

# Role of Personality traits in the Happiness, Creativity and Versatility of Undergraduates

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## 1. INTRODUCTION

**Abstract** — Samuel D. Gosling, from the Department of Psychology at University of Texas, designed a ten-item questionnaire for measuring the Big-Five personality dimensions. It is somewhat inferior to standard multi-item instruments, but is quite useful for brief measures. This questionnaire was used along with a Life Satisfaction Index (SWLS: Ed Diener et al., 1985) and a few questions on happiness, creativity and versatility self-rating. The responses were recorded with the help of social media, and compared. Together with data analysis, we arrive at several conclusions regarding the role of different personality traits in the happiness, creativity and versatility of undergraduates. It was observed that happy undergraduates have all personality traits higher than others. Even though creativity is diminishing, but they are all optimistic about the future, and very sympathetic and warm to their fellow beings. It was even found that majority of the participants said that relationships contribute to their happiness more than anything else.

**Index terms** — Agreeableness, Creativity, Conscientiousness, Extraversion, Happiness, Neuroticism, Openness to experiences, Personality and Versatility.

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### 1.1 What is Happiness?

In the *Nicomachean Ethics*, written in 350 BCE, Aristotle stated that happiness is the *only* thing that humans desire for *its* own sake. It is the end node of all desires—riches, relationships, honor or health.

In philosophy, happiness translates the Greek concept of *eudaimonia*, and refers to 'the good life', or flourishing, rather than simply an emotion.

Once upon a time, Einstein scribbled his theory of happiness in place of a tip to a messenger. According to him, "A calm and modest life brings more happiness than the pursuit of success combined with constant restlessness."

This piece of paper was recently auctioned for more than \$1 million!

### 1.2 The Personality traits

The Big-Five personality traits are:

1. Extraversion  
(*outgoing/energetic* vs. *solitary/reserved*)
2. Agreeableness  
(*friendly/compassionate* vs. *challenging*)
3. Conscientiousness  
(*efficient/organized* vs. *careless*)
4. Neuroticism (inverse of emotional stability)  
(*sensitive/nervous* vs. *secure/confident*)
5. Openness to experiences  
(*inventive/curious* vs. *consistent / cautious*)

### **1.3 Claims**

The outlook towards life and the individual's perspective to daily happenings must, in some way determine his degree of happiness.

In a similar manner, an individual's versatility and creativity in day to day activities also might depend on his way of thinking.

Personality traits therefore become vital for the study and verification of these claims.

### **1.4 Overview of the present research**

In this research, with a sample space of 278, we shall be addressing these questions:

- a) Are some kinds of people happier than others?
- b) Is happiness linked to creativity?
- c) Do personality traits affect creativity and versatility?

## **2. PLAN OF STUDY**

The aim of this study is to analyze the happiness, creativity and versatility of undergraduates with respect to their personality traits.

### **2.1. Method**

#### **2.1.1 Instruments**

Directly asking the participants regarding a particular trait of their personality, rather than multiple narrow constituent questions, is an easy and obvious way to know about their personality type. The same goes for learning about their Life Satisfaction Index, and other factors as included in the questionnaire. Due to time constraints and the kind of personality measures that were required for the research, a detailed instrument was not used.

The questionnaire that was made for addressing several aspects of the research, included:

1. The 10-item personality inventory (developed by Sam Gosling, University of Texas).
2. Life Satisfaction Index (SWLS: Ed Diener et al., 1985).
3. Happiness, creativity and versatility self-rating questions: (on a 10-point scale)
  - a. How happy do you think you are in general?
  - b. How satisfied are you with yourself?
  - c. How hopeful are you about your future?
  - d. How often do you feel miserable & frustrated?
  - e. Rate your excellence at extra-curricular activities (art, sports etc.) on a 7-point scale.
4. Write in one or two lines what factors will bring you more happiness.
5. Demographical questions including gender, department and year of study.

Then the data were analyzed, comparisons were made and the conclusions were drawn. To ensure the validity of the responses, participants were asked to take the survey anonymously on social media. The survey is based on self-rating, and hence we can expect that the participants are being honest with themselves. However there is a probability that a participant may not take the survey seriously and give random responses. Such data points were removed before the study.

#### **2.1.2 Participants**

The participants included undergraduates from various departments and years of study as shown in the pie chart below in Figure 1.

