

Personal Relative Deprivation, Altruistic behaviour and Reciprocity Towards Strangers: Mediating Role of Belief in Just World

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Abstract

Background. The present study was conducted to explore the role of personal relative deprivation as a predictor of altruistic behavior and reciprocity towards strangers. Moreover, the mediating role of belief in just world about others was also assessed.

Method. The sample ($N = 510$) comprised of students (male = 144; female = 366) with ages ranging from 18 to 42 years ($M = 22.9$; $SD = 4.2$) from different universities of Pakistan.

Results. Results revealed that personal relative deprivation and belief in just world about others positively predicted altruistic behavior and reciprocity towards strangers. Furthermore, it was also discovered that belief in just world about others mediates the relationship between predicting variable i.e. personal relative deprivation and outcome variables i.e. altruistic behavior and reciprocity.

Conclusion. Inculcating altruistic behavior can aid communities and governments in developing more effective campaigns centered on encouraging prosocial behavior towards strangers.

Keywords. *Personal relative deprivation, altruism, reciprocity, belief in just world.*



Introduction

Charity in Pakistan is a celebrated social practice. A nation-wide survey revealed that 98% of Pakistanis participate in philanthropic activities (Pakistan Centre for Philanthropy, 2017). The extent of charitable giving can be further evidenced by the fact that Pakistan contributes more than 1% of its GDP to charity despite being a considerably less wealthy country (Amjad & Ali, 2018). Donating money is one of the most common form of helping behavior (Piferi et al., 2006). This helpful attitude or prosociality of Pakistani society needs to be harnessed so a social safety net can be guaranteed to the 4% Pakistanis living in extreme poverty (World Data Lab, 2021). Therefore, identifying the correlates and predictors of prosocial behavior in Pakistan can be beneficial. This endeavor can only begin after understanding what constitutes as prosocial behavior.

Nostrand et al. (2018) suggest that prosocial behavior can either be self-benefitting or without any expectation of personal gain. The current research focuses on these subsets of pro-social behavior i.e. altruism and reciprocity towards strangers. Altruism is motivated by the desire to be provide benefit to another person but not expecting any of the benefit for one's own self in return (Feigin et al., 2014). On the other hand, reciprocity follows that one should return a favor after having received one (Erreygers et al., 2018). This reciprocal attitude could be both positive and negative depending upon the experience the individual has encountered (Keysar et al., 2008). Now with this definition in mind, we can proceed to discussing the possible cultural, social, and psychological factors that might be influencing the adoption of prosocial behaviors in Pakistan.

There is a scarcity of literature in Pakistan in which correlates of pro-social or altruistic behaviors are examined. A single study conducted by Iqbal (2013) reported the effect of environmental conditions, marital status, and gender on an individual's pro-social behavior. It was found that fear towards helping others existed in Pakistan that might hinder prosocial behavior. Factors must be identified in this regard. To address the existing gap, we examine a more detailed framework that underlies prosocial behavior in Pakistan.

Two defining cultural forces of Pakistani society are collectivism (Hofstede-Insights, 2020) and Islam (Zaman, 2018). Collectivistic societies tend to espouse altruism (Cohen & Hill, 2007).

Moreover, Islam also mandates prosocial behaviors such as altruism, alms giving, and community welfare (Abideen & Abbas, 2021). All these factors point towards high rates of prosocial tendencies in Pakistani population. One possible way collectivism and religiousness might be associated with prosocial behavior is "Belief in Just World" (Hafer & Sutton, 2016; Wu et al., 2011).

Belief in just world is a belief that the life treats everyone in a fair and just manner (Dalbert, 2001). This belief thus motivates the people to exhibit altruistic behavior towards others around them (Begue, 2002; 2014; Strelan, 2007). Similar motivation is observed for reciprocating of behavior. The person who has a higher belief in just world will be high on reciprocity and treat others fairly (Edlund et al., 2007).

Despite these encouraging forces, poverty and its associated sense of deprivation might hinder positive attitudes towards prosocial behavior. Various indicators of growth and development paint a dismal picture for Pakistan. Pakistan has a low GDP per capita placing it at 174th position in the world (World Bank, 2020). Pakistan ranks 154th among 189 countries, on Human Development Index (HDI; United Nations Development Programme, 2019).

Furthermore, the HDI varies among various provinces of Pakistan as well as between rural and urban areas. Poverty (Townsend, 1979) and income inequality (Coccia, 2018) are predictors of personal relative deprivation—feeling deprived in comparison with the other people that form part of one's society (Schaefer, 2015; Walker & Smith, 2002).

