

# Personality and Emotional Intelligence: The Role of Extraversion in Self-Control and Managing Emotions among Undergraduate and Postgraduate Students

Dr. Shilpa Jasubhai<sup>1\*</sup>

<sup>1</sup>Consultant Clinical Psychologist Ahmedabad, Gujarat, India

Corresponding Author: Dr. Shilpa Jasubhai<sup>1\*</sup>

Publication Date: 2025/04/30

**Abstract:** Personality plays a significant role in shaping an individual's ability to control emotions. Extensive research has examined the association between extraversion a personality trait characterized by sociability, assertiveness, and enthusiasm and emotional intelligence (EI), defined as the capacity to perceive, understand, manage, and regulate emotions effectively. The present study aimed to investigate the relationship between extraversion and specific dimensions of emotional intelligence, namely self-control and managing emotions, among a sample of 54 undergraduate and postgraduate students. Data was collected using the Emotional Intelligence Scale and the NEO Personality Inventory. The findings revealed that individuals with lower levels of extraversion exhibited significantly lower levels of self-control and emotion management, whereas those with higher extraversion demonstrated stronger emotional regulation abilities. This study supports the findings of Taneja et al. (2020), who reported a strong positive relationship between extraversion and EI among medical students. These results suggest that the development of emotional control is influenced by personality traits and that social conditioning during formative years plays a critical role in cultivating self-regulatory skills. This study contributes to the growing body of literature highlighting the impact of personality traits, particularly extraversion, on emotional intelligence and underscores the importance of further research integrating perspectives from both neuroscience and social psychology, especially in environments where emotional control mechanisms are underdeveloped.

**Keywords:** *Extroversion, Self-Control, Managing Emotions.*

**How to Cite:** Dr. Shilpa Jasubhai (2025). Personality and Emotional Intelligence: The Role of Extraversion in Self-Control and Managing Emotions among Undergraduate and Postgraduate Students. *International Journal of Innovative Science and Research Technology*, 10(4), 1775-1780. <https://doi.org/10.38124/ijisrt/25apr1693>

## I. INTRODUCTION

Research has extensively examined the relationship between extraversion, a personality trait characterized by sociability, assertiveness, and enthusiasm, and emotional intelligence (EI), which refers to the ability to perceive, understand, regulate, and manage emotions effectively. The present study aims to explore the connection between personality, specifically extraversion, and EI (self-control and managing emotions). Regardless of the research approach, it is widely accepted that individuals differ in both personality traits and emotional intelligence.

Emotional intelligence (EI) was first introduced by Salovey and Mayer (1990), who defined it as “the ability to monitor one's own and others' feelings, to discriminate among them, and to use this information to guide one's thinking and actions.” They later refined this definition in

1997 to include the accurate perception, appraisal, and expression of emotion, along with the regulation of emotions to foster emotional and intellectual growth (Salovey & Mayer, 1997). Goleman (1995) popularized EI by emphasizing its practical applications. Coleman (2008) defined EI as the capacity to monitor emotions in oneself and others, differentiate between them, and use emotional data to guide thought and behavior.

A key component of EI is emotional self-control, also known as inhibitory control, which refers to the ability to regulate one's emotions, thoughts, and behaviors when faced with impulses. This cognitive ability is essential for goal-directed behavior and involves suppressing immediate reactions in favor of more appropriate responses (Matt DeLisi, 2014; Diamond, 2013; Timpano & Schmidt, 2013; Ilieva, Hook, & Farah, 2015). Emotional regulation also includes managing emotions in socially acceptable and

adaptable ways, balancing spontaneous reactions with delayed responses when necessary (Cole, Michel, & Teti, 1994; Thompson, 1994). It also includes the ability to influence the emotional states of others (Niven, Totterdell, & Holman, 2009; Burman, Green, & Shanker, 2015).

According to Revelle (2013), personality can be defined as “the coherent pattern of affect, cognition, and desires (goals) as they lead to behavior.” The American Psychological Association (2017) similarly defines personality as the individual differences in characteristic patterns of thinking, feeling, and behaving. The most widely recognized model in personality psychology is the Big Five or five-factor model, which has demonstrated cross-cultural validity and reliability. This model includes extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience (Schmitt et al., 2007).

