

## Research Articles

# Roles of Personality Types, Emotional Intelligence and Gender Differences on Prosocial Behavior

Olukayode A. Afolabi\*\*a

[a] Adekunle Ajasin University, Akungba-Akoko, Nigeria.

## Abstract

Due to dearth of research on prosocial behavior (PSB) among undergraduates in Nigeria, this study investigated the influence of five –factor personality factors (FFP), emotional intelligence (EI) and gender differences on prosocial behavior (PSB) among undergraduates in Nigeria. Cross-sectional survey design was adopted to tap information from 200 randomly selected undergraduates. They responded to a carefully designed questionnaire with 4 sections. Five hypotheses were tested. The results showed that there were significant relationships between the variables of study. The first step in the hierarchical regression showed that the independent and joint contributions of age, gender, religion and educational level on PSB were not significant. The second step which involved the FFP did not have significant independent and joint contribution on PSB except for conscientiousness [ $R^2 = .34$ ,  $t = 7.08$ ;  $p < .01$ ]. In the third step EI also had no significant contribution but the overall joint contribution (with other variables) to PSB increased to 35.3%. However, high EI increased PSB [ $t(198) = 12.36$ ;  $p < .01$ ] but gender did not have significant effect on PSB. The findings were discussed based on the existing literature and important recommendations were made.

*Keywords:* personality, emotional intelligence, gender, prosocial behavior, undergraduates

Psychological Thought, 2013, Vol. 6(1), 124–139, doi:10.5964/psyct.v6i1.53

Received: 2012-11-29. Accepted: 2013-02-17. Published: 2013-04-30.

\*Corresponding author at: Department of Pure and Applied Psychology, Adekunle Ajasin University, P.M.B. 001 Akungba-Akoko, 34-234 Ondo State, Nigeria. E-mail: afolabi95@yahoo.co.uk



This is an open access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/3.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

## Introduction

At one time or the other an individual must take or be involved in voluntary actions that are intended to help or benefit another individual or group of persons, this is referred to as prosocial behavior (Eisenberg, Fabes, & Spinrad, 2006). This definition refers to the consequences of a doer's actions rather than the motivations behind those actions. These behaviors, (according to Knickerbocker, 2011), include a broad range of activities: sharing, comforting, rescuing and helping. Though prosocial behavior can be confused with *altruism*, they are, in fact two distinct concepts. Prosocial behavior refers to a pattern of activity, whereas altruism is the motivation to help others out of pure regard for their needs rather than how the action will benefit oneself (Chou, 1998).

This definition carefully circumvents the potential benefits to the person performing the prosocial behavior. Prosocial behavior (PSB) is often accompanied with psychological and social rewards for its performer (Knafo, Weiner, & Dubrovsky, 2011). In the long run, individuals can benefit from living in a society where prosociality is common (which in evolutionary terms, increases reproductive potential). Behaviors benefitting others but whose main goal is self-advantageous (e.g. cooperative behaviors intended to obtain a common resource, typically are

not considered prosocial). Typical examples include volunteering, sharing toys or food with friends, instrumental help (like helping a peer with school assignments), costly help (like risking one's life to save others), caring for a sick person and emotionally supporting others.

As prosocial behavior research shows, the salience of this principle (the internalized norms and values) triggers the prosocial actions. Empirical evidence shows that they are the personal features of individuals, rather than situational factors, which determine the salience of the norm (Valor, 2006).

### Why People Help

In general, approaches to the question of why people help have been focused on three types of mechanisms: (a) learning, (b) social and personal standards and (c) arousal and affect (Penner, Dovidio, Piliavin, & Schroeder, 2005). The learning explanation applied general principles from learning theories, particularly operant conditioning and social learning, to the acquisition of helping skills and of beliefs about why these skills should be used to benefit others (Grusec, Davidov, & Lundell, 2002). Socialization experiences and developmental factors received considerable attention within this framework. The social and personal standards approach emphasized how norms such as social responsibility and reciprocity can promote helping as people strive to maintain positive self-images or achieve their ideals and fulfill personal needs. Arousal and affect approaches recognized the important role that emotion plays in motivating prosocial action. Affect is a fundamental element of many potential helping situations. People are aroused by the distress of others; this reaction appears even among very young children and occurs across culture.

People have been particularly intrigued with the causes of altruism, which is the desire to help another person even if it involves a cost to the helper. One approach is evolutionary psychology which attempts to explain social behavior in terms of genetic factors that evolved over time according to the principles of natural selection. According to this approach (Nettle, 2006; Simpson & Beckes, 2008), PSB has genetic roots because of the following reasons: people further the survival of their genes by helping genetic relatives; there is a survival advantage to following the norm of reciprocity, whereby people help strangers in the hope that they will receive help when they need it; and there is survival advantage to the ability to learn and follow social norms of all kinds, including altruism.

Also, social exchange theory argues that much of what we do stems from the desire to maximize our rewards and minimize our costs. It is based on self-interest which has no genetic basis. Here, helping can be rewarding in three ways: it can increase the probability that someone will help us in return in the future; it can relieve the personal distress of the bystander; and it can gain us social approval and increased self-worth (Aronson, Wilson, & Akert, 2010). Helping can also be costly; thus, it decreases when costs are high. The theory presumes that people help only when the rewards outweigh the costs.

### Five-Factor Personality Types and PSB

Personality traits are "dimensions of individual differences in tendencies to show consistent patterns of thoughts, feelings and actions" (McCrae & Costa, 1990). These traits shape how individuals direct their attention and activate specific goals (McCrae & Costa, 1995). Certain traits direct attention outwardly towards others, leading to individuals to pay attention to others' needs and recognize opportunities to help others (Coté, DeCelles, McCarthy, Van Kleef, & Hideg, 2011; Grant & Mayer, 2009). In a situation involving social dilemma, when individuals must decide whether to benefit the common good or the self, compassion may facilitate prosociality and pride may stand in the way of cooperation (Oveis, Horberg, & Keltner, 2010).

