

Personality and Morality: Role of the Big Five Personality Traits in Predicting the Four Components of Moral Decision Making

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Abstract

Introduction: The aim of the present study was to investigate the predicting role of the big five personality traits in the four components of moral decision-making.

Method: The population of this descriptive-correlation study included all the students in the University of Mazandaran. The participants were 384 students selected by stratified random sampling. In order to collect data, the Mini-IPIP, Ethical Sensitivity Scale, DIT-2, Moral Identity Questionnaire and the Moral Courage Scale were used. The data were analyzed by SPSS-24.

Results: According to the results of this study, neuroticism was a negative significant predictor of moral identity and moral courage, extraversion was a negative significant predictor of moral identity, openness was a positive significant predictor of moral identity, agreeableness was a positive significant predictor of moral sensitivity and moral identity and conscientiousness were a positive significant predictor of moral identity, and moral courage.

Conclusion: According to the results of the present study, it can be stated that different personality traits can predict different aspects of moral decision making.

Keywords: Personality Traits, Moral Sensitivity, Moral Reasoning, Moral Identity, Moral Courage

Introduction

Among behavioral sciences, psychology and among the most important schools of psychology, cognitive-developmental schools have paved the way for a significant development in explaining ethical issues since the last century. The cognitive-developmental perspective, which defines morality as conscious judgment of good and bad deeds, was first introduced by Jean Piaget in 1932, and nearly three decades later was developed by an American psychologist, Lawrence Kohlberg. However, Piaget and Kohlberg's activities only formed the first stage in research on moral development. The second stage was continued by Kohlberg's students among whom James Rest is considered as the most prominent one. Prior to 1986, when Rest proposed the four components of moral decision-making for the first time, other followers of the cognitive-developmental stages studied morality only in the form of moral reasoning. Since 1980, some theorists criticized this theory and believed that it cannot explain moral behaviors and finally, Rest introduced the key components to develop the moral maturity in the form of Four Components Model (FCM) for moral decision-making: 1) Moral sensitivity 2) Moral judgment 3) Moral motivation, and 4) Implementation [1]. According to the first component, a person must identify a need or an opportunity for a moral action; it is also known as moral perception and moral awareness [2-4]. According to the second component, a person must be able to make judgment in regards to which action is morally right or not; it is also known as moral reasoning [5, 6]. Based on the third component, a person must focus on moral values above other personal; it is called moral focus and moral identity [7, 8]. Finally, according to the fourth component, implementation, a person must

achieve the goal by taking the necessary steps; it is also known as moral action or moral character [5, 6]. The FCM of moral decision-making has been re-examined and developed several times; despite the controversy among the theorist over naming the components, they agreed on the presence of these four components and their conceptual definitions [3-5, 8].

Obviously, these four components underwent more examinations in terms of the factors affecting them. Despite the emphasis of theoretical foundations in the literature, the personality traits have been believed to be mostly neglected.

Personality is a complex psychological structure and it includes many features with different theories. One of the most important theory is Costa and McCrae's five factors theory that was introduced in the late 1980s using the factor analysis method. Most of the personality-based studies are conducted using the Costa & McCrae's five personality traits [9-11] as follows: 1) Neuroticism: The inclination to experience negative emotions rather than emotional stability and calmness; 2) Extraversion: It represents an energetic approach to the material and social world; 3) Openness: It describes the breadth, depth, complexity, and creativity of one's life and experience as opposed to a close mind; 4) Agreeableness: It indicates the social orientation against hostile attitudes towards others; and 5) Conscientiousness: It describes the power of controlling the impulses as desirable in the society, and facilitates the task-centered and goal-oriented behavior [11].

According to some moral psychologists, the Big Five Personality Traits play a major role in the performance of people in terms of the components of moral decision-making. They believe that lack of perfection in personality can block the optimal moral acts [12, 13]. However, as mentioned earlier, the literature on the effects of the personality traits on the decision-making components is very limited. Apart from the fact that the role of the personality traits in some of the components such as sensitivity and courage has not been studied in any research, limited research has been carried out on the components of identity and moral reasoning which have reported controversial results. The literature on the moral reasoning show that some studies emphasize on the openness, agreeableness, and conscientiousness [14-16] as positive predictors and extraversion and neuroticism [17, 18] as negative ones, but some studies believe that there is no significant relation between the personality traits and moral judgment [19, 20]. The literature on the moral identity is limited to two research. The first was conducted by McFerran et al. and represents the positive relation between conscientiousness, agreeableness, and openness and moral identity [21]. The second research was conducted by Hashemi in which a significant negative relation was emphasized between neuroticism and moral identity and a significant positive relation was reported between extraversion and moral identity [22]. Thus, given the importance of studying the factors influencing the decision-making components and the fact that each theory requires empirical research to be approved, this study aims at answering this question whether the Big Five Personality traits (Neuroticism, Extraversion, Openness,

Agreeableness, Conscientiousness) can predict the four components of moral decision-making (Moral Sensitivity, Moral Reasoning, Moral Identity and Moral Courage) or not.

