



The Study on the Relationship Between College Students' Personality Types and Subjective Well-Being

A Case Study of Students in Mongolia and the Inner Mongolia Autonomous Region

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Abstract. This study aims to explore the distribution of MBTI personality types among college students in Mongolia and the Inner Mongolia Autonomous Region of China, as well as their relationship with subjective well-being. By examining two regions with geographical proximity but differing cultural, economic, and educational contexts, this study fills a gap in existing literature. Students from multiple universities in both areas were randomly sampled, and the study employed questionnaire surveys, data analysis, and other methods. Statistical analysis was conducted using SPSS and Amos software to reveal differences in MBTI personality types among college students in these regions and their impact on subjective well-being. The research findings indicate that personality type significantly predicts subjective well-being and is notably associated with life satisfaction and positive emotions in certain dimensions. Additionally, demographic variables such as gender, major, and grade exert some influence on personality type and subjective well-being. These findings not only offer new theoretical support for the field of psychology but also provide a scientific basis for educational practices aimed at promoting students' mental health and happiness.

Keywords: Personality Type, Subjective Well-Being, Cross-Cultural Comparison

1 Introduction

In the vast research domain exploring the nexus between individual happiness and mental health, personality traits stand out as pivotal components of personal variance, significantly influencing how individuals perceive and evaluate their life quality^[1]. With psychology and social sciences advancing, there's a burgeoning interest in examining the interplay between personality traits and subjective well-being^[2]. This shift aims to uncover the nuanced experiences of happiness across different personality types and their underlying psychological mechanisms. Subjective well-being en-

compasses an individual's overall assessment of their life situation, including aspects of life satisfaction, positive emotions, and negative emotions^[3].

Despite extensive research into the relationship between personality traits and subjective well-being, most studies have primarily centered on Western populations. Investigations within Asian contexts, more so under the influence of Mongolian culture, remain scarce. Notably, Mongolia and the Inner Mongolia Autonomous Region of China are two different social systems and lifestyles due to their unique historical, political, and social contexts. This differentiation provides a rich backdrop for examining cultural variances in personality types and subjective well-being. Moreover, college students, as society's dynamic contributors and future shapers, garner extensive attention regarding their mental health and happiness. Research in this area has often overlooked the link between college students' personality traits and their sense of well-being, especially through the lens of different cultures^{[4],[5],[6]}. And positive participation and meaningful experiences in leisure activities contribute to subjective well-being^[7].

This study sets out to address these gaps by examining how MBTI personality types correlate with subjective well-being among college students in both Mongolia and the Inner Mongolia Autonomous Region of China. Our goal is to deepen understanding of the impact of personality traits on personal happiness and explore how cultural backgrounds influence this dynamic. Utilizing a quantitative approach, we selected a random sample of college students from these areas for our study. The investigation involved using tools like The Satisfaction With Life Scale (SLWS), The Positive and Negative Affect Schedule (PANAS), and the Myers-Briggs Type Indicator (MBTI) for data collection^{[8],[9],[10]}. For the analysis, we employed SPSS and Amos software, applying methods including descriptive statistical analysis, t-tests for independent samples, ANOVA, correlation, and multiple regression analyses to meticulously analyze the findings. In addition to these traditional methods, recent advances in computational techniques offer promising alternatives for personality assessment, such as the use of natural language processing and deep learning to classify MBTI types, enhancing the predictive accuracy and efficiency of such evaluations^[11].

The objective of this study transcends theoretical contributions by illuminating the diverse and shared aspects of happiness experiences among individuals with varying personality types. Additionally, through cross-cultural comparative analysis, it seeks to deepen our understanding of how cultural contexts shape personality traits and happiness, thereby enriching the discourse in cross-cultural psychology.

2 Research Methods and Process

This study is aimed at delving into the relationship between MBTI personality types and subjective well-being among college students in Mongolia and the Inner Mongolia Autonomous Region of China. A quantitative research strategy was employed, incorporating an extensive process of data collection and analysis.

2.1 Participants

Participants were selected through stratified random sampling from a number of universities across Mongolia and the Inner Mongolia Autonomous Region of China, including but not limited to the National University of Mongolia, Mongolian University of Education, Mongolian University of Science and Technology, Mongolian National University of Medical Sciences, Mongolian State University of Arts and Culture, Inner Mongolia University of Technology, Inner Mongolia Normal University, Erenhot International College, College of Youth Political Science, Inner Mongolia College of Architecture and Technology, Hohhot Vocational College, and Xilingol Vocational College. A total of 1,500 questionnaires were distributed among these students. After excluding incomplete or invalid responses, 1,131 questionnaires were considered for statistical analysis, making the response rate 86.07%. See Table 1 for participant details.