Personal relative deprivation is usually negatively associated with prosocial behaviors (Callan et al., 2008; John et al., 2014; Zhang et al., 2016). How this relationship operates can be explained in the light of General Strain Theory (Agnew, 2006), according to which a strain may reduce an individual's social control which includes lack of direct control over undesirable behaviors, conformity, and the belief about wrong nature crime. And if the strain remains persistent for a long period of time the reduction in social control will also persist for long (Agnew, 2006). The reduction in social control results in reduction on the belief in just world (Peng et al., 2019; Stroebe et al., 2015; Wenzler et al., 2017). It is because the individual no longer carry the belief about world as being a just place (Benabou & Tirole, 2006; Wenzler et al., 2017).

Another reason why personal relative deprivation leads to disbelief in just world about others is that, since an individual feel deprived of their basic needs, they start believing in an unjust world (Begue, 2014; Leites & Ramos, 2018; Begue et al., 2008; Lerner, 1980). Owing to it being a risk factor for antisocial tendencies, impact of personal relative deprivation also needs to be studied within the context of Pakistan.

We conducted the present study in order to explore the role of personal relative deprivation in predicting altruistic behavior and reciprocity towards strangers. The mediating role of belief in just world about others in this relationship was also examined.

Overview and Predictions

In light of our literature review, we predicted varying relationships among our study variables. Personal relative deprivation would be negatively associated with altruistic behavior and reciprocity, as per findings from previous literature (Callan et al., 2008; John et al., 2014; Zhang et al., 2016). All three of these variables are also found to be associated with belief in just world about others (Begue, 2002; 2014; Begue et al., 2008; Callan et al., 2017; Strelan, 2007) which would act as a mediator among them. More specifically, we predicted that personal relative deprivation would negatively predict belief in just world which would lead to a decrease in prosocial behaviors. Our rationale for studying this mediation relationship was to explain the paradox of high philanthropy rates in Pakistan despite it being a struggling country.

Method

The ethical committee at National Institute of Psychology, Quaid-i-Azam University, Islamabad, Pakistan, gave approval for the protocols of this study. We decided to approach university students for participation in this study because study instruments were in English which is the most commonly used language of instruction in higher education sector of Pakistan (British Council, 2015).

Sample

Minimum sample size limit was determined to be 134 by G-power calculator 3.1 using two-tailed test, effect size 'r' 0.3, alpha error probability 0.05, and power 1 – beta error probability 0.95. However, we recruited more participants in order to increase the statistical power. A total of 540 participants participated in our survey through via the online platform Google Forms.

Thirty questionnaires had to be discarded since they were incomplete. The final sample consisted of 510 participants within the age range of 18-42 years old ($M=22.9$; $SD=4.2$) with 28.2% men and 71.76% women. Moreover, 53.5% were graduate students, and 46.5% were post-graduate students. Most of the sample was unemployed, unmarried and belong to nuclear family system. The sample characteristics also indicate that with respect to parental education, majority has mother's education till matriculation level and father's education till masters/PhD level.

Prior to the administration of questionnaires, participants gave their informed consent after learning about our study's aims, associated risks and benefits as well as their rights. We collected our data from December, 2019, to March, 2020. Following materials were utilized for data collection:

Personal Relative Deprivation Scale (PRDS).

Personal relative deprivation refers to the feelings of resentment and dissatisfaction stemming from the belief that one is deprived of a desired and deserved outcome compared with some referent (Callan et al., 2008). Personal relative deprivation was assessed by using Personal Relative Deprivation Scale (PRDS) developed by Callan et al., (2008). The original PRDS is a five-item measure (1 = strongly disagree to 6 = *strongly agree*; $\alpha = .78$) which assesses one's general beliefs and feelings associated with comparing one's outcomes with the outcomes of people similar one's self. In the modified version, the internal consistency of measure was improved by modifying the wording of original four items and adding one item to the scale.

Belief in Just World Scale for Others (BJW-O).

Belief in just world about others refers to the individual's belief that the world is fair to all others and justice is for all and people get what they deserve and deserve what they get (Dalbert, 1999). This construct was measured by Belief in Just World Scale for others (BJW-O) developed by Dalbert (1999) consisted of 8 items with response options ranging from 1 for *absolutely wrong* to 5 for *absolutely true* ($\alpha = .83$).

Adapted Self-report Altruism Scale. Altruism was assessed by utilizing adapted version of the Self-report Altruism Scale (Rushton et al., 1981; Witt & Boleman, 2009).

