

An Investigation into the Relationship of Big Five Personality and Maximizing among Male and Females: A Case of Iranian Students

Dr. Zahra Hashemi

Department of Educational Sciences and Psychology, Alzahra University,
Tehran, Iran, Alzahra University, Tehran, Iran, P.Code: 1993891176
Email: z.hashemi@alzahra.ac.ir

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Abstract

The present paper aimed to shed light into the relationship between different dimensions of personality and behavioral maximizing and mental standards. To do this, 288 students of Shiraz University from different fields of study (149 females and 139 males) took part as participants. Furthermore, to collect the intended data, two instruments of Goldberg Big Five Personality and Schwartz and colleagues questionnaires were employed. Cronbach alpha formula was used to measure the reliability of the two instruments and the factor analysis, of the principal component analysis with varimax rotation type was utilized to calculate their validity. The obtained indices showed a desirable reliability and validity for the tools. The multiple regression results of big five personality on the behavioral maximizing and mental standards of the whole sample revealed that merely neurosis is a positive and significant predictor for behavioral maximizing; and neurosis and agreement factors are positive significant factors for mental standards. Furthermore, it was understood that extraversion negatively predicts this factor. Finally, no significant difference was observed in terms of maximizing between male and female students and also between students of engineering and education faculties.

Keywords: Big five personality; Behavioral peak demand; Mental standards

1. Introduction

Decision making and selection are among the basic strands of humans. Without the possibility of choice, humans are nothing but tools or objects (Sejean, 2006). Selection is, in fact, an indicator of freedom and independence and, as a necessity for autonomy; it is regarded as an indication of ethical and mental health in a culture (Schwartz, Monterosso, lyubomirsky, wite, & Lehman, 2002). In general, one of the basic approaches taken by individuals in decision making is related to fundamental and basic motivations that play a significant role in humans' mental health and well-being. According to the rational choice theory, it is assumed that humans are rational choosers that in a decision making situation usually tend to complete their information. They have, in fact, a structured integrated system of preferences. These preferences are mostly pertinent to information about the costs and benefits of choices they encounter and then based on this information select the choice that is most preferable in terms of benefit and value (Von Neuman & Morgenstern, 1944). However, after some time it was understood that some of the basic psychological tenets of this theory are not justifiable and rational and humans usually ignore such tenets while making their choices (Baron, 2000).

Simon (1956) based the decision making on the satisfaction about half a century ago in the sense that the choice that has some degree of acceptability and agreement should be selected. This approach is more in accord with humans' cognition limitations. Simon argues that it is far from reality for humans to take into consideration the maximum and most complete of goals mainly due to the environment complexities and also limitations in information processing.

Schwartz (2000), likewise, proposes two approaches of choice selection on the basis of Simon's theory: satisfying and maximizing. In the former, the purpose is to reach a choice that is adequately good or provide some extent of acceptability for individuals. In the latter, person is seeking for the best and most complete choice. It goes without saying that in the case where the choices are limited, making the best and most complete choice would be possible. However, decision making in today's complex world, given the multiplicity of choices and also person's limited cognition, is very challenging. The reality is that maximizing persons often insist on such a purpose. Despite the fact that choice has always had an ideal concept in human life and a signal of happiness and well-being before humans meaning that societies with more choices are happier and more civilized, however, the related literature indicates something different. Reviewing the literature on the issue of decision making reveals that despite having more choices in all aspects in the contemporary era, humans don't feel a well-being life (Diener, 2000; Diener, Diener, & Diener, 1995; Diener, Suh, Lucas, & Smith, 2001;

Schwartz, 2000; Iyenger & Lepper, 2000; Diab, Gillespie, & Highhouse, 2008; Schwartz, Ben-Haim, & Dacsoj, 2010, Lai, 2011).

In line with this, Schwartz (2000) states that an increase in the choice might lead to three problems: first, obtaining enough and adequate information for all the choices won't be possible; second, as choices increases, the standards of what is acceptable increases as well; and third, people might think that wrong choice will be unacceptable. He claims that negative impact of many choices depends largely on the point that if the person's purpose is satisfying or maximizing. Since the purpose of maximizing is to reach the best choice, as the choices increases, these types of people do not become sure that if their selected choice is the best or not as other choices have not been tested. Thus, they always feel that they have could make a better choice by more searching. As a result, with an increase of choices, the likelihood of reaching the best choice will decrease. In contrast, since the purpose of satisfying is "being adequately good", an increase in the choices before the decision making helps person to make the best choice easier and faster; and after the decision making he/she can easily ignore them because the intended choice has already made.

