STUDY OF EGO STATES AND ITS EFFECT ON THE PERFORMANCE OF IIT MADRAS STUDENTS

A THESIS

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THESIS CERTIFICATE

This is to certify that the thesis titled **STUDY OF EGO STATES AND ITS EFFECT ON THE PERFORMANCE OF IIT MADRAS STUDENTS**, submitted by **Tejasvini K (EE10B043)**, to the Indian Institute of Technology Madras, Chennai for the award of the degree of **Bachelor of Technology**, is a bona fide record of the research work done by him under our supervision. The contents of this thesis, in full or in parts, have not been submitted to any other Institute or University for the award of any degree or diploma.

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ABSTRACT

KEYWORDS: Ego states, Transactional analysis, Personality traits, university students, likert scale questionnaire, gender, CGPA, department, degree,

A quazi experimental study on the students of IIT Madras, to determine the dominant ego states of the students, to find out if there is a statistical significant variation of ego states with respect to their gender, their department , the year they joined the institute, their degree and their academic performance.

The data collected supports that there is a significant variation of ego states with respect to the degree and gender. NP index of women is higher than men, which is consistent with the previous study on the subject. There is no significant variation of ego states with respect to department and year of joining. The ego states do not seem to affect the academic performance. However a trend in LP is observed, that is, LP reduces with the increase in CGPA. A positive correlation of NP and A is found which is consistent with the previous research on the subject.

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ABBREVIATIONS

NP	Nurturing parent
CP	Critical Parent
NC	Natural Child
A	Adult
AC	Adapted Child
LP	Little Professor
ANOVA	Analysis Of Variance
UG	Undergraduate
PG	Postgraduate

NOTATIONS

p/sig	probability of the error in the hypothesis
df	Degree of freedom
N	Number of students

CHAPTER 1

INTRODUCTION

Transaction Analysis is a tool used to understand the interpersonal interactions. It was developed by Eric Berne (1960). In his work Berne states that when we transact with one another we are in one of the three states, that is the Parent ,Child or Adult states. He defines ego states as “a consistent pattern of feeling and experience directly related to a corresponding consistent pattern of behaviour".

The Parent state is mainly derived by the individual’s parents and the society. It can be further categorized into Nurturing Parent and Critical Parent. In the NP state the individual is encouraging, motivating and concerned. In the CP state however he would be critical, judgemental and punishing. He often uses dos and don’ts.

In the Adult state the individual is logical, reasonable and emotionless. In this state he is confident and affirmative. His function closely relates to a computer.

The Child state is derived from the behaviour of the individual when he was a child. The Child state can be further classified into Natural child, Adaptive Child and Little Professor. When in NC a person transacts freely and openly. He is spontaneous, energetic and uninhibited. When in AC the individual shows obedience, he follows the rules of the society; he uses words like ‘please’ and ‘thankyou’. His tone of voice is whining , sulking or defiant. In the state of LP the individual shows enthusiasm, creativity and innovativeness. He is teasing and playful. He uses phrases like ‘I got an idea’

The objective of the study is to find out the dominant ego states in the students of IIT Madras. To check if there is a statistically significant variation of ego states with respect to the parameters – year of joining the institute, CGPA, department, degree and gender. With the information of the dominant states the individual can exercise a choice to change to the appropriate state as per his job requirement to enhance his performance . For instance, a teacher should have a dominant NP, lawmakers should have a dominant A, research scholars should have a high LP, and Artists should have a high NC and so on. Awareness of the states can also help the individuals to transact more effectively.

Ego states can be identified using the following table [13]

	CP	NP	A	NC	AC	LP
Words	Bad , should, ought	Good, nice, well done	how, why, who, yes, no	fun, want, mine	Cant, wish, thank you ,sorry	I’ve got an idea
Gestures	pointing finger , pounding table, shaking head	open arms, patting the back	Straight position, level eye contact	energetic, lose limbed	Slumped , dejected, nail biting	Batting eyelashes
Tone of voice	Sneering, condescending	loving, encouraging, concerned	Calm, clear, even , confident	loud, free	whining, sulking, defiant	Teasing
Facial Expression	scowls, hostile, dissaproving	Smiling	Thoughtful alert eyes	Joyful twinkling eyes	fearful, pouting	wise eyed' innocent