Carl Jung (1921) originally introduced the terms extraversion and introversion, defining them as orientations of energy either toward the external world or the internal self. While his theory categorized individuals into one of the two types, modern psychology sees extraversion and introversion as existing along a spectrum, ranging from highly outgoing to more reserved personality types, and individuals may shift along this scale depending on context and emotional state. Jung’s ideas remain foundational in the study of personality (Blutner, 2010).

Carl Rogers expanded on Maslow’s humanistic approach by emphasizing that personality influences how individuals strive to fulfill their needs, rather than needs solely determining personality. His humanistic perspective suggested that personality is dynamic and can evolve over time.

Lewis Goldberg significantly contributed to the development of personality theory by condensing Cattell’s 16 factors into five broad dimensions. These five traits were later confirmed by Costa and McCrae (1987) and became the foundation of the Big Five model, as the dominant framework for personality research (McCrae & John, 1992). This model has since been widely used across cultures and populations to study individual differences.

Extraversion, one of these five traits, is associated with sociability, assertiveness, cheerfulness, enthusiasm, and emotional expressiveness (Yusoff, 2013). Extraverts direct their energy outward and are typically sociable, confident, and motivated by external stimuli. They thrive in social situations and tend to be more optimistic and enthusiastic (Blutner, 2010). In contrast, introverts are more inward-focused, enjoying solitary reflection and drawing energy from within (Blutner, 2010).

Numerous studies have demonstrated a positive correlation between extraversion and EI. For example, Lekaviciene and Antiniene (2017) found that individuals high in extraversion scored higher on emotional intelligence, particularly in understanding and influencing others. Ghiabi and Besharat (2011) similarly reported that extraversion,

along with openness, agreeableness, and conscientiousness, was positively associated with EI. Othman et al. (n.d.) concluded that individuals with personality traits such as extraversion and conscientiousness displayed higher emotional intelligence, which in turn influenced their decision-making styles. Taneja et al. (n.d.) further supported these findings, reporting significant relationships between EI and traits such as extraversion, agreeableness, emotional stability, and openness.

In conclusion, extraversion plays a central role in emotional intelligence, particularly in areas such as social interaction, emotional awareness, and emotional regulation. Given the well-established relationship between personality traits and emotional intelligence, exploring their interaction is crucial for advancing psychological research and enhancing practical applications in domains such as education, healthcare, and organizational development.

### ➤ *Hypotheses*

- Students with high extroversion have higher self-control.
- Students with high extroversion are better at managing emotions.

## II. METHOD

A total of 54 students, aged between 19 and 25 years, were randomly selected from graduate and postgraduate colleges. Participants completed a demographic information form and provided informed consent. The NEO Five-Factor Inventory-3 (NEO-FFI-3) and an Emotional Intelligence (EI) test were administered. For the personality assessment, the Extroversion factor was specifically considered. Within the Emotional Intelligence assessment, the dimensions of Self-Control (SE) and Managing Emotions (ME) were measured.

### ➤ *Material and Procedure*

The original NEO Personality Inventory (NEO PI) was developed in 1978 by personality researchers Paul Costa, Jr. and Robert McCrae. The revised version, NEO Five-Factor Inventory-3 (NEO-FFI-3), includes 60 items designed to assess the Big Five personality traits. It is one of the most widely used and empirically validated tools for measuring personality, with strong psychometric support (McCrae & Costa, 2004). In this study, participants were provided with the questionnaire and instructed to respond honestly. Among the five personality dimensions, only the Extroversion/Introversion factor was considered for analysis.

The Emotional Intelligence Scale (EIS), developed by Prof. C. R. Mukundan in 2000, was utilized in the present study. The scale comprises 50 items designed to assess six key dimensions of emotional intelligence. Participants were provided with the questionnaire and instructed to respond honestly. For the purposes of this study, only two dimensions—Self-Control (SC) and Managing Emotions (ME)—were selected for analysis.

### III. RESULTS

Scoring of the NEO Five-Factor Inventory-3 (NEO-FFI-3) was conducted according to standardized norms, and individual *t*-scores were obtained using the test's conversion table. For emotional intelligence, scores related to self-control (SC) and managing emotions (ME) were calculated based on the Emotional Intelligence Scale scoring protocol.