Table 1. Participant Details

Sample Information	Item	Number	Percentage
Region	Inner Mongolia, China	742	66%
	Mongolia	389	34%
Gender	Male	453	40%
	Female	678	60%
Major	Humanities and Philosophy	697	62%
	Science and Engineering	355	31%
	Arts	79	7%
Grade	1st Year	238	21%
	2nd Year	491	43%
	3rd Year	341	30%
	4th Year	61	5%

To ensure the reliability and validity of the data, this study was conducted using a class-based group administration method, overseen by psychologists who had received specific training. This approach ensured the test's standardization and uniformity. Before the test commenced, administrators provided detailed instructions to participants, clarified how to respond, and highlighted the anonymity and confidentiality of the process. This was to guarantee that participants could complete the questionnaires independently and authentically. The entire testing session lasted about 30 minutes, with all questionnaires collected immediately afterward to ensure the data's timeliness and integrity.

2.2 Statistical Analysis

The questionnaire data underwent rigorous screening to remove any incomplete or invalid submissions. The analysis was performed using SPSS version 26.0 and Amos version 26.0 software. The analysis included descriptive statistics, independent samples t-tests, analysis of variance (ANOVA), correlation analyses, and multiple regres-

sion analyses. These methods aimed to uncover the intricate links between personality types and subjective well-being.

3 Analysis of Results

3.1 Differences in MBTI Personality Type Distribution Between Mongolia and the Inner Mongolia Region of China

The study examined the distribution of college students' data in Mongolia and Inner Mongolia across the MBTI's (Myers-Briggs Type Indicator) four dichotomous personality dimensions. These dimensions include Extraversion-Introversion (E-I), Thinking-Feeling (T-F), Sensing-Intuition (S-N), and Judging-Perceiving (J-P). Lawrence (1997) posits that while individuals possess capabilities across these dimensions, they typically exhibit a preference for one over the others. See Table 2 for results.

Table 2. Personality Types Dimension Scores (Mongolia & Inner Mongolia)

Dimension	Region	Score	Standard Deviation	T-Test Value	Significance
Extraversion	Mongolia	9.5	4.732	-0.245	0.807
	Inner Mongolia	9.58	5.208		
Introversion	Mongolia	11.5	4.732	0.245	
	Inner Mongolia	11.42	5.208		
Sensing	Mongolia	15.37	2.96	-4.05	<.001
	Inner Mongolia	16.42	4.578		
Intuition	Mongolia	10.63	2.96	4.05	
	Inner Mongolia	9.58	4.578		
Thinking	Mongolia	10.79	3.555	-1.073	0.283
	Inner Mongolia	11.08	4.761		
Feeling	Mongolia	13.21	3.555	1.073	
	Inner Mongolia	12.92	4.761		
Judging	Mongolia	12.41	3.739	0.498	0.619
	Inner Mongolia	12.27	4.775		
Perceiving	Mongolia	9.59	3.739	-0.498	
	Inner Mongolia	9.73	4.775		

Extraversion-Introversion

In the samples from both regions, introverted students outnumbered their extroverted counterparts. In Mongolia, extroverts represented 43.67%, and introverts, 57.33%. In Inner Mongolia, the figures were 44.61% for extroverts and 55.39% for introverts.

Sensing-Intuition

For the Sensing-Intuition dimension, both samples showed a higher number of Sensing types over Intuition types. Among Mongolian college students, 74.81% were

Sensing types, while 25.19% were Intuition types. In Inner Mongolia, 73.32% were Sensing types, and 26.68% were Intuition types.

Thinking-Feeling

The Thinking-Feeling dimension revealed a tendency towards a greater number of Thinking types in both samples. In Mongolia, Thinking types accounted for 68.64%, and Feeling types for 31.36%. In Inner Mongolia, Thinking types were 37.74%, and Feeling types were again 31.36%.

Judging-Perceiving

In the Judging-Perceiving dimension, Judging types were the majority in both samples. Among Mongolian college students, 60.93% were Judging types, and 39.07% were Perceiving types. In Inner Mongolia, Judging types comprised 57.28%, and Perceiving types, 42.72%.

