

**Exploratory Research on Relationship between Extraversion and Anxiety.**

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## Relationship between Extraversion and Anxiety

### Abstract

The current study aims to correlate the subscales of neuroticism with extraversion and understand the thought processes of extroverts, along with the occurrence of anxiety while participating in social engagements, if any. To assess the following, data on 43 adolescents was collected and recorded with the assistance of Eysenck Personality Profiler version 6 (EPP6) on the Vienna Test System (VTS), which has 200 items and 3 dimensions (extroversion, neuroticism, and psychoticism). We filtered the subscale and focused our results and further discussion on extraversion and anxiety (subscale of neuroticism). The study followed a Purposive sampling technique, followed by a sample size of 43 individuals (13 females and 30 males) between the ages of 13-19 years, from Delhi Sports University. The data was assessed using the statistical method of the *correlation test in the SPSS* tool. The results of the data suggested that there was a significant difference between people who experienced extraversion and their lack of familiarity with anxiety. In conclusion, our findings support a weak negative correlation between extraversion and anxiety among adolescents; that is, extroverted individuals experience and display minimal symptoms of anxiety or neuroticism.

**Keywords:** Neuroticism, Extraversion, Eysenck Personality Profiler version 6, Anxiety, Correlation

### Introduction

People differ in major aspects, especially in terms of their emotional regulation, thought processes, desires and drives, and values. Such traits are uniquely linked and tend to form a relationship that is codependent and closely associated with each other, which in turn shapes the personality of a person. These personality traits are essential components that shape human behavior and cognition.

Eysenck Personality Profiler divides the most prominent aspects of personality into extraversion, emotionality (neuroticism), and adventure (psychoticism). Eysenck classifies brain

systems into two models: reticulo-cortical and reticulo-limbic circuits. The reticulo-cortical circuit controls cortical arousal, while the reticulo-limbic circuit responds to emotional stimuli. **Extraversion-introversion (E)** relates to arousal. Extraversion studies reveal individual differences in strategies for seeking or avoiding stimulation. **Neuroticism-stability (N)** is linked to limbic circuit activation, due to arousal or action caused primarily in emotional contexts. Eysenck's third dimension of **Psychoticism (P)** is inversely related to serotonergic function and dopamine release (Eysenck, 1997).

Extraversion and neuroticism (or emotionality) are two profound dimensions of the Eysenck Personality Theory that comprise multiple factors within themselves, and the contrasting nature of these traits accurately measures and determines the nature of a person. The consistent versatility of these major domains offers easier estimation and interpretation of an individual's scores. Extraversion consists of subscales such as activity, sociability, expressiveness, assertiveness, ambition, dogmatism, and aggression. And emotionality consists of subscales such as inferiority, unhappiness, anxiety, dependence, hypochondria, guilt, and obsessiveness.

### **Extraversion and Neuroticism among adolescents**

There has been extensive research that aims to understand the relationship between E and N through various lines of studies and approaches; its consistency across the lifespan has been subjected to widespread attention from researchers, and therefore, three commonly used lines of research stood out from the rest: Rank-order consistency, which talks about the changes or lack thereof in personality traits starting as early as childhood and the manifestation of primitive behaviors and habits manifesting in different forms and taking shape of personality traits (Roberts and Del Vecchio, 2000), Rank-order stability, which differentiates between personality traits amongst genders and measures the likeliness of each gender to demonstrate certain behaviors (McCrae and Costa, 1990), or Differential continuity that links positive affect and negative affect with the symptoms displayed (Caspi, 1998). This study aims to understand the

correlation between the two personality traits, extraversion and neuroticism, among adults by examining previously done research in the three lines of study. It has been pointed out and recorded that these traits tend to have an inversely proportional relationship, that is, positive feelings are expressed freely while suppressing negative urges and impulses, and vice versa (Ben-Ze'ev, 2000, p. 224). According to Friedman (1979), there is a link between some personality traits, like extraversion and neuroticism, and the capacity to articulate emotions. Thus, first, we try to understand the correlation of emotional expressiveness/ articulation with the two personality types: E and N. It has been recorded that people high on the extraversion factor are more likely to express their emotions freely and are often quick to react (Borkenau & Lieber, 1992; Kenny, Horner, Kashy, & Chu, 1992). Whereas, people who measure highly on Neuroticism are known to internalize and suppress emotions and tend to avoid being overly expressive or predictable (Eysenck & Eysenck, 1968), which leads to irregular spontaneous outbursts of emotions.