The scale comprised of 14 items with response options ranging from 1 =never to 5 =very often ($\alpha = .80$; Witt & Boleman, 2009). High scores on this scale show intention to show altruistic behavior.

Personal Norm of Reciprocity Questionnaire.

Personal Norm of Reciprocity Questionnaire, developed by Perugini et al. (2003), was used to measure participants' tendency to reciprocate. It has three subscales possessing 9 items each; positive reciprocity ($\alpha = .83$), Negative reciprocity ($\alpha = .76$), reciprocity beliefs ($\alpha = .67$). Items are rated on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

It should be noted that psychometric properties and cultural validity of all the above-mentioned instruments were assessed in a Pilot study ($N = 150$) and deemed appropriate for use in the main study.

Results

The data obtained was analyzed with the help of SPSS version 2.16. Table 1 given below demonstrates internal consistencies, Pearson product-moment correlation coefficients, and descriptive statistics for our study variables. Personal relative deprivation positively correlates with belief in just world about others and reciprocity along with its components. However, there is no significant relationship between personal relative deprivation and altruistic behavior. Belief in just world about others is significantly correlated with altruistic behavior and reciprocity. Altruistic behavior is positively correlated with positive reciprocity and belief in reciprocity components of reciprocity. Furthermore, significantly positive inter-correlations can be observed among reciprocity and its three components, thereby, lending support to the construct validity of Personal Norm of Reciprocity Questionnaire.

Table 1
Alpha Reliabilities, Inter-Correlations, and Descriptive Statistics (N=510)

Variables	1	2	3	4	5	6	7
1. Personal Relative Deprivation	-	.15**	.07	.24**	.11*	.18**	.25**
2. Belief in Just World about Others		-	.19**	.17**	.16**	.05	.18**
3. Altruistic Behavior			-	.18**	.32**	-.03	.13**
4. Reciprocity				-	.72**	.73**	.80**
5. Positive Reciprocity					-	.19**	.44**
6. Negative Reciprocity						-	.42**
7. Belief in Reciprocity							-
α	.68	.71	.79	.82	.77	.75	.66
Mean	16.54	26.29	43.81	105.68	43.71	27.84	34.11
Standard Deviation	4.27	4.67	9.12	22.03	10.04	10.42	8.92

Note. * $p < .05$. ** $p < .01$

Table 2
Multiple Regression Analysis for the effect of Personal Relative Deprivation and Belief in Just World about others on the Prediction of Altruistic Behavior and Reciprocity toward Strangers (N=510)

Outcome Variables	Predictors	B	S.E	β	p
Altruistic Behavior	Constant	25.59	4.21		.00
	PRD	.37	.16	.17	.02
	BJW-O	.51	.13	.29	.00
	R^2				12
	F				10.73
	Reciprocity	Constant	33.12	9.14	
PRD		1.66	.36	.32	.00
BJW-O		1.43	.29	.34	.00
R^2					25
F					25.36

Note. PRD = Personal Relative Deprivation , BJW = Belief in Just World about Others. ** $p < .01$. *** $p < .001$.

Table 2 above demonstrates the results of a multiple regression analysis which confirms the significant role of personal relative deprivation and belief in just world about others in prediction of altruistic behavior and reciprocity. Personal Relative Deprivation and Belief in Just World about Others are jointly responsible for 12% variance in altruistic behavior. These two predictors are also responsible for 25% variance in Reciprocity.

Table 3

Role of Belief in Just World as a Mediator between Personal Relative Deprivation and Altruistic Behavior towards Strangers (N=510)

Indirect Effects	<i>B</i>	<i>SE</i>	<i>z-score</i>	<i>p</i>	95% <i>CI</i>	<i>R</i> ²
Total	.16	.09		.09	[-.03,.34]	.01
Belief in Just World	.06	.03	2.57	.01	[.02,.13]	.04**

p* <.05, *p*<.01

Table 3 demonstrates that the mediator; that is, belief in just world about others, has a significant effect on the altruistic behavior. The coefficient for direct effect (i.e., .10) is also less than the total effect (i.e., .16) which also signifies the presence of mediating role of belief in just world between the relationship of personal relative deprivation and altruistic behavior.

Table 4

Role of Belief in Just World as a Mediator between Personal Relative Deprivation and Reciprocity towards Strangers (N=510)

Indirect Effects	<i>B</i>	<i>SE</i>	<i>z-score</i>	<i>p</i>	95% <i>CI</i>	<i>R</i> ²
Total	1.23	.22		.00	[.79,1.66]	.06***
Belief in Just World	.11	.06	2.30	.02	[.02,.13]	.04*

p* <.05, *p* <.01, ****p* <.001

Table 4 reveals that the mediator; that is, belief in just world about others, has a significant effect on the reciprocity. Here also, the coefficient for direct effect (i.e., 1.12) is also less than the total effect (i.e., 1.23) which further signifies the presence of mediating role of belief in just world about others between the relationship of personal relative deprivation and reciprocity towards strangers.

