Investigation the relationship between the six virtues in positivist psychology with the big five personality traits

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ABSTRACT
The aim of this research is to study the relationship between the six virtues in positive psychology and the big five personality traits among the students at Tehran Universities. So, 317 students (179 female, 138 male) were selected by random multiple cluster sampling. The tools used in study were the VIA and NEO-FFI. Data were analyzed by using Pearson correlation and stepwise regression method. The results indicated that there is a correlation between the six virtues and the personality traits. There was a significant relationship between the scale of Agreeableness with Humanity, Conscientiousness with Courage and humanity, and between extraversion with courage. Also, the scale of courage had a negative significant Relationship with Neuroticism. There was no significant relationship between Wisdom and the five personality traits. The results of Regression analysis indicated that among the five traits, extraversion could explain 0/176 and Conscientiousness 0/184 of the variance of Courage.

Introduction
One of the recent revolutions in the files of non-clinical psychology and psychotherapy is development of viewpoints which instead of psychopathology, deficiencies, negative emotions and malfunctions notice to strong points, virtues and positive emotions. Positivist psychology, in the past 15 years with this explanation that psychology needs to revise its goals and has to deal to the subject of happiness, life satisfaction and identifying the virtues, has begun to state new perspectives on psychology (Seligman & Csikszentmihalyi, 2000). But in positive psychology, major assumption is based on the inherent potential for growth and perfection. In this orientation (Positive), man is a creature in who potential abilities for growth and development have been given and this conceptualization is the same inclinations or tendencies cited by Rogers and Maslow (Seligman, 2002). One of the most important structures in the field of positive psychology perspective in this area recently attracted the attention of researchers is related to distinctive competencies and capabilities and virtues. Virtues are the discussions rooted in mankind’s thought history and epistemology. Positive psychologists notice to virtues specifically the six virtues as universal virtues include Courage, Wisdom, Temperance, Transcendence, Justice and Humanity (Peterson and Seligman, 2004). Virtue in action is defined as "any psychological process that enables a person to attempt to do things that will be useful both for themselves and for society" (McCullough & Schneider, 2000). In the past decade, increasing research have been conducted on development of distinctive competencies and capabilities and virtues in personality psychology (Kroiger, Higse & McGouigh, 2001), moral development (Volcker & Pietze, 1988), the young’s positive development and educational psychology (Narvose&llopsly, 2005). Empirical studies have been made of a variety of analytical approaches to understanding the general concepts and moral-oriented dimensions (Cawly, Martin& Jonson, 2000). There are any applications and implications for the role of these structures in education (Park, Peterson, and Seligman, 2006; Stein, Kachverk, and Peterson, 2003), clinical context (Seligman and Peterson, 2003), and organizations (Peterson and Park, 2006). Virtues can be identified in both intervention and prevention programs which are effective in achieving positive emotions such as happiness (Alex, 2010).

It is believed that 24 abilities constitute the overall infrastructure of the six virtues (Peterson and Seligman, 2004, p 31) which are listed below;
1 - Wisdom: This field contains the Powers of Creativity,Curiosity, Openness of mind, Learning Love and Sagacity.
2 - Courage: The virtue includes Courage, Persistence, Integrity, Honesty, Vitality, Enthusiasm and Energy.
3 - Humanity: Love, Kindness, Generosity, Support, Care, Compassion, Loving, Humanitarian, Social intelligence are located in this area.
4 - Justice; the capabilities include Citizenship, Fairness and Leadership.
5 - Temperance: Forgiveness and Mercy, Humility, Prudence and Self-regulation are included in this field.
6- Transcendence; admitting beauty and grandeur, reverence, wonder, thankfulness, optimism and hope, futurity, humor and satire, spirituality, religiosity, believe in a purposefulness are located in the field of transcendence (Peterson and Seligman, 2004, pp. 30-29). In the past decade, an increasing interest was shown to address the most basic issues in personality psychology; the search for an acceptable scientific classification of personality traits. More important, the general framework of this classification is accepted.(GoldBurg, 1993, quoted from Pervin& John, 2001).McCrae&Casta has classified the theoretical model due to big five factors which is called the five-
factor theory. By reviving the issue of nature against training, they expressed their view as "the substance of our statement is that personality traits such as temperament, inner preparations are in growth path and are essentially independent of environmental influences" (McCrae& Costa 2000, quoted from Pervin& John, 2001). These factors are as follows:

**Neuroticism**

Having negative emotions such as fear, sadness, irritation, anger, guilt, permanent and universal involvement is the basis of the scale of mental, emotional or nervous instability (Haqshenas, 2008, p 17). The reason of emphasis on the word nervousness shows closer term for nerve or neurons which is the name of the index. Nerve impulse and the sympathetic nervous system over activation is also in the same direction (Haqshenas, 2008, page 17).