The findings of several studies uncover that maximizing correlate negatively with happiness (Schwartz, et al., 2002; Jokar, 1385), self-esteem and life satisfaction; and positively with depression, perfectionism, and regretting (Schwartz, et al., 2002). Accordingly, given the role and impact of motivation processes of decision making in humans' mental health and well-being, the factors affecting decision making and maximizing are of great importance. Now the question that is raised is what factors might influence these two types of decision making.

All in all, different researchers have taken different approaches and perspectives as far as decision making is concerned. While for some of cognitive psychologists, decision making styles are habitual or learning responding patterns adopted by persons in different decision making situations (For instance, Brucks, 1985; Scott & Bruce, 1995), generally, decision making can be affected by three major areas: task features or topic, contextual factors, and individual differences (Hunt & colleagues, 1989 quoted from Nygren & White, 2002). In spite of the impact of contextual features, social comparisons, relying on external information, role of different tasks, and also culture on different types of decision making that guide persons toward maximizing or satisfying, (Schwartz, 1994; Schwartz et al., 2002; Wiczorkowska & Burnstein, 1999; Bur & Johnson, 2009), Schwartz and colleagues (2002) reported that some people commonly show some extent of maximizing. Although the conducted studies in this area have mostly dealt with the role and influence of contextual factors and individual differences have equitably ignored, recently focusing on individual characteristics have attracted considerable attention. As an example, features and individual characteristics such as self-esteem, perfectionism, and depression have been approved by Schwartz and colleagues (2002). To be more specific, among the studied individual characteristics the followings might be mentioned: omission (Baron & Ritov, 2004), overconfidence (Klayman, Soil, Gonzales, & Vallejo, 1999), and need for knowledge (Kuas & Koffman, 2004) (all quoted from Susan Mohammed & Schwall, 2009), impact of temperament on problem solving-based individual characteristics (Mc Caulley, 1987 quoted from Nygren & White, 2004), personality features of sensitivity to punishment and reward and impulsivity (Ingmar, Franken, & Muris, 2005), emotional component of regret and personality features (Purvis, Howell, & Iyer, 2011), and cognitive styles and personality features (Dewberry, Juanchich, & Narendran, 2013), and regret and Ego involvement at the end of decision making (Lai, 2011).

According to what above-mentioned, while part of the variance of this factor is delineated by variables such as learning, cultural experience, and context, recent studies suggest that it is remarkably affected by internal features and qualities. In accordance with this, the current study is, in essence, an attempt to investigate whether big five personality factors can predict maximizing of persons. Advent and introduction of big five personality (Costa & McKrea, 1992) has set the stage for examining the relationship among personality, motivation, and performance. The related empirical studies have supported the claim of interlink between performance and personality. These five factors are as follow: extraversion vs. introversion; agreeableness vs. antagonism; conscientious vs. lack of orientation or neurosis carelessness vs. emotional stability, and finally, openness to experience vs. closeness (Goldberg, 1990). Extroverts show tendency towards physical and oral activities, and are adventurers, active, sociable, happy, and talkative while introverts are interested in loneliness, and are silent and non-sociable. Agreeableness is characterized by features such as flexibility. These individuals are modest, adaptable and flexible, warm, kind, polite, sympathetic, and good will and need to listen to others. In contrast, antagonists are aggressive and skeptical to others that in turn leads to alienated behaviors. Conscientious people are efficient, disciplined, and responsible. This feature is usually in line with characteristics such as independence, hard working, responsibility, insistence on doing the task appropriately, skill organizing, and progressivism (Costa & Mc Krea, 1992).

