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The Relationship between Big Five Personality Traits and Decision-Making Styles Mediated by Glasser's Basic Needs

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Abstract

Introduction: Although it is well known that the Big Five Personality Traits influence cognitive processes and decision-making styles, the specific intrinsic motivational mechanisms that underlie this association, especially within the framework of Glasser's Choice Theory, have received relatively little research attention. The present study addresses this theoretical gap by looking at the mediating role of Glasser's basic psychological needs in the relationship between the Big Five Personality Traits and decision-making styles among young adults.

Method: The sample of this descriptive-correlational study included 314 adults aged 18-40, selected from Tehran through convenience sampling and Structural Equation Modelling (SEM). Participants completed the 60-item NEO Five-Factor Inventory (NEO-FFI), the General Decision-Making Style Questionnaire (GDMS), and Glasser's Basic Needs Questionnaire (GBNQ). Structural equation modeling (SEM) and path analysis were used to examine mediation effects.

Results: The SEM analysis indicated a good fit of the model (RMSEA = 0.036, CFI = 0.998). The findings showed that Glasser's basic needs significantly mediated the relationship between personality factors and decision-making styles. Neuroticism significantly and negatively predicted negative rational decision making and positive avoidant and dependent styles, which were mediated by unmet survival and love/belonging needs. Conversely, conscientiousness was positively related to rational choices, with increased regulation of basic needs facilitating this association.

Conclusion: This study integrates personality taxonomy with Choice Theory and highlights the role of basic psychological needs as critical cognitive-emotional bridges that translate personality traits into decision-making behaviors. These findings offer practical guidance for clinical and educational interventions aimed at enhancing decision-making competencies by addressing fundamental psychological needs, and indicate the necessity of future longitudinal studies to validate these causal pathways across different populations.

Keywords: Big Five Personality Traits, Decision-Making Styles, Glasser's Basic Needs, Choice Theory, Structural Equation Modeling

Introduction

Personality traits are considered to guide most aspects of life, including decision-making. The broadest model for understanding personality is the so-called Big Five personality traits: Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Neuroticism [1, 2]. These dispositions have been related to a large number of behavioral and psychological outcomes that impact how an individual is inclined to approach information and how one might make corresponding decisions or judgments [3]. Decision-making styles vary in the nature of cognitive and affective strategy use to choose among alternatives. These can once again be classified into various types, such as logical (rational), intuitive, dependent, avoidant, and the spontaneous type [4, 5]. Recently, a great contribution to this

domain is the relationship between personality and decision-making styles. It has been considered that the style of making important choices, subject to personality differences, plays a central role in understanding personal differences [6, 7, 8]. Moreover, some of the Big Five aspects have direct effects on these styles. For example, high conscientiousness is usually associated with rational choices, but neuroticism is strongly related to dependent and avoidant strategies, due to underlying emotional vulnerabilities [3, 5].It usually develops in puberty and can be the first manifestation of severe mental illness [5]. A study shows that people who started self-harm at lower ages, experience more courses and more diverse methods of self-harm. It is worth mentioning that self-harm in lower ages make prognosis much worse [6]. In this regard, one of the factors associated

Individual personality characteristics and basic psychological needs are tightly interwoven with all the complexities related to human decision-making [9, 10]. When subsequently understood in terms of their interactions, these factors make very useful contributions toward the comprehension of cognitive dynamics of decision-making. Even though the Big Five personality traits have been studied with regard to decision-making [11], the way in which these traits become particular choices is often driven by intrinsic motivation [9]. For instance, people scoring high on neuroticism (characterised by anxiety and emotional instability) may seek external reassurance (dependent decision-making style) as a coping mechanism to satisfy a threatened need for security or belonging [3, 5]. In contrast, highly conscientious individuals tend to use rational approaches to satisfy their drive for competence and achievement of goals [5, 12]. Despite this clear conceptual connection, the potential underlying needs, mostly those theorized by Glasser, remain underexplored as critical mediators in this process. The Choice Theory postulates that there are five basic needs that motivate behavior: survival, love and belonging, power, freedom, and fun. According to this theory, all behavioral choices are purposeful attempts to satisfy one or more of these core needs [13]. In such a framework, studies have underlined the role that intrinsic motivational factors play in understanding the decisional processes related to basic needs [14, 15], demonstrating that the satisfaction of basic psychological needs significantly enhances decision-making adaptability and self-efficacy [9].

