

## Validation of “Prosocial Tendencies Measure” in Iranian University Students

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### ABSTRACT

The aim of the present study was to examine the validity of Prosocial Tendency Measure (PTM) in Iranian students. This scale measures 6 types of prosocial tendencies including altruistic, anonymous, dire, emotional, compliant and public prosocial tendencies (Carlo and Randal, 2002). We used 182 undergraduate students in order to study the validity of the scale by confirmatory factor analysis method, internal consistency and relationships to other measures. Also 34 students were used for test retest reliability procedure. We studied the relationships of the measure's subscales to additional items, empathy, religiosity and social desirability. The results showed that this measure has acceptable fitness on Carlo and Randall (2002) model. Also the subscales of this measure had acceptable internal consistency and reliability after test retest. The subscales of compliant, emotional, anonymous and altruism had positive and significant relationships with empathy but there was negative relationship between public to empathy. The subscales of compliant and anonymous had positive and significant relationships with religiosity. Social desirability had negative and significant correlation to public. But social desirability had also positive and significant relationships to anonymous and altruism. There was not any significant difference between girls and boys in any of six PTM subscales.

**Keywords:** Prosocial Tendencies Measure, empathy, religiosity, social desirability.

### INTRODUCTION

Prosocial behavior is “any act, deed or behavioral pattern that is socially constructive or in some way beneficial to another person or group” (corsini, 1999, p: 769). This behavior can consider in different levels of analysis. In “macro” level of analysis, the prosocial action is studied in the context of organizations or social group. Voluntarism or organizational citizenship behavior (OCB) are some constructs in this level. In “micro” level of analysis the origin of human helping behavior in evolution, biology or genetics is discussed. For example viewing the altruism as genuine or reciprocal or kin related reaction in human or animal is one of discussion in this level. And in “meso” level, the study of helper-recipient in specific context is the subject of analysis. In this level the social psychology or personality psychology studies about when and why peoples act prosocially is one of the important focus (Penner, Dovidio, Piliavin, Schroeder, 2005).

Beside the difference in explanation level of prosocial behavior there are some differences in types of prosocial behavior in a level –“meso level”- of explanation. Carlo and Randall (2002) criticized considering and measurement the prosocial behavior as global. Because previous researches showed that there are different types of prosocial behavior and any of these types have different situational and personal correlates. So Carlo and Randal (2002) made Prosocial Tendencies Measure (PTM) for assessment types of prosocial behavior in late adolescents and adults, then the revised measure of prosocial tendencies (PTM-R) for early and middle adolescents (Carlo, Hausmann, Christiansen, Randall, 2003).

One the category of prosocial behavior is altruism (Carlo and Randall, 2002). Writers from different disciplines define altruism differently (Piliavin and Charng, 1990). Within psychology, altruism is one of the motivation underlying helping. Altruism has been defined as special type of helping in which the benefactor provides aid to another person without anticipating the rewards from external sources for providing assistance while incurring some personal costs for taking this action (Kazdin, 2000). Empirical studies supported the

hypothesis known as Empathy-Altruism (or sympathy-altruism) that says empathy is predictors of altruism (Piliavin and Charng, 1990; Eisenberg and Morris, 2001).

Carlo and colleagues (2003) in their research on middle and early adolescents by using the PTM-R found that for early adolescents, altruistic prosocial tendencies were positively related to sympathy, stereotypic and internalized prosocial moral reasoning, also negatively related to hedonistic and approval-oriented prosocial moral reasoning. But For middle adolescents, altruistic prosocial tendencies were negatively related to approval-oriented prosocial moral reasoning and personal distress also positively related to vocabulary scores. In both of these age altruism related to ascription of responsibility. Hardy and Carlo (2005) in their work around relationship between prosocial behavior and religiosity by mediation of prosocial values (kindness) and using the PTM on high school students showed that altruism related to religiosity. Hardy (2006) in his study in university students by using the PTM showed that altruistic prosocial behavior predicted by prosocial reasoning. But it was not significantly predicted by prosocial identity and empathy.