Method

The present study was a descriptive-correlational study. The population of this study included all the students in the University of Mazandaran. The participants were selected by stratified random sampling using Morgan's sample size table. Since the final step was completing the questionnaires by the students in classrooms, the criterion for the inclusion of students in the sample was their presence on the sampling day; thus, those who were absent on the sampling day were excluded from the sampling process. For collecting data, the following instruments were used:

Mini-International Personality Item Pool (Mini-IPIP)

The Mini-IPIP, a 20-item short form of the 50-item IPIP was developed and validated by Donnellan et al. This scale includes five factors with four items per big five traits. Items are proposed in a 5-option Likert scale and are scored by 0-4, respectively. Donnellan et al. examined the validity of this scale through correlation with the 50-item form and found the correlation coefficients for two forms and its subscales in the range of 0.83 to 0.94. Also, the results of EFA in their study confirmed the presence of five primary factors, and the reliability of the sub-scales was reported from 0.79 to 0.90 [23]. This Scale was first translated by Ghorbani et al. into Persian and they reported the Cronbach Alpha coefficients for the subscales from 0.90 to 0.97 [24]. In the present study, the instrument reliability assessment showed that Cronbach's alpha coefficient for the scale and subscales ranged from 0.54 to 0.67.

Ethical Sensitivity Scale (ESS)

The ESS, a 10-item scale with two factors - personal ethical sensitivity: 5 items, interpersonal ethical sensitivity: 5 items - has been developed by Toti & Moulins to measure ethical sensitivity in consumers, but the items of this scale can be used in any population. Items are proposed in a 5-option Likert scale and are scored by 1-5, respectively. Toti & Moulins conformed the validity of this scale through EFA and reported the Cronbach's alpha coefficients for the PES and IES as 0.88 and 0.84, respectively [25]. Similarly, in the present study, by EFA and CFA, it was found that the scale had a two-factor structure. In addition, the internal consistency of the Persian version of the scale was examined by Cronbach's alpha that showed $\alpha = 0.81$ for the total scale, and for the subscales (PES, IES), $\alpha = 0.73$ and $\alpha = 0.70$, respectively.

Defining Issue Test-2 (DIT-2)

The DIT-2 is a short form of defining issues test developed by Rest in the early 1970s. The DIT-2 is a self-report measure comprised of three moral dilemmas (Heinz and the drug; Escaped prisoner; Newspaper) according to which the participants are asked to make a morally challenging decision. For each dilemma, participants are instructed to select the four issues that they find the most important ones in solving the dilemma. Then, they are instructed to rank the four issues in terms

of importance. Test-retest reliabilities of the DIT-2 are generally in the high 0.70 and 0.80s. Along with validity, the DIT-2 has been shown to be correlated with the original version (DIT) around 0.57 to 0.70 [26]. In Iran, the convergent validity of the DIT-2 has been approved by Qiyasizadeh [27] through correlation with the moral judgment test ($\alpha = 0.90$).

Moral Identity Questionnaire (MIQ)

This questionnaire has been developed by Black and Reynolds to assess the two-factor structure of moral identity including Moral Self (8 items) and Moral Integrity (12 items). Items are proposed in a 6-option Likert scale and are scored by 1-6, respectively. The results of EFA and CFA in Black and Reynolds’s study supported the assumed two-factor structure. In addition, the result of Cronbach’s alpha showed a high internal consistency of the MIQ ($\alpha = 0.90$), MI ($\alpha = 0.87$), and MS ($\alpha = 0.84$) [28]. In Iran, the validity and reliability of this questionnaire were investigated by Abbasi-Asl et al. The results of EFA and CFA in their study, confirmed the two primary factors (MS: 7 items, MI: 8 items), and the internal consistency of the scale and factors reportedly ranged from 0.90 to 0.97 [1]. In the present study, the instrument reliability assessment showed that Cronbach’s alpha coefficient for the scale and subscales ranged from 0.80 to 0.85, respectively.