The relevance of this issue also stems from its potential range of application in many fields, whether clinical psychology, education, or organizational behavior [16]. Previous investigation has indicated the role that personality traits play in forging decisional styles. For instance, contemporary evidence confirms that neuroticism is associated with an avoidant and dependent type of decision making, often utilized as a coping mechanism to manage anxiety, cognitive overload, and the fear of failure [3, 5]. Conversely, conscientiousness is strongly associated with deliberate and rational decision-making, stemming from a systematic, structured, and goal-oriented cognitive approach [3, 17]. Identifying these specific psychological pathways can also improve targeted training programs aimed at enhancing the quality of decision-making in conditions under pressure, where decision quality is paramount [18, 19].

Empirical studies and systematic reviews in recent times have gone beyond the mere identification of direct correlations, and have focused on the complex thematic interplay between personality constructs and decision making in various professional and academic contexts [20]. In contemporary research, decision-making is seen as not just a cognitive task, but strongly moderated by psychological dispositions. For example, studies investigating high-stress occupations, such as healthcare, repeatedly show that conscientiousness and extraversion facilitate rational and deliberate decisions about treatment and work performance [14, 18, 19]. Conversely, neuroticism has detrimental effects on the quality of decision making, especially in high-pressure situations where emotional regulation is impaired and avoidance strategies are triggered [3, 19]. Also, research carried out on student populations reveals that the interaction between stable personality traits and socio-emotional intelligence is a key element in the formation of adaptive decision-making styles [14, 21]. This recent body of literature, taken together, points to the fact that personality affects decision-making competence in ways that are mediated by cognitive and emotional factors [3, 16]. Also, the extensive presence of these characteristics in decision-making is evident in several demographic and professional settings ranging from education administrators and technical trainees to university students [12, 22, 23, 24]. The literature has consistently shown that the intersection of personality and decision-making styles is not only a theoretical construct but a critical determinant of real-life outcomes. This intersection significantly impacts mental well-being, reduces depressive symptoms, and influences engagement in risk-taking behaviour like reckless driving [17, 25, 26]. Despite significant advances in understanding the impact of personality traits on decision-making, several questions remain unresolved. Specifically, the underlying psychological mechanisms that bridge stable traits to active choices are not fully understood. While personality provides the structural disposition, Glasser's basic needs offer the motivational engine [10, 13]. Answering these questions is important in developing a full understanding of the process of decision-making and designing appropriate intervention.

The present study attempts to address this gap by investigating the mediating role of Glasser's basic needs in the relationship between the Big Five personality traits and decision-making styles in young adults. Based on the theoretical intersections between Choice Theory and personality psychology [5, 13], the present study proposes the following hypotheses: Glasser's basic needs significantly mediate the relationship between personality traits (specifically neuroticism, extraversion, and conscientiousness) and decision-making styles. The needs for survival and love/belonging significantly mediate the relationship between neuroticism and dependent, as well

as avoidant, decision-making styles. The need for fun significantly mediates the positive relationship between extraversion and the intuitive decision-making style. Conscientiousness positively predicts the rational decision-making style, and this pathway is further associated with the fulfillment of the needs for survival and power.

To get insights into the above hypotheses, path analysis and SEM were employed. The uniqueness of the present research lies in the fact that it integrates two of the most contributing psychological theories: Big Five personality traits and Glasser's basic needs in decision-making processes. By understanding these complex interactions better, more effective strategies could emerge from the knowledge base to assist people in making enhanced decisions and realizing superior life outcomes in most spheres of life.

Method

This research is a fundamental study and adopts a cross-sectional, descriptive-correlational design. It analyzes the relationship between Big Five personality traits and decision-making styles, mediated by Glasser's basic needs, using structural equation modeling. Structural Equation Modeling (SEM) was chosen for its capacity to test complicated relationships with many variables; thus, this technique is an appropriate one to investigate the complex interrelationships in this study.

The target population comprised adults between 18 and 40 years of age living in Tehran Province. The final sample size consisted of 314 participants (212 females, 102 males). This sample size robustly meets the requirements for SEM studies, utilizing the standard formula $N \geq 50+8M$ (where M is the number of independent variables). Given the 15 independent variables in this model, a minimum sample size of 170 was required; thus, our sample of 314 participants provided excellent statistical power for the intended path analyses [27].

The sampling was convenience-based and online, contacting participants via social network communities (e.g., Instagram, Telegram, and WhatsApp). Participants were required to have access to smart devices and informed consent was obtained prior to voluntary participation. This online distribution strategy was used as a normal and efficient methodology to reach a wide and diverse demographic across multiple geographical zones within the province.

