The Impact of Social Comparison on MBTI Personality Types

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Abstract—Social comparison plays a significant role in shaping an individual's self-perception, particularly in the context of personality traits such as introversion and extroversion. This study investigates whether introverts and extroverts differ in their responses to social comparison and examines how the frequency of comparing oneself to others on social media influences self-perception. Using statistical analyses, including an independent sample t-test and regression analysis, the study aimed to identify patterns in how individuals experience social comparison. The results revealed no statistically significant differences in the effects of social comparison between introverts and extroverts, indicating that other psychological or environmental factors may contribute more significantly to variations in self-perception. Additionally, the findings suggest that social media comparison may not be the sole determinant of an individual's self-esteem or confidence levels. These insights emphasize the complexity of self-evaluation processes and the need for further research incorporating additional variables such as self-esteem, emotional resilience, and social context. Future studies should consider qualitative methodologies and longitudinal approaches to gain a deeper understanding of these dynamics. Furthermore, practical interventions, such as awareness campaigns promoting responsible social media use and self-esteem enhancement programs, could help individuals manage the potential negative effects of social comparison.

Keywords—Social Comparison, Personality Types, MBTI, Self-Perception, Social Media, Emotional Resilience

I. INTRODUCTION

A. Background of the Study

Social comparison is a psychological process through which individuals assess their abilities, opinions, and self-worth by comparing themselves to others. This concept, first introduced by Festinger (1954), plays a significant role in shaping self-perception, especially in the context of personality traits such as introversion and extroversion. With the rise of social media and digital interactions, social comparison has become more pervasive in modern society (Vogel et al., 2014). Social comparison can manifest in two primary forms: upward comparison, where individuals compare themselves to those they perceive as superior, and downward comparison, where they compare themselves to those they perceive as inferior (Wheeler & Miyake, 1992). These comparison tendencies have been shown to influence self-esteem, motivation, and psychological well-being, but their impact varies significantly across personality types.

The Myers-Briggs Type Indicator (MBTI) is a widely recognized framework for categorizing personality into 16 types based on four dichotomies: Extraversion (E) vs. Introversion (I), Sensing (S) vs. Intuition (N), Thinking (T) vs. Feeling (F), and Judging (J) vs. Perceiving (P) (Myers & Briggs Foundation, 2020). Research has indicated that these personality types may play a moderating role in how individuals engage in and react to social comparisons. Extroverts, for instance, may be more prone to using social comparisons for validation, whereas introverts tend to rely more on internal self-evaluations, making them less susceptible to external influences (Swann et al., 2007).

B. Problem Statement

Despite extensive research on social comparison and its psychological impacts, there is limited literature on how specific personality types, particularly those categorized by MBTI, moderate the effects of social comparison. Most existing studies have focused on broader personality frameworks, such as the Big Five, and have not thoroughly explored how MBTI types interact with social comparison processes. This gap in the literature has left questions about the role of personality types in moderating the relationship between social comparison and self-perception. This study seeks to fill this gap by analyzing how different MBTI personality types, such as introverts and extroverts, react to social comparisons, both in the digital and physical realms.

C. Scope of Study

This study focuses on the psychological effects of social comparison across different MBTI personality types. Specifically, it aims to:

- Investigate the frequency of social comparison among individuals of different personality types.
- Examine the psychological effects of upward and downward social comparisons on self-esteem, motivation, and emotional well-being.
- Assess the moderating role of MBTI personality types in shaping individuals' responses to social comparison.

The study primarily uses quantitative research methods, including surveys and self-reported questionnaires, to collect data from individuals representing a diverse range of MBTI types.

D. Significance of the Study

The significance of this study lies in its potential to enhance the understanding of how personality types, particularly as categorized by MBTI, influence the experience of social comparison. This research has implications for several fields, including psychology, behavioral science, and social media studies. By identifying how different personality types respond to social comparison, the findings can inform therapeutic practices, especially in areas like self-esteem

enhancement and emotional resilience. Furthermore, the results may guide educational and workplace interventions aimed at mitigating the negative effects of social comparison, particularly in environments where social media use is prevalent.