Prosocial tendencies give rise to responsible and helpful behavior, constructs that characterize agreeableness; PSB requires self-regulation and self-control, constructs that define conscientiousness (Caspi, Roberts, & Shiner, 2005). Agreeableness and conscientiousness have been concurrently and prospectively linked to PSB during adolescence (Pursell, Laursen, Rubin, Booth-LaForce, & Rose-Krasnor, 2008; Shiner, 2000). It was concluded that the construct of PSB overlaps considerably with the constructs of agreeableness and conscientiousness.

Taken together, the findings are consistent with the view that cooperative, helpful behavior is uncharacteristic of aggressive, antisocial individual. Given their conceptual overlap, it is not surprising that evidence ties PSB to agreeableness and conscientiousness.

Another study (Carlo, Okun, Knight, & de Guzman, 2005) designed to test several pathways by which agreeableness, extraversion and prosocial value motivation to volunteer influence volunteerism. Results showed that prosocial value motivation to volunteer partially mediated the relations between agreeableness, extraversion and volunteering. Furthermore, as agreeableness decreased, extraversion was more strongly related to prosocial value motivation to volunteer. In contrast, there was no support for the pathway in which extraversion and prosocial value motivation to volunteer jointly affect volunteering.

Additional research has focused on other personal attributes and their relationship to PSBs. Variability in the agreeableness dimension from the Big Five theory of personality might result in differences in people's propensity to act prosocially (Graziano & Eisenberg, 1997). Other personality traits strongly associated with agreeableness also have been shown to correlate with prosocial actions. Thus, highly agreeable workers are likely to engage in prosocial behavior. Also, King, George, and Hebi (2005) presented and tested a theoretical argument for expecting conscientiousness to interact with interpersonal dimensions of personality in predicting helping behaviors. The results revealed significant interactions between conscientiousness, on the one hand, and agreeableness, extraversion and emotional stability, on the other, in predicting helping behaviors.

Del Barrio, Aluja, and García (2004) also explored the relationships between an index of empathy and the Big Five personality model in a sample of 832 Spanish adolescents. The result showed that empathy correlates strongly with friendliness. There were also positive correlations with conscientiousness, energy and openness traits.

The issue of whether humans are altruistically motivated to behave in prosocial manner has been at the centre of debate for many years. Feeling empathy for another individual has been found to be crucial in the decision to act prosocially, for example, to help an individual in need.

### **Emotional Intelligence (EI) and PSB**

Emotional intelligence, according to Salovey and Mayer (1989), and Afolabi (2004), is the "ability to monitor one's own and others' feelings and emotions, to discriminate among them and use this information to guide one's thinking and actions". Individuals high on emotional intelligence defer immediate gratification and exhibit self-control in order to optimise pleasure over their lifetime. Also, they display enlightened self-interest by engaging in activities that are both pro-individual and pro-social (Goleman, 1995). Findings suggest that lower emotional intelligence is related to involvement in self-destructive behaviors such as deviant behavior and cigarette smoking (Brackett & Mayer, 2003; Brackett, Mayer, & Warner, 2004), whereas higher emotional intelligence is related to positive outcomes such as prosocial behavior, parental warmth and positive peer and family relations.

Previous studies using a variety of self-report measures have shown that EI is associated with important social outcomes, including social adjustment (Engelberg & Sjöberg, 2004), altruism and civic virtue (Charbonneau & Nicol, 2002) and leadership potential (Barling, Slater, & Kelloway, 2000). Generally, studies have shown that EI ability is related to greater empathy (Ciarrochi, Chan, & Caputi, 2000), less negative interactions with peers (Brackett, Mayer, & Warner, 2004), high quality relationships, less conflicts and antagonism with friends.

In a study by Charbonneau and Nicol (2002), the relationship between EI and prosocial behavior in 134 adolescents involved in a 6-week training camp run by the Military was investigated. They were asked to evaluate themselves on EI and randomly chosen peers evaluated them on PSBs, the results showed that there were relationships between EI and altruism ( $r = .25, p < .01$ ) and civic virtue ( $r = .24, p < .01$ ). The same way, Li-Chu (2010) found that the better the EI, the more active the PSB of elementary school students.

### Gender Differences and PSB

Women are more sensitive to corporate giving and tend to allocate higher budgets to social causes (Valor, 2006). A study by Williams (2003) found that firms having a higher proportion of women serving on their boards engage in philanthropic contributions to a greater extent than firms having a lower proportion of women serving on their boards. In addition, the influence of gender on altruistic behavior has been considered, studies concluding that – in general terms – women are more inclined to help and to do it quickly (Rushton, 1982), and the principle of social responsibility being more salient in women than in men (Smithson, Amato, & Pearle, 1983). This is because “based on gender roles, females generally are expected and believed to be more responsive, empathetic and prosocial than males whereas males are expected to be relatively independent and achievement oriented” (Eisenberg, Fabes, & Spinrad, 2006; Seefeldt, 2008).

Nonetheless, under certain situational factors (e.g. when an individual’s behavior is observed, when helping implies performing an activity, or when the intervention is perceived as risky) men are more willing to help (Dovidio, Piliavin, Gaertner, Schroeder, & Clark, 1991). Charbonneau and Nicol (2002) also found that girls scored somewhat, but not significantly, higher than boys on altruism and civic value.

Zakriski, Wright, and Underwood (2005) examined how a contextualist approach to personality can reveal social interactional patterns that are obscured by gender comparisons of overall behavior rates. They found that for some behaviors (verbal aggression), girls and boys differed both in their responses to social events and in how often they encountered them, yet they did not differ in overall behavior rates. For other behaviors (prosocial), gender differences in overall rates were observed, yet boys and girls differed more in their social environments than in their responses to events. Recently, the *two cultures* view has suggested that boys and girls differ in their social behavior largely because their sex segregated peer groups elicit behaviors that may not be characteristic of them in other social contexts (Maccoby, 2002; Zakriski, Wright, & Underwood, 2005).