The tools used in this study were as follows:

NEO Personality Inventory-Revised (NEO PI-R): Instead of the 240-item version, the short form of the personality inventory (NEO-FFI) was used to assess the Big Five personality framework. The questionnaire consists of 60 items and measures the five major personality factors: neuroticism, extraversion, openness, agreeableness, and conscientiousness [28]. Each item is answered on a 5-point Likert scale [29]. The NEO-FFI has been standardised and validated cross-culturally and its standardisation among Iranian university students showed the robustness of its factor structure [29]. Previous psychometric studies of the Persian version have reported inconsistent internal consistency results for its subscales, with Cronbach's alpha coefficients of 0.77 for neuroticism, 0.55 for extraversion, 0.74 for openness, 0.27 for agreeableness, and 0.38 for conscientiousness [29].

Glasser's Basic Needs Questionnaire (GBNQ): This self-report instrument is designed to measure the satisfaction of Glasser's five basic psychological needs—survival, love and belonging, power, freedom, and fun [30]. The instrument consists of 35 questions across the five areas designed to elicit responses on a 5-point Likert scale ranging between 1 ('not at all' / 'very low') and 5 ('extensively' / 'very high') to ascertain the degree to which each of the five basic needs is being met [30, 31]. Previous psychometric evaluations have shown that this instrument has acceptable reliability, with Cronbach's alpha coefficients of 0.73–0.78 and test-retest reliability of 0.45–0.73 [31]. Furthermore, recent research using the Persian version of this scale has reported good internal consistency with a total Cronbach's alpha of 0.90 [31].

General Decision-Making Scale (GDMS): This 25-item instrument was created by Scott and Bruce in 1995 and assesses five different decision-making styles: rational, intuitive, dependent, spontaneous, and avoidant [32]. Participants respond to each item on a 5-point Likert scale [32]. The initial developers reported excellent psychometric properties with Cronbach's alpha coefficients for the subscales ranging from 0.84 to 0.94 [32]. Subsequent research, including in Iranian populations, has repeatedly confirmed its structural validity and acceptable internal consistency, generally producing an overall alpha coefficient of approximately 0.75 [33, 34].

Data were analyzed with SEM to determine the hypothesized relationships among the significant five personality factors, decision-making styles, and basic needs. This is because the chosen approach here is robust at dealing with complicated models and large variable sets, which makes it able to provide a comprehensive understanding of the paths and interactions within the model. The AMOS software was used in the analysis because of its robust capabilities in the area of structural equation modeling.

Results

The gender distribution of the study participants revealed that 102 (32.5%) were male and 212 (67.5%) were female. An analysis of the age distribution of the study sample revealed that the 21-25-year age group had the highest frequency, with 121 individuals (38.5%). Conversely, the 31-35year age group had the lowest frequency, encompassing 35 individuals (11.1%).

Table 1 presents the statistical summary of the primary variables. It is evident that the mean for all variables exceeds the median value of 3. Therefore, based on the respondents' perspectives, the variables of neuroticism, extraversion, openness to experience, agreeableness, conscientiousness, rational, intuitive, dependent, spontaneous, and avoidant decision-making styles, as well as the needs for survival, love and belonging, power, freedom, and fun are all above average.

Preliminary data screening confirmed that the skewness and kurtosis values for all study variables fell within acceptable theoretical ranges, indicating a normal

distribution of the dataset. Consequently, parametric tests were deemed appropriate, and Pearson's correlation coefficient was utilized to examine the bivariate associations among the variables. The correlation matrix is presented in Table 2.

Correlation analysis showed that neuroticism was significantly negatively related to the rational style of decision making and significantly positively related to the dependent, spontaneous and avoidant styles of decision making. Extraversion was significantly negatively related to the dependent and avoidant styles. The dependent style was the only one with a significant negative association with openness to experience. Agreeableness was not significantly associated with any of the decision making styles. Conscientiousness was significantly positively correlated with rational style and significantly negatively correlated with dependent style, spontaneous style and avoidant style. Finally, basic needs satisfaction was significantly and positively correlated with extraversion and conscientiousness and was significantly and positively related to all decision-making styles, except the avoidant style. To test the hypothesized mediation models, path analysis was utilized. The fit indices for the proposed structural model are presented in Table 3.