Beside the altruism there are differences in other prosocial behavior. Carlo and Randall (2002) with viewing to literature and after exploratory factor analysis, beside altruism addressed five other prosocial behaviors. There are compliant, emotional, public, anonymous and dire prosocial behaviors.

Compliant prosocial behaviors were defined as helping others in response to a verbal or nonverbal request (Carlo and Randal, 2002). Eisenberg et al (1999) in his longitude research for study the consistency of prosocial tendency across development found that compliant prosocial behavior in preschool classrooms generally did not predict later prosocial behavior or sympathy (Eisenberg, Guthrie, Murphy, Shepard, Cumberl, & Carlo, 1999).

In the work of Carlo and colleagues (2003) compliant prosocial tendencies were negatively related to hedonistic prosocial moral reasoning and positively related to needs-oriented prosocial moral reasoning, perspective taking, and empathic accuracy. This is also related to ascription of responsibility and sympathy in middle and early adolescents. Hardy and Carlo (2005) showed that the religiosity have positively related to compliant prosocial behavior. Hardy (2006) in his study with university student found that compliant prosocial behavior is negatively associated with prosocial (moral) reasoning, while this had not significantly association to empathy and prosocial identity.

One of the other prosocial behaviors in PTM is Emotional prosocial behaviors that conceptualized as an orientation toward helping others under emotionally evocative circumstances (Carlo and Randal 2001). In a model Eisenberg and Fabes (Eisenberg and Okun, 1992) showed that people with emotional under regulation, and also typically intense experience of negative emotions (but not positive emotion), are prone to experience personal distress when exposed to others' negative emotions. They sometime help others in order to decrease their distress but if they can, they avoid at encounter to helping situation. In contrast, people who are intensely emotional and also can regulate their emotionality are prone to experience sympathy rather than personal distress. They often don't avoiding at helping situation and do helping.

Carlo and colleagues (2003) found that Emotional prosocial tendency was positively related with internalized prosocial moral reasoning and empathic accuracy and negatively related to hedonistic moral reasoning. It was also related to script to responsibility and sympathy in both early and late adolescents. Hardy and Carlo (2005) showed that there wasn't significantly relationship between emotional prosocial behavior and religiosity. Hardy (2006) in his study found that empathy and prosocial Identity were positively predictors of emotional prosocial behavior while prosocial reasoning was not a significant predictor.

One of the motivating that explains the prosocial behavior in some people is moral hypocrisy (Baron and Byrne, 2006). Finding in social psychology shows that helping affected by audiences, for example helping other people around apathy bystander decreases helping (Aronson, 1999). Public prosocial behavior is helping in front of others (Hardy, 2006). This type of helping is likely to be motivated at least in part, by a desire to gain the approval and respect of others and enhance one's self-worth. Albeit researchers have pointed out that social desirability concerns are not necessarily incompatible with prosocial behavior (Carlo and Randall, 2002).

In the research of Carlo and challenges (2003) Public prosocial tendencies were positively related to approval-oriented prosocial moral reasoning. Hardy and Carlo (2005) showed that not significant relationship between public prosocial behaviors and religiosity. Hardy (2006) found public prosocial behaviors negatively associated with prosocial reasoning but prosocial identity and empathy were not significant predictors of public prosocial behavior.

Based on exploratory factor analyses Carlo and Randal (2002) found 2 other factors that named it dire prosocial behavior (Helping in crisis or emergency situations) and anonymous prosocial behavior. (Helping performed without knowledge of who helped).

Carlo and challenges (2003) found that dire prosocial tendencies were positively related to need, stereotypic and internalized prosocial moral reasoning and negatively related to approval-oriented prosocial moral reasoning. Furthermore, dire prosocial tendencies were positively related both to perspective taking and empathic accuracy. Dire prosocial tendencies were negatively related to hedonistic prosocial moral reasoning. Furthermore, dire prosocial tendencies were positively related to both perspective taking and empathic accuracy. It also related to sympathy in early and middle adolescents. In middle adolescents also dire prosocial behavior relate to ascribe responsibility. Hardy and Carlo (2005) found dire prosocial behavior don't related to religiosity. Hardy (2006) found that empathy was positive predictor of dire prosocial behavior but prosocial identity and prosocial reasoning not significantly linked with it.