### **Comparing coping strategies adopted by people high on Extraversion and Neuroticism**

Coping strategies are unique to every individual, especially those that are assumed to be at the opposite ends of a spectrum, such as people displaying traits of Extraversion and Neuroticism respectively. We now know that individuals ranking high on E showcase emotions, especially positive emotions outwardly and significantly, whereas individuals ranking high on Neuroticism barely acknowledge their emotions, let alone display them publicly, which leads to the internalized storage of overwhelming negative emotions, and gradually every experienced emotion, regardless of its nature, is seen in a negative light. Therefore, people high on N tend to experience more stressful and negative events, whereas people high on E experience both positive and negative events (Bolger & Schilling, 1991; Fergusson & Horwood, 1987; Magnus, Diener, Fujita & Pavot, 1993; Suls, Green & Hillis, 1998).

E individuals practice relatively healthier and commonly adopted coping strategies such as seeking social support and help, whereas N individuals adopt maladaptive and destructive coping strategies (Amirkhan, Risinger & Swicker, 1995; Costa, Somerfield & McCrae, 1996;

McCrae & Costa, 1986; Parkes, 1986; Rim, 1987; Vollrath, Torgersen & Aln is, 1995; Watson & Hubbard, 1996). In conclusion, Extraversion is hence linked with subjective well-being of a person which displays positive and favorable behaviors whereas Neuroticism showcases neglect and lack of concern for the mental well-being of oneself.

### **Interaction of Extraversion with the subscales of Neuroticism (Anxiety)**

The preferred coping strategies and advantageous aspects of extraversion have garnered significant attention, and the lack of negative influences surrounding this personality type sets it as a precedent for healthy habits and positive mental well-being. However, it is essential to study the interaction and effect of neurotic personality traits on extroverted and mentally healthy individuals who have efficient coping skills. The introversion-extraversion dimension can be divided into four categories based on neuroticism predisposition, according to Eysenck's theory of the biological bases of personality traits (1967): stable extroverts (low arousal), unstable/neurotic extroverts, stable introverts (both moderate arousal), and unstable/neurotic introverts (high arousal). These dimensions give way to the possibility of an interactional approach towards personality traits and exploring different neurotic traits found in extroverted people and vice versa.

### **Methodology**

Hypothesis:

Hypothesis (H0): extroverted individuals do not display traits of Neuroticism (Anxiety)

Hypothesis (H1): extroverted individuals display traits of Neuroticism (Anxiety)

Participants:

The study followed a Purposive sampling technique, followed by a sample size of 43 individuals (13 females and 30 males) between the ages of 13 and 19 from Delhi Sports University.

Inclusion criteria:

- Female and Male subjects
- Participants should be between the ages of 13 and 19
- Participants without any mental disorder or problems

Exclusion criteria:

- Participants below 13 years of age and over 19 years of age
- Participants going through any kind of psychological therapy

Selected Variables:

- Independent variable: Extraversion
- Dependent variable: Neuroticism (Anxiety)

### **Measures**

This study was conducted through the EPP6 (Eysenck Personality Profiler version 6) on the Vienna Testing System. The Vienna Testing System, or VTS, is a state of the art, user-friendly extensive psychological testing system that simplifies complicated test conduction and interpretation to a great level. By employing the latest technology in computerized testing, VTS provides a range of software and hardware-based tests, spanning across the fields of neuro, clinical, traffic, aviation, personnel, sports, and research psychology.

EPP6 – Derived from H. J. Eysenck’s personality profiler, the EPP6 is a multidimensional personality scale judging three main aspects of Eysenck’s personality theory extraversion, emotionality (neuroticism), and adventure (psychoticism). These 3 dimensions consist of 7 subscales, each giving a holistic, versatile, and well-rounded overview of personality. Additionally, the test also includes an honesty or openness scale. There are two forms – long (S1) and short (S2), each with reliability.

### **Procedure**

After the selection of participants, informed consent was obtained from each and every one. The test was administered in batches of 20-13 individuals, consecutively. A detailed

introduction to the test and proper instructions were shared with all the participants before the administration of the test. All the participants were made familiar with the computer testing module with a brief demo test session. No mandatory prior computer knowledge was necessary to carry out the test. The participants were guided through each step thoroughly, and consent was obtained for the test. A quiet, isolated, and noise-free environment was maintained during the administration. Furthermore, it was duly checked that all participants were comfortable and physically well enough to take the test. Administrative guides were present during the test in case of any difficulties. However, no such situation occurred.