The model's estimation results demonstrate strong indicator suitability. The software output reveals a non-significant chi-square value of 7.06, which falls below the critical value of 1.41 for a degrees-of-freedom of 5 ($p > 0.05$). Additionally, the RMSEA value of 0.03 is well below the acceptable threshold of 0.08. Given that all other fit indices also reside within acceptable ranges, we can confidently conclude that the proposed model exhibits a good fit to the data.

In Figure 1 and Table 4, The bootstrap method was employed to examine the mediation effects between research variables.

Table 1. Statistical Output of the Main Research Variables

Questionnaires	Variables	n	mean	SD	Skewness	Kurthosis	Minimum	Maximum
The five dimensions of Neo's personality	Neuroticism	314	24.01	6.13	0.14	-0.5	9	40
	Extroversion	314	25.73	7.11	-0.33	-0.12	3	42
	Openness to experience	314	30.49	5.36	0.07	-0.38	15	44
	Agreeableness	314	28.85	5.42	-0.2	0.29	12	43
	Conscientiousness	314	31.69	6.92	-0.25	-0.15	8	48
Decision making styles	Rational	314	16.92	2.77	-0.25	0.32	9	25
	Intuitive	314	17.53	2.64	-0.27	0.15	9	24
	Dependent	314	14.34	3.59	0.22	-0.2	5	23
	Instant	314	12.42	3.48	0.41	0.15	5	24
	Avoidance	314	12.74	4.43	0.41	-0.35	5	25
Glasser's Basic Needs	Need for love and belonging	314	3.91	0.76	-0.91	1.09	1	5
	The need for survival	314	3.48	0.61	-0.25	-0.09	1.8	4.8
	The need for freedom	314	4.04	0.69	-0.64	0.18	1.4	5
	Need for power and self-actualization	314	3.6	0.73	-0.41	0.37	1	5
	Need to have fun	314	3.8	0.71	-0.55	0.31	1.2	5

Table 2. Pairwise Correlation of Variables

		Rational	Intuitive	Dependent	Spontaneous	Avoidant	Basic Needs
Pearson Correlation Coefficient	Neuroticism	-.22**	-0.03	.40**	0.25**	0.48**	0.09
	Extraversion	0.05	0.10	-0.12*	-0.03	-0.27**	0.17**
	Openness to Experience	0.07	-0.04	-0.12*	-0.10	-0.03	0.08
	Agreeableness	-0.10	-0.03	0.02	-0.07	-0.06	-0.08
	Conscientiousness	0.42**	0.01	-.28**	-.26**	-0.54**	0.12*
	Basic Needs	0.15**	.23**	0.15**	.11*	0.005	1
Significant level	Neuroticism	0.000	0.50	0.0001	0.000	0.000	0.10
	Extroversion	0.35	0.06	0.03	0.49	0.000	0.002
	Openness to Experience	0.21	0.42	0.03	0.06	0.56	0.15
	Agreeableness	0.07	0.55	0.71	0.17	0.23	0.13
	Conscientiousness	0.0001	0.83	0.0001	0.000	0.000	0.02
	Basic Needs	0.006	0.0001	0.006	0.04	0.93	

Note. *p<.05, **p<.001

Table 3. Overall Fit Indices of the Structural Model

Fit Index	Obtained Value	Acceptable Threshold
χ^2/df (Chi-square ratio to degrees of freedom)	1.41	< 3.0
RMSEA (Root Mean Square Error of Approximation)	0.03	< 0.08
CFI (Comparative Fit Index)	0.99	> 0.90
TLI (Tucker-Lewis Fit Index)	0.97	> 0.90
IFI (Incremental Fit Index)	0.99	> 0.90
SRMR (Standardized Root Mean Square Residual)	0.015	< 0.10