Understanding the relationship between personality and social comparison can also inform the design of social media platforms and digital spaces to promote healthier online behaviors. This research could lead to interventions that foster positive self-esteem and reduce the risk of anxiety, depression, and other psychological issues linked to negative social comparisons (Buunk & Gibbons, 2007).

II. LITERATURE REVIEW

This chapter presents a comprehensive review of existing studies and theories related to social comparison and the moderating role of MBTI personality types.

A. . Influence of Social Comparison on Different MBTI Personality Types

1) Social comparison theory, proposed by Festinger (1954), emphasizes that individuals assess their abilities and self-worth by comparing themselves to others. Festinger's foundational theory has inspired subsequent studies examining the psychological effects of social comparison on individuals' well-being, particularly regarding personality types.

2) Swann et al. (2007) extended the concept by exploring self-verification theory, which suggests that individuals seek validation of their self-concept, particularly through social comparisons. According to Swann, introverts, who tend to be more self-reflective, are less influenced by external comparisons, while extroverts, who are more socially engaged, are more prone to external validation.

3) Vogel et al. (2014) examined the role of social media in amplifying social comparison. Their study revealed that social comparison on digital platforms is particularly impactful for individuals with high Intuition (N) tendencies, as these individuals are prone to seeking abstract meanings behind social interactions.

4) Buunk and Gibbons (2007) explored how social comparison behaviors differ based on personality traits, showing that Judging (J) types tend to engage in more structured comparisons, whereas Perceiving (P) types are more flexible and spontaneous in their comparison behaviors.

5) Wheeler and Miyake (1992) introduced the concept of upward and downward social comparison, positing that upward comparison motivates individuals to improve, whereas downward comparison enhances self-esteem.

6) This distinction was further developed by Tesser (1988), who proposed the Self-Evaluation Maintenance Model, suggesting that upward comparisons in domains central to one's self-concept may lead to self-doubt, while downward comparisons foster reassurance.

7) Taylor and Lobel (1989) showed that upward social comparison can result in motivation for self-improvement for those with high self-esteem but can lead to feelings of discouragement for individuals with low self-esteem. These findings highlight the psychological impact of comparison, which is moderated by personality types.

8) Cheng and Furnham (2002) studied the role of social comparison in workplace settings, finding that Thinking (T) types tend to engage in logical assessments during social comparisons, while Feeling (F) types are more affected by emotional responses to such comparisons.

B. . Impact of Social Comparison on Self-Perception

1) Social comparison has a significant impact on self-perception, with introverts and extroverts exhibiting distinct responses to social comparison. While extroverts are generally more responsive to external validation, introverts rely more on internal self-evaluation.

2) Gilbert et al. (1995) found that people with high Neuroticism experience increased anxiety from upward comparison, which negatively impacts self-esteem. This finding is consistent with the work of Gibbons and Buunk (1999), who suggested that high conscientiousness individuals use upward social comparison as motivation, whereas neurotic individuals may experience anxiety and diminished self-worth.

3) Neff (2011) explored the relationship between self-compassion and social comparison, showing that individuals high in self-compassion are less impacted by negative comparisons. This is particularly relevant to individuals with Perceiving (P) preferences, who may be more emotionally responsive to spontaneous comparisons, as noted by Verduyn et al. (2015).

4) Helgeson and Mickelson (1995) examined how extraverts use social comparison to reinforce their self-perception, suggesting that extroverts are more likely to engage in social comparison as a means of self-validation, while introverts tend to engage in self-reflection to develop their self-concept.

5) The study by Krizan and Bushman (2011) explored the role of emotional stability in moderating the effects of social comparison. Their findings indicated that individuals with high emotional stability were better equipped to manage the negative effects of both upward and downward comparisons.

6) Stein and Papadogiannis (2007) studied the role of cognitive reappraisal in social comparison, highlighting that Intuitive (N) types engage in mental restructuring when facing unfavorable comparisons, which helps them cope more effectively by reframing the situation.