In the work of Carlo and challenges (2003) Anonymous prosocial tendencies were negatively related to hedonistic prosocial moral reasoning. Anonymous prosocial tendencies were positively related to empathic accuracy and internalized prosocial moral reasoning. Hardy and Carlo (2005) showed that there is significant relationship between anonymous prosocial behaviors and religiosity. Hardy (2006) found that prosocial identity positively predicted anonymous prosocial behavior, but empathy and prosocial reasoning were not significantly associated with anonymous prosocial behavior.

Carlo and Randall (2002) showed that in the late adolescents public prosocial behavior has negative relationship to altruism, compliant, anonymous. Anonymous has positive significant relationships to, dire, emotional and compliant; dire has positive relationship to emotional, compliant; emotional has positive relationship to compliant, altruism and also there are positive relationship between compliant and altruism.

Laibin (2007) in his work about some predictors of prosocial behavior in order to using overall score and to reduce the number of scales considered The four subscale of dire, emotional, altruistic, and anonymous as theoretically related, these four scales were submitted to a factor analysis. But Calderón-Ten, Knight, Carlo (2011) in his research for study the Socialization of Prosocial Behavioral Tendencies among Mexican American by correlation analysis shows that the emotional, compliant, and dire tendencies are substantially interrelated, while public, anonymous, and altruistic are not, So in their study, for using PTM as latent variable just used the emotional, compliant, and dire tendencies.

Carlo and Randall, (2002) showed that girl adolescents in altruism, anonymous, emotional and compliant prosocial behavior have higher score; but boys in public were high than girls. In the dire prosocial behavior there weren't any significant difference. Carlo and et al, (2003) also showed that females more than males showed altruism, emotional, anonymous prosaically behaviors. And males more showed public prosocial behavior.

### Present study

Followers the cultural relativism in moral philosophy (see Gensler, 2004) or some of moral psychologists view to moral issues as culturally related than universal. Indeed viewing moral development as universally or cultural related is one of debates in moral psychology (see Gibbs, Basinger, Grime, Snarey, 2007; and Jensen, 2008). The aim of this study is Validation the measure of Prosocial Tendencies Measure in Persian context. Study the possibility of generalization the 6 types of prosocial (moral) behaviors in Iranian culture and Lake of such measures in Persian for researches in this realm, dedicate the necessity of this research.

In order to this aims we studied construct validity by using confirmatory factor analysis (CFA), convergent, discriminant and criterion-referenced validity by study relationship of subscales to additional items, and to some the other relevant constructs that their measures are existed in Persian language. We also studied reliability by test re test and internal consistency (see Anastasia, Urbina, 1997). We also examined our prediction about interrelationship between some factors of this measure.

According to Carlo and Randall (2002) we predicted that public prosocial behavior must have a negative and significant correlation to anonymous, compliant and altruism. Anonymous, dire, emotional and compliant must have interrelated together. Also altruism must have positive and significant relationship to emotional and compliant.

For convergent and discriminant validation we studied relationship the subscales of this measure to empathy, religiosity and social desirability. Many researches showed the relationship between empathy and related constructs (like sympathy, perspective taking or personal distress) to prosocial behavior specially altruism (Eisenberg, Okun, 1996). According to some researches (Carlo and colleagues, 2003, Carlo and Randal, 2001, Hardy, 2006) we predicted that empathy must have positive relationship to altruism, anonymous, dire, emotional also probably compliant prosocial behavior, but It must has negative or non-relationship to public prosocial behavior.