Another study also concluded that girls tend to score higher than boys on indices of PSB and externalizing problems (Pursell et al., 2008). Besides, Dietz, Kalof, and Stern (2002), in their study found that women placed more importance on the social psychological value of altruism than did men. The authors projected that this difference could be due to the differences in socialization of men and women. This is because women are socialized to have concern for others and to take care of one another, while men are mainly socialized to be in competition with each other.

However, in another study by [Chou \(1998\)](#) he found that there was no gender difference in volunteer activities on altruistic behaviors. Also, a meta-analysis conducted by [Eagly and Crowley \(1986\)](#) found that when looking at actual number of altruistic behaviors, men perform altruistic acts more than women. See also, [Ma \(2005\)](#) investigated the relation between gender-role classification and prosocial and anti-social behavior for 505 Chinese adolescents in grades 7 to 12. The author found that there was no significant gender difference in PSB and that PSB was associated positively with both masculinity and femininity.

Although PSB among students is associated with many positive outcomes, few studies have examined the factors that contribute how individual characteristics contribute to PSB. This study examined the personality, emotional intelligence and gender differences as predictors of PSB. The review of the literature suggests that there is still much to learn about gender stereotypes that may accompany adults' perceptions of PSB. It is therefore the purpose of this paper to investigate the roles of the five-factor personality, emotional intelligence and gender on prosocial behavior of undergraduates in Nigeria.

### Statement of Problem/Purpose of Study

A lot of social psychological research focused on anti-social behavior. Only few have actually investigated PSB. The few ones on PSB have usually been among children and infants or the aged. There is virtually none that tried to investigate PSB among youths/undergraduates. For this reason, this paper looked at the other side of the coin and focused on prosocial behavior, specifically helping behavior and altruism among undergraduates in Nigeria. It investigated the contributions of the five-factor personality attributes, emotional intelligence and gender differences on prosocial behavior. Thus, based on the literature reviewed, the following hypotheses were tested:

1. There would be significant relationships between the variables of study
2. Sex, age, religion and educational level would independently and jointly predict PSB
3. Five-factor personality attributes would independently and jointly predict PSB
4. There would be a significant effect of emotional intelligence on PSB
5. There would be a significant effect of gender on PSB.

## Method

### Participants/Sample

Of the 200 participants who took part in this study, 108 (54%) were males, 92 (46%) were females. Their age ranges were 16-20 years - 34 (17%), 21-25 years - 136 (68%), 26-30 years - 26 (13%), 31-35 years - 3 (1.5%) and 36-40 years - 1 (0.5%). Their mean age was 24.57 and the standard deviation was 6.75. Based on religious affiliation, 178 (89%) were Christians, 12 (6%) were Muslims and 1 (0.5%) practiced traditional religion. Also, 16 (8%) were married while 18 (92%) were singles.

### Instruments

The instruments used to gather information was a carefully designed questionnaire comprising of sections A to D. Section A tapped information on demographic variables concerning age, sex, religion, educational level and marital status.

Section B contained a 25-item *emotional intelligence scale* by [Afolabi \(2004\)](#). The scale had five factors which were interpersonal skill – (items 1-5), mood regulation – (items 6-11), mood understanding – (items 12-16), mood

adjustment – (items 17-21) and self-knowledge – (items 22-25). Among work teams, Afolabi found an alpha reliability of .90 and a split-half reliability using the Spearman – Brown formula of .78. The 5 factors loaded with Eigen values exceeded 1.00. The least item loading of .48 on the factors satisfied the criterion of .30 for accepting the structure coefficient (Pedhazur, 1982). For the present study, an alpha reliability of .85 was found with a test-retest reliability of .80. Those who scored between 25 and 63 were low scorers while those scoring 64 and above were high scorers.

Section C contained a 60-item *five factor personality test* by Costa and McCrae (1992). This scale was used to measure five factors of personality, which included emotional stability, extraversion, openness to experience, agreeableness and conscientiousness. Coefficient alpha reliability estimates reported in the test manual were .87, .86, .82, .86 and .83 for emotional stability, extraversion, openness to experience, agreeableness, and conscientiousness respectively. Test retest reliability estimated over 4 months ( $N = 194$ ) were .82, .84, .70, .82, and .74 respectively as reported by the authors. Also, Afolabi (2004) in his study (using this scale) found coefficient alpha .73, .69, .72, .68 and .70 for neuroticism (emotional stability), extraversion, openness to experience, agreeableness, and conscientiousness respectively. For the present study, test-retest reliability estimates over 4 weeks ( $n = 50$ ) were .72, .74, .81, .68 and .75 respectively.

Section D contained a *12-item prosocial behavior scale* developed by the author for the purpose of this study. The development of the scale evolved from texts and the review of literature. Following a thorough review of related literature, the items for the scale were derived from theories and features of helping people. Sample items included: I enjoy helping others, It is Godly to work for the well-being of one's community, I feel fulfilled whenever I have helped somebody in need of assistance, etc. The scale had coefficient alpha of .81, test - re-test reliability of .77 and a split half reliability of .72. Besides, the scale also correlated positively with social responsibility scale by Rossi (2001) with  $r = .81$ .

**Scoring:** All scale items were scored in a manner that a high score reflected a high presence of the construct in question. Section B contained emotional intelligence scale where 1 indicated strongly disagree while 5 indicated strongly agree. It implied that low scores indicated low emotional intelligence. The reversed items were scored in such a way that 1 indicated strongly agree while 5 indicated strongly disagree. Section C on five-factor personality was scored with a slight difference. This is because the items measuring the factors were scattered on the scale. The items for each factor combined and scored as usual with 1 signifying strongly disagree and 5 strongly agree. Section D measuring prosocial behavior was scored in such a way that high score signified high need for achievement. Items 2 and 9 were reversed. Likert scoring format was used for all the scales.