Table 4. Bootstrap Results of the Indirect Path

Structural Path	Indirect Effect (β)	Standard Error (SE)	t-value	p
Neuroticism → Basic Needs → Rational	0.01	0.004	0.03	0.012
Neuroticism → Basic Needs → Intuitive	0.02	0.009	0.05	0.019
Neuroticism → Basic Needs → Dependent	0.02	0.002	0.05	0.025
Neuroticism → Basic Needs → Spontaneous	0.01	-0.003	0.04	0.080
Neuroticism → Basic Needs → Avoidant	0.007	-0.01	0.03	0.594
Extraversion → Basic Needs → Rational	0.01	0.007	0.04	0.005
Extraversion → Basic Needs → Intuitive	0.03	0.012	0.067	0.008
Extraversion → Basic Needs → Dependent	0.02	0.008	0.053	0.012
Extraversion → Basic Needs → Spontaneous	0.01	-0.001	0.044	0.053
Extraversion → Basic Needs → Avoidant	0.007	-0.017	0.034	0.525
Openness → Basic Needs → Rational	0.006	0.0001	0.02	0.051
Openness → Basic Needs → Intuitive	0.01	-0.002	0.03	0.090
Openness → Basic Needs → Dependent	0.01	-0.002	0.02	0.118
Openness → Basic Needs → Spontaneous	0.006	-0.002	0.01	0.171
Openness → Basic Needs → Avoidant	0.002	-0.006	0.01	0.457
Agreeableness → Basic Needs → Rational	-0.01	-0.02	-0.004	0.003
Agreeableness → Basic Needs → Intuitive	-0.02	-0.04	-0.005	0.012
Agreeableness → Basic Needs → Dependent	-0.01	-0.04	-0.004	0.005
Agreeableness → Basic Needs → Spontaneous	-0.01	-0.03	0.0001	0.052
Agreeableness → Basic Needs → Avoidant	-0.005	-0.02	0.008	0.477
Conscientiousness → Basic Needs → Rational	0.007	0.001	0.02	0.006
Conscientiousness → Basic Needs → Intuitive	0.01	0.001	0.03	0.019
Conscientiousness → Basic Needs → Dependent	0.01	0.001	0.02	0.017
Conscientiousness → Basic Needs → Spontaneous	0.007	-0.001	0.01	0.077
Conscientiousness → Basic Needs → Avoidant	0.003	-0.006	0.01	0.519

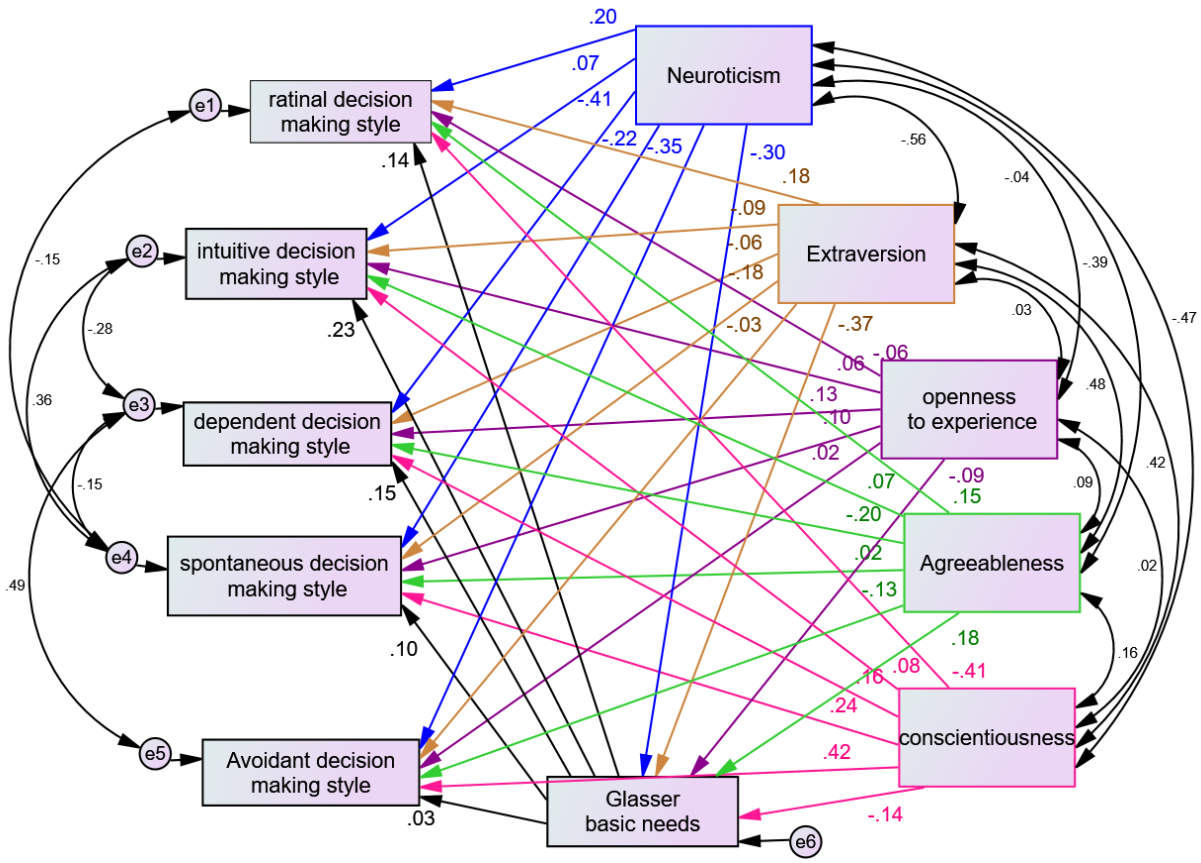


Figure 1. Research path analysis model.