**Extraversion**

Social ability is just one of the traits which are consisted in extraversion dimension. In addition, to like people, tendency toward large groups and meetings, courage, being active and being talkative are also extroverts' traits (McCrae& Costa, 2002).

**Openness to experience**

As a major dimension, personality of openness to experience is known much less than extraversion and emotional instability. Openness elements such as active thought, feeling aestheticism, regarding to internal feelings, variety-seeking, intellectual curiosity and independency of judgment have often played a role in theories of personality measures, but the coherence in a wide field and the formation of personalities were seldom. Men and women with low scores on openness tend to acquire normal behavior while their emotional responses are very limited (McCrae, 1978).

**Agreeableness**

Agreeableness is a foremost on personal preferences. A consistent is basically an altruist. He is sympathetic to others and eager to help them and believe that others are helpful, in turn inconsistent and querulous person is reluctant and skeptical to others. There is the fact that consistent people are more acceptable and popular than querulous people. However, it should be noted that the readiness to fight against your interests is an advantage and being compatible on the battlefield, for example, is not considered a virtue. Generally, none of the two poles is not socially ideal and none of the two is not necessarily helpful about the mental health of the person (McCrae&Costa quoted from Garossi, 1,380th).

**Conscientiousness**

Conscientiousness can be also considered as very active planning, organizing and carrying out as effectively as possible. Individual differences in this regard are conscientiousness. Conscientious person is purposeful, strong-willed and determined. Successful people, great musicians and athletes have called these traits too high. This area is called tendency toward success. High score on this index is associated with occupational and educational success. Low score on this index may cause the person to avoid subtlety, accuracy and high cleanliness.

In addition to developing their classification system, Peterson and Seligman(2004) have also suggested how their classification of character strengths and virtues is related to what is attractive in a mate(Botwin, Buss,1997,Schmitt, &Buss,2005), and Schwartz’s (1992) Universal Values.

Some research into establishing the validity of these claims has begun.Haslam, Bain, and Neal(2004) found that both Schwartz's(1992) Universal Values and Five Factor Model (FFM) of personality were conceptually linked to the 24 character strengths. Peterson and Seligman(2004) acknowledge that there are some clear correspondences between their classification and the FFM. For example, Neuroticism could be seen as the conceptual opposite of hope and Extraversion could be a key to leadership(Peterson & Seligman,2004). They also show how their classification. It is important to note that Peterson and Seligman (2004) did not empirically correlate their values strength factor with the five factor of the FFM but only make these links conceptually. According to King, Walker ,& Broyles(1996); research, creative people have been shown to be high in Openness(O) and Low in Agreeableness, Honest and Humble people have been found to be high in Agreeableness(Ashton & Lee,2005) and also high in Conscientiousness(Paunonen,2003);Brose,Rye,Lutz-Zois,and Ross(2005) found forgiveness to be both negatively correlated with Neuroticism(N) and positively correlated with Agreeableness and sometimes Extraversion. Also a meta-analysis of a number of different studies by Suroglou(2000) found that religiosity was related to high A.C and E. Accordingly, the present study investigated the relationship between the six virtues in positive psychology and the big five personality traits.

**Method**

Statistical Population and Sample: This study is cross-sectional descriptive study conducted via correlation method. Population in this study consisted of all university students at the Letter faculties of Tehran city who were studying in the year 2013. By using cluster sampling, 317 (179 female, 138 male) were selected. This means that among the universities, Tabatabaei University and University of Tehran were randomly selected first, and then the Faculty of Law and Political Science and Psychology Faculty were selected.

**Research tools**

**Virtues in Action Test (VIA)**

Peterson and Seligman (2004) published the test in 2003. It is a 48 questions test assesses the 6 virtues and 24 character abilities. The test structure is such that it has a basic taxonomy as Virtues, and for every virtue, regarding to the concept, it considers number of capabilities. These abilities representing the characteristics and preferences of the person's actions, thoughts, and emotions are universally accepted. Ten questions have been considered to assess any ability in the long form (240 questions) and the Short Form Test 2 Question (total 48 questions). Questions are answered on a Likert's scale in five options including "very like me" Like Me "neutral" very unlike me "Quite contrary with me" and finally potential abilities of the subjects are identified. Psychometric properties and criteria-related validity were satisfactory (Peterson and Seligman, 2004).