Table 1.1 To identify the ego states

CHAPTER 2

LITERATURE REVIEW

"Although states function the same for men and women, differences between the genders on them and other personality characteristics have been identified. These include psychological differences (Lang-Takac & Osterweil, 1992; Rubin, 1983) and physiological differences (Iaccino, 1990)." [1]

"Feingold (1994) used a series of meta-analyses to examine gender differences in personality in the literature (1958-1992)and in normative data for well-known personality inventories (1940-1992). His results indicated that males were more assertive and had slightly higher self-esteem than females while females were higher than males in extraversion, anxiety, trust, and especially, tender-mindedness (e.g., nurturance). His results also indicated that gender differences in personality traits were generally constant across ages, years of data collection, educational levels, and nations."[1]

"Heyer (1979) administered a 16-item version of an state instrument, the State Profile (ESP), to a cross section of 1044 California Adults in September 1976. He interpreted his findings to indicate that, among the general population, the Critical Parent (CP) state was found to be consistently higher among men than among women. Heyer's results also indicated that Adult (A) state attributes were acknowledged significantly more often among men than among women Heyer's reported finding that the Nurturing Parent (NP) state in the adult population was higher among women than men is consistent with transactional analysis theory."[1]

" Wyckoff (1974) developed a theory of sex role scripting in men and women that included the purported existence of a stronger Nurturing Parent state in women than in men. According to Wyckoff, the Nurturing Parent (NP) state is not innate but a product of social interaction." [1]

"Steiner (1974) also believes that women and men are socialized to develop certain parts of their personalities while suppressing the development of other parts of their personalities."[1]

"In 1980 Williams and Williams developed a procedure for measuring transactional analysis functional states based on the Adjective checklist. The subject of validity was not clearly addressed in this study. The scoring system used appeared to be based on content validity. The authors indicated that the 44-item scale for each state had adequate test-retest reliability. No reliability coefficients were mentioned. Using this scale, they found no mean percentage state differences between males and females in a college population of young adults."[1]

"Loffredo and Omizo (1997) reported a statistically significant difference between undergraduate male and female students on the Nurturing Parent (NP) state. The instrument used to measure states, the State Questionnaire (ESQ), was developed by the authors and was based on content validity. "[1]

"Using the ESQ-R, most of the Loffredo and Omizo (1997) study was repeated and a new variable, college major, was included in the data collection and analysis. The variable, college major, which is related to vocational interest, was added to the study. Holland (1999) asserted that vocational interest inventories are also personality inventories.

Hence, college major was considered a variable of interest in this study which might reflect differences in personality (states).” [1]

No published research is cited in the psychology literature examining differences in functional states by the year of joining the college, the degree of the student and CGPA.

2.1 Hypothesis

The hypothesis, based on the previous work in the field and intuition, are the as follows:

- There is a statistically significant variation of states with respect to gender, degree, department, CGPA and year of joining.
- Women have a Higher NP index than men
- Men have a higher CP and A index than woman
- LP index increases with increase in CGPA
- Post graduate students have a higher P index than undergraduate students
- All students in general have high AC index
- NP and A have a positive relationship.

CHAPTER 3

RESEARCH DESIGN

3.1 Methodology

A quazi experimental survey is conducted, where in an online five point likert scale questionnaire is sent across, the responses are analysed and results are calculated. The results are tested for the hypothesis and the conclusions are drawn.

3.2 Participants

507 participants with demography,

Male	79.52%
Female	20.48%

Table 3.21 – The gender distribution of the participants

Aerospace	32
Applied Mechanics	18
Biotechnology	37
Chemical	30
Chemistry	9
Civil	37
Computer Science	53
Electrical	72
Engineering Design	14
Humanities	11
Management Studies	24
Mathematics	8

Mechanical	95
Metallurgical	19
Ocean	27
Physics	22

Table 3.22 – Department distribution of the students

First year	175
Second year	111
Third year	84
Fourth year	71
Fifth year	50
Sixth year	10
Seventh year	2