## Procedure

The data for the research was collected at the Adekunle Ajasin University, Akungba-Akoko, Nigeria. This is because the undergraduates investigated in the study were actually the author's students. Also, the school was chosen because of accessibility and willingness of the participants to take part in the study.

A cross-sectional survey design was adopted in this study. This is because participants across various departments in the faculty were sampled. The variables of the study were not actively manipulated. The independent variables were emotional intelligence, the five-factor personality attributes and gender. The dependent variable was prosocial behavior.

Copies of the study questionnaire were administered to about 205 undergraduates. They were made up of randomly selected undergraduates in the departments of Economics, Geography, Political Science, Sociology and Psychology. At the end of the exercise, only 40 (10 from each of the 100-400 levels) copies of the questionnaire for each of the departments were returned for analysis. In summary, 40 questionnaires for each of the 5 departments totaling 200 were analyzed.

Administration of the study instrument was done after classes and participants were encouraged to fill and return them within 7 days with the assistance of their course lecturers. Following informed consent, and willingness to take part in the research, copies of the questionnaire were administered to the 42 carefully and randomly selected students in each of the Departments. In this case, it was designed in such a way that at least 10 copies of the questionnaire were administered to each of the levels 100 to 400 (that is, year 1 to 4). Those who could complete and submit them before the deadline were encouraged to return same to the researcher as soon as they were through. While administering the copies of the questionnaire, participants were neither forced nor intimidated to take part. Those who were too eager and those that were reluctant to take part were excluded. Eventually, it took the researcher some time to retrieve the study instrument back from the participants. This is because many of them claimed that they either forgot it at home or have misplaced it. Some (about 5) did not return theirs for analysis. The participants did not receive any remuneration for participating in the study.

Confidentiality was provided by writing on the research instrument instructing respondents not to identify themselves in anyway so as to guarantee their anonymity. The participants were also informed that the exercise was for research purposes only, and the results of the research would not be released in any individually identifiable way.

### Statistical Analysis

Five hypotheses were tested in this study. The first hypothesis was tested using Pearson product moment correlation ( $r$ ). Hypotheses 2 and 3 were tested using regression analysis while hypotheses 4 and 5 were analyzed using independent  $t$ -test.

## Results

The following are the results of the analyses carried out on the data collected from the field.

To test for the relationship that exist between the variables of study, Pearson product moment correlation (Pearson  $r$ ) was used and the result is presented on [Table 1](#) below.

The first hypothesis which stated that there would be significant relationship between the variables of study was partially confirmed. From [Table 1](#), the result of the socio-demographic factors shows that gender had no significant relationship with any of the other variables. Only religion was found to have significant negative relationships with two factors of personality which included extraversion [ $r_{198} = -.143$ ;  $p < .05$ ] and conscientiousness [ $r_{198} = -.177$ ;  $p < .05$ ]. All other socio-demographic variables were not significantly correlated. Emotional intelligence had significant relationships with each of the five-factors of personality. The relationships are with neuroticism, [ $r_{198} = -.323$ ;  $p < .01$ ], with extraversion, [ $r_{198} = .566$ ;  $p < .01$ ], with openness to experience, [ $r_{198} = .193$ ;  $p < .01$ ], with agreeableness, [ $r_{198} = .140$ ;  $p < .05$ ] and with conscientiousness [ $r_{198} = .579$ ;  $p < .01$ ].

Considering the relationship between the five-factors and prosocial behavior, it was noticed that only extraversion [ $r_{198} = .424$ ;  $p < .01$ ] and conscientiousness [ $r_{198} = .633$ ;  $p < .01$ ] had significant relationship with PSB.

Table 1  
Correlations Between the Variables of Study (N = 200)

	1	2	3	4	5	6	7	8	9	10	11
1. Gender	1										
2. Age	-.055	1									
3. Religion	-.054	-.089	1								
4. Educational Background	-.047	.222**	.071	1							
5. Neuroticism	-.032	.058	-.055	.019	1						
6. Extraversion	-.102	.073	-.143*	-.031	-.188**	1					
7. Openness	-.046	.082	.101	.044	-.099	.150*	1				
8. Agreeableness	.092	.010	.028	.056	-.218**	.102	.115	1			
9. Conscientiousness	.013	-.016	-.177*	.036	-.280**	.555**	.060	.175*	1		
10. Emotional Intelligence	-.078	.005	-.072	.002	-.323**	.566**	.193**	.140*	.579**	1	
11. PSB	.039	-.027	-.141	.004	-.067	.424**	.094	.075	.633**	.444**	1

\*p < .05. \*\*p < .01.

The results of the second and third hypotheses are shown in Table 2.

Table 2

*Hierarchical Regression Showing the Contributions of Each of the Variables to PSB (N = 200)*

Co-variates	Step 1	Step 2	Step 3
Gender	.034	.060	.061
Age	-.009	-.024	-.026
Religion	-.095	-.002	.002
Education Level	.039	.004	.001
Neuroticism		.123	.138
Extraversion		.136	.108
Openness to exp.		.030	.024
Agreeableness		.100	-.010
Conscientiousness		.098**	.507**
Emotional intelligence			.082
<i>R</i>	.106	.590	.594
<i>R</i> <sup>2</sup>	.011	.349	.353
$\Delta R^2$	.011	.337	.004
<i>F</i>	.498 [ <i>df</i> =(4, 177)]	10.226** [ <i>df</i> = (4, 172)]	9.314** [ <i>df</i> = (4, 171)]

\* $p < .05$ . \*\* $p < .01$ .