Distribution of Personality Types

The sixteen distinct personality types that arise from the MBTI's four dichotomies were all represented in the samples from both locations. In Mongolia, the most common types were ISFJ, ENFP, and ESFJ, making up 51.87% of the total sample. In the Inner Mongolian sample, the most prevalent types were ISFJ, ENFJ, and ISTJ, accounting for 37.5% of the total.

Statistical Analysis

An independent samples T-test analysis revealed significant differences between students in the two locations on the Sensing-Intuition (S-N) dimension, but no significant differences were found on the other three dimensions. Moreover, Inner Mongolian students scored higher on the Sensing (S) dimension compared to Mongolian students, indicating a stronger focus on specific details and practical information. Conversely, Mongolian students scored higher on the Intuition (N) dimension than their Inner Mongolian counterparts, suggesting a greater reliance on abstract thinking and the bigger picture.

3.2 Differences in Subjective Well-Being Between Mongolia and Inner Mongolia, China

An independent samples T-test was used to assess differences in life satisfaction, positive emotions, and negative emotions between college students from Mongolia and the Inner Mongolia region of China. See Table 3 for results.

Table 3. Distribution of Subjective Well-Being among College Students by Region

Measurement	Region	Total	Mean	Standard Deviation (SD)	T-Test Value (T)	Significance (Sig)
Life Satisfaction	Mongolia	389	23.67	6.116	8.01	<0.001***
	Inner Mongolia	742	20.62	6.152		
	Total	1131	21.67	6.307		
Positive Affect	Mongolia	389	30.25	8.114	-1.97	0.005**
	Inner Mongolia	742	31.65	7.067		
	Total	1131	31.17	7.469		
Negative Affect	Mongolia	389	27.64	9.42	4.33	<0.001***
	Inner Mongolia	742	25.35	7.856		
	Total	1131	26.14	8.492		

College students from Mongolia reported a significantly higher average life satisfaction score (M=23.68) compared to their counterparts from Inner Mongolia (M=20.62), $t=7.967, p<.001$.

The score for positive emotions among Inner Mongolian students (M=31.65) was significantly higher than for Mongolian students (M=30.27), $t=-2.957, p=.003$.

Mongolian students scored higher on the negative emotions scale (M=27.65) than students from Inner Mongolia (M=25.35), $t=4.350, p<.001$.

These results indicate that in terms of the cognitive aspect of subjective well-being, Mongolian students perceive a higher level of well-being than students from Inner Mongolia. Conversely, in the affective aspect, students from Inner Mongolia experience a higher level of subjective well-being compared to Mongolian students.

3.3 Differences in Subjective Well-Being among College Students

Gender Impact on Subjective Well-Being.

Gender differences showed women scoring higher in positive emotions (Mean=32.15) than men (Mean=30.52) ($t=3.613, p<.001$), indicating women experience more positive emotions^[12]. No significant differences were found in life satisfaction or negative emotions between genders.

Major Choice and Subjective Well-Being

ANOVA tested differences in life satisfaction, positive emotions, and negative emotions among students from different majors. Significant differences in life satisfaction were found ($F=3.499, p=.031$), with art students scoring higher (Mean=23.38) than those in liberal arts (Mean=21.82) and science (Mean=21.44). Significant differences in negative emotions were also noted, with art students scoring higher

(Mean=28.95) than science (Mean=26.28) and liberal arts students (Mean=25.02). No significant differences in positive emotions were found among the majors.

Grade and Subjective Well-Being

ANOVA showed significant differences in life satisfaction, positive emotions, and negative emotions among students of different grades. Freshmen reported higher life satisfaction (Mean=22.64) than juniors (Mean=20.80), with a general decline from freshman to junior year, and an increase in senior year. Positive emotions peaked in senior students (Mean=32.77), with juniors scoring the lowest (Mean=29.15). Negative emotions increased with academic progression, with seniors scoring the highest (Mean=27.89) and freshmen the lowest (Mean=24.18).

3.4 The Relationship Between College Students' Personality Types and Subjective Well-Being

The Pearson correlation method explored the link between MBTI personality dimensions and aspects of subjective well-being among college students. See Table 4 for results.