In this study, the mean and standard deviation (SD) were computed for each variable—Extraversion, SC, and ME.

To facilitate group comparisons, participants were categorized into high and low extraversion groups, selecting only those who scored more than one standard deviation above or below the mean. A *t*-test was conducted to analyze the differences in emotional intelligence dimensions between these two groups.

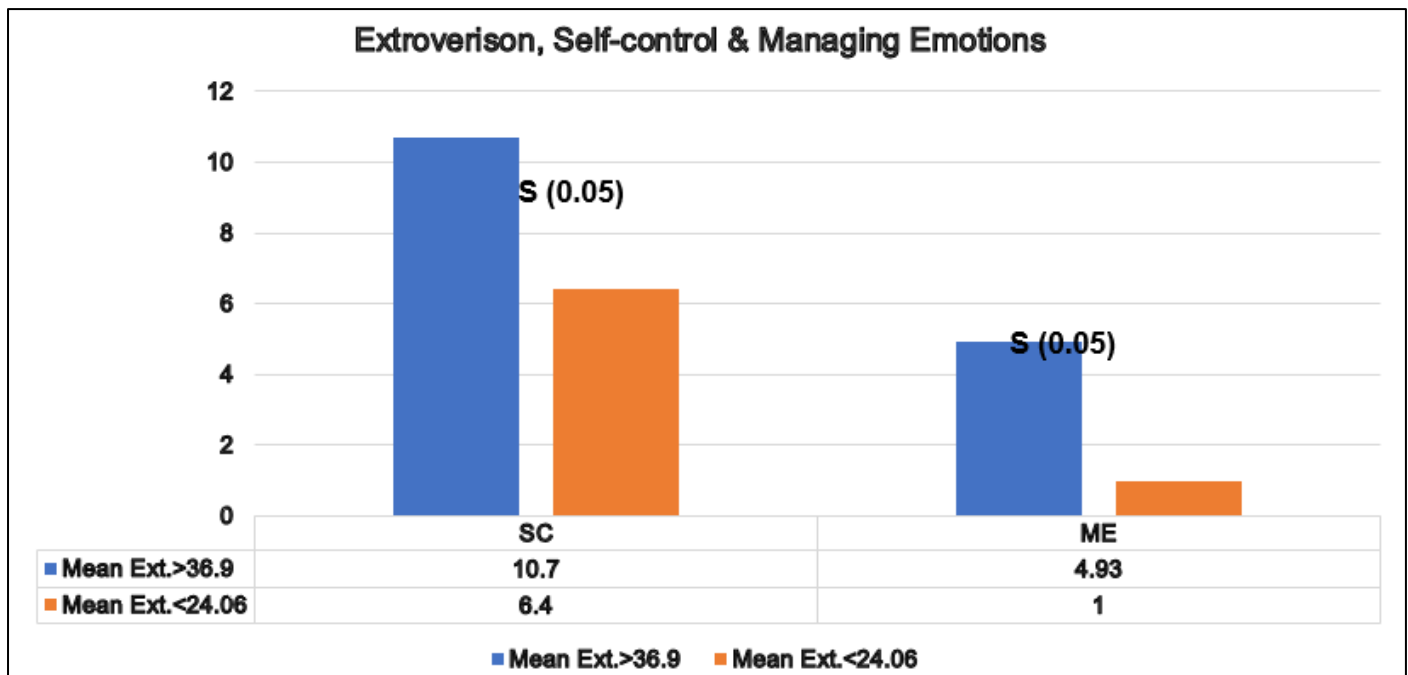


Fig 1 Extroversion, Self-Control & Managing Emotions

The results revealed a significant difference in self-control and emotion management between students with high and low levels of extraversion. Findings from the *t*-test supported the hypothesis, indicating that higher levels of extraversion are significantly associated with greater emotional self-regulation and control, aligning with prior theoretical expectations.

### IV. DISCUSSION

The present study explored the relationship between emotional intelligence (EI) and the personality trait of extraversion among undergraduate and postgraduate students. The results revealed a statistically significant positive association between extraversion and two key components of EI - self-control and managing emotions. These findings contribute to a growing body of research suggesting that personality traits, particularly extraversion, play an important role in shaping emotional intelligence of the individual.