Path analysis was A comprehensive path analysis was conducted considering all hypothesized direct paths. The results of these direct effects are presented in Table 5. This table provides a comprehensive overview of the structural relationships, offering insights into the influence of personality traits on the fulfillment of basic needs, as well as their joint impact on decision-making styles.

Table 5. The Results of the Paths of the Second Path Analysis Model

Structural Path	Standardized Coefficient (β)	SE	t-value	p-value
Neuroticism → Love/Belonging	0.44	0.008	6.85	0.0001
Extraversion → Love/Belonging	0.45	0.007	6.84	0.0001
Openness to Experience → Love/Belonging	-0.04	0.007	-0.83	0.408
Conscientiousness → Love/Belonging	0.09	0.006	1.60	0.109
Agreeableness → Love/Belonging	0.14	0.008	2.42	0.016
Neuroticism → Power	0.03	0.008	0.57	0.569
Neuroticism → Freedom	-0.04	0.008	-0.68	0.496
Neuroticism → Survival	0.28	0.007	3.97	0.000
Neuroticism → Fun	0.19	0.008	2.92	0.004
Extraversion → Fun	0.48	0.007	7.09	0.000
Extraversion → Survival	0.04	0.006	0.56	0.578
Extraversion → Freedom	-0.16	0.007	-2.35	0.019
Extraversion → Power	0.26	0.007	3.83	0.0001
Openness to Experience → Fun	0.13	0.007	2.63	0.009
Openness to Experience → Survival	-0.006	0.006	-0.12	0.908
Openness to Experience → Freedom	0.17	0.007	3.34	0.000
Openness to Experience → Power	0.02	0.007	0.40	0.686
Agreeableness → Power	-0.40	0.008	-6.67	0.000
Agreeableness → Freedom	-0.20	0.008	-3.23	0.001
Agreeableness → Survival	-0.03	0.007	-0.52	0.601
Agreeableness → Fun	-0.05	0.008	-0.84	0.400
Conscientiousness → Fun	-0.03	0.006	-0.63	0.529
Conscientiousness → Survival	0.18	0.006	2.87	0.004
Conscientiousness → Freedom	0.04	0.006	0.79	0.431
Conscientiousness → Power	0.14	0.006	2.41	0.016
Openness to Experience → Dependent	-0.07	0.03	-1.56	0.118
Agreeableness → Spontaneous	-0.01	0.04	-0.18	0.854
Conscientiousness → Spontaneous	-0.23	0.03	-3.71	0.000
Neuroticism → Intuitive	-0.08	0.03	-1.01	0.312
Extraversion → Dependent	-0.05	0.03	-0.76	0.448
Openness to Experience → Rational	0.04	0.02	0.98	0.329
Openness to Experience → Intuitive	-0.07	0.02	-1.26	0.207
Openness to Experience → Spontaneous	-0.10	0.03	-1.96	0.050
Openness to Experience → Avoidant	-0.009	0.03	-0.20	0.839
Love/Belonging → Avoidant	0.08	0.31	1.53	0.126
Love/Belonging → Spontaneous	0.03	0.29	0.46	0.643
Love/Belonging → Dependent	0.22	0.26	3.88	0.000
Love/Belonging → Intuitive	0.11	0.23	1.73	0.084
Love/Belonging → Rational	-0.01	0.21	-0.18	0.855
Neuroticism → Rational	-0.16	0.03	-2.29	0.022
Neuroticism → Avoidant	0.31	0.04	4.92	0.000
Neuroticism → Dependent	0.30	0.03	4.54	0.000
Neuroticism → Spontaneous	0.22	0.04	3.03	0.002
Extraversion → Rational	-0.17	0.02	-2.37	0.018
Extraversion → Intuitive	0.06	0.03	0.81	0.420
Extraversion → Avoidant	0.03	0.04	0.56	0.573
Extraversion → Spontaneous	0.14	0.03	1.80	0.071
Conscientiousness → Avoidant	-0.42	0.03	-8.19	0.000
Conscientiousness → Rational	0.41	0.02	7.13	0.000
Conscientiousness → Intuitive	-0.05	0.02	-0.90	0.370
Conscientiousness → Dependent	-0.18	0.02	-3.37	0.000
Agreeableness → Rational	-0.11	0.03	-1.72	0.085
Agreeableness → Intuitive	-0.09	0.03	-1.32	0.186
Agreeableness → Dependent	0.13	0.04	2.23	0.026
Agreeableness → Avoidant	0.08	0.04	1.48	0.139
Power → Avoidant	-0.05	0.31	-1.13	0.257
Power → Spontaneous	0.08	0.29	1.29	0.198
Power → Dependent	0.06	0.26	1.24	0.214
Power → Intuitive	0.01	0.23	0.28	0.780
Power → Rational	0.10	0.21	1.77	0.076
Freedom → Avoidant	0.002	0.29	0.05	0.965
Freedom → Spontaneous	-0.004	0.28	-0.06	0.949
Freedom → Dependent	-0.20	0.25	-4.19	0.000