The internal consistency coefficient was higher than 0.70 and the reliability with the retest approach was above 0.70 (Peterson and Seligman, 2003). Research conducted by Park and Peterson (2006) to examine the concurrent validity of the questionnaire, the results of this study indicated that the scores on the questionnaire were highly correlated to life expectancy, happiness, love, and life satisfaction. These findings are consistent with research findings o Park, Peterson and Seligman (2004). The result showed that "heart" abilities were associated with joy, while the abilities of "mind" do not associate.
1-The descriptive findings related to (mean, standard deviation) the research variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personality traits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agreeableness</td>
<td>41/0</td>
<td>5/14</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>49/19</td>
<td>4/99</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>31/38</td>
<td>41/40</td>
</tr>
<tr>
<td>openness</td>
<td>41/10</td>
<td>5/36</td>
</tr>
<tr>
<td>Extroversion</td>
<td>38/35</td>
<td>7/41</td>
</tr>
<tr>
<td>wisdom</td>
<td>30/72</td>
<td>7/39</td>
</tr>
<tr>
<td>Virtues in action</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Courage</td>
<td>35/80</td>
<td>4/16</td>
</tr>
<tr>
<td>Humanity</td>
<td>42/19</td>
<td>9/48</td>
</tr>
<tr>
<td>Transcendence</td>
<td>39/12</td>
<td>7/42</td>
</tr>
<tr>
<td>Justice</td>
<td>38/42</td>
<td>7/39</td>
</tr>
<tr>
<td>Sobriety</td>
<td>30/72</td>
<td>5/42</td>
</tr>
</tbody>
</table>

Table 2-Correlation coefficients between the six virtues and the five personality traits

<table>
<thead>
<tr>
<th>Variables</th>
<th>Justice</th>
<th>Transcendence</th>
<th>Humanity</th>
<th>Courage</th>
<th>Wisdom</th>
<th>Temperance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agreeableness</td>
<td>0/110</td>
<td>-0.067</td>
<td>-0.043</td>
<td>0.014</td>
<td>0.058</td>
<td>-0.057</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>0/107</td>
<td>-0.132</td>
<td>-0.049</td>
<td>0.014</td>
<td>0.062</td>
<td>-0.112</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>-0.010</td>
<td>-0.058</td>
<td>0.033</td>
<td>0.014</td>
<td>0.069</td>
<td>-0.035</td>
</tr>
<tr>
<td>Openness</td>
<td>0.003</td>
<td>0.185</td>
<td>0.084</td>
<td>0.014</td>
<td>0.069</td>
<td>0.035</td>
</tr>
<tr>
<td>Extraversion</td>
<td>0.0</td>
<td>0.176</td>
<td>0.046</td>
<td>0.615</td>
<td>0.001</td>
<td></td>
</tr>
</tbody>
</table>

P<0.01  \*P<0.05

3-The results of stepwise regression

<table>
<thead>
<tr>
<th>Dimension variable</th>
<th>Predictive variable</th>
<th>R</th>
<th>R²</th>
<th>β</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>courage</td>
<td>Extraversion</td>
<td>0/42</td>
<td>0/176</td>
<td>0/46</td>
<td>6/15</td>
<td>0/001</td>
</tr>
<tr>
<td></td>
<td>conscientiousness</td>
<td>0/48</td>
<td>0/184</td>
<td>0/52</td>
<td>6/46</td>
<td>0/001</td>
</tr>
</tbody>
</table>

4-The results of Anova analysis

<table>
<thead>
<tr>
<th>Model</th>
<th>SS</th>
<th>df</th>
<th>Ms</th>
<th>F</th>
<th>Sig</th>
</tr>
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<tbody>
<tr>
<td>Extraversion</td>
<td>Regression</td>
<td>16326/426</td>
<td>1</td>
<td>16326/599</td>
<td>16/376</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>159862/489</td>
<td>316</td>
<td>1035/768</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>186/600</td>
<td>317</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>Regression</td>
<td>25733/701</td>
<td>2</td>
<td>12866/950</td>
<td>15/137</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>158655/849</td>
<td>315</td>
<td>972/356</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>196189/600</td>
<td>317</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Virtue in action inventory (VIA) was also studied in Germany. Questionnaire was conducted on a sample of 1,674 adults and all 24 subscales showed high reliability (α=0.77) and showed a high stability nine months (test - posttest 0.73) and averagely, the abilities were similarly observed in high correlation (0.88). The lowest correlation of the capabilities was with demographic characteristics. The correlation supported with three sizes: mental well-being, old version and new English version of the VIA-IS with high validity of the questionnaire. Generally, the German version of the questionnaires of virtues in action showed psychometric properties and the evidence of a good validity.

48-items version of the questionnaire was normalized in Iran by Parvaz (2011). The results showed that alpha was 0.81. The Cronbach’s alpha for all subscales was above 0.80.

**NEO: NEO-FFI**

Type 60 questions of NEO examination is abbreviated form of NEO Test 240 Questions by McCrae and Costa (Haqshenas, 2008, p 9), during few years (1985), (1989) and (1992) was built in order to implement five-factors model of personality and a framework of traits of personality are presented and is the result of four decades of scientific endeavor in this field (Digman, 1990, quoted from Haqshenas, 2008, p 9), and because they first emphasized on three factors; neuroticism, extraversion and openness, the test were known as Neo. This test has five major factors or indicators and each indicator has 6 scales. The top five are: Neuroticism or Emotional instability, Openness to experience, Extraversion, Conscientiousness and Agreeableness (Haqshenas, 2008, p 9).