Table 4. Correlation Analysis of Personality Type Dimensions with Subjective Well-Being Among College Students

	E	I	S	N	T	F	J	P	SWLS	PA	NA
E	1										
I	1.00**	1									
S	0.017	0.017	1								
N	0.017	0.017	1.00**	1							
T	.143**	.143**	.072*	-.072*	1						
F	.143**	.143**	-.072*	.072*	1.00**	1					
J	0.001	0.001	.271**	.271**	.174**	.174**	1				
P	0.001	0.001	.271**	.271**	.174**	.174**	1.00**	1			
SWLS	.206**	.206**	0.032	0.032	0.004	0.004	.066*	-.066*	1		
PA	.264**	.264**	0.021	0.021	0.033	0.033	.111**	.111**	.411**	1	
NA	.107**	.107**	.083**	.083**	0.041	0.041	-.065*	.065*	.166**	0.05	1

The findings indicate a significant positive correlation between the Extraversion (E) dimension and life satisfaction, with a correlation coefficient of $r=0.204$ ($p<0.001$). This suggests individuals with higher extraversion scores tend to experience greater life satisfaction. Extraversion (E) also significantly correlates with positive emotions ($r=0.264$, $p<0.001$), indicating extraverted individuals are likely to experience more positive emotions.

Furthermore, the Introversion (I) dimension shows a significant positive correlation with negative emotions ($r=0.106$, $p<0.003$), indicating individuals scoring higher on the introversion scale tend to experience more negative emotions than their extraverted counterparts.

The Sensing (S) dimension shows a near-negative correlation with negative emotions ($r=-0.083$, $p=0.0053$), though not statistically significant. This indicates individuals with higher Sensing (S) scores tend to experience fewer negative emotions.

The Judging (J) dimension correlates significantly and positively with life satisfaction ($r=0.067$, $p<0.05$) and positive emotions ($r=0.111$, $p<0.001$). Negative emotions show a significant negative correlation with the Judging (J) dimension ($r=-0.067$, $p<0.05$). This suggests individuals scoring high on the Judging (J) dimension may experience higher life satisfaction and more positive emotions while experiencing fewer negative emotions.

Contrastingly, the Perception (P) dimension's correlation with subjective well-being is opposite to that of the Judging (J) dimension. There are no significant correlations between the Thinking-Feeling (T-F) dimensions and subjective well-being measures, suggesting the T-F personality dimensions may have a minor impact on individuals' subjective well-being.

These outcomes highlight the multidimensional impact of personality traits on emotional states, with different traits influencing various emotional dimensions differently. Notably, extraversion strongly influences positive emotions, and the Judging (J) personality significantly impacts life satisfaction and positive emotions.

To delve deeper into how personality traits predict subjective well-being, this study used MBTI personality dimensions as independent variables in a multiple linear regression analysis of subjective well-being dimensions. Results indicate significant predictive power of personality dimensions on subjective well-being, underscoring the influence of personality traits on happiness.

Specifically, the Extraversion (E-I) dimension significantly predicts life satisfaction positively, with a β coefficient of 0.208 ($p<0.001$), suggesting extraverted individuals tend to enjoy higher life satisfaction. Moreover, the Judging (J-P) dimension positively predicts life satisfaction, with a β coefficient of 0.078 ($p<0.05$), indicating individuals with a Judging (J) personality may have higher life satisfaction compared to those with a Perceiving (P) personality. These personality types together explain about 5.0% of the variance in life satisfaction, with the model's overall significance (F statistic=14.57, $p<0.001$) confirming at least one predictor variable significantly impacts life satisfaction. Regarding positive emotions, the Extraversion (E-I) dimension's significant positive predictive power, with a β coefficient of 0.271 ($p<0.001$), shows extraverted individuals are predisposed to experiencing more positive emotions.

The Judging (J-P) dimension's significant positive predictive effect on positive emotions, with a β coefficient of 0.115 ($p<0.001$), means individuals with a Judging (J) personality tend to experience more positive emotions in life. These personality types account for about 8.7% of the variance in positive emotions. Regarding negative emotions, the Extraversion (E-I) dimension exhibits a negative predictive effect, with a β coefficient of -0.114 ($p<0.001$), indicating introverted individuals are likely to

experience more negative emotions. The Intuition (S-N) dimension also negatively predicts negative emotions, with a β coefficient of -0.072 ($p < 0.05$), suggesting individuals with an Intuitive (N) personality may experience more negative emotions compared to those with a Sensing (S) personality. These personality types together explain approximately 2.3% of the variance in negative emotions.

