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Extraversion/Surgency Temperament and Emotional Intelligence among Young Adults

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Abstract

The present studyexploresthe Extraversion/Surgency temperament in the context of emotional intelligence, gender and birth order among young adults.The 472 participants drawn as a sample from the districts of Haryana and Uttarakhand (India), with 240 young adults aged 18 to 22 years selected according to the study paradigm. The ex-post facto experiment, the ANOVA Trivariate (2×2×2)factorial design, and the t-test for the trivariateinteraction breakupwas adopted.In addition, Demographic sheet, Adult Temperament Questionnaire (ATQ), (Evans & Rothbart, 2007) and SREIT- Self Report Emotional Intelligence Test (Schutte et al., 1998) wereused as psychological measures.The findingssuggests that high emotional intelligence among females for both first and last bornand last born males promoteextraversion/surgency temperament among young adults.

Keywords- Extraversion/Surgency, Temperament, Emotional intelligence, Gender and Birth order.

Introduction-

Temperament is a set of biologically rooted, early in life and relatively stable individual differences in reactivity to stimuli and self-regulation of that reactivity (Rothbart & Bates, 1998). Some previous study says that temperament and personality use as synonyms a biological approach in which temperament describes a component of personality structure (Buss & Plomin, 1984), in addition, Strelau(1998) says that biological factors play the main role in determining temperament, but social factors play a significant role in the development of personality and it can be determined as early as puberty, whereas personality develops later in life as result of socialization and learning. It refers to both humans and animals, while personality refers to psychological phenomena unique to humans.

In addition, emotional intelligencedefined as the capacity to comprehend one's own and others' feelings and to utilize that knowledge to direct individual's behaviors in a personally and socially reasonable manner(Salovey & Mayer, 1990), as well as, the link between temperament and emotional intelligence appears to be multifaceted, Gardner et al. (2011a) find the relationship between emotional intelligence and effortful control, extraversion, and orienting sensitivity. Emotional intelligence is essentially a biological propensity, as the total model was significant for emotional intelligence and temperament accounted for more than 40% of the variance, in addition, negative affect influences the development of components of emotional intelligence such as effective stress management, extraversion in the development of emotional expressivity and effortful control the suppression of improper behavior influences emotion regulation (Zeidner et al., 2003).

Further, a previous study predicted a negative relationship between emotional intelligence and the depressive, cyclothymic, irritable and anxious temperament, moreover, also hypothesised that hyperthymic temperament and emotional intelligence had a positive relationship (Szcześniak & Strochalska, 2020) and according to a recent study, adolescents and adults who have lower levels of depression also have higher emotional intelligence. Individuals with a stronger ability to distinguish between feelings and manage emotional states, on the other hand, are less depressed (Fernandez-Berrocal et al., 2006; Kim et al., 2017). Another study showsthat emotional intelligence had a role as a mediator between particular personality traits and positive resources, because emotional intelligence allows for the monitoring and management of one's own emotions to direct one's thinking and behaviours, there may be a mediator effect (Di Fabio et al., 2018; Mayer & Salovey, 1993). These studies show mixed results for relationship between temperament and emotional intelligence which need to be explored further for the better understanding of the variables, that's why the present study is conducted to expand the scope and study interaction for personality and emotional intelligence among young adults.

Objective of the study-

1. To find out the relationship between gender and Extraversion/Surgency.
2. To explore the association between birth order and Extraversion/Surgency.
3. To determine the relationship between emotional intelligence and Extraversion/Surgency.
4. To find out the interaction effect among gender, birth order and emotional intelligence on Extraversion/Surgency.

Methodology-

Sample-The present studyconsist of240 young adults whowere selected in accordance with the research paradigm,outof 472 young people. The age range of the sample varies from 18 to 22 years which was selected from various districts of Haryana (Kurukshetra, Karnal, Kaithal) and Uttarakhand (Haridwar, Dehradun).All the participants have been chosenthrough purposive random sampling for the ex-post facto experiment using the Trivariate (2×2×2) factorial design.

Research Paradigm-

Table 1

Extraversion/Surgency: Emotional Intelligence × Gender × Birth Order

	Emotional Intelligence				
	High Emotional Intelligence		Low Emotional Intelligence		
	Birth Order				
Gender	First Born	Last Born	First Born	Last Born	∑
Male	N=30	N=30	N=30	N=30	120
Female	N=30	N=30	N=30	N=30	120
∑	60	60	60	60	240

Note: N= number of participant

Psychological Measures-

Demographic Sheet- Its used for gender and birth order.
The Adult Temperament Questionnaire (short form) (ATQ)-
The Adult Temperament Questionnaire (ATQ) short form (Evans & Rothbart, 2007)is a 77 item scale which was taken from Physiological Reactions Questionnaire(Derryberry&Rothbart, (1988)and consists of effortful control, negative affect, extraversion/surgency, and orienting sensitivity as the sub scales of the test(Rothbart et al., 2000). In original, the Adult Temperament Questionnaire standard form has 177 items, and shorter version shares all the characteristics of original form. The Extraversion/Surgency dimension has 17 items and it is made up of three subscales thatsociability, high intensity pleasure and positive affect. It is rated on seven-point Likert type questionnaire, from 1 for "extremely untrue" to 7 for "extremely true", and X "not applicable".