Moral Courage Scale (MCS)

This scale is a revised version of the Professional Moral Courage Scale (PMC) which can be used with any population. The original version of this scale was developed by Sekerka et al. in two formats; PMC Scale 1: Items derived from qualitative analysis, PMC Scale 2: Items derived from literature analysis. In the present study, the second format was used with a slight change in the wording for measuring moral courage. Sekerka et al. confirmed the validity of this scale through EFA and reported the Cronbach’s alpha coefficients for the total

scale above 0.86 and for the sub-scales above 0.67 [29]. Similarly, in the present study, by EFA and CFA, it was found that the scale had a five-factor structure. In addition, the internal consistency of the scale was examined by Cronbach’s alpha showing $\alpha = 0.88$ for the total scale, and $\alpha = 0.62$ to $\alpha = 0.80$ for the subscales.

Before collecting data, the participants were assured that the information obtained from this study would remain confidential and would be only used for research purposes. In addition, it was noted that participation in the study was voluntary. On the day of the data collecting, some students were absent; therefore, the number of participants dropped. Finally, 358 students answered the questionnaires; however, 12 questionnaires were incomplete; thus, 346 questionnaires entered the data analysis step. In the analysis step, after reviewing the descriptive information of data, Pearson’s correlation coefficient was used to assess the correlation between the variables. Then, the simultaneous regression was used to study the prediction of four components of moral decision making by the Big Five Personality Traits. All data were analyzed using SPSS-24.

Results

In the present study, the collected data from 346 undergraduate and graduate students were analyzed. The mean age of the students was 22.30 (SD = 3.96). Other demographic and descriptive information (frequency, percent) of the participants are shown in Table 1.

In this study, the descriptive information of variables (mean and standard deviation, minimum score, maximum score) was examined at first. The results of the descriptive information for the Big Five Personality Traits are presented in Table 2, and the results of the descriptive information for the four components of moral decision-making are presented in Table 3.

Table 1: Demographic and descriptive information of the participants (n=346)

		Frequency	Percent
Gender	women	237	68.5
	men	109	31.5
Degree	Bachelor	257	74.3
	Master	59	17.1
	PhD, Post Doc	30	8.7
Colleges	Engineering	35	10.1
	Arts	25	7.1
	Human science	199	57.5
	Basic sciences	87	25.1

Table 2: Descriptive information of the Big Five Personality Traits

Variables	Mean	Standard Deviation	Minimum	Maximum
Neuroticism	8.23	2.84	0	15
Extraversion	9.25	2.87	0	16
Openness	10.86	2.69	4	16
Agreeableness	8.47	1.68	2	12
Conscientiousness	11.05	2.82	2	16

Table 3: Descriptive information of the four components of moral decision-making

Variables	Mean	Standard Deviation	Minimum	Maximum
Moral Sensitivity	39.95	4.80	18	50
Moral Reasoning	9.22	3.09	2	18
Moral Identity	76.71	8.19	41	90
Moral Courage	44.88	6.53	22	60

As for the next step of this research, the Pearson correlation coefficient was used to investigate the correlation between the Big Five Personality Traits and the four components of moral decision-making. The results are shown in Table 4.

As shown in Table 4, a positive significant relationship was found between neuroticism and openness ($r = 0.12$, $P = 0.028$), and a negative significant relationship was found between neuroticism and agreeableness ($r = -0.11$, $P = 0.049$), neuroticism and moral identity ($r = -0.26$, $P = 0.0001$), and neuroticism and moral courage ($r = -0.27$, $P = 0.0001$). Moreover, a positive significant relationship was found between extraversion and openness ($r = 0.19$, $P = 0.0001$), extraversion and agreeableness ($r = 0.23$, $P = 0.0001$), openness and agreeableness ($r = 0.14$, $P = 0.012$), openness and moral identity ($r = 0.12$, $P = 0.034$), agreeableness and conscientiousness ($r = 0.18$, $P = 0.001$),

agreeableness and moral sensitivity ($r = 0.26$, $P = 0.0001$), agreeableness and moral identity ($r = 0.30$, $P = 0.0001$), and agreeableness and moral courage ($r = 0.16$, $P = 0.004$). Moreover, a positive significant relationship was found between conscientiousness and moral sensitivity ($r = 0.11$, $P = 0.048$), conscientiousness and moral identity ($r = 0.23$, $P = 0.0001$), conscientiousness and moral courage ($r = 0.23$, $P = 0.0001$), moral sensitivity and moral identity ($r = 0.47$, $P = 0.0001$), moral sensitivity and moral courage ($r = 0.45$, $P = 0.0001$), and moral identity and moral courage ($r = 0.41$, $P = 0.0001$).