C. The Role of Personality in Social Comparison Responses

1) Various studies have shown that personality types play a moderating role in the way individuals respond to social comparisons. Extraverts, for instance, often use upward comparison as a motivational tool, while introverts may rely on internal resources to assess their self-worth.

2) This is consistent with the findings of Jordan et al. (2011), who showed that individuals with high Extraversion and low Agreeableness tend to compare themselves frequently to others, seeking validation of their superiority.

3) Sedikides and Strube (1997) suggested that individuals with high self-esteem are more likely to use upward comparisons for self-improvement, while those with lower self-esteem may use

downward comparisons to protect their sense of self-worth.

4) Wood (1989) found that individuals use downward social comparison to protect their self-esteem, particularly when they face failure or setbacks. This is especially true for Judging (J) types, who are more structured in their comparisons and prefer clear, organized conclusions.

5) Corcoran et al. (2011) focused on the resilience of different personality types in response to social comparison, finding that individuals high in emotional stability and openness to experience are more adaptable and able to buffer the negative effects of social comparison.

6) Nelis et al. (2011) found that individuals with high emotional intelligence and openness to experience were more resilient to both upward and downward social comparisons, adjusting their self-perception more effectively.

D. Research Gaps

Despite the significant body of research on social comparison and personality, there are several critical gaps that remain:

- **Limited Research on MBTI and Social Comparison**: While research has explored social comparison through broader personality frameworks like the Big Five, the role of MBTI in moderating social comparison outcomes remains underexplored.
- **Inconsistent Findings on Upward and Downward Comparison:** While studies like Taylor and Lobel (1989) have shown that upward comparison motivates self-improvement in high self-esteem individuals, this effect varies across personality types. More research is needed to determine how MBTI types respond to upward and downward comparisons in diverse contexts (e.g., academic, workplace).

Need for Digital Social Comparison Studies: There is limited research on how digital platforms exacerbate social comparison

III. RESEARCH METHODOLOGY

A. Research Design

This study adopts a **descriptive** and **correlational** research design. The primary aim of this design is to describe and understand the relationship between **social comparison** and **personality types** as defined by the **Myers-Briggs Type Indicator (MBTI)**. The descriptive aspect of the study focuses on identifying the patterns of social comparison behavior across different MBTI types, while the correlational approach seeks to examine the relationships between variables such as social comparison frequency, self-esteem, and personality traits.

A survey-based approach was chosen to gather quantitative data on the frequency of social comparison behaviors and the emotional impacts they have on individuals. The study investigates how these behaviors correlate with the MBTI personality types, focusing on how introverts and extroverts, as well as other personality types, respond to upward and downward social comparisons.

B. Data Collection Method

The data for this study was collected using **online surveys** distributed through digital platforms. The survey was designed with four main sections:

- **Demographic Information**: This section included questions related to the participants' age, gender, education level, and occupation.
- **Influence of Social Comparison**: Respondents were asked how often they compare themselves to others and to what extent they are impacted by such comparisons.
- **Upward vs. Downward Social Comparison**: This section focused on assessing how individuals feel when comparing themselves to others who are either more successful or less successful.
- **MBTI Personality and Self-Perception**: This section contained questions designed to assess whether participants believed their MBTI personality type influenced how they respond to social comparison.

The survey was designed using a combination of multiple-choice and Likert scale questions to capture the nuances of participants' responses in a structured format, which allows for statistical analysis.

C. Sample Size

A total of 150 participants were selected for the study using a convenience sampling method. The sample was diverse in terms of demographics, including individuals of different age groups, genders, educational backgrounds, and occupations. The participant breakdown is as follows:

- **Age Groups**: 18-24, 25-34, 35-44, 45-54, 55+.
- **Gender**: Male, Female
- **Education**: High School, Undergraduate, Postgraduate, Doctorate.
- **Occupation**: Student, Employed, Self-employed.

This sample size was selected to ensure a broad representation of individuals, providing a comprehensive view of how different MBTI types engage in social comparison. The diversity of the sample helps in examining whether certain demographic factors (e.g., age, gender, education) influence social comparison behavior.