Followers the supernaturalism or Divine command view in moral philosophy consider religion as origin of moral (prosocial) behavior (Gensler, 2004; Holmse, 2006). But the researches for study link between religiosity and moral considerations were inconsistent and were not flavorful for follower of this point of view (Wulff, 1997). An important discrepancy seems to exist between self-reports and laboratory studies regarding prosociality among religious people. Some have even suggested that the relationship between the religiosity and prosocial behavior that reported in some studies involve moral hypocrisy (Saroglou, et al, 2005). But some researchers believe that this discrepancy is due to different types of religiosity. For example Ji, Pendergraft, Perry, (2006) found that horizontal or "love-of-neighbor" faith is a powerful predictor of altruism, Intrinsic and orthodox religion is aligned with positive views toward helping, and other types of religiosity inversely related to actual altruistic behavior. But Hardy and Carlo (2005) showed that this discrepancy also can be explained by difference in prosocial behavior. According to them we predicted that religiosity must be related to altruism, anonymous, compliant and not related to public, dire and emotional prosocial behavior.

Social desirability is "a tendency of self-report instruments to respond according to what is perceived socially desirable rather than on personal true characteristics" (corsini, 1999; p: 913). Calro and Randall (2002) showed that social desirability was not correlated significantly with the PTM subscales. In the work of Carlo et al (2003) for middle adolescents, social desirability had negative relationship to altruism. But this didn't relate to altruism in early adolescents and also didn't relate to other types of prosocial behavior in late and middle

adolescents. Because our participants were undergraduate student (more late adolescents) we predicted that there must not be any relationship between social desirability and PTM's subscales.

According to Carlo and Randall, (2002) and Carlo and et al (2003) finding about gender differences we predicted that girls scores in altruism, anonymous, compliant and emotional prosocial behavior must be more than boys, but in public, boys must be more than girls, also in dire there must not any significant difference between girls and boys.

## MATERIALS AND METHODS

**Measure of Prosocial Behaviors (PTM):** This is a 23-item self-report measure that assesses 6 different prosocial behaviors. Its types are compliant (example item: When people ask me to help them, I don't hesitate.), public (example item: I can help others best when people are watching me.), anonymous (example item: I tend to help needy others most when they do not know who helped them.), dire (example item: I tend to help people who hurt themselves badly.), emotional (example item: I tend to help others particularly when they are emotionally distressed.), and altruistic (example item: I think that one of the best things about helping others is that it makes me look good.). The scoring is according 5 Lykert scale by 1 (Does not describe me at all) to 5 (Describes me greatly). An altruism items scoring is reversely. This measure made by Carlo and Randall (2002) by using the previous study, factor analysis, test re test, and study relationship in order to study converge and diverge validity with some related measures, (measures of sympathy, perspective taking, personal distress, social desirability, global prosocial behaviors, social responsibility, ascription of responsibility, vocabulary skills, and prosocial moral reasoning), and They proved satisfactory psychometric characteristics for this measure.

This measure translated by one the authors, somewhat modified and verified by other three authors of this article that all were familiar with Persian and English language. Also we 12 students (6 male and in term 2 of undergraduate in education) as focus group at a 40 minutes for discuss about comprehensibility and fluidity of Persian vocabulary and phrase that we used in translation of this Scale and we somewhat modified their sentences and words after this discussions.

**Additional items:** for study criterion-referenced validity we added additional items for any subscale. There was consensus between authors about content of these items after some modification. English translation of these additional items was: "I like to be seen by others when I am doing a benevolent deed or helping people" (for public); "I help needy people mostly when I see them crying or grieving;" (for emotional); "I think helping others should not be done for vested interests;" (for altruism). "I prefer to help those who are engaged in a serious and dangerous problem;" (for dire). "When someone needy asks me for help, I immediately help him;" (for unanimous); "I try not be known by those who has been helped by me;" (for compliant). We also discussed and modified the comprehensibility vocabulary of these items beside the PTM items by our focus group.