Table 3.2.3 – Year wise distribution of students

Less than 6	11
Less than 7	43
Less than 8	116
Less than 9	227
Less than 10	81

Table 3.24 – CGPA wise distribution of students

Btech	144
Mtech	54
Dual	114
PhD	134

MBA	20
MA	7
M.Sc	34

Table 3.25 – Degree wise distribution of students

3.3 Instruments

Through online state questionnaire of36 questions. The questionnaire is 5 point likert scale, each of which measures one of the six functional states: NP, CP, A, NC,AC and LP. There are 6 questions for each of the six functional states. Each subscale yields a score ranging from 0 to 24.The higher the subscale score, the more often that functional state is activated**.**

3.4 Analysis

For the analysis the software tool, SPSS is used. ANOVA for every variable with respect to the states is found. T-test is conducted to find the overall mean. Correlation of variables is tested when needed. A five-way multivariate analysis is done for each of the categories with respect to the states.

3.5 Ethics and Limitations

The limitations of the studies are that the N value for each category varies; therefore the results obtained can change by changing the N. Also the authenticity of the information given by the participants is not verified.

CHAPTER 4

RESULTS

The ANOVA for the variation of ego states with respect to gender is calculated through SPSS. It shows that there is a statistically significant variation of NP with respect to gender, and women have a higher NP index than men with $p<0.02$, thus supporting the hypothesis.

ANOVA

NP

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	107.149	1	107.149	5.744	.017
Within Groups	9439.361	506	18.655		
Total	9546.510	507			

Table 4.11 – Analysis of variance of NP with respect to gender.

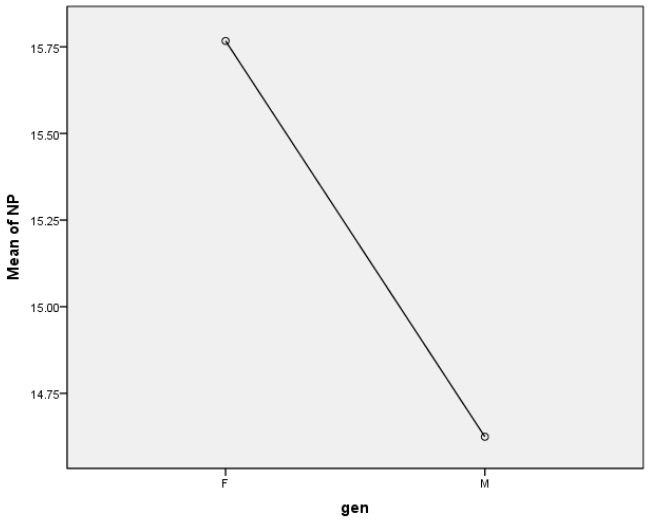

Figure 4.11- The mean of NP across gender

There is no statistical significant variation of other ego states with respect to gender as $p>0.05$ in all the other cases. Therefor the hypothesis that man have a higher CP and A than women is not supported by the data. However they do have a higher CP and A mean as compared to woman.

Except LP there is no statistical significant variation of ego states with respect to CGPA. However the result obtained is quite opposite to the hypothesis. LP decreases with the increase in CGPA, the $p<0.001$ which shows that the result is highly significant.

ANOVA

LP

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	272.768	4	68.192	5.456	.000
Within Groups	5911.776	473	12.498		
Total	6184.544	477			

Table 4.12 – Analysis of variance of LP with respect to CGPA.