The present research explored some demographic differences as well. Results of independent t-test analysis revealed that employed individuals (*n* = 100; *M* = 45.58; *SD* = 9.16) showed higher scores on altruistic behavior as compared to unemployed individuals (*n* = 410; *M* = 43.38; *SD* = 9.07); *t* = 2.17, *p* = .03. Opposite significant differences were observed for reciprocity between employed (*M* = 101.27; *SD* = 25.12) and unemployed individuals (*M* = 106.76, *SD* = 21.10); *t* = -2.33, *p* = .02.

Discussion

The results confirm the existence of significant relationships among our study variables. As proposed, belief in just world phenomenon positively predicts altruism and reciprocity—components of prosocial behavior. This finding is line with suggestions of previous literature (Begue, 2002; 2014; Strelan, 2007).

However, results and directions of some of the linkages are inconsistent with our proposed hypotheses. For instance, personal relative deprivation is positively predicting reciprocity and altruistic behavior. Literature, on the contrary, suggests a negative relationship between relative deprivation and prosociality (Callan et al., 2017; Zhang et al., 2016), since, personal relative deprivation motivates disapproval of others (Calkins & Keane, 2009). Furthermore, a previous study demonstrates a negative relation of personal relative deprivation with belief in just world (Callan et al., 2017), but, a positive association exists between these two variables in our study.

The key to understanding the direction of this relationship lies in findings of our mediation analysis. Personal relative deprivation increases belief in just world for others, which in turn leads to an increase in both reciprocity and altruism. The reason why this relationship goes against our prediction could be that previous literature on which we based our hypotheses, was composed of primarily Western studies. According to Wu et al. (2011), people belonging to collectivistic societies tend to have a strong belief in a just world, which allows them to be resilient in the face of harsh conditions. Therefore, belief in just world might be buffering the negative impact of personal relative deprivation in our sample, which in turn, might be increasing the tendency to do good for others despite one's own perceived shortcomings.

The results of our study also show that employed participants scored higher on altruistic behavior than unemployed while unemployed scored higher on reciprocity including positive and negative reciprocity as compared to the employed. Literature also demonstrate that employed individuals are economically more stable and possesses high income than the unemployed one which results to increase the behavior of altruism (Chowdhury & Jeon, 2012; Nakavachara, 2018; Piff et al., 2010).

Individuals who are unemployed in our society generally believe in reciprocating same deeds, because of unemployment they mostly search for some reward or incentive for doing something good that they can own. There are some limitations associated with our study as well, most pressing of which is the use of self-report instruments. It is likely that people might have projected a more positive image of themselves. Therefore, future studies should utilize more implicit measures or study these variables in an experimental setting. Another limitation has to do with the recruitment of students as our study sample. For better generalization of results, instruments need to be translated into Urdu and administered to a more diverse sample of Pakistani population.

Despite these limitations, the results of our study highlight factors which motivate prosocial behavior. The nature of relationships discovered in our study is slightly contradictory to what findings from Western literature suggest. Nonetheless, we believe our findings might have uncovered a potential protective role of just world belief in collectivistic cultures which is usually associate with more negative outcomes. However, the extent of this role needs to be explored further before any conclusive judgement can be made. Harnessing the power of such variables can aid communities and governments in developing more effective campaigns centered on encouraging prosocial behavior towards strangers. Intervention plan need to incorporated at school and university level for students to recognize the importance of altruistic behavior and its long lasting impact on the society.

Conclusion

The results of the present study demonstrated presence of significantly positive relationships among personal relative deprivation, belief in just world about others, altruistic behavior, and reciprocity. Mediation analysis revealed that personal relative deprivation positively predicts belief in just world for others, which in turn positively predicts both components of prosocial behavior i.e., reciprocity and altruism. Furthermore, we discovered that employed individuals are more likely to be altruistic than unemployed individuals, who on the other hand, show higher scores on reciprocity.

Declaration

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Conflict of interest. The authors are well informed and declared no competing interests.

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Availability of data and materials. The datasets used and/or analyzed during the current study are available from the corresponding authors on reasonable request.

Ethics approval and consent to participate. Formal permission was acquired from institutional Ethical board to conduct research.

Competing interest. The authors declare to have no competing interests.

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