**Empathy:** for measuring the empathy we used to empathy subscale of Bar-On Emotional Quotient Inventory (EQI) (Bar-On, 1997). That is 6 items and scored at 1 (completely disagree) to 5 (completely agree). Translation and validation the EQI to Persian carried out by Shamsabadi (2004) and in his study the Cronbach alpha of empathy subscale was 0.55. In this study Cronbach's alpha of this subscale was 0.75

**Social desirability:** for measurement the social desirability there used the 13 item Marlowe-Crowne social desirability scale. This Scale made by Crowne, and Marlowe (1960), and its validation has been deed in several research (See Robinette, 1991; Meyer, 2003; Seol, 2007), and in several societies (Verardi and et al 2010). Translation and validation this scale to Persian has deed by Najarian (1992, cited by Najarian, Soudani, 2001) and that's validity (by using L subscale of MMPI) was satisfactory. Because the response of this measure consist of true and false, in this research for study internal consistency, we used the Formula of Kuder-Richardson (KR20) for this measure (see Anastasia, Urbina, 1997 ). The internal consistency from this method was 0.51

**Religiosity:** For measurement the religiosity we used Religiosity Measurement Scale (Aryan, 1998) that is bases of Shia Islam and consist of 20 items (for example: "Islam religion is respondent to many of my life questions."). Participant responded it at a Lyckert scale at 1 (very little) to 5 (very much). Two of its items are scoring reversely. Aryan (1998) made this measure on Iranian that were resident in Canada and found Cronbach's alpha of 0.92 for that's internal consistency. Shehni-y, Shokrkon, and Movahed (2004) found the alpha Cronbach's alpha of 0.89 and found satisfactory criterion-referenced validity to another measure. ( $r=0.56$   $p<0.01$ ). Cronbach's alpha in present study was 0.94.

## Participants

182 Iranian undergraduate students (76 percent female, M age: 21.7, SD: 1.92) in Shahid Chamran University of Ahvaz participated in response to our verbal apply in 8 classrooms to completing the questionnaires. Completing the measures carried out in approximately half hour at last time of classrooms. All of participants were Muslim and Shia, 51 percent from faculty of basic sciences and others at faculty of literatures and Humanity. The questionnaires were nameless but for motivating participants if they want, we asked them to receive a code and by it they would see the content of measures and result of their measure (comparing with mean of other participant) in a weblog. By the same manner (but not by using nameless testes) we used the 34 under graduate and low terms student in psychology and counseling courses (21 female, M age 19.67, SD: 1.36)

also we used 12 under graduate low term students of education (6 female) in order to study face validity, or modify and study comprehensibility the Persian vocabulary of questionnaires.

## RESULTS

The missing values are not much and we replace them to mean (see Hooman, 2008). Descriptive statistics were obtained for all items of PTM, (see table 1). Except the item 5 skewness of all data were between  $\pm 2$  and except the item of 13, kurtosis of all data were between  $\pm 2$ .

**Table 1.** Descriptive characteristics of PTM's items

Item	Mean	SD	Skewness	Kurtosis
Item 1	1.7308	.97993	1.347	1.377
Item 2	3.6000	1.09136	-.403	-.589
Item 3	1.8011	1.06677	1.377	1.331
Item 4	4.1722	.97929	-1.111	.702
Item 5	1.3757	.75444	2.393	5.933
Item 6	3.5000	1.03743	-.261	-.548
Item 7	3.4560	1.04894	-.158	-.652
Item 8	3.9385	1.10749	-.856	-.055
Item 9	3.6872	1.13296	-.579	-.439
Item 10	4.3051	1.09629	-1.521	1.367
Item 11	3.8453	1.25093	-1.521	-.632
Item 12	3.4804	1.18198	-.490	-.534
Item 13	1.5922	1.09449	1.855	2.405
Item 14	2.7654	1.19019	.222	-.897
Item 15	3.3901	1.21978	-.157	-1.052
Item 16	3.7845	1.34288	-.866	-.457
Item 17	3.2444	1.20808	-.154	-.977
Item 18	3.5363	1.07712	-.245	-.710
Item 19	3.7127	1.24513	-.521	-.994
Item 20	4.4088	.95378	-1.601	1.759
Item 21	3.2818	1.15140	-.128	-.745
Item 22	3.6409	1.29456	-.641	-.750
Item 23	3.9944	1.16839	-.1015	.006