The results are consistent with earlier studies, such as those by Van der Zee et al. (2002), which indicated that personality differences significantly influence emotional intelligence of the individual. Similarly, Ghiabi and Besharat (2011) found a positive correlation between extraversion and various aspects of EI, supporting the notion that socially

engaged individuals tend to be more emotionally intelligent. McCrae and Costa (1992) also emphasized that personality traits like extraversion are closely linked to interpersonal functioning supported by emotionality and emotional awareness. An extravert is characterized by a personal preference for social interaction and gaining happiness and energy by staying and interacting with others around. Extraverts are generally sociable, talkative, outgoing, and assertive individuals, finding pleasure in activities that involve large groups. They are often described as energetic, enthusiastic, and warm, and they tend to express their emotions openly.

This study further supports the findings of Taneja et al. (2020), who reported a strong positive relationship between extraversion and EI among medical students. Highly extroverted individuals, often characterized by their sociability, assertiveness, and enthusiasm, tend to engage more readily with others and exhibit higher emotional expressiveness and awareness. These characteristics enhance their ability to perceive, understand, and regulate emotions in one another, reinforcing their emotional intelligence and capability and need to help one another.

Although limited research has examined this relationship specifically among student populations, the results of this study align with broader psychological

literature. Continued research in this area is essential to deepen our understanding of how personality traits influence emotional competency, particularly in educational settings where interpersonal skills and emotional regulation are critical for academic and social success.

## V. CONCLUSION

In conclusion, it is seen that extraversion induces a person to play a central role in the application of emotional intelligence (EI), especially in domains such as social interaction, emotional awareness, and emotional regulation. Individuals high in extraversion tend to be outgoing, assertive, and socially engaged, which facilitates better recognition and management of both personal and interpersonal emotions (Costa & McCrae, 1992; Goleman, 1995). The well-established relationship between personality traits and EI highlights the importance of understanding their interaction to advance psychological research and enhance practical applications in education, healthcare, and organizational development (Bar-On, 2006; Mayer, Salovey, & Caruso, 2004). Continued exploration in this field can contribute significantly to developing targeted interventions that foster emotional and social competence based on individual personality profiles.

## VI. LIMITATIONS

The present study has several limitations that should be considered. The relatively small sample size limits the generalizability of the findings. Additionally, the division of participants into high and low extraversion groups reduced the number of subjects in each category, which may have affected the statistical power of the analysis. Furthermore, the study focused solely on the trait of extraversion and two components of emotional intelligence (self-control and managing emotions), providing a narrow view of the relationship between personality and emotional intelligence of the individual.

## SCOPE FOR FUTURE RESEARCH

Future research should involve a larger and more diverse sample, examining all five factors of the Big Five personality traits (extraversion, agreeableness, conscientiousness, neuroticism, and openness) rather than focusing solely on extraversion. Furthermore, exploring the five core components of emotional intelligence (self-awareness, self-regulation, motivation, empathy, and social skills) may provide deeper insights into how specific personality traits influence emotional abilities (Goleman, 1995; Mayer, Salovey, & Caruso, 2004). Including a broader sample across academic levels, cultural contexts, and age groups would improve the generalizability of findings. Longitudinal studies could also shed light on how these relationships develop over time. Additionally, examining moderating variables, such as gender and culture, could offer further understanding of the personality-emotional intelligence connection (Van der Zee, Thijs, & Schakel, 2002). This research could contribute to multiple disciplines, including education, neuroscience, social psychology, and

developmental psychology, as many issues remain underexplored. The development of emotional control is particularly crucial during early life stages, and the role of social conditioning during these periods merits further investigation from both neurocognitive and social psychological perspectives. A multidisciplinary approach, utilizing both qualitative and quantitative methods, could inform targeted interventions and strategies for enhancing emotional intelligence tailored to individual personality profiles.

