

VALORES, COMPORTAMIENTO PRO-SOCIAL Y CRECIMIENTO
PERSONAL EN ESTUDIANTES UNIVERSITARIOS DESPUÉS DEL
TERREMOTO DEL 15 DE AGOSTO DE 2007

VALUES, PRO-SOCIAL BEHAVIOR AND PERSONAL GROWTH IN
COLLEGE STUDENTS AFTER THE EARTHQUAKE OF AUGUST 15, 2007

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RESUMEN

La presente investigación describe y analiza las relaciones entre los valores, el comportamiento pro-social y el crecimiento personal ante eventos traumáticos, tomando la experiencia del terremoto del 15 de agosto del 2007 en Lima, Perú. A partir de una muestra de estudiantes universitarios ($N = 112$), se analizó cómo la presencia o ausencia del comportamiento de ayuda se relacionaba con los valores de Schwartz y el crecimiento personal. Los resultados muestran que los valores de Promoción Personal y Apertura al Cambio se asocian a una menor expresión de conductas de ayuda. En contraposición, las personas que más ayudaron expresaron mayores niveles de Auto-Trascendencia, aunque este resultado no fue estadísticamente significativo, por lo que esta relación sólo puede ser argumentada conceptualmente. Así mismo, las personas que más ayudaron presentaron puntuaciones más altas en crecimiento personal, lo que sugiere que el fortalecer la cooperación en situaciones traumáticas puede potencialmente tener un impacto positivo en el bienestar de las personas.

Palabras clave: Valores, comportamiento pro-social, crecimiento personal, trauma.

ABSTRACT

This paper describes and analyzes relationship among values, pro-social behavior and personal growth after a traumatic situation such as the earthquake of August 15, 2007 in Lima Peru. On a sample of university students, we analyzed if aid behaviors toward victims were related to values and personal growth. Results showed that values of Self-enhancement and Openness to change were related to lower expression of Pro-social behavior. On the other hand, people who have collaborated with victims scored higher on Self-transcendence values. Although this relation was not statistically significant, it could be supported theoretically. Besides, people who are prone to aid showed higher scores in personal growth. It suggests that strengthen of cooperation in traumatic situations, could improve well-being in people.

Key words: Values, Pro-Social Behavior, Personal Growth, Trauma

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Introduction

Prosocial behavior covers a wide range of positive actions whose intent is designed to benefit one or more people beyond oneself (Batson, 1998; González, 1992). The concept includes behaviors such as helping, comforting, sharing, cooperating, give or restore (Batson, 1998) and has been studied from different theoretical perspectives.

First, from evolutionary theory to explain pro-social behavior is based primarily on the conceptualization of three evolutionary mechanisms: kin selection, reciprocal altruism and group selection (Penner, Dovidio, Piliavin & Schroeder, 2005).

Kin selection gives priority to the successful transmission of their own genes by helping relatives (Hamilton, 1964). However, this process helps to understand how behaviors emerge to help individuals they do not maintain a level of kinship and shared genetic load. That is when the concept of reciprocal altruism, which refers the existence of behaviors that pose an immediate cost for an actor and a beneficial effect for an individual unrelated to it. On the basis of this behavior there is an expectation that such support will be reciprocated in the future a case of need, thereby maximizing the chances of survival of the agent that initially provided assistance (Trivers, 1971). Consistent with the above is the process of group selection, which proposes that those altruistic groups maintain reproductive advantage over selfish groups when both are in competition (Penner et al., 2005).

From another approach, the Cognitive Development Theory tells us that there is a relationship between the expression of helping behaviors and the level of reasoning of the subjects. Thus, with age, empathy and personal rules become more important when helping others. That is to say that «the greater maturity in the pro-social reasoning, greater correspondence between view and behavior, which in turn generates a higher expression of pro-social behavior» (Carrera et al., 2004, p. 610).

For its part, the Social Learning Theory, believes that through direct experience and the processes of modeling learning would be producing supporting behaviors, which appear as a result of anticipation of positive consequences on the actors and the beneficiaries (Carrera et al., 2004).

Among the positive consequences for the actors can highlight a positive affect balance, greater subjective well-being and enhanced self-esteem, whereas in the case of beneficiaries, there is a general result in his being (Weinstein & Ryan, 2010 .)