Emotional Intelligence Scale

The Schutte Self-Report Emotional Intelligence Scale (SSREI), (Schutte et al., 1998) is a 33 items self-report unidimensional scale developed by Schutte and colleagues in 1998. Itis based on the earlier ability model (Salovey & Mayer, 1990). The items of the test are rated on 5 point likert scale from "1" "Strongly Disagree" to "5" "Strongly Agree". The scale takes an average of five minutes to complete for a respondents. Reverse coding for items 5, 28, and 33 yields into total scale scores, which then added together. The scale runs from 33 to 165, with higher scores indicating stronger emotional intelligence.

Results-

Table 2

Research Paradigm, Extroversion/Surgency: Emotional Intelligence × Gender × Birth Order

	Emotional Intelligence				
	High Emotional Intelligence		Low Emotional Intelligence		
	Birth Order				
Gender	First Born	Last Born	First Born	Last Born	∑
Male	∑x= 2511	∑x= 2377	∑x= 2071	∑x= 2004	8963
	M= 83.7	M= 79.23	M= 69.03	M= 66.8	
	N= 30	N= 30	N= 30	N= 30	
Female	∑x= 2509	∑x= 2230	∑x= 1997	∑x= 2055	8791
	M= 83.63	M= 74.33	M= 66.57	M= 68.5	
	N= 30	N=30	N= 30	N= 30	
∑	5020	4607	4068	4059	17754

Note: N=Number, M= Mean

Table 3

ANOVA Summary, Extroversion/Surgency: Emotional Intelligence × Gender × Birth Order

Source of Variance	SS	Df	MS	F	P
Emotional Intelligence	9375	1	9375	129.67	<.0001
Gender	123.27	1	123.27	1..7	NS
Birth Order	742.02	1	742.02	10.26	.005
Emotional Intelligence × Gender	66.15	1	66.15	.91	NS
Emotional Intelligence × Birth Order	680.07	1	680.07	9.41	.005
Gender × Birth Order	1.67	1	1.67	.02	NS
Emotional Intelligence × Gender × Birth Order	303.74	1	303.74	4.2	.05
Error	16773.93	232	72.3		
Total	28065.93	239			

Note: SS = sum of square, MS = Mean of square, df = Degree of freedom, P = Probability, NS= Not Significant, $F_{.05}$= 3.89, $F_{.01}$= 6.76

Details of significant results:

1. Table 3 show the main effects (Gender) and bivariate interaction (Emotional Intelligence × Gender & Gender × Birth Order) are not significant.
2. Emotional Intelligence, Birth Order, Emotional Intelligence × Birth Order & Emotional Intelligence × Gender × Birth Order are significant. Details are given below-

a. Emotional Intelligence is significant at .0001 ls.High Emotional Intelligence determines Extroversion/Surgency among young adults.

b. Birth Order is significant at .005 ls.Birth Order promotes Extroversion/Surgency in young adults

c. Emotional Intelligence × Birth Order significant at .005 ls-Interaction of Emotional Intelligence and Birth Order promotes Extroversion/Surgency in young adults.

d. Emotional Intelligence × Gender × Birth Order significant at .05 ls.

Emotional Intelligence, Gender and Birth Order interact each other in determining Extroversion/Surgencyin young adults.

Table 4

Breakup of Trivariate Interaction (Emotional Intelligence × Gender × Birth Order)regarding Extroversion/Surgency

Sn	Source of Variance	SS	df	MS	F	P
1	High Emotional Intelligence : Gender × Birth Order	175.21	1	175.21	2.42	NS
2	Low Emotional Intelligence : Gender × Birth Order	130.21	1	130.21	1.80	NS
3	Male: Emotional Intelligence × Birth Order	37.41	1	37.41	.52	NS
4	Female: Emotional Intelligence × Birth Order	946.41	1	946.41	13.09	.01
5	First Born: Emotional Intelligence × Gender	43.2	1	43.2	.60	NS
6	Last Born: Emotional Intelligence × Gender	326.7	1	326.7	4.52	.05
7	Error	16773.93	232	72.3		

Note: Sn= Serial number, SS = sum of square, MS = Mean of square, df = degree of freedom, P

= Probability, NS= Not Significant, $F_{.05}$= 3.89, $F_{.01}$= 6.76

Interpretation of significant Trivariate interaction:

4. Female: Emotional Intelligence × Birth Order p .01 ls.

   Among Female in table 4 young adults Emotional Intelligence and Birth Order interact each other in determining Extroversion/Surgency.