## REFERENCES

- [1]. American Psychological Association. (2017). *Personality*. In *APA dictionary of psychology* (2nd ed.). American Psychological Association. <https://positivepsychology.com/big-five-personality-theory/>
- [2]. Bar-On, R. (2006). The Bar-On model of emotional-social intelligence (ESI). *Psicothema*, 18 (Suplemento), 13–25. <https://pubmed.ncbi.nlm.nih.gov/17295953/>
- [3]. Blutner, R. (2010). *Concepts and prototypes in the psychological space*. University of Amsterdam. <https://pdfs.semanticscholar.org/3dc0/c5362cd03520824aa7730d4271daa9f76e8d.pdf>
- [4]. Bradshaw, J., & Nettleton, N. (1981). The nature of hemispheric specialization in man. *The Behavioral and Brain Sciences*, 4, 51–91. <http://www.freepatentsonline.com/article/College-Student-Journal/77399626.html>
- [5]. Burman, J. T., Green, C. D., & Shanker, S. (2015). On the meanings of self-regulation: Digital humanities in service of conceptual clarity. *Child Development*, 86(5), 1507–1521. DOI.org/10.1111/cdev.12395. [https://howlingpixel.com/wiki/Emotional\\_self-regulation](https://howlingpixel.com/wiki/Emotional_self-regulation)
- [6]. Cleverism. (2017). *Emotion management*. <https://www.cleverism.com/skills-and-tools/emotion-management/>
- [7]. Cole, P. M., Michel, M. K., & Teti, L. O. (1994). The development of emotion regulation and dysregulation: A clinical perspective. *Monographs of the Society for Research in Child Development*, 59, 73–100. [http://www.livebinders.com/play/play?tab\\_layout=top&id=1403480](http://www.livebinders.com/play/play?tab_layout=top&id=1403480)
- [8]. Coleman, A. (2008). *A dictionary of psychology* (3rd ed.). Oxford University Press. [https://en.wikipedia.org/wiki/Emotional\\_intelligence](https://en.wikipedia.org/wiki/Emotional_intelligence)
- [9]. DeLisi, M. (2014). *Emotional self-control and criminal behavior*. Routledge. [https://howlingpixel.com/wiki/Self-control#cite\\_note-3](https://howlingpixel.com/wiki/Self-control#cite_note-3) & [http://www.like2do.com/learn?s=Inhibitory\\_control](http://www.like2do.com/learn?s=Inhibitory_control)
- [10]. Diamond, A. (2013). Executive functions. *Annual Review of Psychology*, 64, 135–168. [https://howlingpixel.com/wiki/Self-control#cite\\_note-3](https://howlingpixel.com/wiki/Self-control#cite_note-3) & [http://www.like2do.com/learn?s=Inhibitory\\_control](http://www.like2do.com/learn?s=Inhibitory_control)
- [11]. El Othman, R., Hallit, R., Obeid, S., & Hallit, S. (2020). Personality traits, emotional intelligence and