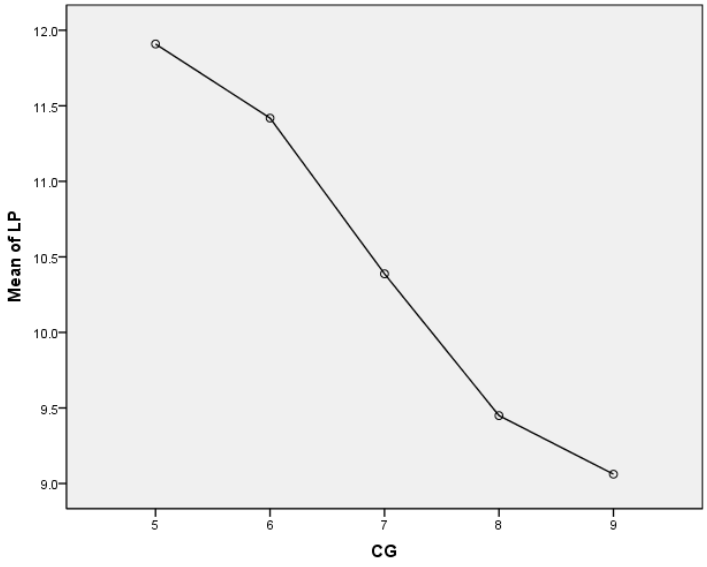

Figure 4.12- The mean of LP across CGPA

There is a highly significant variation of all ego states but AC, with respect to degree.

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
CP	Between Groups	330.306	6	55.051	4.074	.001
	Within Groups	6769.529	501	13.512		
	Total	7099.835	507			
NP	Between Groups	447.135	6	74.522	4.103	.000
	Within Groups	9099.375	501	18.162		
	Total	9546.510	507			
A	Between Groups	237.230	6	39.538	3.055	.006
	Within Groups	6484.667	501	12.943		
	Total	6721.898	507			
LP	Between Groups	650.202	6	108.367	6.967	.000
	Within Groups	7793.200	501	15.555		
	Total	8443.402	507			
NC	Between Groups	253.273	6	42.212	3.385	.003
	Within Groups	6248.380	501	12.472		
	Total	6501.654	507			
AC	Between Groups	103.452	6	17.242	1.138	.339
	Within Groups	7592.351	501	15.154		
	Total	7695.803	507			

Table 4.13 – Analysis of variance of ego states with respect to degree.

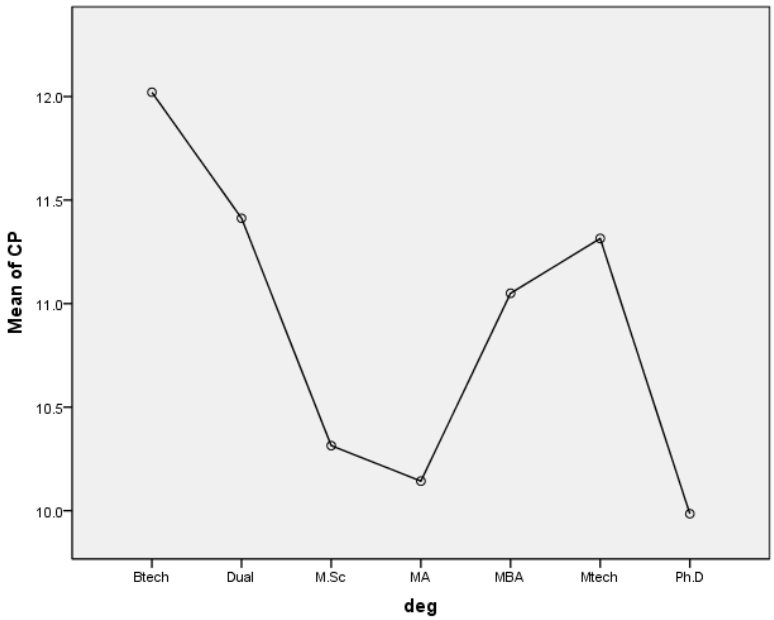

Figure 4.13- The mean of CP across degree

The above figure shows that Btech have relatively high CP and PhD have relatively low CP.