Reliability and validity: Because of the popularity of NEO, the test reliability and validity was examined several times by different researchers. A research on the correlation between this test and its long form for the scales of Conscientiousness, Agreeableness, Openness to experience, Extraversion and Neuroticism, respectively. Reliability coefficients were calculated by using Cronbach’s alpha for this sample and were 0.92, 0.90, 0.95, 0.85, 0.89. Due to the normalization of the test by Haqshenas (2008), the correlation coefficient for the scales of the short form and long form for Conscientiousness, Agreeableness, Openness to experience, Extraversion and Neuroticism were 0.97, 0.94, 0.92, 0.9, 0.87 for the scales of Conscientiousness, Agreeableness, Openness to experience, Extraversion and Neuroticism, respectively. Meanwhile, the reliability coefficient by using Cronbach’s alpha was calculated 0.94, 0.63, 0.50, 0.54, 0.60 (Jalili, 2009). Validity of the test was calculated by using factor analysis of the long form questions and based on the factors’ rotation around 5 main factors. The questions which had the highest factor loadings and diagnosis validity around a factor were extracted for the short form. (Haghshenas, 2008).

As shown in Table 2, between the Agreeableness scale and Humanity (0.43), Conscientiousness with Courage (0.245) and Humanity (0.35), and Extraversion with Courage (0.425) was significant Correlation at the level of 0.01. There was also a significant negative correlation between Neuroticism scale and Courage (-0.248). Extraversion had significant positive relationship with Transcendence (0.185). Wisdom, Temperance and Transcendence had no significant relationship with the Big five personality factors.

Based on the results of the stepwise regression analysis, Extraversion factor was capable of explaining the Courage (\(R^2\)\(=0.167\)) and Conscientiousness factor was capable of explaining Courage (\(R^2\)\(=0.184\)) and the other factors due to lack of significance were excluded from the regression equation.

**Discussion**

In the positive tendency, human being is a creature in who potential abilities for growth and development have been given and this conceptualization is the same inclinations or tendencies cited by Rogers and Maslow (Seligman, 2002).

The aim of this research is to study the relationship between the six virtues and the big five personality traits. The results indicated that there is a correlation between the six virtues and the Big five personality traits. There was a significant relationship between the scale of Agreeableness with Humanity, Conscientiousness with Humanity and Courage and between Extroversion with Courage. Also, the scale of courage had a negative significant relationship with neuroticism. There was no significant relationship between wisdom and the five personality traits. Transcendence had merely a positive and significant relationship with extroversion but had not correlation with the other traits. Justice and sobriety had not also any relationship with the traits. Regarding to the issue that any Iranian and foreign research has not already conducted about the virtues in action and the personality traits and no result was found during this research, so, personalized explanations can be brought about results.

About the relation of agreeableness in connection with humanity, those who score high on the scale of humanity are kind and generous people and are interested in having close relationships with others, as well as having compassion and commitment to others are the other features of these people (Seligman and Peterson, 1998). Agreeableness factor, on the other hand, tend to emphasize interpersonal communication. Agreeable people are altruism, empathetic and willing to help others (McCrae and Costa, 1992 quoted from Pervin, 2001). This study is consistent with the findings of Roccas and et al (2010). In their study, a positive relation was obtained between Agreeableness factor and being benevolent. Benevolent people care much about the welfare of others. Therefore, in their study, there as found a negative relationship between agreeableness factor and development and power.

There was a significant positive correlation between Extraversion and Courage, these two dimension have many common features; lively, active, energetic and full of excitement (Seligman, 1998). On the other hand, extroverted individuals are very lively and emotion-seeking which lack of prevention is also a feature of them. In Roccas’s and Sagiv’s research (2010), Extraversion factor has a positive and significant relationship with development, irritation and gratification. These findings support the notion that extraverts are dare worker, social and active people.

People who score high in Conscientiousness are the people who are organized, reliable and punctual and they do not only think of their own interests. It can be expected they can gain a high score in humanity.

Neuroticism was negatively associated with all the six virtues but only with courage was found a negative relationship. In explaining these findings, we can say that, because neurotic people have more negative emotions and often suffer from anxiety which is inconsistent with the vitality and hyperactivity in courage. In a study there was found a low negative correlation between neuroticism and personal values (Schwartz, 2010). In fact this scale is the only personality factor that a high score on it is not desirable. These people are faced with emotional problems, anxiety and depression.

Wisdom had not a significant relationship with any of the five factors. In the field of justice and Temperance was not found significant relationship with the five factors. Few of the
findings may be related to the small number of questions used to measure any virtue.

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