ARTÍCULO DE INVESTIGACIÓN

GENDER RELATIONS AND DIFFERENCES BETWEEN GRATITUDE AND PERSONALITY IN UNIVERSITY STUDENTS OF LIMA-PERÚ

RELACIONES DE GÉNERO Y DIFERENCIAS ENTRE GRATITUD Y PERSONALIDAD EN ESTUDIANTES UNIVERSITARIOS DE LIMA-PERÚ

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Abstract

This study established the relation between gratitude and personality of Peruvian university students residing in Lima; throughout a descriptive correlational design. The sample was composed/conformed by 200 university students living in Lima and it was used the Gratitude Scale developed by Alarcón and the Scale of five factors of Personality by Costa & McCrae.; Both Scales shown a remarkable degree of reliability and validity. Significant relationship between gratitude, Neuroticism, Responsibility and Kindness factors were found in the research; likewise, there were found significant differences according to each sex.

Keywords: personality; gratitude; university students.

Resumen

Este estudio determinó la relación entre la gratitud y la personalidad en estudiantes universitarios de Lima-Perú a través de un diseño descriptivo correlacional. La muestra estuvo conformada por 200 universitarios residentes en Lima, y usando la escala de Gratitud de Alarcón y la escala de Cinco factores de la personalidad de Costa & McCrae, los cuales demostraron altos niveles de fiabilidad y validez, se encontraron relaciones significativas entre la gratitud y los factores de Neuroticismo, Responsabilidad y Amabilidad. También se encontraron diferencias significativas según sexo.

Palabras clave: personalidad; gratitud; estudiantes universitarios.

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Introduction

The study of positive emotions and their influence in people's health is a topic that gets more importance every day. One of these positive emotions is gratitude (Mikulincer & Shaver, 2008). Even though research about gratitude is relatively new (Lambert, Fincham, Stillman, & Dean, 2009), the systemic review of McCullough, Kilpatrick, Emmons and Larson (2001) shows evidence that gratitude promotes prosocial behavior, like strengthening social networks and friendship, as well as satisfaction of life and happiness and It represents a broader attitude towards noticing and appreciating the positivity in life (Wood, Froh, & Geraghty, 2010). Given its importance in mental health, authors like Bartlett and DeSteno (2006), Bono and McCullough (2006) show the usefulness of its introduction in clinical environments to reduce depression and anxiety in the patients.

The term gratitude has been defined from different aspects, including it as a moral virtue, an attitude, an emotion, a habit, a personality trait, and a learned response (Emmons, Mc Cullough, & Tsang, 2003; Emmons & McCullough, 2003). Usually it is defined as the recognition and appreciation of an altruistic behavior (Emmons & McCullough, 2004). Gratitude results from recognizing in others a good will and appreciation for generosity and altruism received from them (Lazarus & Lazarus, 1994). For Tsang (2006) it is a positive emotional response for having received a benefit that is perceived as a result of good intention from others. Woody, Maltby, Stewart, Linley and Joseph (2008) find evidence that corroborates this definition, because the perceived benefit has a causal effect in the feeling of gratitude.

For Emmons and McCullough (2004) gratitude can be conceptualized using three propositions. First, the object of gratitude is always other (it can be a person, a divinity, a thing). Second, gratitude is a response when receiving a personal benefit (material, emotional o spiritual) as a result from the action of others. Third, gratitude comes from evaluating the actions of benefactors as intentional, even when these intentions are metaphorical. Other authors structure the concept of gratitude in dimensions. Thus, Fitzgerald (1998) identifies three components: 1) A sense of appreciation for something or someone, 2) a sense of good will towards that person or thing, 3) a disposition to act positively towards that person or object. In effect, Emmons and McCullough (2003) indicate that gratitude -as an emotion- is an attributional - dependent state that results from two cognitive processes: 1) acknowledge that a positive or favorable result has been obtained, and 2) acknowledge that that result is obtained thanks to an external source.

There are many psychometric instruments to measure gratitude. One of the most popular is the one developed by McCullough, Emmons and Tsang (2002), consisting on a self-reporting scale to measure the individual differences in the disposition towards gratitude (The Gratitude Questionnaire - 6). In Peru, Reynaldo Alarcon has developed a scale of his own to measure gratitude, considering the region's idiosyncrasy and language.