Structural Path	Standardized Coefficient (β)	SE	t-value	p-value
Freedom → Intuitive	0.089	0.22	1.54	0.123
Freedom → Rational	0.063	0.20	1.21	0.225
Survival → Rational	-0.015	0.23	-0.30	0.764
Survival → Intuitive	-0.002	0.24	-0.04	0.970
Survival → Dependent	0.144	0.28	3.01	0.003
Survival → Spontaneous	-0.056	0.31	-1.03	0.303
Survival → Avoidant	0.093	0.33	2.06	0.039
Fun → Avoidant	-0.048	0.30	-0.99	0.321
Fun → Spontaneous	0.087	0.28	1.51	0.130
Fun → Dependent	0.018	0.25	0.36	0.716
Fun → Intuitive	0.142	0.22	2.37	0.018
Fun → Rational	0.068	0.20	1.27	0.204

Discussion

The present study examined the mediating role of Glasser's basic needs in the relationship between Big Five personality traits and decision-making styles. The results indicated a significant association between the Big Five personality factors and decision-making styles, where Glasser's basic needs played a considerable mediating role. More specifically, neuroticism was negatively related to the rational decision-making style, but positively correlated with the dependent, spontaneous, and avoidant decision-making styles. Conscientiousness was positively related to the rational decision-making style and negatively related to the dependent, spontaneous, and avoidant decision-making styles. Extraversion showed a complex set of relationships: it was positively correlated with intuitive and spontaneous decision-making styles and negatively correlated with the dependent and avoidant decision-making styles.

The results of this study confirm and contribute to the growing body of contemporary literature that explores the relationship between personality traits and decision-making styles. Recent empirical evidence consistently underscores that the Big Five personality domains serve as robust predictors of distinct decision-making trajectories [3, 16, 20]. For example, the negative effect of neuroticism on rational decision-making and its positive correlation with dependent, spontaneous, and avoidant styles in this study strongly associated with existing research that demonstrates emotional instability as a trigger for avoidance and dependency as coping mechanisms to deal with cognitive overload and fear of failure, particularly in high-pressure situations [3, 5, 19]. Besides, the positive association of conscientiousness with rational decision-making and its negative association with the dependent, spontaneous, and avoidant styles supports theoretical frameworks that place conscientiousness at the center of systematic, structured, and goal-directed cognitive approaches and thus overall decision-making competence [3, 17, 18]. These results also confirmed the conclusions from recent systematic reviews highlighting the intricate relationship between stable personality dispositions, emotional regulation and cognitive functioning in shaping adaptive decision-making styles [14, 20, 21].

Our results are consistent with recent empirical results showing the widespread effect of personality traits on decision-making styles in different populations such as healthcare workers, school principals and university students [12, 14, 18, 22-24]. In particular, the negative association of neuroticism with rational decision-making and the positive association of neuroticism with avoidant and dependent styles confirm previous studies showing the harmful effects of emotional instability on professional functioning and on risky or avoidant behaviour [17, 19, 25]. Moreover, the predictive role of conscientiousness and extraversion in rational and intuitive decision-making, respectively, is in line with the literature that emphasises the adaptive cognitive functioning associated with these traits [14, 21].