- decision-making styles in Lebanese universities medical students. *BMC Psychology*, 8, 46. <https://doi.org/10.1186/s40359-020-00406-4>. <https://pubmed.ncbi.nlm.nih.gov/32370782/>
- [12]. Ghiabi, B., & Besharat, M. A. (2011). An investigation of the relationship between personality dimensions and emotional intelligence. *Procedia - Social and Behavioral Sciences*, 30, 416–420. <https://doi.org/10.1016/j.sbspro.2011.10.082>. <https://pmc.ncbi.nlm.nih.gov/articles/PMC7871965/#ref21>
- [13]. Goleman, D. (1995). *Emotional intelligence: Why it can matter more than IQ*. Bantam Books.
- [14]. Ilieva, I., Hook, C. J., & Farah, M. J. (2015). Prescription stimulants' effects on healthy inhibitory control, working memory, and episodic memory. *Journal of Cognitive Neuroscience*, 27(6), 1069–1089. [https://howlingpixel.com/wiki/Self-control#cite\\_note-3](https://howlingpixel.com/wiki/Self-control#cite_note-3) & [http://www.like2do.com/learn?s=Inhibitory\\_control](http://www.like2do.com/learn?s=Inhibitory_control)
- [15]. Institute of Health and Human Potential. (2017). *What is emotional intelligence?* <http://www.ihhp.com/meaning-of-emotional-intelligence>
- [16]. Mayer, J. D., Salovey, P., & Caruso, D. R. (2008). Emotional intelligence: New ability or eclectic traits? *American Psychologist*, 63(6), 503–517. <http://www.theeiiinstitute.com/what-is-emotional-intelligence/4-mayer-and-salovey-model-of-emotional-intelligence.html>
- [17]. John, O. P., & Srivastava, S. (1999). The Big-Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (Vol. 2, pp. 102–138). Guilford Press. <https://positivepsychology.com/big-five-personality-theory/>
- [18]. Jung, C. G. (1921). *Psychological types*. Princeton University Press. [https://en.wikipedia.org/wiki/Extraversion\\_and\\_introversion](https://en.wikipedia.org/wiki/Extraversion_and_introversion), <http://www.myersbriggs.org/my-mbti-personality-type/mbti-basics/extraversion-or-introversion.htm>, <http://www.myersbriggs.org/my-mbti-personality-type/mbti-basics/c-g-jungs-theory.htm?bhcp=1>
- [19]. Judge, T. A., Higgins, C. A., Thoresen, C. J., & Barrick, M. R. (1999). The Big Five personality traits, general mental ability, and career success across the life span. *Personnel Psychology*, 52, 621–652. <https://doi.org/10.1111/j.1744-6570.1999.tb00174.x>, <https://positivepsychology.com/big-five-personality-theory/>
- [20]. Judge, T. A., Erez, A., Bono, J. E., & Thoresen, C. J. (2002). Are measures of self-esteem, neuroticism, locus of control, and generalized self-efficacy indicators of a common core construct? *Journal of Personality and Social Psychology*, 83, 693–710. <https://doi.org/10.1037/0022-3514.83.3.693>, <https://positivepsychology.com/big-five-personality-theory/>
- [21]. Lebowitz, S. (2016). The 'Big 5' personality traits could predict who will and won't become a leader. *Business Insider*. <https://positivepsychologyprogram.com/big-five-personality-theory/>
- [22]. Lekaviciene, R., & Antiniene, D. (2017). Correlation between emotional intelligence and extroversion. *Netherlands Institute of Psychologists*, 161. <https://hdl.handle.net/20.500.12512/96671>
- [23]. DeLisi, M. (2014). Low self-control is a brain-based disorder. In M. DeLisi, *Low self-control and crime* (Chapter 10). SAGE Publications. [https://howlingpixel.com/wiki/Self-control#cite\\_note-3](https://howlingpixel.com/wiki/Self-control#cite_note-3)
- [24]. Mayer, J. D., & Salovey, P. (1990). Emotional intelligence. *Imagination, Cognition and Personality*, 9, 185–211. <http://psychtastic.com/2015/02/emotional-intelligence-salovey-mayer/>
- [25]. Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D. Sluyter (Eds.), *Emotional development and emotional intelligence: Educational implications* (pp. 3–31). Basic Books. <http://psychtastic.com/2015/02/emotional-intelligence-salovey-mayer/>
- [26]. Mayer, J. D., Salovey, P., & Caruso, D. R. (2004). Emotional intelligence: Theory, findings, and implications. *Psychological Inquiry*, 15(3), 197–215. [https://doi.org/10.1207/s15327965pli1503\\_02](https://doi.org/10.1207/s15327965pli1503_02)
- [27]. McCrae, R. R., & Costa, P. T., Jr. (1987). Validation of the five-factor model of personality across instruments and observers. *Journal of Personality and Social Psychology*, 52, 81–90. [https://www.sciencedirect.com/science/article/pii/S1877042811019070?ref=pdf\\_download&fr=RR-2&rr=9295bdb8e96b3c40](https://www.sciencedirect.com/science/article/pii/S1877042811019070?ref=pdf_download&fr=RR-2&rr=9295bdb8e96b3c40)
- [28]. McCrae, R. R., & John, O. P. (1992). An introduction to the five-factor model and its applications. *Journal of Personality*, 60, 175–215. Doi:10.1111/j.1467-6494.1992.tb00970.x. <https://pmc.ncbi.nlm.nih.gov/articles/PMC7871965/#ref21>
- [29]. McCrae, R. R., & Costa, P. T., Jr. (1992). *Revised NEO Personality Inventory (NEO PI-R) and NEO Five-Factor Inventory (NEO-FFI) professional manual*. Psychological Assessment Resources.
- [30]. McLeod, S. (2007). Maslow's hierarchy of needs. *Simply Psychology*. <https://positivepsychology.com/big-five-personality-theory/>
- [31]. Mukundan, C. R. (2000). *Emotional Intelligence Scale* [Unpublished manuscript].
- [32]. Niven, K., Totterdell, P., & Holman, D. (2009). A classification of controlled interpersonal affect regulation strategies. *Emotion*, 9, 498–509. doi:10.1037/a0015962. [https://howlingpixel.com/wiki/Emotional\\_self-regulation](https://howlingpixel.com/wiki/Emotional_self-regulation)
- [33]. Philosophy. (2009). *Ethics, Jung's psychological types*. <http://philosophy.lander.edu/ethics/jung.html>