The first step in the hierarchical regression showed the contribution of the socio-demographic variables on PSB. The independent contributions of gender [ $R^2 = .011$ ,  $t = .445$ ;  $p > .05$ ], age [ $R^2 = .011$ ,  $t = -.125$ ;  $p > .05$ ], religion [ $R^2 = .011$ ,  $t = -1.271$ ;  $p > .05$ ] and educational background [ $R^2 = .011$ ,  $t = .519$ ;  $p > .05$ ] on PSB were not significant. The *R* square result showed that the contribution of these four demographic variables on PSB was just 1.1%.

The second step which involved the five factors of personality also did not have significant contribution on PSB except conscientiousness which had significant contribution to PSB [ $R^2 = .349$ ,  $t = 7.080$ ;  $p < .01$ ]. At this stage, the influence of the variables on PSB had increased to 34.9%.

In the third step, emotional intelligence was added. It had no significant contribution to PSB as well [ $R^2 = .353$ ,  $t = 1.032$ ;  $p > .05$ ] but the joint contribution based on the *R* square result on PSB increased (35.3%).

The results showed that the joint influence of sex, age, religion and educational level was not significant [ $F_{4, 177} = .498$ ,  $p > .05$ ]. At the second step, the five factors of personality were added. With the five factors (neuroticism, extraversion, openness to experience, agreeableness and conscientiousness), the joint influence on PSB was significant [ $F_{9, 172} = .226$ ,  $p < .01$ ]. At the third stage, emotional intelligence was added and the joint influence still remained significant [ $F_{10, 171} = 9.314$ ,  $p < .01$ ].

As shown in Table 3, the results of hypothesis 4 revealed that emotional intelligence had a significant effect on PSB. It implied that individuals with high emotional intelligence had high PSB [ $t = 12.36$ ;  $df = 198$ ;  $p < .01$ ].

As regards to hypothesis 5, Table 4 showed that gender had no significant effect on PSB. This implied that maleness or femaleness did not have any effect on PSB ( $t_{198} = -.544$ ,  $p > .05$ ).

Table 3

Summary of *t*-Test Showing the Effect of Emotional Intelligence on PSB

Variable		N	Mean	SD	t	Df	P
E.I.	Low	87	46.83	10.140	12.36	198	< .01
	High	113	52.98	5.943			

Table 4

Summary of *t*-Test Showing the Effect of Gender on PSB

Variable	Gender	N	Mean	SD	t	Df	P
PSB	Maleness	108	50.00	9.035	-5.44	198	> .05
	Femaleness	92	50.66	8.031			

## Discussion

This study investigated the roles of the Big Five personality factors, emotional intelligence and gender differences on PSB.

The first hypothesis which stated that there would be significant relationships between the variables of study was partially confirmed. This is because not all the variables had significant relationships with PSB. For example, extraversion had significant (negative) relationships with religion and neuroticism. By this, it means that extraversion reduced with religious affiliation. The same way, the higher the level of neuroticism, the lower the level of extraversion was. Further investigation showed that Christians scored higher on PSB than Muslims and traditional religious worshippers.

Also, openness to experience had significant positive relationships with extraversion. Knowing well that openness to experience describes the breadth, depth, originality and complexity of an individual's mental and experiential life thus it is expected that it should have link with extraversion.

Agreeableness was also found to have a significant (negative) relationship with neuroticism. As explained earlier, an agreeable individual contrasts a prosocial and communal orientation towards others with antagonism and includes traits such as altruism, tender-mindedness, trust and modesty. This is quite opposite of a neurotic individual that is moody, anxious and sad. On the other hand, conscientiousness had significant negative relationships with religion and neuroticism. That is, neurotic individuals are less conscientious. Conscientiousness describes socially prescribed impulse control that facilitates task and goal-directed behavior, such as thinking before acting, delaying gratification following norms and rules and planning, organizing and prioritizing tasks. Thus the higher the score on neuroticism was, the lower the level of conscientiousness was. There were also significant relationships between conscientiousness and extraversion, and agreeableness. These positive relationships are due to the fact that conscientiousness (which describes socially prescribed impulse control that facilitates task and goal-directed behaviors) involves following norms and rules, will naturally relate with agreeableness.

EI was also found to have a significant negative relationship with neuroticism. Neuroticism contrasts emotional stability and even-temperedness with negative emotionality, such as feeling anxious, nervous, sad and tense.

Therefore, it is not expected to have a positive relationship with emotional intelligence which involves monitoring and controlling one's and others' emotions. However, EI had positive relationships with extraversion, openness to experience, agreeableness and conscientiousness. Naturally, these personality factors have similar attributes with EI leading to the significant positive relationships. From the results, the relationships between PSB and extraversion, conscientiousness and emotional intelligence were significant. By this, it means that extraversion, conscientiousness and emotional intelligence enhance PSB. Thus, individuals high on these personality factors will have high PSB.

The second hypothesis which stated that age, gender, religion and educational level would independently and jointly predict PSB was not confirmed.

The meta-analysis (Eisenberg & Fabes, 1998) found that prosocial behavior increased with age, although the increases varied in size, depending on the methodological aspects of each study. In one study by Benenson, Pascoe, and Radmore (2007), about 60 percent of 4-year old children donated at least one of 10 stickers they received to a peer, and about 85 percent did so at age 9. The boost in prosocial behavior with age is attributed to developmental increases in cognitive abilities associated with detecting others' needs and determining ways to help, in empathy-related responding, and in the moral understanding of the importance of helping others (in Eisenberg, Fabes, & Spinrad, 2006).

Also, gender did not independently predict PSB. This is because gender researchers at times use context differences to "explain away" gender differences in PSB. Specifically, past research has suggested that gender differences in behavior occur partly because girls are less likely than boys to experience peer provocation, adult warnings and adult punishment, whereas girls are more likely to experience adult praise and peer talk. This is not also in support of Zakriski, Wright, and Underwood (2005) that claimed that girls are expected to show more conflict-reducing (prosocial and withdrawn) behavior in peer provocation. This is also not in agreement with the work of Eagly and Crowley (1986), who found that men are more likely to help in chivalrous, heroic ways, and women are more likely to help in nurturant ways involving long term commitment. It is however in support of the findings of Vaculik, Prochazka, and Kveton (2007) that gender has no effect on tendency to PSB but influences the tendency to demand PSB. Women have stronger tendency to demand PSB than men. This could be the reason why the contribution of education too was not significant because age grows with the level of education.