## Result

| CORRELATIONS                 |                     |         |         |
|------------------------------|---------------------|---------|---------|
| CORRELATION                  |                     |         |         |
| /VARIABLES = Var0001 Var0002 |                     |         |         |
| /PRINT = TWOTAIL NOSIG.      |                     |         |         |
| Correlations                 |                     |         |         |
|                              |                     | Var0001 | Var0002 |
| Var0001                      | Pearson Correlation | 1.00    | -.30    |
|                              | Sig. (2-tailed)     |         | .048    |
|                              | N                   | 43      | 43      |
| Var0002                      | Pearson Correlation | -.30    | 1.00    |
|                              | Sig. (2-tailed)     | .048    |         |
|                              | N                   | 43      | 43      |

The results display a negative correlation of -0.30 which means an inverse relationship between extraversion and anxiety and a weak negative correlation. Therefore, it is difficult to substantiate anything from this data.

## Discussion

The results demonstrate highly contrasting differences between neuroticism and extraversion, and no signs of anxiety are experienced by moderate to highly extroverted individuals. These results bode well with the sociable, interactive, and outspoken behavior usually showcased by extroverts since people with anxiety are known to stay closed off and keep

their social interaction and engagement to a minimum, which prevents them from matching the easygoing attitudes of personality type E.

Moreover, as per the study conducted by Daniela Fadda, and L. Francesca Scalas on “Neuroticism as a Moderator of Direct and Mediated Relationships Between Introversion-Extraversion and Well-Being” the conclusions supported the belief that extraversion is more likely to be associated with subjective well-being and that cheerfulness, an easygoing mindset, and high self-esteem are indicators of a healthy mind and its satisfaction with life. The degree of life satisfaction differs from person to person; however, from a holistic point of view, pleasant emotions are related to experiencing life fulfillment, and negative emotions are associated with the opposite. That is not to say that introverts are unhappy and are more likely to experience negative emotions. Hills and Argyle (2001) found that a substantial number of subjects can be classified as “happy introverts,” that is, finding comfort and experiencing pleasant emotions in solitude and a close-knit group instead of being outspoken at every event and engaging with a larger crowd frequently by choice instead of circumstances.

Neuroticism or anxiety, on the other hand, are symbols of unpleasant or uncomfortable emotions, and a reduction in life satisfaction or fulfillment is experienced. This research studied the possibility and likelihood of anxiety induced individuals participating in social engagements as a coping strategy and a medium to deal with and overcome their anxiety, and whether highly extroverted individuals viewed it that way, which is why they tend to be more outspoken about their opinions. However, the results contradicted this belief, and the results demonstrated a significantly negative correlation between the two. The reason behind this could be the various other factors that mold the behaviors of individuals who experience anxiety. Such as overthinking their words and actions, which goes against the quick-witted and charming persona of extroverts, and the inability to step in the limelight or hesitation to take charge, which prevents them from being the center of attention and approachable at social events. Since this study was conducted on adolescents, who are also athletes and participate in team sports, they are naturally more outspoken, deal well with a group of people, and peacefully coexist among other individuals, and they are less likely to encounter emotions like fear and anxiety since their mind is wired to take quick action at any given moment and take charge if need be.



## Conclusion

In conclusion, this study sought to investigate the relationship between extraversion and anxiety, specifically focusing on adolescents. Utilizing the Eysenck Personality Profiler version 6 (EPP6) on the Vienna Test System (VTS), data from 43 participants was analyzed to explore this correlation. The findings revealed a weak negative correlation (-0.30) between extraversion and anxiety, indicating that extroverted individuals tend to experience minimal symptoms of anxiety or neuroticism.

Contrary to expectations, the results suggest that extroverted individuals are less likely to exhibit traits of anxiety. This finding aligns with the sociable and outgoing nature typically associated with extraversion. Extroverts are often characterized by their ease in social situations and their ability to engage with others, which may contribute to their lower levels of anxiety.

These results are consistent with previous research suggesting that extraversion is associated with higher levels of subjective well-being and satisfaction with life. Extroverted individuals tend to experience more positive emotions, such as cheerfulness and self-esteem, which may buffer against feelings of anxiety or neuroticism.

While this study provides valuable insights into the relationship between extraversion and anxiety among adolescents, it is important to acknowledge its limitations. The sample size was relatively small, and the study focused solely on adolescents from a specific demographic, namely students at Delhi Sports University. Additionally, the cross-sectional design limits our ability to draw causal conclusions about the relationship between extraversion and anxiety.

Future research should aim to replicate these findings in larger and more diverse samples, including individuals from different age groups and cultural backgrounds. Longitudinal studies could also provide a deeper understanding of how personality traits and anxiety evolve over time.

Overall, this study contributes to our understanding of the complex interplay between personality and mental health outcomes, highlighting the importance of considering individual differences in interventions aimed at reducing anxiety and promoting well-being. Further

exploration of these factors is crucial for developing more targeted and effective interventions for individuals experiencing anxiety.

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