**Table 2.** Standard regression weights of PTM's items

Factors and items	Standard regression weigh
Public → Item1	0.518
Public → Item3	0.611
Public → Item5	0.711
Public → Item13	0.674
Emotional → Item 2	0.371
Emotional → Item 12	0.626
Emotional → Item 17	0.757
Emotional → Item 21	0.631
Altruism → Item 4	0.698
Altruism → Item 10	0.483
Altruism → Item 16	0.492
Altruism → Item 20	0.584
Altruism → Item 23	0.513
Dire → Item 6	0.689
Dire → Item 9	0.605
Dire → Item 14	0.662
Compliant → Item 7	0.667
Compliant → Item 18	0.934
Unanimous → Item 8	0.712
Unanimous → Item 11	0.655
Unanimous → Item 15	0.768
Unanimous → Item 19	0.799
Unanimous → Item 22	0.795

Confirmatory factor analysis was run with the AMOS16 (Arbuckle, 2007) according to 6 subscales of Carlo and Randall (2002). Because a single index for confirmatory factor analysis reflects only a particular aspect of model and because any fit indexes have their own limitation, so model fit is usually assessed based in part on the values of more than one index (Kline, 2005). For confirmatory factor analysis (CFA) we use some of necessary indices. These statistics included: Bentler-Bonett normed fit index (NFI), Comparative fit index (CFI) Goodness-of-fit index (GFI), adjusted goodness-of-fit index (AGFI). These indices are range from 0-1 and higher level is indicates better fit. Also Chi-square ( $\chi^2$ ) that is desirable to be non-significant, but because large samples are more likely to yield significant  $\chi^2$  values, it must be used relative chi-square ( $\chi^2/\text{df}$ ). If the ratio is less than 3 there is usually the good fit (Giles, 2002). Reasonably good fit of the researcher's model Root Mean Square Error of Approximation (RMSEA) that by a rule of thumb is that RMSEA  $\leq .05$  indicates close approximate fit, values between .05 and .08 suggest reasonable error of approximation, and RMSEA  $\geq .10$  Suggests poor fit (Kline, 2005).

The indices of estimated model showed the acceptable fit for observed data. (Although  $\chi^2 = 415.011$ ,  $p = 0.000$ ; But  $\chi^2/\text{df} = 1.930$ ; and NFI = .739; CFI = .850; RMSEA = .072; GFI = .840; AGFI = .795). The standard regression weight of any items to factors ranged at 0.371 to 0.934. Table 2 shows Standard regression weigh of any items to its factors and also shows covariance of factors.

### Internal consistency

Cronbach alpha calculated for any subscale. For public it was 0.717, for emotional it was 0.689, for altruism 0.586 for dire 0.696, for compliant 0.771, for anonymous 0.865 and for overall items of PTM was 0.643

### Criterion-referenced validity

For criterion-referenced validity we used the additional item and subscales of PTM by one trail Pearson (see table 4). The correlation between additional item for Public and public subscale score was 0.468 ( $P=0.000$ ), The correlation between additional item for emotional and emotional subscale score was 0.336 ( $P=0.000$ ), additional item for altruism and altruism subscale score was 0.206 ( $P=0.000$ ), additional item for dir and dire subscale score was 0.651 ( $P=0.000$ ), Additional item for compliant and compliant subscale score was 0.616 ( $P=0.000$ ), additional item for unanimous and unanimous subscale score was .0798 ( $P=0.000$ ).