Persons who have a neurosis style are sad, angry, anxious, and prone to depression. In contrast, emotional stability persons are relaxed and calm. Neurosis people try to avoid threatening situations and often prefer known information to new information. It is typically related to lack of ability to make a relationship between problems and

information organization (Costa & Mc Krea, 1992). A person who is open to experience welcomes new ideas, cultural interests, education perspectives, and creativity. Such a person experiences positive and negative feelings more deeply. It is also related to motivation to change, knowledge, and awareness.

Highly conscientious people are very motivated to progress, insist on doing tasks, and have high expectations of them. These features, in turn, lead to selecting challenging purposes and also commitment to them (Barik, Mount & Strauss, 1993). Judge & Bono (2001) in their study reported that there is relationship between conscientious and selecting difficult goals.

Those who get high scores in conscientious dimension also show high involvement in activities that involve goal setting with regard to data and information gathering from various sources (Smither, London, & Richmond, 2005). Thus, such people pay special attention to the quality of selected goals. Studies have also revealed that neurosis is in line with goal setting motivations as well. Studies by Malouff, Scott, Bauer, Mantelli, Pires, Kordova, Read, and Scott (1990) show that neurotic people are unlikely to have any specific goal setting. Similarly, according to Groger and Baucik (1998), neurosis negatively correlates with the speed of information processing and positively with flexibility. Since very few empirical works have conducted on this issue in Iranian culture, this question still remains open to investigation that if big five personality can predict maximizing or not? And if is there any significant difference in terms of sex or not?

2. Method

2.1 Participants

The participants of the present study were 288 students of Shiraz University (149 female and 139 male). They belonged to education and engineering faculties and were selected on the basis of cluster sampling procedure. In other words, first the two above-mentioned faculties were picked out and then eight classes were selected from each of the faculties. Table 1 represents detailed features of the participants.

Table 1. The number of participants in terms of sex and field of study

| Field of study | Educatio | Engineering | Total |
|----------------|----------|-------------|-------|
| sex | | | |
| Female | 81 | 68 | 149 |
| Male | 52 | 87 | 139 |
| Total | 133 | 155 | 288 |

2.2 Instruments

2.2.1 Big Five Personality Questionnaire

The big five personality questionnaire that comprises 50 items was developed by Goldberg (1999). This self-report questionnaire is of Likert type in which responses range from absolutely correct (5) to absolutely incorrect (1). Each factor is evaluated by 10 positive and negative statements. Thus, the maximum score of each person for each factor is 50 and the minimum score will be 10. Reliability and validity of the questionnaire was reported by Goldberg (1999) as desirable. In this study, validity was examined by factor analysis of principal component analysis with varimax rotation type. KMO was turned out to be .72 and Bartlett test was 3910/79 that is significant at /000. Moreover, the total Variance explanation coefficient was 42/13 percent. The results also reveal five main factors as follow: 1) neurosis including items 4, 9, 14, 19, 24, 29, 34, 39, 44, 49; 2) agreeableness involving items 2, 7, 12, 17, 22, 27, 32, 37, 42; 3) conscientious entailing items 3, 8, 13, 18, 28, 33, 38, 43, 48; 4) extraversion including items 1, 6, 11, 21, 26, 31, 46, 48; 5) openness to experience involving 5, 10, 15, 20, 30, 50, 40. In addition, items 16, 23, 25, 35, 36, 41, 45 were deleted. Finally, Cronbach alpha was used to check the instrument reliability. It turned out to be .85 for neurosis, .81 for agreeableness, .67 for conscientious, .74 for extraversion, and .64 for openness to experience.

2.2.2 Maximizing Questionnaire

This questionnaire was the translation of the maximizing questionnaire by Schwartz and colleagues (2000). It consists of 18 statements and like the previous instrument is of likert type ranging from "always" (4) to "at all" (1). To calculate its

validity, factor analysis of principal component analysis with varimax rotation type was used. The criterion for extraction of Scree slope of curve and special value was more than one. Accordingly, two factors were obtained: behavioral maximizing and mental standards. Items 17, 7, 13, 14, 15, and 16 were also omitted. These results are present in Table 2. KMO turned out to be .72 and Bartlett test was 613/78 ($P \leq .001$). Moreover, variance explanation coefficient was 31/18. The reliability of the two factors of behavioral maximizing and mental standards were also .72 and .58 respectively via Cronbach alpha that are desirable.