Like age and gender, religion did not have a significant contribution to PSB. This may be because effect of religion is the influence religion might have on those who are in a position to help someone in need. Such an influence can be attributed to individuals who may believe that helping others is a religious duty and that these people are more likely to volunteer help. Evidence, that prosociality as a function of religiousness is certainly a limited but still substantial reality, is in line with most psychological theories of religion, and is not a mere self-delusion of religious people, who are known to systematically perceive themselves as prosocial. The limits in scope and strength of prosocial behavior as a function of personal religion (prosociality towards close rather than unknown or outgroup targets; simple and low- rather than high-cost prosocial behavior; and avoidance of antisocial acts rather than heroic altruistic sacrifice of the self) may explain why the associations between religion and a variety of prosocial constructs are usually weak personality on behavior (Funder, 2001; Mischel, 2004). Thus, it is obviously important to distinguish between specific religious dimensions when studying prosocial behavior and values. Many studies tend to compare, for instance, extrinsic with intrinsic religious orientation, intrinsic with quest religion, fundament-

alism with quest religion, or literal with symbolic religious thinking (e.g. Batson, Anderson, & Collins, 2005; Fontaine, Duriez, Luyten, Corveleyn, & Hutsebaut, 2005; Saroglou, 2006).

The third hypothesis which stated that the FFP attributes would independently and jointly predict PSB was partially confirmed. Only the contribution of conscientiousness was significant. This finding is in line with that of Caspi, Roberts, and Shiner (2005) who concluded that prosocial behavior required self-regulation and self-control which were the constructs that defined conscientiousness. This is also in line with the work of King, George, and Hebi (2005) who have also found support for the significant interactions between conscientiousness, on the one hand and agreeableness and emotional stability, on the other hand, in predicting helping behavior. However, it is surprising that neuroticism, extraversion, openness to experience and agreeableness did not contribute significantly to PSB. This is because many studies have found significant results showing that these factors were actually important for PSB to take place (e.g. Carlo et al., 2005; Del Barrio, Aluja, & García, 2004; Graziano & Eisenberg, 1997). However, this present result may be due to the way the participants responded to the study instruments. This is because they might have interacted while filling the study questionnaire thereby biasing the responses.

The fourth hypothesis which stated that there would be a significant effect of EI on PSB was confirmed. This means that individuals who are highly intelligent emotionally will also be more prosocial than those that have low emotional intelligence. The result is expected because individuals high on EI defer immediate gratification and exhibit self-control in order to optimize the pleasure of their lifetime. Thus, they engage in behaviors that benefit others (Goleman, 1995). Another study by Brackett and Mayer (2003) and that of Brackett, Mayer, and Warner (2004) also confirmed the fact that EI was related to positive outcomes such as prosocial behavior. Even among elementary school children, Li-Chu (2010) found that the better the EI, the more active the PSB was.

The fifth hypothesis which stated that gender would have a significant effect on PSB was not confirmed. One would wonder why this result? This is because this outcome is not in line with many studies which have concluded that gender had significant effect on PSB (for example, Rushton, 1982; Smithson, Amato, & Pearle, 1983). Others found that based on gender roles, females were generally expected and believed to be more responsive, empathetic and prosocial than males. However, this finding is in line with the assertion by Charbonneau and Nicol (2002) that girls scored somewhat, but not significantly higher than boys on altruism and civic value just like Chou (1998) found that there was no gender difference in volunteer activities on altruistic behavior.

## Limitations of the Study and Implications for Future Research

The study of PSB has a long history. However, because of maturity of the area, there has been a decline in research attention to many traditional aspects of prosocial activity, that is, dyadic helping at the meso level. Yet, the study of prosocial activity still has much to contribute to psychology and other disciplines. Although it may still be valuable to refine current focused theories about when and why people offer help, it is the believe of the author to that the best way to maximize new contributions at this time is to adopt a more comprehensive perspective to PSB.

This study suffers from the common limitations of survey research that uses retrospective, self-reported measures. The most important problem with regard to surveys is that they are subject to social desirability bias. The respondents may not be able to recall very accurately the amount of helping behaviors they participated in over the years and so they tend to give a more positive answer. The fact that the survey was considered to be long, according to diverse respondents, would probably have had a negative effect on the vigilance during filling in the survey

which, for its part, would probably have had a negative influence on the validity. The length of the survey will presumably have had a negative influence on the rate of completed answers.

With regard to the sample size, it is very risky to make generalizing conclusions. The first concern is that few students of a faculty were used in this research. This is because the study was carried out without any financial assistance from any institution.

Future research should therefore, examine the patterns of PSBs in normative samples. It should also investigate the roles of cultural and religious differences including the effects of mood, environment, residential mobility, spirituality, narcissism, life satisfaction and bystander effect on PSB.