Gratitude has been related to other constructs of positive psychology and prosocial behaviors, such as happiness, satisfaction for life, empathy, general wellbeing, attachment, spirituality, among others (Bono & Froh, 2009; Froh, Kasdan, Ozimkowski, & Miller, 2009; Friedman & Toussaint, 2006; Emmons & McCullough, 2003; McCullough et al., 2002). And also, this benefits the individual in a social context by cultivating interconnectedness and strengthens relationship with others (Emmons, 2012). Nevertheless, recently, it has been shown a growing interest to analyze it in function to the individual differences. The relationship between gratitude and personality has been shown in different studies.

Chen, Chen, Kee and Tsai (2009) found a significant relationship between gratitude and the dimensions of agreeableness (kindness) and Extraversion of the Big Five, in a sample of Taiwanese university students. Some studies find a relationship between gratitude and neuroticism (eg. McCullough et al., 2002; Wood, John, Raphael, Linley, & Joseph, 2008; Wood, Joseph, & Maltby, 2008; Wood, Maltby, Stewart, Linley, & Joseph, 2008). But other studies don't find significant relationships between both constructs (eg. Chen et al., 2009; Neto, 2007). These inconsistent associations between gratitude and neuroticism should be researched.

Given these discrepancies, it is necessary to research the relationships between gratitude and personality in the Latin American context but with a scale designed and validated for the region's idiosyncrasy. Thus, in the present research, the relationships and differences are analyzed -considering also the gender- between gratitude, using Reynaldo Alarcon's scale and personality, using the Big Five Neo PII-R (Costa & McCrae, 1992), in its version adapted to Peru, and that measures the five factors of personality: Extraversion, Kindness, Openness towards Change, Neuroticism and Responsibility.

Method

Design and participants

The present is an empirical research using a descriptive correlational design, which had 200 university student as participants. The students were men and women among 17 and 28 years old, residing in Metropolitan Lima; and with an age average of 20.55 years.

Material

The Gratitude Scale, developed by Reynaldo Alarcon in Peru, was used. The reliability and validity of the instrument was analyzed. As for the reliability, the Cronbach's Alpha Coefficient was used to measure the internal consistency of the scale. Given that it is assumed that it is a unidimensional construct, the analysis is done over the total of items (n＝18). In that respect, a high Alpha Coefficient has been found (Alpha＝0.918) with inter-item correlations -previous correction of attenuation- that oscillates between r＝289 and r＝.772. The validity of the Gratitude scale was elevated using the Analysis of Main Components. Given that the unidimensional nature of the scale is assumed, a factorial solution was obtained forcing the extraction to a single component. Under this procedure, the variance explained represents the 45.6% with an Eigenvalue (autovalue) over 8 points. From the commonalities analysis, it is found that items 11 and 06 are the ones that contribute the least to the factor commonality (.124 and .091, respectively). These two items, are the ones that contributed the least to the reliability of the scale. If the Eigenvalue higher to a unit is used as a criteria for extraction, a four factor solution is obtained, explaining the 65.517% of the data variance.

On the other hand, in order to measure the personality traits, the Scale of Five Factors of Personality of Costa & McCrae (version of 240 items) was used. Costa y McCrae (1985) publish the Inventory of the five factors, The Personality Inventory (NEO-PII), composed of 185 items established in a scale from one to five, so that the person answering marks that level with which he/she identifies hi/her behavior. This instrument has been translated to over 40 languages, and the studies of its factorial structure, validation and adaptation have taken place in over 30 cultures (McCrae & Allik, 2002). Transcultural researches of the NEO-PII applied to cultures of indoeuropean languages and others, collecting a vast sample of descriptive adjectives of features, generally conduct to the representation of the five big factors, from which it can be deducted that a universal generalization of them is probable (McCrae, 2003). In 1992, Cost & McCrae present NEO-PII-R, a revised version of NEO-PII, adding the dimensions comprising the factors kindness and responsibility which were not present in the first version. 60 items are added, having the test composed by a total of 240.

Extraversion Factor (E): People who have a high score on E are sociable, prefer group activities instead of the lone ones, are dominant and have a hard time staying still, besides they require of stimuli that provoke strong emotions in them, have strong optimistic attitudes towards life. Low scores, remit to introversion, portrayed by little social activity, a preference to solitude than being part of a group, passivity and tranquility, besides they prefer stimuli that don't trigger strong emotions, pessimism predominates in relationship to their lives. This factor, in NEO-PII comprises: cordiality, gregariousness, assertiveness, activity, and search for emotions.