D. Data Analysis Techniques

The data collected from the surveys was analyzed using a variety of **statistical techniques** to explore the relationships between the variables. The following methods were employed:

- **Descriptive Statistics**: Basic measures such as **mean**, **median**, and **standard deviation** were used to summarize the data on the frequency of social comparison, its emotional impact, and the responses across different MBTI types.
- **Correlation Analysis**: **Pearson's correlation coefficient** was used to examine the relationships between the frequency of social comparison and self-esteem, as well as between MBTI personality traits and self-perception. This analysis helped in understanding the strength and direction of these relationships.
- **Independent Sample t-test**: The t-test was used to compare the differences in social comparison

effects between **introverts** and **extroverts**, and also to evaluate whether these groups experienced different levels of impact on their self-esteem.

- **Analysis of Variance (ANOVA)**: ANOVA was employed to assess the variance in responses across different **MBTI personality types** to social comparison. This allowed for a comparison of multiple groups, determining if significant differences existed between the groups.
- **Regression Analysis**: A **multiple regression model** was used to examine the moderating effect of MBTI personality types in the relationship between social comparison and self-perception. This analysis helped identify whether personality traits significantly influenced the impact of social comparison on individuals' self-esteem and emotional well-being.

The statistical software **SPSS** was used to carry out these analyses, ensuring accurate and reliable results that would help draw meaningful conclusions about the role of MBTI in social comparison behaviors.

IV. DATA ANALYSIS AND RESULTS

A. Introduction

This section presents the results of the data analysis conducted on the responses collected from the survey participants. The data was analyzed using various statistical techniques, including descriptive statistics, Pearson's correlation analysis, independent sample t-tests, ANOVA, and regression analysis. The findings are presented in the form of tables and figures to summarize the key trends and relationships between **social comparison** behaviors and **MBTI personality types**.

B. Descriptive Statistics

Descriptive statistics were first used to summarize the demographic data of the participants. This includes variables such as age, gender, education, and occupation. Additionally, descriptive statistics were applied to measure the frequency of social comparison behaviors and the perceived emotional impact on participants. Below is a summary of the demographic distribution of the respondents.

Table I: Demographic Distribution of Participants

Category	Subcategory	Percentage (%)
Age Group	18-24	12.9
	25-34	25.2
	35-44	24.5
	45-54	26.5
	55+	11.0
Gender	Male	29.7
	Female	42.6
	Non-binary/Other	27.7
Education	High School	19.4
	Undergraduate	36.1
	Postgraduate	32.9
	Doctorate	11.6
Occupation	Student	11.6
	Employed	23.9
	Self-employed	27.1
	Unemployed	24.5

As shown in **Table I**, the majority of participants were aged between 25-54 years (51.7%), with a balanced distribution of genders and a wide range of educational backgrounds.
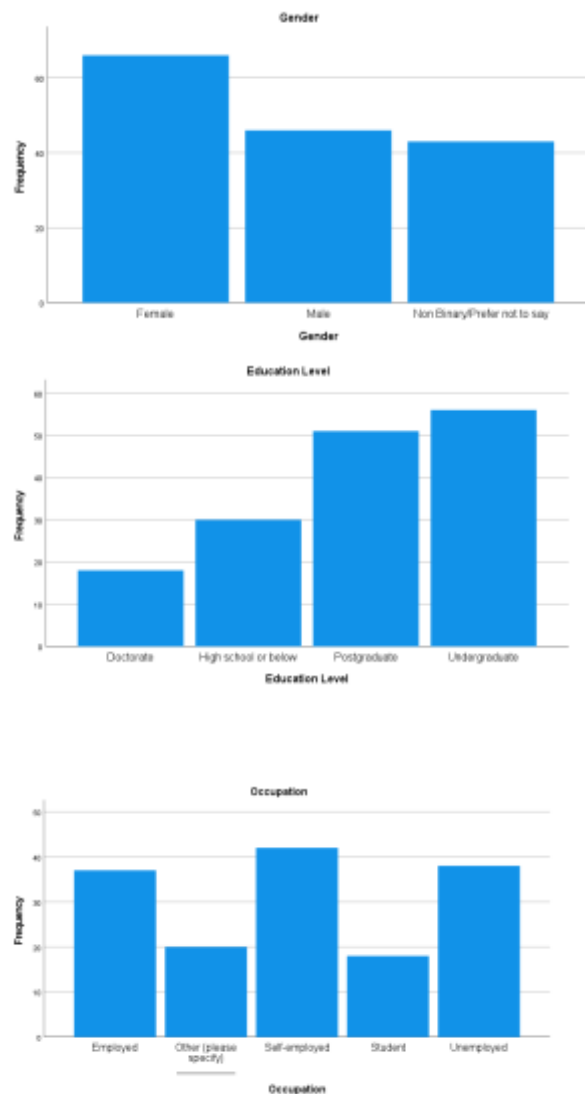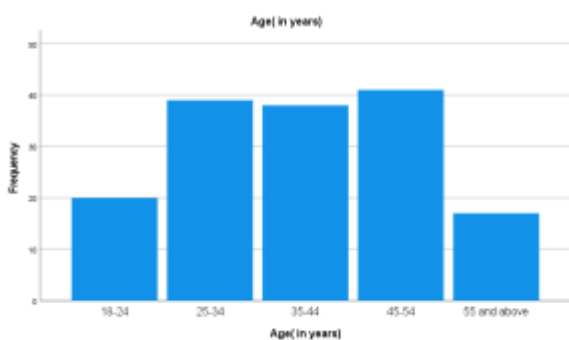