Table 2. Results of Factor analysis for maximizing questionnaire

| Items | Mental standards | Behavioral maximizing |
|------------------|------------------|-----------------------|
| 1 | | |
| 3 | | |
| 4 | | |
| 5 | 0.47 | |
| 8 | 0.67 | |
| 10 | 0.62 | |
| 2 | 0.37 | 0.67 |
| 6 | 0.47 | 0.47 |
| 11 | 0.54 | 0.34 |
| 12 | | 0.34 |
| 18 | | 0.74 |
| Special Value | 3.51 | 2.11 |
| Variance Percent | 17.39 | 13.78 |
| Total variance | 31.71 | |

3. Results

Table 3 represents the descriptive statistics of the study variables.

Table 3. Descriptive statistics of the study variables (Number: 288)

| Variables | Mean | SD |
|----------------------------|-------|------|
| Extraversion/Introversion | 25.36 | 4.71 |
| Agreeableness | 35.86 | 5.10 |
| Openness | 35.93 | 4.89 |
| Conscientious | 31.53 | 6.04 |
| Neurosis | 30.5 | 6.74 |
| Mental standards | 17.69 | 3.15 |
| Behavioral maximizing | 25.96 | 5.42 |
| Totalbehavioral maximizing | 44.50 | 7.11 |

In addition, table 4 presents the correlation matrix between the study variables.

Table 4. Zero-order correlation matrix of the variables

| Variables | Extroversion | Agreeableness | Neurosis | Openness | Conscientiousness | Mental standards | Behavioral maximizing |
|-----------------------|--------------|---------------|----------|----------|-------------------|------------------|-----------------------|
| Extroversion | 1 | | | | | | |
| Agreeableness | 0.12 | 1 | | | | | |
| Neurosis | -0.19** | 0.18* | 1 | | | | |
| Openness | 0.21** | 0.09 | -0.18* | 1 | | | |
| Conscientiousness | 0.007 | 0.25** | -0.24** | 0.31** | 1 | | |
| Mental standards | 0.20** | 0.06 | 0.47** | -0.06 | -0.13 | 1 | |
| Behavioral maximizing | 0.01 | 0.02 | 0.19** | 0.03 | 0.17* | 0.01 | 1 |

**p<0.001 *p<0.05

It should however be pointed out that independent t-test related to males and females' maximizing and also students of engineering and education faculties revealed no significant difference.

Regarding the answer of the study research question and determination of the prediction power of each of the personality factors on maximizing, simultaneous multiple regression was run. In so doing, personality factors were regarded as independent variables and each of the maximizing factors were considered the dependent variables. Tables 5 and 6 depict the pertinent results.

Table 5. Regression results of behavioral maximizing on personality dimensions

| Variables | Non standard Indices | | Bet a | t | Sig. | R | R ² |
|------------------------|----------------------|------|-------|------|-------|------|----------------|
| | Standard error | B | | | | | |
| Neurosis | 0.05 | 0.09 | 0.24 | 3.10 | 0.002 | 0.34 | 0.11 |
| Openness to experience | 0.04 | 0.02 | 0.04 | 0.49 | NS | | |
| Conscientious | 0.03 | 0.02 | 0.05 | 0.61 | NS | | |
| Agreeableness | 0.04 | 0.03 | 0.06 | 0.77 | NS | | |
| Extraversion | 0.04 | 0.04 | 0.07 | 0.91 | NS | | |

As the table shows, only neurosis is positive significant predictor of behavioral maximizing.

Table 6. Regression analysis of mental standards on personality dimensions

| Non standard Indices | | Bet a | t | Sig. | R | R ² |
|----------------------|----------------|-------|-------|-------|------|----------------|
| B | Standard error | | | | | |
| 0.27 | 0.04 | 0.48 | 7.08 | 0.000 | 0.54 | 0.29 |
| 0.04 | 0.05 | 0.05 | 0.66 | NS | | |
| -0.03 | 0.04 | -0.05 | -0.77 | NS | | |
| 0.13 | 0.05 | 0.17 | 2.63 | 0.009 | | |
| -0.11 | 0.05 | -0.13 | -1.99 | 0.04 | | |

Given the results of this table 6, neurosis and agreeableness are positive significant predictors of mental standards. Moreover, extraversion negatively predicts this factor.