Their institutes mostly included: IIT Kharagpur, IIT BHU, IIT Roorkee, NIT Durgapur, NIT Allahabad and a few from IIT Kanpur and IIT Delhi as well.

Their responses for the questionnaire were recorded over social media anonymously using Google forms. The survey was open to all undergraduates, with no restrictions as such. The age group involved is 18-23 years. The total number of participants was N=278.

The gender ratio of the participants who took the survey is shown in Figure 2.

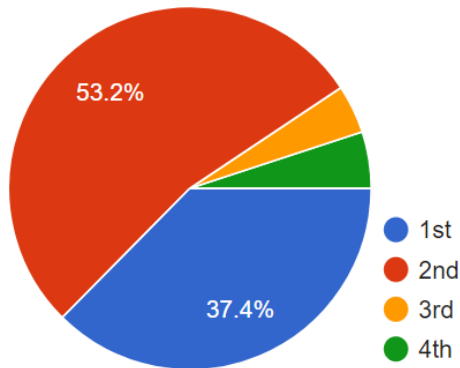


Fig. 1. Undergraduates in various years in the sample space.

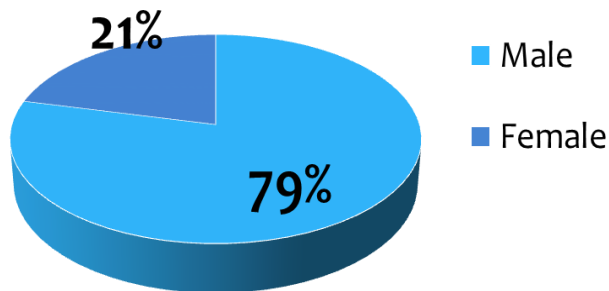


Fig. 2. Males and Females in the sample space.

## 2.2. Results

### 2.2.1 Role of traits in happiness

While analyzing happiness, the mean of the various personality traits was calculated for two categories of participants namely:

- Those who claimed to be very happy—a score of 9 or 10 (on a 10-point scale) in happiness rating.
- Those who were very unhappy—a score of 1 or 2 in the same scale.

The range 3-8 was not taken into account since we are interested in the extreme values only for the study.

The data obtained is shown in Table I. The traits are measured on a 7-point scale as per the 10-item personality inventory.

Figure 3 shows the same table in the form of a bar chart for better clarity.

TABLE I  
HAPPINESS V/S TRAITS (7-point scale)

TRAITS	HAPPY (9-10)	UNHAPPY (1-2)
Extraversion	5.68	3.4
Agreeableness	5.97	5.28
Conscientiousness	4.87	3.6
Emotional Stability	5.16	3.36
Openness to Experiences	5.77	4.48

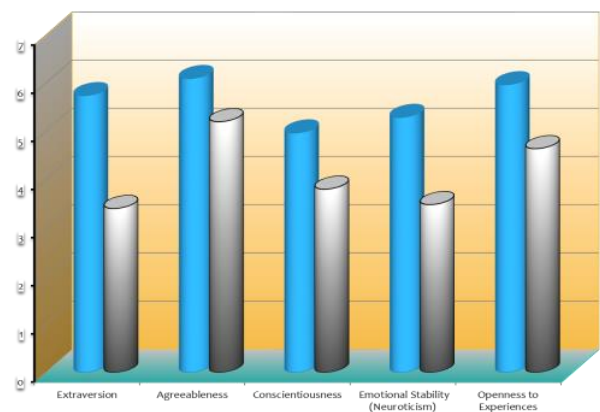


Fig. 3. Bar graph showing the same as TABLE I

### 2.2.2. Role of traits in versatility

While analyzing versatility the entire attention was given to extra academic activities. In fact, academics were *not* a criterion at all. The mean of the various personality traits for two categories of participants was calculated namely:

- a) Versatile: Those who said that they had excelled at any non-academic activities other than the course structure (art, sports, hobbies, even extra research etc.), with a score of 6 or 7 (on a 7 point scale), implying that they use their brains for stuff apart from just academics.
- b) Monotonous: Those who scored 1 or 2 on the same scale when asked about their versatility, implying that they are just focused on their course, if at all. They are probably not interested in any extra-curricular activities.

The data obtained is shown in Table II. The traits are measured on a 7-point scale as per the 10-item personality inventory.