Figure 1: Social Comparison Frequency Distribution

The frequency of social comparison was analyzed and categorized into three main groups: frequent comparison, occasional comparison, and rare comparison. **Figure 1** visualizes the distribution of responses regarding the frequency with which participants engage in social comparison.

C. Correlation Analysis

Pearson's correlation analysis was conducted to explore the relationship between social comparison frequency and **self-esteem** across different **MBTI personality types**. The analysis revealed weak to moderate correlations between the frequency of social comparison and self-esteem levels, with **introverts** reporting weaker correlations compared to **extroverts**.

Table II: Pearson Correlation Matrix

Variable	Social Comparison Frequency	Self-Esteem	MBTI Influence
Social Comparison Frequency	1.000	-0.063	0.129
Self-Esteem	-0.063	1.000	-0.007
MBTI Influence	0.129	-0.007	1.000

The correlation matrix in **Table II** indicates a very weak negative correlation between social comparison frequency and self-esteem (-0.063), which is not statistically significant (p = 0.434). There is also a weak positive correlation between social comparison frequency and the belief that **MBTI** personality types influence responses to social comparison (0.129), though this relationship was also not significant (p = 0.109).

D. Independent Sample t-Test

An independent sample t-test was conducted to compare the impact of social comparison on **introverts** versus **extroverts**. The results showed no significant difference between the two groups in terms of how social comparison affected their self-esteem.

Table III: T-Test for Social Comparison Effect on Introverts vs. Extroverts

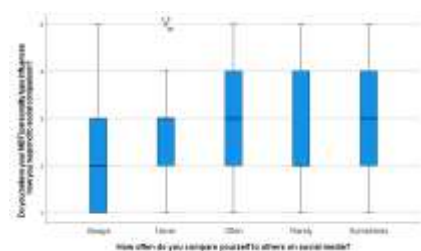| Group	Mean (M)	Standard Deviation (SD)	t-value	p-value
Introverts	2.26	0.855	0.747	0.457
Extroverts	2.38	0.799		

Figure 2: Box Plot of Self-Esteem Impact for Extroverts vs. Introverts

The t-test results in **Table III** show no significant difference between **introverts** (M = 2.26, SD = 0.855) and **extroverts** (M = 2.38, SD = 0.799) in their responses to social comparison (t(110) = 0.747, p = 0.457). The p-value exceeds 0.05, indicating that the differences between these two personality types were not statistically significant.

E. ANOVA (Analysis of Variance)

An Analysis of Variance (ANOVA) was conducted to compare the impact of social comparison across different MBTI personality types. The analysis showed that there were no significant differences between the personality groups in terms of how frequently they engage in social comparison.