To complement the above, one of the main factors that facilitate the expression of prosocial behavior is empathy, understood as the ability to discern and vicariously experience the emotional state of others (Penner et al., 2005). Empathy thus function as a motivator of helping behaviors to others and would relate to the expression of values associated with interest in the care and welfare. Furthermore, empathic concern, along with pro-social motivation that it produces can be increased if it increases the value of the welfare of others (Batson, Håkansson, Chermok, Hoyt & Ortiz, 2007)

Individual values and pro-social behavior

Schwartz (1992) defines the values and core beliefs, concerning desirable states or modes of conduct that transcend specific situations and to guide the selection and evaluation of behavior, people and events. Additionally, the author describes ten motivational types, each of which reflects goals and objectives to pursue. The ten values are organized as a coherent system of priorities that guide the lives of people, establishing a dynamic relationship between them and forming a continuous motivational. The 10 motivational types or values are summarized in the following table:

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Table 1
Description of individual values (Schwartz, 1992)

Motivational	Description	General area in which it is included
Power	Finding the position and social prestige, control or dominance over people or resources.	Personal Promotion
Achievement	Search for personal success as a result of the need for competition and manage certain survival skills.	
Hedonism	Comes from the need of the body to experience feelings of pleasure and gratification.	
Stimulation	Search for new experiences, varied, exciting and challenging.	Openness to Change
Self-direction	Independence in action and thought. Implies freedom, curiosity and creativity.	
Universalism	Search the welfare of mankind and nature. Involves understanding, respect and tolerance.	Self-Transcendence
Benevolence	Concern for the welfare of people nearby. Includes elements of honesty, loyalty, friendship and love.	
Tradition	Respect and acceptance of customs and cultural and religious ideas. Incorporates elements of humility and restraint.	Self-Preservation
Conformity	Management and control of those drives that have the potential to harm other individuals and violate social expectations or standards	
Security	Pursuit of security, harmony and stability in society from both personal and group motivation.	

Of these 10 kinds of values come 2 orthogonal bipolar dimensions: Openness to change (stimulation and self-direction) versus conservation (tradition, conformity and security), and Self-aggrandizement (power, achievement and hedonism) versus self-transcendence (universalism and benevolence). The first emphasizes, first, the assessment of independence in actions, thoughts, feelings and new experiences, and other self-restraint, order and security. The second comprises two poles for the pursuit of personal interests versus worrying about the welfare and interests of others. Hedonism includes elements of both dimensions (Zlobin 2004).

The different types of values appear as motivational orientations that help explain the expression of different types of behavior, where pro-social behavior is no exception (Weinstein & Ryan, 2010, Padilla-Walker & Carlo, 2007).

On the relationship between axiological dimensions described above and pro-social behavior, we can infer that those values of self-transcendence, conceptually related to the interest and concern for how others are, would have an obvious relationship with the helping behavior, being also associated with greater empathy and greater internal motivation designed to provide comfort to others (Piff, Kraus, Côté, Cheng & Keltner, 2010). In contrast, it is reasonable to assume that those values associated with self-promotion or self-exaltation, to be associated with low empathy, should play a role in inhibiting the expression of pro-social behavior, with the exception of cases where this is perceived as very beneficial to one's image and interests (Griskievicius, Sundia, Miller, Tybur, Cialdini & Kenrick, 2007).

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It is then that personal norms and values help to predict pro-social behavior but only to the extent that people are alert and ready to assume responsibility for the consequences and implications that could come to have their actions and behaviors (Fiske, 2010).

Values and personal growth to traumatic events

An alternative structure of values allows us to identify additional relationships of congruence and conflict between them. Thus, we propose the existence of two axes. The first refers to the interest of responding to obtain values and are reflected in the dimensions of individualism and collectivism (Fontaine, Poortinga, Delbeke & Schwartz, 2008; Zlobin, 2004) and the second to the list of values with anxiety (Fontaine et al., 2008; Páez & Zubietta, 2004).

On the first axis, this covers everything from how one expresses their interests and personal characteristics (self-direction, stimulation, hedonism, achievement and power) to the regulation of relations with others and the effects on them (universalism, benevolence, tradition, conformity and security). The second axis has values that express anxiety about the uncertainty and motivation for self-protection (security, power, achievement, conformity and tradition) versus securities free of anxiety, related to growth and self-expansion (self-direction, universalism, benevolence, stimulation and hedonism) (Schwartz, 2006 at Fontaine et al., 2008).