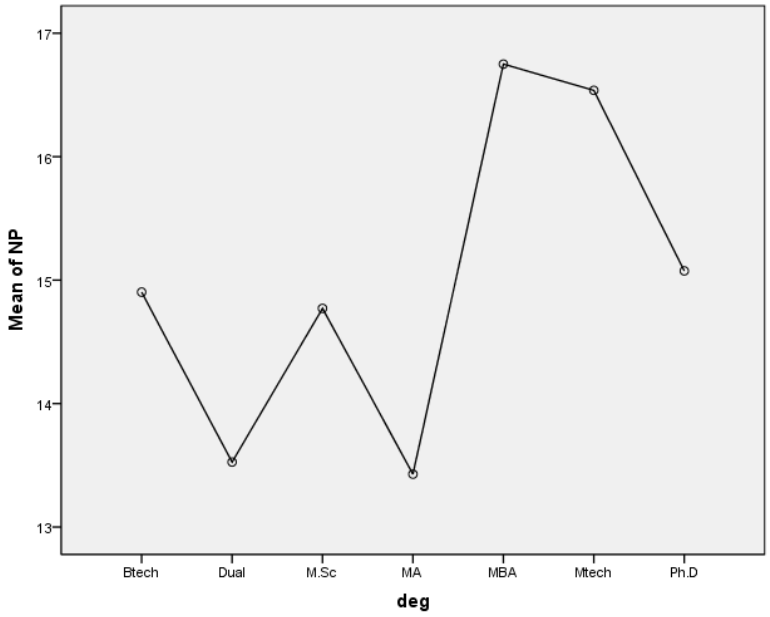

Figure 4.14- The mean of NP across degree

The above figure shows that MBA has relatively high NP and dual and MA have relatively low NP

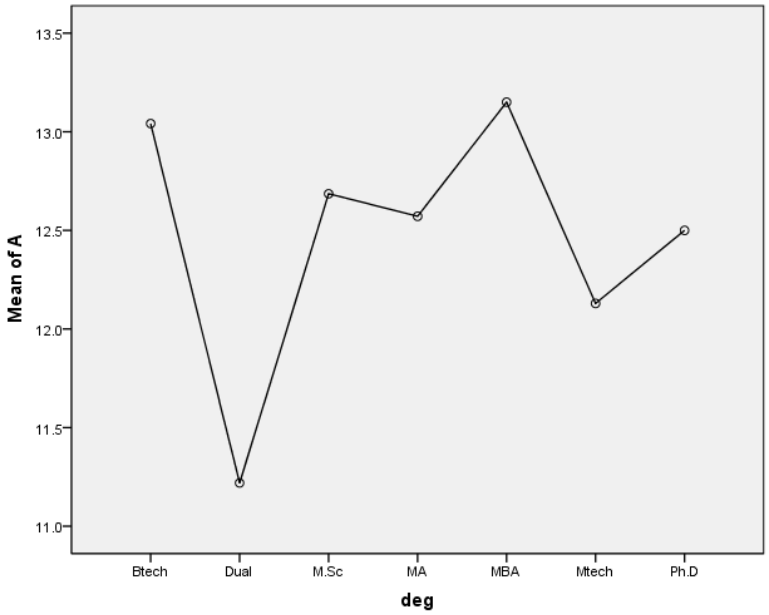

Figure 4.15- The mean of A across degree

The above figure shows that MBA have relatively high A and Dual have relatively low A

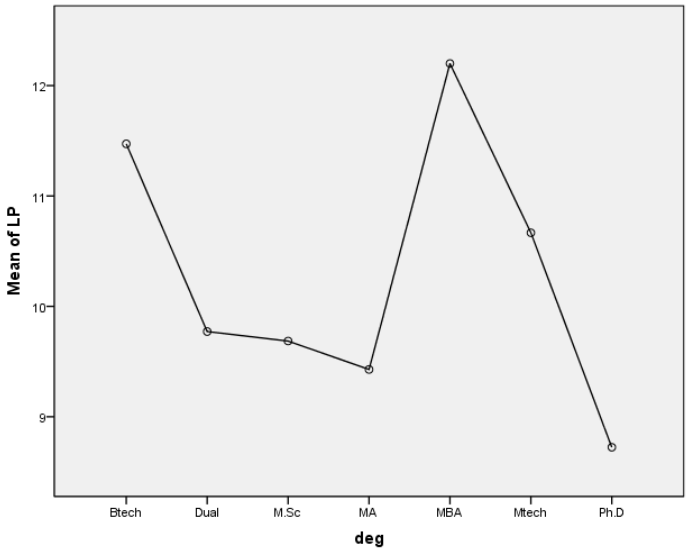

Figure 4.16- The mean of LP across degree

The above figure shows that MBA have relatively high LP and Ph.D. have relatively low LP