4 Research Findings

4.1 Characteristics of Personality Type Distribution Across Demographic Variables

Personality type distribution: Among college students from both regions, introverts (I), sensing types (S), thinking types (T), and judging types (J) are more common than extraverts (E), intuitive types (N), feeling types (F), and perceiving types (P). Notably, the difference between sensing (S) and intuitive (N) types is particularly significant, showing a majority preference for logical and objective problem-solving methods.

Gender differences: Significant gender differences are observed in extraversion-introversion (E-I), sensing-intuition (S-N), and judging-perceiving (J-P) dimensions. Women score higher in extraversion (E) than men, while men score higher in intuition (N) and judging (J) dimensions than women.

Major differences: Scores vary significantly across majors in extraversion-introversion (E-I) and sensing-intuition (S-N) dimensions. Science majors score significantly lower in extraversion (E) compared to liberal arts and arts majors.

Grade differences: There are significant differences in scores across grades in extraversion-introversion (E-I) and thinking-feeling (T-F) dimensions. Freshmen have the highest extraversion (E) scores, which decrease with each year, slightly rebounding in the senior year.

4.2 The Impact of Regional Differences and Personality Traits on Subjective Well-Being

The impact of regional differences on subjective well-being

The study reveals that college students in Mongolia and the Inner Mongolia Autonomous Region generally enjoy an above-average level of subjective well-being, indicating overall satisfaction with life quality and high levels of positive emotions. An independent samples T-test analyzing differences in life satisfaction, positive emotions, and negative emotions between students from the two regions found that Mongolian students have significantly higher life satisfaction than those from Inner Mongolia, whereas Inner Mongolian students score significantly higher on positive emotions than those from Mongolia. These results highlight significant regional differences in the cognitive and emotional dimensions of subjective well-being, with cultural values and self-perception playing a moderating role.

The impact of gender differences on subjective well-being.

Investigating gender differences, female college students score significantly higher on positive emotions than males, but no significant differences were found in life satisfaction and negative emotions between genders. This suggests that societal expectations around gender may partly explain why women tend to experience more positive emotions.

The impact of major differences on subjective well-being

Students' majoring backgrounds significantly affect their subjective well-being. Art students report significantly higher life satisfaction than those in liberal arts and science. Moreover, liberal arts students score significantly lower in negative emotions than art and science majors, possibly due to easier access to and absorption of humanistic knowledge, aiding in better management of negative emotions.

The impact of grade differences on subjective well-being

Comparing students across grades shows a gradual decrease in life satisfaction from freshman to junior year, with an increase in senior year. Significant differences in positive emotions were observed across grades, with freshmen and sophomores scoring higher, a decline in juniors, and an increase in seniors. This reflects how college challenges and stressors affect students' emotional states and life satisfaction.

The relationship between personality traits and subjective well-being

Analyzing the relationship between the four dimensions of personality type (introversion-extroversion, sensing-intuition, judging-perceiving, thinking-feeling) and college students' subjective well-being reveals significant positive correlations between the extraversion (E) and judging (J) dimensions with both life satisfaction and positive emotions, and a significant negative correlation with negative emotions. This indicates that extraverted and judging individuals likely experience higher life satisfaction and more positive emotions. Multiple linear regression analysis further confirms the significant role of personality traits in shaping individual happiness.

5 Conclusion

This study focused on the MBTI personality type distribution among college students in Mongolia and the Inner Mongolia Autonomous Region, and the relationship between personality types and subjective well-being. It found commonalities and differences across various dimensions of MBTI personality types among students from different regions^[13]. Demographic variables like gender, major, and grade have partial impacts on students' personality types and subjective well-being. Moreover, the study revealed how culture and social structures affect individuals' life satisfaction and emotional experiences. The results emphasize the crucial role of personality traits in shaping individual happiness and reflect the influence of cultural background and social environment on personality development^[14]. Understand personality types can inform

educational planning and professional development, particularly in fields requiring interpersonal skills and empathy^[15].

The study is limited by not covering more demographic variables and mental health dimensions, restricting a comprehensive understanding of factors influencing college students' MBTI personality types and subjective well-being. Future research should include a broader range of demographic variables and psychological states to fully comprehend how college students' personality types affect individual well-being. This includes considering variables like family background, economic status, and cultural background, exploring how these factors influence students' personality types and subjective well-being. Additionally, research should expand mental health dimensions to include self-esteem, anxiety, depression, etc., to understand their relationship with personality types.

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