Factor (A): Kindness (Agreeability). Kind people are cooperative and altruistic. People who score high in A, show a tendency towards empathy and the value of needs of the others; while those who score low are selfish, manipulative and with a low moral conscience. This factor allows to identify the tendency of antisocial and narcissistic personality features. The NEO-PII inventory, includes: trust, sincerity, altruism, conformism, modesty and understanding.

Factor (R): Responsibility. It establishes the degree or organization and persistence in the behavior directed

towards a goal. The scrupulous person is decided and perseverant, motivated by the achievement of goals. The high values in *R* are related with the search of efficacy in academic and work achievements, although they can also indicate a tendency to a behavior of work addiction. The NEO-PII, includes: competency, order, achievement, aspirations, self-discipline and deliberation. Excessively high scores make probable the presence of indicators of an obsessive personality trait, low scores are related to an antisocial personality disorder and opposition behavior.

Factor (N): Neuroticism. It implies an incapacity to manage negative emotions, which interfere in that person's activities. Individuals that get high scores in this factor show high levels of anxiety and emotional disturbance; while the lowest scores show a tendency towards stability and adequate emotional control. The NEO-PII includes: anxiety, hostility, depression, social phobia, impulsivity, vulnerability to stress. This is a factor that gets high levels of concordance with scales measuring anxiety and depression.

Factor (O): Openness towards experience. Evaluates the search for experiences, the taste for the unknown and the tendency to explore. Open people tend to experiment with new ideas and look to live new experiences, they experiment emotions with intensity and are creative.

In the present study, almost all dimensions have positive significant correlations between them, except for the neuroticism factor. Reliability values by internal consistency (Cronbach's Alpha) are satisfactory, as shown in table 1.
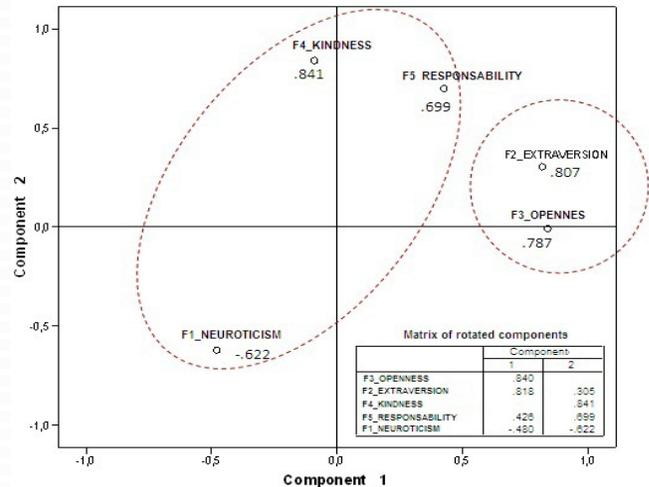

Figure 1. Factorial structure of the Big Five (KMO=.727; X^2=244.3, gl=10, p<001; Explained variance = 69.364%)

As shown in figure 1 validity analysis of the construct shows the theoretical soundness of the instrument. In effect, openness and Extraversion form just one component, while kindness and responsibility, other. Neuroticism shares both components in a negative way, but with a higher factorial weight on the second one. These relationships are coherent with the theory.

Procedure

The sample was intentionally selected by university, considering students from all years in the social sciences careers. Both instruments were applied at the same time, in an average time of 20 minutes. Before administration of instruments; students received detailed

Table 1. Correlations and reliability matrix by internal consistency (at a subscale level) of the Big Five.

	Media	DE	Cronbach's Alpha	Neuroticism	Responsibility	Kindness	Openness
Neuroticism	89.08	18.01	.759	1			
Responsibility	115.79	19.99	.844	-,543(**)			
Kindness	111.68	15.9	.691	-,293(**)	,370(**)		
Opennes	111.41	15.12	.659	-,259(**)	,288(**)	,135	1
Extraversion	113.75	19.9	.793	-,528(**)	,490(**)	,193(**)	,520(**)

** The correlation is significant at 0,01 level (bilateral). N=200

information about the research in order to decide their voluntary and free participation which was confirmed by signing the informed consent form). Students filled in the instruments in rooms isolated from external noise and distractions, afterwards, they placed them in a container, guaranteeing anonymity of their answers. The data, previously validated, were tabulated in a matrix of the 22nd version of the statistical program SPSS, analyzing the data by descriptive an association techniques.

