel and act. Personality factor C is related to emotional instability Vs emotional stability. Personality factor F indicates Desurgency Vs Surgency, according to Cattell.

The person who scores low on factor C would be affected by feelings, emotionally less stable, easily upset and changeable whereas the person who scores high would be emotionally stable, mature, faces reality and calm.

The person who scores low on factor F tends to be restrained reticent, introspective, sober, serious and taciturn (Desurgency) whereas the person who scores high would be happy-go-lucky, impulsive, lively, gay and enthusiastic.

The next important factor selected for the present study is 'intelligence'. In this study it was tried to explore how does intelligence as ability to deal effectively with tasks involving abstractions to learn and to deal with new situations affects anxiety?

The third important factor is Socio-Economic Status (SES). It was tried to check whether the wealth, occupation and social class affect anxiety.

Review of Literature

First of all, Shure and Rogers (1963) demonstrated that intelligence influences the structure of personality. He examined three

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groups of students who were categorized as low, moderate or high in intelligence by administering California Psychological Inventory (CPI, Gough, 1957). Shure and Rogers (1963) concluded that if samples of people are drawn from different ability groups, then the definition of personality factors, based on factor loadings, could change even if the same battery of personality scales is used for each sample.

Brand, Vincent & Deary (1994) also reported that intelligence may influence the structure of personality traits. Brand supported the hypothesis that individual higher in intelligence will show greater differentiation in personality.

Few years later, Austin, Hofer, Deary & Eber (2000) found that the variance in psychopathology measures differed for individuals at different cognitive ability levels, suggesting that intelligence may be related to different clinical traits depending on the individual's ability level.

After testing the variability of personality, using the Big Five personality dimensions, in intelligence level groups, Harris Etal (2006) reported that differentiation hypothesis earned some support on the sample of adults but not on the sample of adolescents.

DeFruyt etal (2006) based on a large sample of job candidates, reported that although the factorial structure of the personality scales, based on the Big Five personality model, stayed the same across intelligence groups, variance for openness, neuroticism and extraversion were slightly higher for the higher intelligence group.

In a recent study, Schermer, Krammer, Goffin and Biderman (2020) found that there was a greater individual differences in personality traits for those individuals who were more intelligent. Conversely, less intelligent individuals will be more similar to each other in their personality traits. A five factor model was tested for both the lower and

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higher intelligence halves and were found to have configural invariance but not metric or scalar invariance.

Objective of The Study

The objective of the present study is to explore the main and interactive effect of personality factors C & F, Intelligence and Socio-Economic Status (SES) on anxiety.

Variables

- I.V. - i) Personality Factors C & F
 ii) Intelligence
 iii) SES

D.V.- Anxiety

Sample

The final sample comprised of 240 college students, divided into 8 subgroups, each having 30 subjects. The subjects were selected on the basis of high and low scores on variables.

Tools of the study:

- i) Cattell's Sixteen Personality Factor Questionnaire (From A) (Only factor C & F were taken)
- ii) Group Test of Intelligence (Samooch ikMan ik Yogyata Pariksha) by Tandon, R.K.
- iii) Socio-Economic Status Scale (From A) by Kulshreshtha, S.P.
- iv) Anxiety Scale by Srivatavs, D.N. & Tiwari, G

Data Collection And Statistical Analysis

Data have been recorded in terms of raw scores on anxiety available for 240 subjects who were classified into eight subgroups on the basis of three factors – PF, Intelligence and SES, each having two levels, i.e., high and low. Each subgroup consisted of 30 subjects three way analysis of variance has been done for getting the findings of the study.

Results and findings

Table 1:

Effect of Personality Factor C, Intelligence and SES on anxiety and its interaction.

Source	SS	Df	MSS	F
PFc	1020.94	1	1020.94	3.96*
Intelligence	1096.54	1	1096.54	4.25*
SES	774.00	1	774.00	3.00
PFc X Intelligence	133.50	1	133.50	0.52
PFc X SES	519.21	1	519.21	2.01
Intelligence X SES	297.04	1	297.04	1.15
PFc X Intelligence X SES	214.70	1	214.70	.83
Error	59870.23	232	258.06	
Total	63926.16	239	267.47	

* p > .05

** p > .01

INOVA Summary

Table 2 :

Effect of Personality Factor F, Intelligence and SES on anxiety and its interaction

Source	SS	Df	MSS	F
PFc	1174.84	1	1174.84	4.65*
Intelligence	1096.54	1	1096.54	4.34*
SES	774.00	1	774.00	3.06
PFc X Intelligence	1210.5	1	1210.5	4.79*
PFc X SES	670.00	1	670.00	2.65
Intelligence X SES	297.04	1	297.04	1.18
PFc X Intelligence X SES	67.20	1	67.20	0.27
Error	58636.04	232	25274	
Total	63926.16	239	267.47	

* p > .05

** p > .01

A perusal of the results indicate two personality factors – C & F, as measured by Sixteen Personality Factor Questionnaire (1970), being significant as main effects, i.e. they have their independent effect on anxiety.

The PFc symbolizes emotional stability and low score suggests to PFc is that emotionally instable (C 2) persons are more anxious than emotionally stable (C 1) persons, i.e., C 2 > C 1. Such people are confused, indecisive, frustrated, changeable and sensitive as they are not able to fulfill the demands of life. They do not have confidence in themselves and often, they are not satisfied with their decisions and modes of living. They do not have clarity of mind. Due to this bent of mind emotionally instable people are more anxious than emotionally stable. Emotionally stable persons are realistic about life and possess ego strength. The people with such nature have less anxiety. (Table-1 :PFc, F = 3.96 P>.05). Further, the results reveal that people with low intelligence are more anxious than high intelligence (F=4.25, p>.05). The main effect of SES is insignificant. The interaction effects are also found insignificant.

The personality factor F signifies "Desurgency Vs Surgency" nature of persons. Scores high to low means surgency (happy – go lucky) to desurgency (sober and serious). The present finding (table-2) with reference to this factor is that persons with desurgency (F2) have more anxiety than surgency (F1), i.e., F2>F1. Such people are restrained, introspective, pessimistic, sober and dependable, so they are less competent to solve the problems of life. This may be the reason, they have more anxiety. The people who qualify with surgency are gay, enthusiastic, frank, carefree and expressive and as such they achieve success most of the times and feel less anxiety (table-2, PF, F=4.65, p>.05). Further, the people of low intelligence are more anxious than of high intelligence. It has also been noted that PFc Interacts with intelligence in affecting anxiety. People having surgency traits and low intelligence are more anxious than such people with high intelligence, while desurgency people with high intelligence are more anxious than such people with low intelligence. Other interacting effect such as,

PFc X SES, Int X SES and PFc X Int X SES found to be insignificant (Table-2).

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