4. Discussion

As it was already mentioned, the purpose of the current study was to investigate the prediction power of different personality factors on behavioral maximizing. The results of correlation analysis uncovered that there is a positive relationship between extraversion and neurosis and mental standards. Additionally, a positive relationship was also observed between neurosis and conscientiousness and behavioral maximizing. Regression analysis also showed that neurosis is positive significant predictor of behavioral maximizing and mental standards; and also neurosis and agreeableness are positive significant predictors of mental standards; and extraversion predicts this factor negatively. In fact, in line with previously done studies, neurosis is related to goal setting motivations. Additionally, the results of meta-analysis also signified that neurosis negatively affects the goal setting levels. Malouff and colleagues (1990) reported that neurotic people are unlikely to have specific goals. Moreover, Gregor and Bucik (1998) also indicate that neurosis correlates positively with flexibility.

Generally, cognitive and sensible factors (which are often referred to as cool process) and emotional factors (hot process) play significant roles in decision making. Thus, any problem in decision making of neurotic persons can be due to both emotional factors (Sejean et al., 2007) and cognitive variables (Gregor & Bucik, 1998).

To justify this point, it could be stated that reduction of emotional features like fear, anxiety, sadness, depression, and low self-esteem that are characteristics of neurotic persons prohibit them to follow higher level and more difficult problems. In a similar vein, because maximizing correlates strongly with low self-esteem (Smither et al., 2005), it can be said that such features of neurotic persons and their negative influences cause them to focus on self-protection while making decisions. This is largely due to the point that these people often regard environmental feedbacks as threats for them and these negative threatening factors decreases their self-esteem more. As a result, they try more to reduce their self-esteem for achieving the best possible purposes. That is why they always doubt about their purposes and therefore

always try to change them.

In addition, since neurosis is pertinent to lack of ability to understand and make relationship between problems and information organization (Costa & Mc Krea, 1992), and also slow information processing (Greger & Bucik, 1998), it seems that investigating the probable benefits and costs of different choices and optimum decision making would fail.

This study also revealed that agreeableness is a positive significant predictor of mental standards of maximizing. To justify this, it can be said that those who obtain high scores in agreeableness show features such as flexibility and adaptability. Moreover, since they have high tendency to listen to others, they are more likely to be affected by others and contextual factors. Additionally, given the fact that maximizing is usually affected by contextual, cultural, and situational factors (Schwartz et al., 2002; Schwartz, 1994; Vice Zorska & Burnstein, 1999), thus, as a result of interactions between personality features and situational factors, more information and higher standards or even social comparisons will become available which in turn cause these persons not be sure about what a good selection is.

Those who are extravert are typically happy, sociable, active, and dynamic. The findings of different studies also show that maximizing has a negative relationship with happiness (Schwartz et al., 2002; Jokar, 1385), self esteem and life satisfaction (Schwartz et al., 2002) and these features are typical for extraverts. Therefore, extraversion negatively predicts mental standards of maximizing. Furthermore, since maximizing correlates positively with depression, perfectionism, and regret (Schwartz et al., 2002), these features are mostly related to introverts. On the other hand, in order to be able to provide a better and more complete explanation about the effective factors on decision making, it is suggested to conduct further studies in which information processing-related factors, emotional factors, and also contextual factors are studied. Furthermore, more reliable conclusions will be made by investigating the maximizing factor in specific areas.

"Although past studies mostly focused on the effect of situational factors on different decision-making styles, but their findings reveal that among the big five personality factors, neuroticism, agreeableness and extraversion can be discussed as factors influencing satisfying and maximizing which can provide opportunity for more research on internal and situational factors in the future. Also, in future projects and causal investigations, through controlling big five personality factors, better results can be achieved. However, this conclusion that neuroticism is the strongest predictor of mental and behavioral maximizing, can lead to a challenge for this cognitive concept of maximizing factor; that maximizing people investigate all the options and alternatives in a systematic and rational way for reaching the best option. In contrast (as shown in the previous research), neuroticism can have more emphasis on this factor proceeding with emotional features such as regret, anxiety, worry and stress that are more related to neuroticism."

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