Results

Gratitude and personality according to gender

There are significant differences in the levels of gratitude according to gender. In general, it has been found that women have higher levels of gratitude than men ($F = 9.522$, $gl = 1$, $p < 0.05$) as shown in table 2.

Table 2. Gender differences in the gratitude scale.

Gender	Media	Standard deviation
Men (n=100)	72.1300	10.91996
Women (n=100)	77.1000	11.83856
Total	74.6150	11.62983

Anova ($F = 9.522$, $gl = 1$, $p < 0.05$)

As shown in figure 2 there are similar differences in the personality factors according to gender. Except for the scale of Neuroticism, were the averages are similar for men and women ($F = .000$, $gl = 1$, $p < 0.988$), in the other factors, women have higher levels of Extraversion, Openness, Kindness and Responsibility.
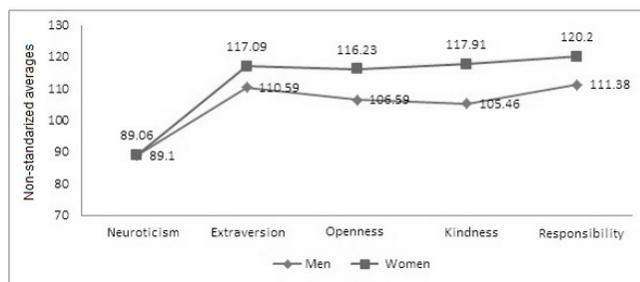

Figure 2. Differences in the gratitude scale, by sex (non-standardized averages). Anova: Neuroticism ($F = .000$, $gl = 1$, $p < .988$); Extraversion ($F = 5.747$,

$gl = 1$, $p < 0.017$); Openness ($F = 22.52$, $gl = 1$, $p < 0.01$); Kindness ($F = 36.055$, $gl = 1$, $p < 0.01$); Responsibility ($F = 10.177$, $gl = 1$, $p < 0.01$)

Gratitude and personality

There are significant correlations between the gratitude scale and three factors of personality. These are: Kindness ($r = .293$, $p < 0.01$), Responsibility ($r = .221$, $p < 0.01$) and -in an inverted sense- with Neuroticism ($r = -.149$, $p < 0.05$). A significant relationship between gratitude and the factors Extraversion and Openness has not been found, as shown in figure 3.
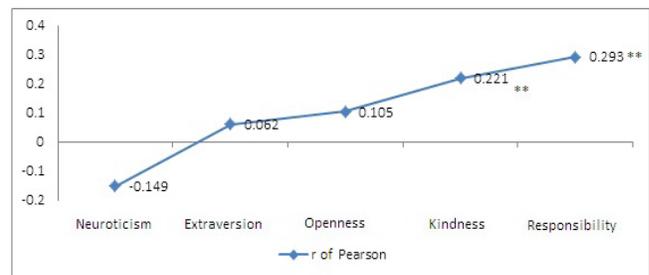

Figure 3. Magnitudes of correlation between the scale of gratitude and the factors of personality of Costa & McCrae. * $p < 0.05$; ** $p < 0.01$; n=200

Given that there isn't any correlation between gratitude and the factor of Openness towards experience, there haven't been found significant correlations between gratitude and the dimensions of that factor either. Nevertheless, in the case of the dimensions of the Extraversion Factor, there exists a significant relationship between gratitude and Cordiality (($r = .15$, $p < 0.05$). In the case of the dimensions of the Factor Neuroticism, there exists a relationship between gratitude and Hostility ($r = -.233$, $p < 0.01$) and with Vulnerability too ($r = -.151$, $p < 0.05$). In the case of the dimensions of the Factor Responsibility, there exists a relationship between gratitude and Competency ($r = .196$, $p < 0.05$), and Order ($r = .206$, $p < 0.05$), and Sense of Duty ($r = .265$, $p < 0.01$) and Self-Discipline ($r = .177$, $p < 0.05$). In the case of dimensions of the Factor Kindness, there exists a relationship between gratitude and Trust ($r = .289$, $p < 0.01$), and Frankness ($r = .227$, $p < 0.01$), and Altruism ($r = .164$, $p < 0.05$), and Conciliating Attitude ($r = .152$, $p < 0.05$) and with Sensitivity towards the others ($r = .199$, $p < 0.05$), as follows in figure 4.
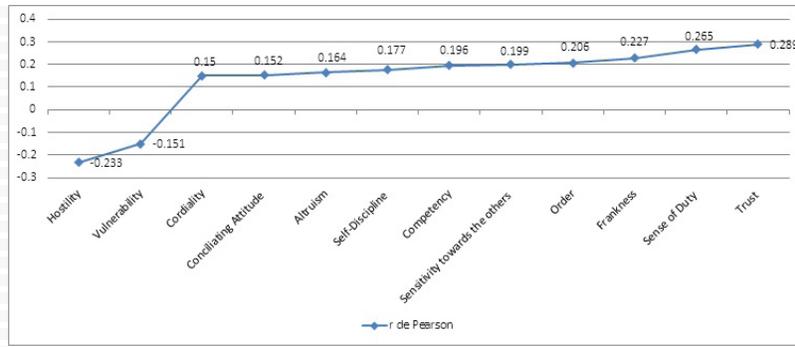
Figure 4. Magnitudes of correlation between the scale of gratitude and the dimensions of the personality factors of Costa & McCrae (only the significant relationships have been included).
* p<0.05; ** p<0.01; n=200