In relation to the values associated with growth, it appears that an opportunity in this sense is seen when facing traumatic events. It is in connection with the foregoing which confirms the idea that in some people, exposure to traumatic events, can also bring positive consequences (Tedeschi, 1999; Tedeschi & Calhoun, 1996). Three categories of perceived benefits have been identified in people exposed to these types of events: changes in interpersonal relationships, changes in self-perception, changes in the philosophy of life and spiritual development (Tedeschi, 1999; Tedeschi & Calhoun, 1996).

In regard to the latter, Durkheim (in Jiménez, Paez & Javaloy, 2005) proposed that the collective shock occurred after a traumatic event causes social interactions are more frequent and active. That is, individuals tend to congregate and found among them in times of tragedy. Examples are the demonstrations that took place after the attacks of 11

March in Madrid (Páez, Martínez-Sánchez & Rime, 2004, Jiménez et al., 2005), and came to strengthen the identity and social cohesion of the participants, who report feeling after the demonstrations, a social climate more positive, and greater self-esteem and personal and collective efficacy. This can result in a sort of personal growth as a coping response, as well as greater interpersonal level of social integration by increasing the shared emotions and the perception of similarity with others (Paez, Rime & Basabe, 2005).

This is relevant because these events can become equipped with pro-social behavior, having been deployed in them a kind of interpersonal solidarity, which would generate welfare participants. It seems that when people are confronted with traumatic events, the ongoing discussion of this event can lead people to self-disclosed more than before. That is, people learn about their own skills, abilities and strengths, increasing the wisdom and knowledge about themselves and others. This provides an opportunity to try new behaviors that can then be directed to the appropriate people in the support network, leading to a more pro-social, being more tolerant and compassionate to others and valuing the support they offer (McFarland & Alvaro, 2000).

Thus, the behavior of pro-social way appear as a new opportunity to experience well-being after a traumatic event (Weinstein & Ryan, 2010). It is then that one of the objectives of this paper is to describe and analyze the relationship of values to the behavior of aid made by college students after the earthquake of August 15, 2007 that destroyed several cities in southern Peru and was felt regular intensity in the city of Lima where the study was conducted. Likewise, it is interesting to know whether there are differences in self-perception of personal growth among those who made some kind of helping behavior and those who did not.

Method

Participants

Study participants were 112 students from five faculties of a private university in Lima. 59.8% of participants were women and 40.2% were men. Their ages ranged from a low of 17 and a maximum of 26 years (ME = 20.16, SD = 2.20).

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Instruments and measures

- a. Questionnaire on collaborative behavior with earthquake victims. We developed a questionnaire of ten items in order to collect the general frequency of collaboration, and learn through what specific behaviors had made this collaboration. The information obtained for each item is dichotomous, where 1 = «Yes worked» and 0 = «not worked».
- b. Personal Values Questionnaire (Schwartz, 1992). In the present study validated version was used in Peruvian students by Herrera and Lens (2003). The questionnaire measured individual values and consists of 40 statements to which the participant must answer to what extent do you think looks like the person described in each item. The choice of response is a Likert scale where 1 = 6 points «does not seem to me to 6 => It looks a lot like me. « Extracted from this questionnaire scores for the ten types of values of the theoretical proposal of Schwartz (see Table 1). Also, these ten types of values can be grouped into four general areas that are the dimensions of which will present the results and subsequent discussion of them. The four dimensions and the reliability coefficients presented in this study are: Self-Transcendence ($\alpha = .81$), Personal Promotion ($\alpha = .74$), Conservation ($\alpha = .80$) and Openness to Change ($\alpha = .67$.)
- c. Davis Empathy Scale (1983, in Morales-Moya & Marente, 2005). We used a short version of this scale developed in Spain by Morales-Moya & Marente (2005) and adapted to Peru for Espinosa, Calderón-Prada, Güimac & Burgess (2007). The scale assesses how people react emotionally to situations where third parties are in disadvantaged situations or problems. The scale consists of seven items, with a response format on a scale 5-point Likert where 1 = «describes me not at all and 5 => describes me very well. « This instrument provided a level of reliability suitable for the case of the sample ($\alpha = .65$).
- d. Benefits scale inferred from the response to the trauma of Tedeschi and Calhoun (1996, Calderón-Prada, Espinosa & techie, 2004). This scale assesses a set of positive beliefs about oneself, others and the social world as the effects of trauma. The scale is based on a Spanish version used by Calderón-Prada et al, (2004) to analyze the psychosocial effects of the attacks of March 11, 2003 in Madrid. Considering that the scale has been

developed to assess traumatic events associated with aggression and communal violence, this research has been considered appropriate to use only those items that hint at answers or social and personal effects generic traumatic situations, as is the case earthquake of 15 August. The questionnaire used was composed of seven items, which is answer option Likert scale of seven points where 1 meant not having experienced a positive effect following trauma and 7 supposed to have experienced such intense positive effect. The seven-item instrument showed a high level of reliability for the case of the sample ($\alpha = .91$).