## References

- Afolabi, O. A. (2004). *Influence of five factor personality attributes, need for achievement and emotional intelligence on work team interaction processes in the Niger-Delta* (Unpublished doctoral dissertation). University of Ibadan, Ibadan, Nigeria.
- Aronson, E., Wilson, T. D., & Akert, R. M. (2010). *Social psychology* (7th ed.). Upper Saddle River, NJ: Pearson.
- Barling, J., Slater, F., & Kelloway, E. K. (2000). Transformational leadership and emotional intelligence: An exploratory study. *Leadership and Organization Development Journal*, 21(3), 157-161. doi:10.1108/01437730010325040
- Batson, C. D., Anderson, S. L., & Collins, E. (2005). Personal religion and prosocial motivation. In M. H. Maehr & S. A. Karabenick (Eds.), *Advances in Motivation and Achievement: Vol. 14. Motivation and religion* (pp. 151-185). Greenwich, CT: JAI Press.
- Benenson, J. F., Pascoe, J., & Radmore, N. (2007). Children's altruistic behavior in the dictator game. *Evolution and Human Behavior*, 28(3), 168-175. doi:10.1016/j.evolhumbehav.2006.10.003
- Brackett, M. A., & Mayer, J. D. (2003). Convergent, discriminant and incremental validity of competing measures of emotional intelligence. *Personality and Social Psychology Bulletin*, 29(9), 1147-1158. doi:10.1177/0146167203254596
- Brackett, M. A., Mayer, J. D., & Warner, R. M. (2004). Emotional intelligence and its relation to everyday behavior. *Personality and Individual Differences*, 36, 1387-1402. doi:10.1016/S0191-8869(03)00236-8
- Carlo, G., Okun, M. A., Knight, G., & de Guzman, M. R. T. (2005). The interplay of traits and motives on volunteering: Agreeableness, extraversion and prosocial value motivation. *Personality and Individual Differences*, 38(6), 1293-1305. doi:10.1016/j.paid.2004.08.012
- Caspi, A., Roberts, B. W., & Shiner, R. L. (2005). Personality development: Stability and change. *Annual Review of Psychology*, 56, 453-484. doi:10.1146/annurev.psych.55.090902.141913
- Charbonneau, D., & Nicol, A. A. M. (2002). Emotional intelligence and prosocial behaviors in adolescents. *Psychological Reports*, 90(2), 361-370. doi:10.2466/pr0.2002.90.2.361
- Chou, K.-L. (1998). Effects of age, gender, and participation in volunteer activities on the altruistic behavior of Chinese adolescents. *The Journal of Genetic Psychology*, 159, 195-201. doi:10.1080/00221329809596145
- Ciarrochi, J. V., Chan, A. Y. C., & Caputi, P. (2000). A critical evaluation of the emotional intelligence construct. *Personality and Individual Differences*, 28(3), 539-561. doi:10.1016/S0191-8869(99)00119-1

- Costa, P. T., Jr., & McCrae, R. R. (1992). *Revised NEO personality inventory (NEO-PI-R) and NEO five factor inventory (NEO-FFI) professional manual*. Odessa, FL: Psychological Assessment Resources.
- Coté, S., DeCelles, K. A., McCarthy, J. M., Van Kleef, G. A., & Hideg, I. (2011). The Jekyll and Hyde of emotional intelligence: Emotion-regulation knowledge facilitates both prosocial and interpersonally deviant behavior. *Psychological Science*, 22(8), 1073-1080. doi:10.1177/0956797611416251
- Del Barrio, V., Aluja, A., & García, L. F. (2004). Relationship between empathy and the Big Five personality traits in a sample of Spanish adolescents. *Social Behavior and Personality*, 32(7), 677-681. doi:10.2224/sbp.2004.32.7.677
- Dietz, T., Kalof, L., & Stern, P. C. (2002). Gender, values, and environmentalism. *Social Science Quarterly*, 83(1), 353-364. doi:10.1111/1540-6237.00088
- Dovidio, J. F., Piliavin, J. A., Gaertner, S. L., Schroeder, D. A., & Clark, R. D., III. (1991). The arousal: Cost-reward model and the process of intervention: A review of the evidence. In M. S. Clark (Ed.), *Review of Personality and Social Psychology: Vol. 12. Pro-social behavior* (pp. 86-118). Newbury Park, CA: Sage.
- Eagly, A. H., & Crowley, M. (1986). Gender and helping behavior: A meta-analytic review of the social psychological literature. *Psychological Bulletin*, 100(3), 283-308. doi:10.1037/0033-2909.100.3.283
- Eisenberg, N., & Fabes, R. A. (1998). Prosocial development. In W. Damon (Ed.), *Handbook of child psychology: Social, emotional and personality development* (Vol. 3, pp. 701-778). New York: Wiley.
- Eisenberg, N., Fabes, R., & Spinrad, T. (2006). Prosocial development. In N. Eisenberg, W. Damon, & R. Lerner (Eds.), *Handbook of Child Psychology: Vol. 3. Social emotional and personality development* (6th ed., pp. 646-718). Hoboken, NJ: John Wiley & Sons.
- Engelberg, E., & Sjöberg, L. (2004). Emotional intelligence, affect intensity and social adjustment. *Personality and Individual Differences*, 37(3), 533-542. doi:10.1016/j.paid.2003.09.024
- Fontaine, J. R. J., Duriez, B., Luyten, P., Corveleyn, J., & Hutsebaut, D. (2005). Consequences of a multidimensional approach to religion for the relationship between religiosity and value priorities. *The International Journal for the Psychology of Religion*, 15(2), 123-143. doi:10.1207/s15327582ijpr1502\_2
- Funder, D. C. (2001). Personality. *Annual Review of Psychology*, 52, 197-221. doi:10.1146/annurev.psych.52.1.197
- Goleman, D. (1995). *Emotional intelligence*. New York: Bantam Books.
- Grant, A. M., & Mayer, D. M. (2009). Good soldiers and good actors: Prosocial and impression management motives as interactive predictors of affiliative citizenship behaviors. *The Journal of Applied Psychology*, 94(4), 900-912. doi:10.1037/a0013770
- Graziano, W. G., & Eisenberg, N. (1997). Agreeableness: A dimension of personality. In R. Hogan, J. Johnson, & S. Briggs (Eds.), *Handbook of personality psychology* (pp. 795-824). San Diego, CA: Academic Press.
- Grusec, J. E., Davidov, M., & Lundell, L. (2002). Prosocial and helping behavior. In P. K. Smith & C. H. Hart (Eds.), *Blackwell handbook of childhood social development* (pp. 457-474). Malden, MA: Blackwell.
- King, E. B., George, J. M., & Hebl, M. R. (2005). Linking personality to helping behaviors at work: An interactional perspective. *Journal of Personality*, 73(3), 585-608. doi:10.1111/j.1467-6494.2005.00322.x