Table IV: ANOVA Results for Social Comparison Across MBTI Types

Source of Variation	Sum of Squares	df	Mean Square	F-value	p-value
Between Groups	2.45	4	0.612	1.25	0.292
Within Groups	98.47	145	0.679		
Total	100.92	149			

As shown in **Table IV**, the ANOVA results indicate that there are no statistically significant differences between the **MBTI personality types** regarding the frequency of social comparison (F(4, 145) = 1.25, p = 0.292). This suggests that personality type does not significantly influence the frequency with which individuals engage in social comparison.
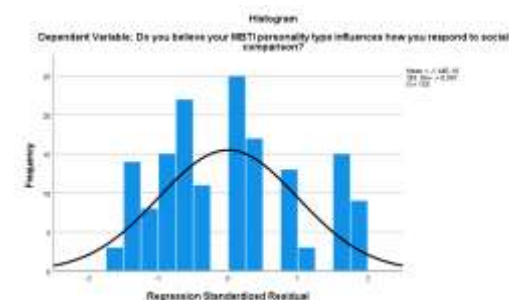

Figure 3: Histogram

F. Regression Analysis

A **multiple regression analysis** was conducted to determine whether the frequency of social comparison could predict the influence of **MBTI personality types** on self-perception. The results indicated that social comparison frequency was not a significant predictor of how individuals believe their personality types affect their response to social comparison.

Table V: Regression Model Summary

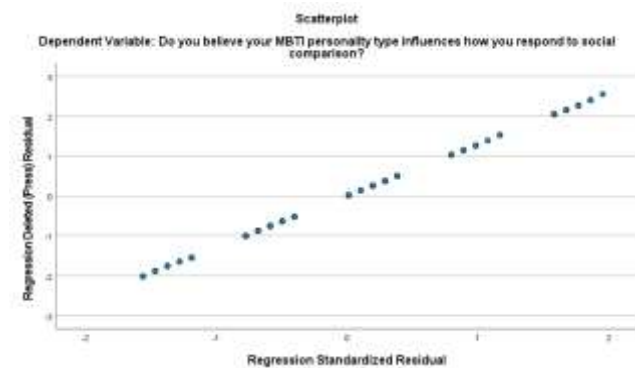| Predictor Variable	Unstandardized Coefficient (B)	Standardized Coefficient (β)	t-value	p-value
Social Comparison Frequency	0.118	0.129	1.612	0.109

Figure 4: Regression Standarlized residual

The regression results in **Table V** show that the frequency of social comparison (B = 0.118) does not significantly predict how individuals believe their **MBTI** personality types influence their response to social comparison (t = 1.612, p = 0.109). This finding suggests that other factors may be more important in shaping individuals' perceptions of the impact of personality types.

G. G. Discussion

The analysis of the results revealed that there are no significant relationships between **MBTI personality types** and social comparison behaviors in this sample. While there were weak correlations between social comparison frequency and self-esteem, these were not statistically significant. Similarly, the independent t-test and ANOVA results indicated that **introverts** and **extroverts** did not significantly differ in their responses to social comparison, and there were no significant differences across different MBTI personality types.

V. CONCLUSION

This study investigated the impact of social comparison on self-perception across different MBTI personality types. Despite the theoretical expectations that introverts and extroverts would differ in their responses to social comparison, the results indicated no significant differences between the two groups. Statistical analyses, including t-tests and ANOVA, showed that the frequency of social comparison did not significantly vary across MBTI personality types. Furthermore, while weak correlations were observed between social comparison frequency and self-esteem, these findings were not statistically significant. The regression analysis also revealed that social comparison frequency did not predict the influence of MBTI personality types on self-perception. These findings suggest that personality traits, as categorized by MBTI, do not have a substantial moderating effect on the relationship between social comparison and self-esteem. The results highlight the complexity of self-evaluation processes and suggest that other psychological or environmental factors—such as emotional resilience or social context—may play a more prominent role in shaping individuals' self-perception. Future research could explore the role of additional variables like emotional intelligence, self-compassion, or the impact of social media environments, to gain a deeper understanding of how social comparison influences self-esteem across different personality types.

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