- [34]. Positive Psychology Program. (2017). *The Big Five personality theory: The 5 factor model explained*. <https://positivepsychologyprogram.com/big-five-personality-theory>
- [35]. Revelle, W. (2013). *Personality theory and research*. Personality Project. <https://positivepsychology.com/big-five-personality-theory/>
- [36]. Schmitt, D. P., Allik, J., McCrae, R. R., Benet-Martinez, V., & Others. (2007). The geographic distribution of Big Five personality traits: Patterns and profiles of human self-description across 56 nations. *Journal of Cross-Cultural Psychology*, 38, 173–212. doi:10.1177/0022022106297299. <https://positivepsychology.com/big-five-personality-theory/>
- [37]. Schutte, N. S., Malouff, J. M., Hall, L. E., Haggerty, D. J., Cooper, J. T., Golden, C. J., & Dornheim, L. (1998). Development and validation of a measure of emotional intelligence. *Personality and Individual Differences*, 25(2), 167–177. Doi:10.1016/S0191-8869(98)00001-4. <https://psycnet.apa.org/record/1998-10376-001>
- [38]. Skills You Need. (n.d.). *Personal skills: Self-regulation-self-management*. <https://www.skillsyouneed.com/ps/self-management.html>
- [39]. Taneja, N., Gupta, S., Chellaiyan, V. G., Awasthi, A. A., & Sachdeva, S. (2020). Personality traits as a predictor of emotional intelligence among medical students. *Journal of Education and Health Promotion*, 9, 354. doi:10.4103/jehp.jehp\_678\_19. <https://pmc.ncbi.nlm.nih.gov/articles/PMC7871965/>
- [40]. Thompson, R. A. (1994). Emotion regulation: A theme in search of definition. *Monographs of the Society for Research in Child Development*, 59, 25–52. doi:10.1111/j.1540-5834.1994.tb01276.x. [https://howlingpixel.com/wiki/Emotional\\_self-regulation](https://howlingpixel.com/wiki/Emotional_self-regulation)
- [41]. Timpano, K. R., & Schmidt, N. B. (2013). The relationship between self-control deficits and hoarding: A multimethod investigation across three samples. *Journal of Abnormal Psychology*, 122(1), 13–25. doi:10.1037/a0029760. [https://howlingpixel.com/wiki/Self-control#cite\\_note-3](https://howlingpixel.com/wiki/Self-control#cite_note-3) & [http://www.like2do.com/learn?s=Inhibitory\\_control](http://www.like2do.com/learn?s=Inhibitory_control)
- [42]. Van der Zee, K., Thijs, M., & Schakel, L. (2002). The relationship of emotional intelligence with academic intelligence and the Big Five. *European Journal of Personality*, 16(2), 103–125. doi:10.1002/per.434. <https://pmc.ncbi.nlm.nih.gov/articles/PMC7871965/#ref21>
- [43]. Verywell Mind. (n.d.). *Extroversion in personality*. <https://www.verywell.com/what-is-extroversion-2795994>
- [44]. Wikipedia contributors. (n.d.). *Emotional self-regulation*. Wikipedia. [https://en.wikipedia.org/wiki/Emotional\\_self-regulation](https://en.wikipedia.org/wiki/Emotional_self-regulation)
- [45]. Yusoff, M. S., Esa, A. R., Mat Pa, M. N., Mey, S. C., Aziz, R. A., & Abdul Rahim, A. F. (2013). A longitudinal study of relationships between previous academic achievement, emotional intelligence and personality traits with psychological health of medical students during stressful periods. *Education for Health*, 26(1), 39–47. doi:10.4103/1357-6283.112800. <https://pmc.ncbi.nlm.nih.gov/articles/PMC7871965/>