- e. Differential Emotions Scale (Izard, 1991). This scale assesses the intensity with which ten experienced emotions (joy, surprise, sadness, interest, anger, disgust, contempt, fear, guilt and shame) to a given stimulus. In this case, the stimulus was the induction of memory on the news of the earthquake on August 15, 2007. Participants had to respond on a scale of seven-point Likert where 1 = «No» 7 = «much», to what extent they had experienced every emotion.

Procedure

Obtaining the information was provided by five students of the tenth semester of the specialty of social psychology at the Pontificia Universidad Católica del Perú (PUCP). They were previously trained and supervised by one of the researchers. Participants were contacted through teachers PUCP order to enter the classroom during the development of their courses. After exposing students to the general objectives of the study, voluntary participation was requested. After giving informed consent to participate in the study, students received the questionnaire either self-applied. The time needed to complete the questionnaire ranged between 15 and 30 minutes. The information was collected in September 2007. Later he was centralized by the investigators and entered into the statistical package SPSS 17 for analysis.

Results

Frequency of behavioral expression of support for earthquake victims

77.7% of study participants reported having worked in some way with the victims of the earthquake on August 15,

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2007. Among those who contributed, the specific behaviors of support most often mentioned are: donation of clothing (50%), donations of food (47.3%), donations of water (24.1%), donation of money (16.1%) and support organization and logistics activities with the support received (10.7%).

Relations between values, empathy and emotional expression to the events of August 15, 2007.

Pearson correlations were applied to analyze how they relate the four general areas that flow from the values of Schwartz with empathy.

Starting with the values of self-transcendence, as expected, they are positively and significantly correlated with empathy, $r(101) = 0.381$, $p < .001$ and the expression of sadness in the aftermath of earthquake, $r(106) = .212$, $p < .05$. For its part, the values of personal promotion, were inversely associated with empathy, although this relationship was not statistically significant. Was still less intense relationship between the values of personal promotion with emotional expression of sadness.

Conservation values are associated positively and significantly to the expression of empathy, $r(101) = .260$, $p < .001$, but not the emotional expression of sadness in front of the earthquake. Likewise, the values of openness to change, nor were associated neither with empathy, not with emotional expression to the earthquake.

It should be noted that in the context of research, empathy is moderately correlated with the expression of sadness at the quake and its consequences $r(101) = 0.321$, $p < .001$.

Relations between values and pro-social behavior.

From discriminant analysis attempted to identify the values that best predict the behavior of aid to earthquake victims in August 2007. This table summarizes the scores in the four general objectives Schwartz observed in those who collaborated with the victims and those who did not.

The results suggest that the values of Personal Promotion significantly discriminate between those who collaborated and those who did not, noting that a higher score in this dimension less willing to cooperate. A similar trend was observed in the values of Openness to change, although this is marginally significant. In contrast, we find that the people who contributed more scored higher on the Self-Transcendence values, although this trend was not statistically significant. Conservation values on the other hand, do not discriminate at all helping behaviors in this sample.

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Table 2
Discriminant analysis predicting pro-social behavior

Values	Pro-social behaviour		Wilks Lambda	F	p
	Collaborated (n = 83)	No Collaborated (n = 22)			
Self-Transcendence	4.91 (.59)	4.76 (.60)	.989	1.133	.290
Personal Promotion	4.20 (.61)	4.55 (.61)	.947	5.815	.018
Self-Preservation	3.96 (.68)	3.99 (.68)	1.000	.030	.862
Openness to change	4.60 (.59)	4.85 (.53)	.970	3.195	.077

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Table 3
U-test Mann Whitney scores in personal growth by pro-social behavior

	Pro-social behaviour		U	p
	Collaborated (n = 84)	No Collaborated (n = 24)		
Total Score	57.82 (1.82)	40.07 (2.43)	645.500	.015
Personal Growth / Mature as a person	56.95 (2)	43.24 (3)	718.500	.056
Learn about the capabilities, skills and personal resilience, to know how hard that can be	56.74 (2)	46.65 (2)	819.500	.155
Appreciate what you have and learn important life priorities	57.21 (3)	45.00 (3)	848.000	.360
Join the community	57.21 (2)	45.00 (2)	780.000	.086
Be more compassionate solidarity with the other	57.95 (2)	42.44 (1)	718.500	.029
Treasure the support that people offer	58.13 (3)	41.81 (1)	703.500	.021
Strengthen my participation and social commitment	59.67 (2)	36.42 (2)	574.000	.001