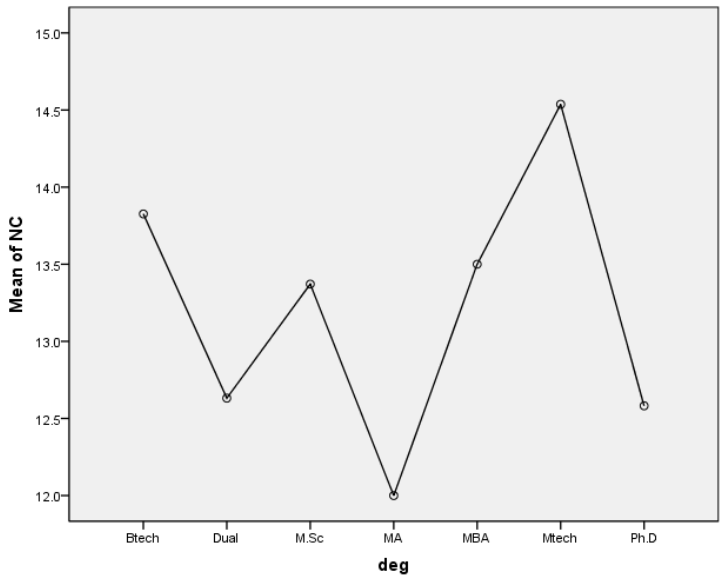

Figure 4.17- The mean of NC across degree

The above figure shows that MTech have relatively high NC and MA have relatively low NC

There is no statistically significant variation of ego states with respect to year of joining or department. The data does not support the hypothesis

There is a significant variation of ego states across undergraduate and postgraduate students, with UG students having higher CP ($p<0.001$) and LP ($p=0.02$) than PG students. And PG students having higher NP ($p=0.001$) than UG.

There is a positive relationship between A and NP with $p<0.001$, making the result highly significant.

Correlations

		A	NP
A	Pearson Correlation	1	.531**
	Sig. (2-tailed)		.000
	N	508	508
NP	Pearson Correlation	.531**	1
	Sig. (2-tailed)	.000	
	N	508	508

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

Table 4.14 – Correlation of NP and A.

CHAPTER 5

ANALYSIS

The differences in gender in the Nurturing Parent ego state are consistent with Heyer's (1979) results and Loffredo and Omizo's (1997) findings of higher Nurturing Parent scores for females than males and contradict the findings of Williams and Williams (1980) .Williams and Williams (1980) note that there is a positive relationship between the Adult ego state and the Nurturing Parent, which is consistent with the result.

The result of LP being lower in high CGPA students and PhD students is counter intuitive. It might be because of development of egoism or maybe due to conditioning in the university which would have led to the inhibiting of creativity.

The result also shows no relation between ego states and department and year of joining. The dominant ego states in the students is NP followed by AC, NC, A, CP and finally LP. A positive AC with NP are the traits of an 'OK' (Thomas Harries) personality.

It is seen that PG students have a higher NP rather than a higher P, making the hypothesis partially incorrect. It is observed that the UG students tend to have a higher Child than the PG students, indicating that there might be a variation of ego states with respect to age.

MBA students are found to have a higher A ,LP and NP than the rest of the students. The higher A and NP might be accounted to the fact that they might be students of previous

work experience. Higher LP should be due to the course structure which demands creativity.

Since the N in all the degree is not equally high, the results might vary with a larger N.

A further study can be done about variation of ego states with respect to time and age of the person. A larger number of students should be used for more elaborate study.

CHAPTER 6

CONCLUSION

In conclusion, the students use high NP and AC and use LP the least. Students should try to stay in LP to increase their innovativeness. Also the students should identify their roles or tasks and change their ego states accordingly. High A and LP is preferable for research students, students who are councilors need to develop a high NP. Art students should develop a high NC and so on.

A high AC will help them in increasing their adaptability, if they play games such as 'hurry up',' please me'[13] they can achieve the 'OK' life position[15]. A high NC will be useful in being spontaneous and care free, students who wish to have careers which require this can try to develop a high NC. A high CP is useful for being self-critical.

Based on the job at hand the appropriate ego states should be adopted to improve performance

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