- Knafo, A., Weiner, M., & Dubrovsky, I. (2011). *How teachers and schools can promote prosocial behavior*. Retrieved from [www.education.com/reference/article/prosocial-behavior/](http://www.education.com/reference/article/prosocial-behavior/)
- Knickerbocker, R. L. (2011). *Prosocial behavior*. Retrieved from [www.learningtogive.org/papers/paper52.html](http://www.learningtogive.org/papers/paper52.html)
- Li-Chu, C. (2010). *The study of the relationship among locus of control, emotional intelligence and prosocial behavior of elementary school students in Kaohsiung City*. Retrieved from <http://140.127.82.166/handle/987654321/4380>
- Ma, H. K. (2005). The relation of gender-role classifications to the prosocial and antisocial behavior of Chinese adolescents. *The Journal of Genetic Psychology, 166*(2), 189-202. doi:10.3200/GNTP.166.2.189-202
- Maccoby, E. E. (2002). Gender and group process: A developmental perspective. *Current Directions in Psychological Science, 11*(2), 54-58. doi:10.1111/1467-8721.00167
- McCrae, R. R., & Costa, P. T., Jr. (1990). *Personality and adulthood*. New York: Guilford.
- McCrae, R. R., & Costa, P. T., Jr. (1995). Trait explanations in personality psychology. *European Journal of Personality, 9*(4), 231-252. doi:10.1002/per.2410090402
- Mischel, W. (2004). Toward an integrative science of the person. *Annual Review of Psychology, 55*, 1-22. doi:10.1146/annurev.psych.55.042902.130709
- Nettle, D. (2006). The evolution of personality variation in humans and other animals. *The American Psychologist, 61*(6), 622-631. doi:10.1037/0003-066X.61.6.622
- Oveis, C., Horberg, E. J., & Keltner, D. (2010). Compassion, pride and social intuitions of self-other similarity. *Journal of Personality and Social Psychology, 98*(4), 618-630. doi:10.1037/a0017628
- Pedhazur, E. J. (1982). *Multiple regression in behavioral research: Exploratory and prediction*. New York: Host, Rinehart & Winston.
- Penner, L. A., Dovidio, J. E., Piliavin, J. A., & Schroeder, D. A. (2005). Prosocial behavior: Multilevel perspectives. *Annual Review of Psychology, 56*, 365-392. doi:10.1146/annurev.psych.56.091103.070141
- Pursell, G. R., Laursen, B., Rubin, K. H., Booth-LaForce, C., & Rose-Krasnor, L. (2008). Gender difference in patterns of association between prosocial behavior, personality and externalizing problems. *Journal of Research in Personality, 42*(2), 472-481. doi:10.1016/j.jrp.2007.06.003
- Rossi, A. S. (2001). *Caring and doing for others: Social responsibility in the domains of family work and community*. Chicago: University of Chicago Press.
- Rushton, J. P. (1982). Social Learning Theory and the development of prosocial behavior. In N. Eisenberg (Ed.), *The development of prosocial behavior* (pp. 77-105). New York: Academic Press.
- Saroglou, V. (2006). Religion's role in prosocial behavior: Myth or reality? *Psychology of Religion Newsletter, 31*(2), 1-16.
- Salovey, P., & Mayer, J. D. (1989). Emotional intelligence. *Imagination, Cognition and Personality, 9*(3), 185-211. doi:10.2190/DUGG-P24E-52WK-6CDG
- Seefeldt, L. D. (2008). Gender stereotypes associated with altruistic acts. *UW-Stout Journal of Student Research, 7*. Retrieved from <http://www2.uwstout.edu/content/rs/2008/10Gender%20Altruism%20for%20publication.pdf>

- Shiner, R. L. (2000). Linking childhood personality with adaptation: Evidence for continuity and change across time into late adolescents. *Journal of Personality and Social Psychology*, 78(2), 310-325. doi:10.1037/0022-3514.78.2.310
- Simpson, J. A., & Beckes, L. (2008). Reflections on the nature (and nurture) of cultures. *Biology and Philosophy*, 23(2), 257-268. doi:10.1007/s10539-005-4535-6
- Smithson, M., Amato, P. R., & Pearle, P. (1983). *Dimensions of social behavior*. Oxford: Pergamon Press.
- Vaculik, M., Prochazka, J., & Kveton, P. (2007). The relation between prosocial behavior and demanding prosocial behavior. *Studia Psychologica*, 49(2), 157-166.
- Valor, C. (2006). Why do managers give? Applying prosocial behavior theory to understand firm giving. *International Review on Public and Non Profit Marketing*, 3(1), 17-28.
- Williams, R. J. (2003). Women on corporate boards of directors and their influence on corporate philanthropy. *Journal of Business Ethics*, 42(1), 1-10. doi:10.1023/A:1021626024014
- Zakriski, A. L., Wright, J. C., & Underwood, M. K. (2005). Gender similarities and differences in children's social behavior: Finding personality in contextual patterns of adaptation. *Journal of Personality and Social Psychology*, 88(5), 844-855. doi:10.1037/0022-3514.88.5.844

## About the Author

Dr. **Olukayode Ayooluwa Afolabi** holds B.Sc., M.Sc and Ph.D degrees in Psychology from the University of Ibadan, Nigeria. He is currently an Associate Professor and the Acting Head of Department of Pure and Applied Psychology at Adekunle Ajasin University, Akungba-Akoko, Ondo State, Nigeria. His core areas of research are in gender, personality assessment and prosocial behavior.