The results suggest that the values of Personal Promotion significantly discriminate between those who collaborated and those who did not, noting that a higher score in this dimension less willing to cooperate. A similar trend was observed in the values of Openness to change, although this is marginally significant. In contrast, we find that the people who contributed more scored higher on the Self-Transcendence values, although this trend was not statistically significant. Conservation values on the other hand, do not discriminate at all helping behaviors in this sample.

Pro-social behavior and post-traumatic growth.

Finally, we analyzed the relationship between the expression of behaviors to aid earthquake victims and positive beliefs about the self, interpersonal relationships and social world after exposure to a traumatic event such as the earthquake. To this end, we used the U-Mann Whitney and compared the scores of those who collaborated with those who did not in our indicator of post-traumatic

personal growth. The table below shows the differences in groups at a general level and item by item of the scale.

The results suggest that those who collaborated with the victims reported higher levels of general personal growth in the aftermath of the earthquake than those who did not. Specifically, the dimensions are more sensitive to reflect a change in personal growth before the quake, are those associated with positive perceptions of their own relationship with the environment.

As a complement, we analyzed the relationship between our indicator of empathy, Schwartz values and our general measure of personal growth after trauma, found that empathy is associated directly with the growth $r(102) = 0.442, p < .001$. Also, a high correlation between the values of self-transcendence, $r(106) = .403, p < .001$ and Conservation with the expression of personal growth as outlined above. On the other hand, the values of Personal Promotion and openness to change were not associated with personal growth in our sample.

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Discussion

Values and pro-social behavior

The empirical results support the pro-social behavior, evaluated in this study through the conduct of aid to victims of the earthquake of 2007, is inversely associated with individualistic values of personal promotion and openness to change. In this regard it is assumed that the values tend to discourage Personal Promotion empathy, and thus inhibit the expression of a set of emotions related to helping behaviors at the victim, reducing the possibility that these behaviors will eventually manifest. Also, the values of personal promotion and openness to change, emphasize self-interest, which could mitigate the concern and interest for third parties affected by circumstances such as those studied.

In relation to the values of self-transcendence, the latter, contrary to expectations, not to discriminate the expression of pro-social behaviors in the sample. However, they were associated with greater empathy and emotional expression of sadness at the incident assessed, which conceptually could be associated with greater likelihood of helping others in adverse situations. The specific relationship of the Self-Transcendence values of empathy, appears to be associated with certain cognitive conditions that allow the viewer to become aware of the situation of a third and put in place, which in turn seems to have some implications moral development, as demonstrated by some studies on the subject (Helkama, Uutela, Pohjanheimo, Salminen, & Rantanen-Väntsi Koponen, 2003; Myyry, 2003). It should be noted that the positive relationship between moral development and values of self-transcendence, it also results in an inverse relationship between this type of development and the values of personal promotion, which could be an alternative and complementary explanation to the absence of expressions of pro-social behavior in people with high scores on these values.

Pro-social behavior and personal growth to traumatic events

The study results also show that people who tend to work higher levels of growth relate to personal traumas. Personal growth is usually associated with a more positive image of self and relationships with the environment

(Tedeschi, 1999; Tedeschi & Calhoun, 1996). This has been confirmed empirically in the results, although those tested in the study are not direct victims of the earthquake, as their level of involvement that involves no loss of family members, or loss of property.

Additionally, personal growth was directly related to the value of self-transcendence and empathy. Which brings us to reinforce the view that previously referred to axiological profile associated with the concern for the welfare of others and the psychological ability to put yourself in the third should be a facilitator of the expression of attitudes and prosocial behavior. This leads us to believe that the work with victims as a form of collective coping with the threat of being exposed to an earthquake like that of 2007 reinforces social cohesion and improves self-image, which is functional and adaptive (Weinstein & Ryan, 2010; Páez Martínez-Sánchez & Rime, 2004).

The above, invites reflection on the need to strengthen social level Self-Transcendence values associated with low status, as these tend to promote interest in the other, which would be more cohesive societies whose citizens experience higher levels of psychological wellbeing.

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