TABLE II  
VERSATILITY V/S TRAITS (on a 7-point scale)

TRAITS	VERSATILE	MONOTONIC
Extraversion	5.43	3.75
Agreeableness	5.62	5.43
Conscientiousness	5.01	4.16
Emotional Stability	4.78	4.06
Openness to Experiences	5.61	4.69

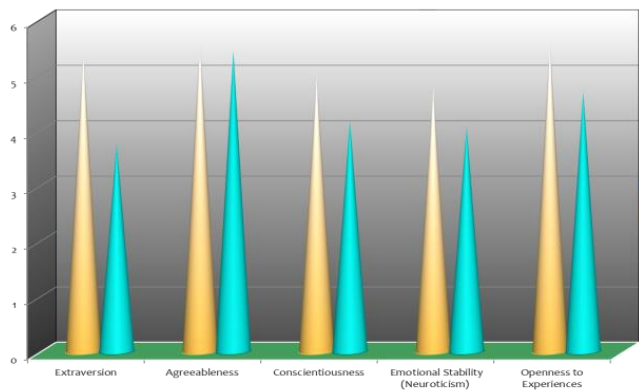


Fig. 4. Bar graph showing the same as TABLE II

■ VERSATILE  
■ MONOTONIC

### 2.2.3. Creativity

It was found that creativity is quite less among the undergraduates, as shown in Fig. 5.

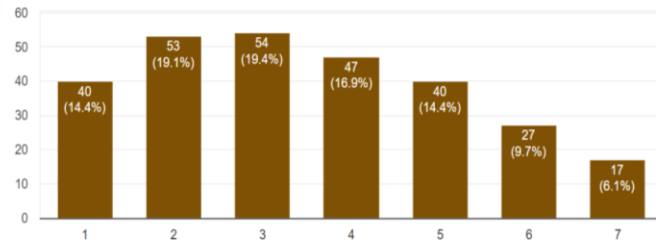


Fig. 5. Bar graph showing less creativity among participants.

The traits of the creative participants (those who said they were 6 or 7 in creativity on a 7 point scale) were analyzed. The result is summarized in the table and bar chart below.

TABLE III  
TRAITS OF CREATIVE PEOPLE

TRAITS	SCORE
Agreeableness	5.9
Conscientiousness	4.78
Emotional Stability (Neuroticism)	4.43
Openness to Experiences	5.43
Extraversion	5.1

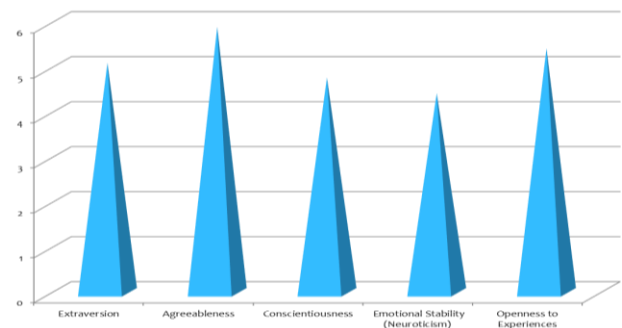


Fig. 6. Bar graph showing traits of Creative people on a scale of 7

### 2.2.4. General findings (by-products)

There were several other interesting results that were not the main objective of this research. They are being listed down for the purpose of further investigation by other researches.

Several trends were observed with the sample space. For example, the happiness curve as shown in the Fig.

7 below shows a peak of happiness at 70%. The same trend was observed for life satisfaction as well.

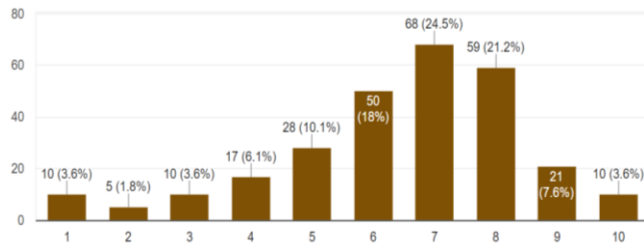


Fig. 7. Happiness in undergraduates

When we compare life satisfaction with the happiness levels, we get an approximately linear trend as shown in Fig. 8. This is expected, because it is unlikely that a person will be very happy and not satisfied with himself. Though, there were a few such data points, but they don't contribute to the cluster.