Finally, as for the main step of this research, the simultaneous regression was used to investigate the predicting role of the Big Five Personality Traits on the four components of moral decision-making. The results are shown in Table 5.

Table 4: Correlation matrix between the Big Five Personality Traits and the four components of moral decision-making

Variables	1	2	3	4	5	6	7	8	9
1. Neuroticism	1								
2. Extraversion	-0.05	1							
3. Openness	0.12**	0.19**	1						
4. Agreeableness	-0.11**	0.23**	0.13**	1					
5. Conscientiousness	-0.09	0.02	0.04	0.17**	1				
6. Moral Sensitivity	-0.04	0.01	0.09	0.26**	0.11**	1			
7. Moral Reasoning	-0.05	-0.04	0.05	0.03	-0.02	0.05	1		
8. Moral Identity	-0.26**	-0.04	0.11*	0.30**	0.23**	0.47**	0.15**	1	
9. Moral Courage	-0.27**	0.04	0.07	0.15**	0.23**	0.44**	0.05	0.41**	1

** All coefficients are significant at 0.01 level.

* All coefficients are significant at 0.05 level.

Table 5: Predicting the four components of moral decision-making based on the Big Five Personality Traits

Predictor Variables	Criterion Variable	F	P <	R	R2	B	T	P
Neuroticism	Moral Sensitivity	5.76	0.0001	0.28	0.08	-0.02	-0.41	0.677
Extraversion						-0.06	-1.17	0.245
Openness						0.08	1.45	0.147
Agreeableness						0.25	4.53	0.0001
Conscientiousness						0.06	1.14	0.257
Neuroticism	Moral Reasoning	0.78	0.561	0.11	0.02	-0.06	-1.04	0.299
Extraversion						-0.07	-1.17	0.246
Openness						0.08	1.32	0.188
Agreeableness						0.04	0.65	0.515
Conscientiousness						-0.03	-0.61	0.54
Neuroticism	Moral Identity	15.54	0.0001	0.44	0.19	-0.24	-4.70	0.0001
Extraversion						-0.10	-1.97	0.049
Openness						0.12	2.40	0.017
Agreeableness						0.26	4.50	0.0001
Conscientiousness						0.16	3.18	0.002
Neuroticism	Moral Courage	10.37	0.0001	0.35	0.14	-0.26	-5.04	0.0001
Extraversion						-0.06	-0.97	0.334
Openness						0.09	1.65	0.102
Agreeableness						0.09	1.78	0.077
Conscientiousness						0.18	3.59	0.0001

^a β , Beta coefficient; F, F-test; t, t-test; P, Significant Level; R, Regression Coefficient; R², Determination Coefficient

According to Table 5, the Big Five Personality Traits had a significant effect on moral sensitivity ($F = 5.76$, $P < 0.000$), moral identity ($F = 15.54$, $P < 0.000$) and moral courage ($F = 10.37$, $P < 0.000$). In addition, the Big Five Personality Traits presented 8% of the variance of moral sensitivity, 19% of the variance of moral identity and 14% of the variance of moral courage. Note that the Big Five

Personality Traits did not have a significant effect on moral reasoning ($F = 0.78$, $P > 0.561$) and presented just 2% of the variance of moral reasoning. In addition, according to Table 5, neuroticism was a negative significant predictor of moral identity ($P = 0.000$, $\beta = -0.24$) and moral courage ($P = 0.000$, $\beta = -0.26$). Extraversion was a negative significant predictor of moral identity ($P = 0.049$,

$\beta = -0.10$), openness was a positive significant predictor of moral identity ($P = 0.017$, $\beta = 0.12$), agreeableness was a positive significant predictor of moral sensitivity ($P = 0.0001$, $\beta = 0.25$), and moral identity ($P = 0.0001$, $\beta = 0.26$). Finally, conscientiousness was a positive significant predictor of moral identity ($P = 0.002$, $\beta = 0.16$), and moral courage ($P = 0.0001$, $\beta = 0.18$).

Discussion

The purpose of the present research was to study the role of the Big Five Personality Traits (Neuroticism, Extraversion, Openness, Agreeableness, Conscientiousness) in predicting the four components of moral decision-making (Moral Sensitivity, Moral Reasoning, Moral Identity, Moral Courage). The findings of this study are explained according to the theoretical basics and the research literature, in the four following stages:

Personality traits and moral sensitivity: The findings of the present study showed that only agreeableness, among the personality traits, can predict the moral sensitivity (it predicted it as a positive factor). Although no research could be found showing any direct relation between these two structures in literature review, this finding, somehow, confirmed the results found by William et al. [14], McFerran et al. [21], Gudarzi [16], and Hashemi [22]. They showed that agreeableness has a positive effect on predicting other moral decision-making components. It seems that the people with agreeableness trait act sociably, they consider all the aspects of an issue in different situations and, as far as possible, avoid harming others. Therefore, it seems this factor leads them to have high moral sensitivity.