Given that the factors or personality are very correlated between them, partial correlations are done, controlling collinearity between the factors of the Big Five.

Table 3. Regression coefficients and partial correlation between the Big Five dimensions and the Gratitude Scale

	Non-standardized coefficients		Beta standardize coefficients	t	Sig.	Correlations		
	B	Typ. Error				Order zero	partial	Semi-partial
(Constant)	48.673	12.267		3.968	.000			
F1_NEUROTICISM	-.027	.056	-.042	-.487	.627	-.149	-.035	-.033
F2_EXTRAVERSION	-.071	.054	-.121	-1.303	.194	.062	-.093	-.088
F3_OPENNES	.064	.061	.083	1.049	.296	.105	.075	.071
F4_KINDNESS	.175	.054	.239	3.250	.001*	.293	.227	.220
F5_RESPONSIBILITY	.084	.051	.145	1.660	.099	.221	.118	.112

R= .331, R^2= .11, Anova (F=4.778, gl=5, p<0.001)

In the Table 3 it can be observed that only the Kindness factor is significantly correlated with Gratitude when the other personality factors are controlled. Kindness explains the 11% of our gratitude scale. On the other hand, the analysis of partial correlations shows that the correlations of the other factors Responsibility and Neuroticism are explained by the association of these last ones with kindness.

Discussion

It has been found that women have more levels of gratitude than men. These values are consistent with some previous research, which find similar results. Since a long time ago, Baumgarten-Tramer (1938) found that men show less gratitude feelings in social situations than women. Similar results have been found in different transcultural studies (Ventimiglia, 1982; Krause, 2006).

Even though some authors differentiate between types of gratitude. For example, Gordon, Musher-Eizenman, Holub and Dalrymple (2004) found that girls express more gratitude towards social relationships, whereas boys show more gratitude towards material possessions. Other authors like Sommers and Kosmitzki (1988) find -through a transcultural study- that male adults see gratitude less useful in comparison to other positive emotions like love,

enthusiasm, hope, compassion and pride. Similar results were found by Schwartz and Rubel (2005).

Significant correlations have also been found -although moderate ones- between the gratitude scale and three personality factors: Kindness, Responsibility and -in an inverted sense- with Neuroticism. These data suggest that, for the Peruvian case, grateful people tend to be kind, responsible and less neurotic.

Chen et al. (2009), found low and moderate positive correlations between gratitude and optimism, agreeableness and extraversion, suggesting that grateful individuals are more enthusiastic, altruistic, genuine, pleasant and optimistic. These authors didn't find correlations between gratitude and neuroticism, and -unlike this study- they did find correlations with extraversion (although very weak ones).

McCullough et al. (2002), found similar results, as gratitude measured with the GQ-6 was correlated positively and significantly with agreeableness, extraversion and in a negative way with neuroticism. Performing ONE analysis of multiple regression, they find that personality predicts 23% of gratitude, but only considering agreeableness, neuroticism and extraversion (study 4). In the present study it has been found that Kindness (agreeableness) predicts 11% of gratitude. The other two factors (Responsibility and Neuroticism) didn't show predictive correlations, once controlled by partial correlations with the Kindness factor.

The contribution of the study lies in the confirmation of the strength of research instruments which could be applied in other researches. In addition, the found results according to each sex type, offer a guide to develop intervention projects in different populations, because gratitude is expected for many reasons. As well as being considered a good feeling it was shown to be positively connected to positive feelings such as warmth, alertness and a better state of mind; moreover, important physiological changes such as low blood pressure and a stronger immune system.

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