6. Last Born: Emotional Intelligence × Gender p .05 ls.

   In Last Born, young adults Emotional Intelligence and Gender interact each other in determining Extroversion/Surgency temperament.

Table 5

Breakup of significant Trivariate Interaction (Emotional Intelligence × Gender × Birth Order) regarding Extroversion/Surgency

Variable	Mean Between	Mean Value	SD	t	P
a. Female: High Emotional Intelligence	First Born	83.63	9.24	3.25	.01
	Last Born	74.33	9.88		
b. Female: Low Emotional Intelligence	First Born	66.57	6.13	1.21	NS
	Last Born	68.5	6.68		
c. Female: First Born	High EmotionalIntelligence	83.63	9.24	8.06	.01
	Low Emotional Intelligence	66.57	6.13		
d. Female: Last Born	High Emotional Intelligence	74.33	9.88	2.82	.01
	Low Emotional Intelligence	68.5	6.68		
e. Last Born: High Emotional Intelligence	Male	79.23	10.03	1.88	NS
	Female	74.33	9.88		
f. Last Born: Low Emotional Intelligence	Male	66.8	8.14	.90	NS
	Female	68.5	6.68		
g. Last Born: Male	High Emotional Intelligence	79.23	10.3	5.78	.01
	Low Emotional Intelligence	66.8	8.14		
h. Last Born: Female	High Emotional Intelligence	74.33	9.88	2.82	.01
	Low Emotional Intelligence	68.5	6.68		

Note: Sn= Serial number, SD = standard deviation, P = probability, NS= Not Significant, $t_{.05}$=2.00, $t_{.01}$= 2.66

Interpretation of t-test results-

a. Female (High Emotional Intelligence): First Born > Last Born-
   Among Female(inTable 5) young adults first born with High Emotional Intelligence are more prone to Extroversion/Surgency.

c. Female (First Born): High Emotional Intelligence > Low Emotional Intelligence-
   First Born young adults, Female with High Emotional Intelligence, promotes Extroversion/Surgency.

d. Female (Last Born): High Emotional Intelligence > Low Emotional Intelligence-
   Among Female young adults Last Born with High Emotional Intelligence denotes Extroversion/Surgency.

g. Last Born (Male): High Emotional Intelligence > Low Emotional Intelligence-
   Among last born Male young adults with High Emotional Intelligence promotes Extroversion/Surgency.

h. Last Born (Female): High Emotional Intelligence > Low Emotional Intelligence –
   In Last Born female with High Emotional Intelligence denotes Extroversion/Surgency among young adults.

Summary of Results-

1. Females with high emotional intelligence, independent from birth order promotes Extroversion/Surgency.
2. Last born male with high emotional intelligence determining Extraversion/Surgency among young adults.

Discussion-

All the finding of the study discussed in light of previous studies and the finding of the present study shows thatfemale with high emotional intelligence independent from birth order, as well as last born male with high emotional intelligence promotes Extraversion/Surgency temperament among young adults.It means that young adults express high activity level, high-intensity pleasure seeking, low shyness and

impulsivity with emotional intelligence.Some previous studies are in congruence with the present findings, Othman et al. (2016) briefed thatstress, anxiety and depression level were linked to emotional control; emotional conscientiousness and extraversion to stressful period and neuroticism linked to the most stressful period.Similarly, Alghamdi et al.,(2017)observed that extraversion, agreeableness, and openness to experience, emerged as strong predictors of emotional intelligence, and Conscientiousness and neuroticism had little effect on emotional intelligence. In addition to this, there are no gender differences in emotional intelligence.

Temperament traits associated to trait but not to ability emotional intelligence.Furthermore,multiple regression studies supported the function of temperament in predicting trait emotional intelligence, but found no evidence for the involvement of environmental variables or their interactions with temperament in predicting either kind of emotional intelligence (Gardner et al., 2011b), which is line with the current study.Literature reveals an established evidence for a strong association between emotional intelligence and different type of personality (Mayer, 1999). Dawda and Hart (2000) explained a significant relationship between emotional intelligence and personality factors; Day et al. (2005) found that there a high correlation between emotional intelligence and extraversion;Avsec et al. (2009) shows that emotional intelligence predict extraversion.Current findings are in addition to previously reported studies and will definitely helpful for the researchers in understanding the others facets of individual difference. No study is complete in itself and this particular is not an exception so the present study can be further extended for varied age group, on larger sample, and acrossethnicity for global acceptance.

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