Personality traits and moral reasoning: According to the results presented in this study, none of the Big Five Personality Traits could predict the moral reasoning. This finding is consistent with the findings of Stojilkovic [19] and Kerr [20]; however, it was inconsistent with the results found by Athota et al. [15], Williams et al. [14], and Gudarzi [16]. The results of this study and the discrepancy in the findings of previous studies reveal that personality traits and moral reasoning appear to be influenced by other variables, which make these two variables to be related in some studies and not in others. Nevertheless, it should be noted that final decision about the relationship between Big Five Personality Traits and moral reasoning needs further investigations.

Personality traits and moral identity: Based on the findings of the present study, neuroticism predicted the moral identity as a negative factor. This finding was in line with the results found by Hashemi [22] indicating the significant negative relation between neuroticism and the moral identity, in her research. The neurotic people, who often tend to experience negative emotions, cannot feel any stability in their feelings and always distrust what they choose or do. Obviously, these people not only do not have one of the main factors of moral identity; i.e. the belief in the selected moral values, but also do not have the confidence to prefer these values to other values. The results also showed that extraversion predicted the moral

identity as a negative factor while the results by Hashemi [22] showed an opposite finding. To answer the question why extraversion predicted the moral identity as a negative factor, it should be noted that this component might have not predicted any positive or negative effect of the moral identity. At the same time, the impact that others can have on extrovert people may be a major factor causing different levels of moral identity. Nevertheless, a definitive conclusion in this regard, due to the limited literature, is difficult and requires further research. In addition, the findings of the present study showed that openness, agreeableness, and conscientiousness predicted the moral identity as a positive factor. This finding was consistent with the results found by McFerran et al. [21] who presented the positive role of these factors in predicting the moral identity. In fact, open people who are known for their deep thoughts are more confident to what they choose compared to the neurotic people. The agreeable people, who are known for their feelings of philanthropy, kindness, trust, and humility, seem to be inclined to moral attitudes and obligations. Finally, conscientiousness is one of the fundamental principles for moral acts.

Personality traits and moral courage: As the results of the present study showed, neuroticism predicted moral courage as a negative factor. There was no literature on any direct relation between these two structures, but somehow, this finding was in line with the results found by Aleixo and Norris [17], Krick et al. [18], and Hashemi [22]. As mentioned earlier in the findings concerning the predicting role of neuroticism in other components of moral decision-making, the inappropriate performance of the neurotic people is not just because of moral courage. In fact, in most components, they present unexpected performance. On one hand, it can be stated that the poor performance of neurotic people regarding other components may lead to failure in moral courage because one needs sensitivity, reasoning, and moral identity to act correctly. On the other hand, such people may be aware of what should be done, as doing an act as opposed to others requires an understanding of the initial path to be able to disregard it. However, there should be further research to conclude decisively. Moreover, the findings of the present study revealed that conscientiousness predicted moral courage as a positive factor. Likewise, in this regard, there was no literature showing any direct relation between the two structures. However, it is obvious that a person who acknowledges responsibility and obeys the rules and values has greater moral courage since the fundamental feature of the moral courage is the persistence of doing the right act.

Some of the limitations of this study are as follows:

As mentioned earlier, the sampling method in this study was stratified random sampling and due to the high numbers of the female students, the majority of the samples in this study were female students. Moreover, due to the big numbers of the research variables and gathering the data through the questionnaires in one session, the validity and reliability of the questionnaires completed at the end of the session may be influenced by

the students' fatigue. Finally, the population in the present study was limited to college students. Therefore, it is recommended to consider the findings of the present study as well as its limitations to study the role of the personality traits in moral decision-making components in further research. It should also be noted that the differences in the personality traits were not the only predictive factor of moral decision-making components and the effects of this factor can be adjusted and optimized by what will happen later.

Conclusion

The results of this study showed that among the personality traits, agreeableness was a positive predictor of moral sensitivity. Openness, agreeableness, and conscientiousness were positive predictors of moral identity, and neuroticism and extraversion were negative predictors of moral identity. Moreover, neuroticism negatively predicted moral courage but conscientiousness predicted it positively. The study also showed that none of the personality traits could predict the moral reasoning. Therefore, with regard to the data obtained from this research it can be stated that people are clearly different in terms of mood or personality, and the different personality traits are predictors of the components of morality.

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