However, earlier research has primarily focused on the direct, unmediated effects of personality on decision-making [16, 20]. The current study applies Glasser's Choice Theory to investigate the motivational mechanisms of this relationship. Basic psychological needs are introduced as important mediators to explain the link between these structural characteristics and particular decision-making styles in the study. For example, although it is well established that the emotional instability and anxiety inherent in neuroticism hinder rational cognitive processing [3, 5], our findings uniquely reveal that this happens because neurotic individuals impulsively resort to dependent or avoidant choices as a rapid coping mechanism to satisfy a threatened intrinsic need for survival and belonging. Conversely, conscientiousness promotes systematic and rational decision-making by fulfilling the needs for power and competence [10, 13]. Conscientiousness theoretically includes self-discipline, organisational skills and a goal-oriented nature, which naturally promote a rational mode of decision-making. Therefore, this characteristic ensures that information is processed systematically and alternatives are carefully considered. Therefore, the outcomes are intentional and rational. Moreover, the negative associations found for conscientiousness and dependent, spontaneous, and avoidant styles of decision making, are reflective of the tendency of conscientious individuals to avoid impulsive, reliant, or evasive behaviours. These dynamics ultimately highlight the structured personality profile as the engine of cognitive competence and adaptive choices. The positive correlation between the intuitive and spontaneous decision-making styles and extraversion goes beyond the theoretical aspect of sociability.

Psychologically, extraversion is characterised by high motivation for environmental engagement and reward sensitivity. Thus, extraverts are likely to use heuristic processing and quick cognitive appraisals that allow spontaneous choices rather than long deliberations [14, 21]. Their natural assertiveness also reduces the need to delegate decisions to others or to avoid decisions altogether, which explains the negative association with dependent and avoidant styles. Importantly, the mediating role of Glasser's basic needs provides a deep scientific mechanism for these observations. Individuals high in neuroticism are prone to emotional dysregulation and hyper-reactivity to threat. When intrinsic needs for survival and love/belonging are perceived as threatened, these individuals experience cognitive narrowing. They use maladaptive coping methods to relieve this emotional distress. Specifically, the anxiety of failed survival needs triggers an evolutionary 'flight' response, expressed as avoidant decision-making. At the same time, the lack of love and belonging creates a need to over-depend on external validation, leading to the dependent decision-making style [3, 5, 13]. Conscientiousness, in contrast, works through high executive functioning and cognitive control. People who score high on this trait are good at taking care of their basic needs, especially the need for power and competence, by planning ahead and following through in a disciplined way. This structured psychological regulation serves as a buffer against impulsivity and insecurity, thus reducing recourse to dependent or avoidant strategies. Rather, the systematic satisfaction of these inherent needs paves the way for a highly analytical and rational decision-making path [10, 17]. Similarly, extraverts' motivational engine is the drive for fun and freedom. Cognitive flexibility and openness to new experiences naturally lend itself to intuitive and spontaneous decision-making patterns without the threat of cognitive overload [9, 13].

To summarize, integrating Glasser's Choice Theory with personality frameworks goes beyond the descriptive limitations of prior studies by providing a causal, motivational pathway. Maladaptive decision-making styles are not just behavioural defaults; they are active, albeit dysfunctional, coping mechanisms that attempt to fulfill thwarted psychological needs. These deep structural relationships are crucial in clinical and educational environments. There should be focused interventions not only on the teaching of decision-making skills but also on the regulation and satisfaction of the basic psychological needs to enhance cognitive functioning and decision-making competence in a sustainable way. The implications for many fields, like clinical psychology, education, and organizational behavior, are significant. Interventions meant to enhance decisions, not only must they address basic needs and personality, but they will result in increased utility both for personal and professional outcomes. For instance, clinical settings must address needs to reduce neuroticism and increase conscientiousness while at the same time ensure basic needs such as love and belonging, power, and freedom, among others that will create good decision-making and mental health. However, the study has its limitations, such as its cross-sectional design, which limit the findings in terms of interpretation causally. To address these limitations, future research should employ longitudinal designs to determine the causal directions between personality traits, Glasser's basic needs and decision-making styles over time. Furthermore, future research is specifically suggested to incorporate objective behavioural measures of decision-making rather than only relying on self-report data, and to develop experimental interventions based on Choice Theory to evaluate their direct effects on improving decision-making competencies.

Conclusion

In conclusion, this study empirically demonstrated that basic psychological needs significantly mediate the relationship between personality traits and decision-making styles. Emphasizing the mediating role of basic needs according to Glasser thus complements our understanding of the cognitive and emotional processes entailed in decision-making. Insights such as these are important in yielding way to better interventions, designed to strengthen competencies in the process of making decisions leading to better personal and professional outcomes.

Conflict of Interest

The authors declare that there are no conflicts of interest.

Ethical Approval

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki declaration.

Declaration of Generative AI and AI-Assisted Technologies

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