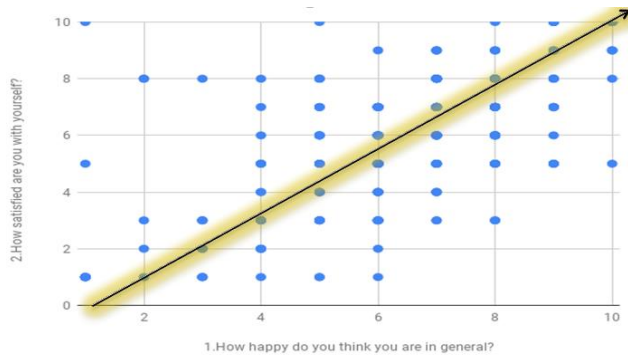


Fig. 8. Scatter plot for Life satisfaction vs. happiness (each on a 10-point scale)

When asked about hopefulness about the future, majority (69.4%) of the participants were very optimistic about the future. The reasons of this can be further investigated.

Apart from this a stark curve was observed for the levels of sympathy as well as shown in Fig. 9. 79.1% of the participants claimed to be very sympathetic towards others.

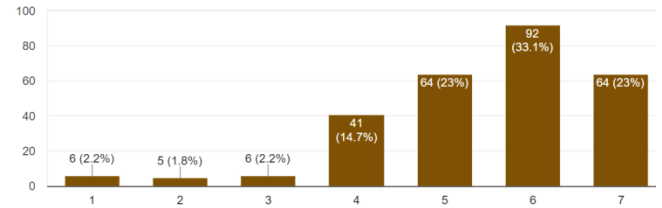


Fig. 9. Distribution of sympathetic and warm people on a 7-point scale

Taking this one step further, when we analyze several qualities of these sympathetic people, we get the following results:

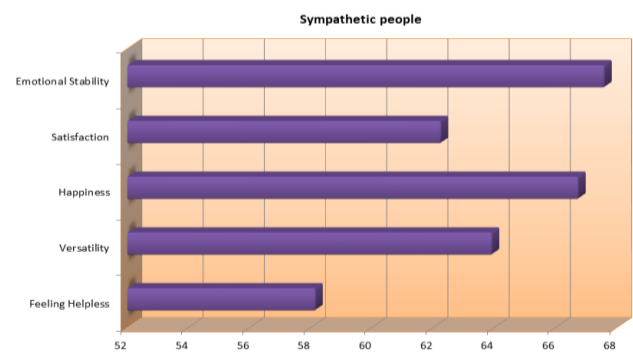


Fig. 10. Factors (y-axis) vs. percentage (x-axis)

### 3. CONCLUSIONS AND DISCUSSIONS

1. The peaks of both the happiness and satisfaction curves occur at around 70%.
2. Also Satisfaction (as measured by SWLS) is approximately linearly proportional to happiness. This is expected because satisfaction and happiness go hand in hand.
3. Most of the undergraduates are very optimistic of the future (69.4%).
4. Happy undergraduates have all traits higher than unhappy ones (or at least they claim to have). It is considerable that a happy person rates himself as good in all respects.
5. Difference in Extraversion is highest (2.27 out of 7) for happy and unhappy undergraduates. As was observed, extraverted people tend to be

happier, the reasons of which can be related to sharing thoughts and feelings with others easily. Introverts find it difficult to mix up quickly.

6. Versatile undergraduates have much higher Extraversion than the others.
7. Agreeableness is the highest for both versatility and creativity. This was a non-intuitive result observed in the sample space of 278. It can further be verified by using a larger sample space.
8. However, Versatility seems to be independent of agreeableness. Again this was a non-intuitive result and can be further verified by a larger sample space.
9. Creativity is diminishing in undergraduates. The reasons of this, though not the objective of this research, can be related to several factors, including traditional course structures and teaching habits. Even obsession with electronic gadgets and social media can be the core reasons, which can be further investigated in other researches.
10. Almost all the undergraduates claimed to be sympathetic and warm to others. This is a friendly sign and quite a positive result among young adults.
11. As expected, sympathetic people feel less helpless.

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#### ABOUT THE AUTHOR



**Shuvam Keshari** was born in Durgapur in the state of West Bengal in 1998. He received his schooling from St. Xavier's School from 2003 to 2014. For the

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