### **Correlation between subscales and other related constructs**

**Empathy:** there were negative and significant correlation between empathy and public ( $r=-.209$ ,  $p=0.000$ ), significant and positive correlation between it and compliant ( $r= .130$ ,  $p<0.05$ ), emotional ( $r= .319$ ,  $p=0.000$ ), anonymous ( $r= .186$ ,  $p=0.000$ ), altruism( $r= .144$   $p<0.05$ ), but there are not any significant relationship between empathy and dire.

**Social desirability:** there were negative and significant correlation between social desirability and public ( $r=-.172$ ,  $p<0.05$ ), but there are positive and significant correlation between social desirability and anonymous ( $r= .221$   $p=0.000$ ), and altruism( $r=.213$ ,  $p<0.05$ ) subscales. But there are not any significant correlation between compliant

**Religiosity:** there were positive and significant relationship between religiosity and compliant ( $r= .300$ ,  $p=0.000$ ), anonymous ( $r= .331$ ,  $p=0.000$ ). But there are not any significant between public, dir, emotional and altruism

### **Relationship between subscales**

There was positive and significant relationships between compliant and dire ( $r= .230$ ,  $p=0.000$ ), Anonymous and compliant ( $r= .328$ ,  $p=0.000$ ), anonymous and dire ( $r= .230$   $p=0.000$ ), Emotional and compliant ( $r= .177$   $p<0.05$ ), emotional and dire ( $r= .387$   $p=0.000$ ), dire and public ( $r= .187$   $p=0.000$ ) and there are negative significant correlation between altruism and public prosocial behavior ( $r= -.632$ ,  $p=0.000$ ) altruism and dire ( $r= -.274$ ,  $p=0.000$ ), altruism and emotional ( $r= -.322$ ,  $p=0.000$ ), altruism and anonymous ( $r= -.155$ ,  $p<0.05$ ).

**Table 3.** Relationship between PTM's subscales, additional items, empathy, social desirability and religiosity

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
<b>1-public</b>	1														
<b>2-compliant</b>	-.064	1													
<b>3-emotional</b>	.109	.177*	1												
<b>4-Dire</b>	.187**	.230**	.387**	1											
<b>5-anonymous</b>	-.099	.328**	.105	.230**	1										
<b>6-altruism</b>	-.632**	-.07	.322**	-.0274**	.155*	1									
<b>7-Additional item of public</b>	.468**	-.087	.141*	.120	-.163*	.456**	1								
<b>8-Additional item of compliant</b>	.101	.616**	.178*	.188**	.305**	-.053	.031	1							
<b>9-Additional item of emotional</b>	.391**	.076	.336**	.317**	-.067	.333**	.367**	.085	1						
<b>10-Additional item of dire</b>	.208**	.180**	.311**	.651**	.079	.240**	.090	.210**	.317**	1					
<b>11-Additional item of anonymous</b>	-.047	.247**	.087	.204**	.798**	.085	-.143*	.333**	-.041	.084	1				
<b>12- Additional item of altruism</b>	.137*	-.167*	.013	-.161*	.287**	.206**	.109	-.150*	.077	.143*	-.164*	1			
<b>13-Social desirability</b>	-.172*	.095	-.077	-.118	.221**	.213**	.223**	.074	.259**	.170*	.179*	.001	1		
<b>14-religiosity</b>	-.008	.300**	.096	-.013	.331**	.008	.050	.246**	.145*	-.050	.281**	.012	.141*	1	
<b>15-empathy</b>	-.209**	.130*	.319**	-.029	.186**	.144*	-.087	.171*	.028	-.027	.151*	.030	.265**	.147*	1

\*\*. Correlation is significant at the 0.01 level (1-tailed). \*. Correlation is significant at the 0.05 level (1-tailed).

### **Gender Differences in Prosocial Behaviors**

ANOVAs were conducted to assess gender differences in the primary study variables. But there is not any difference between male and female students.  $F(1,173)= 6.815$ ,  $p= .010$  for public;  $F(1,171)=0.000$ ,  $p= .997$  for emotional;  $F(1,168)= 2.533$ ,  $p= .113$  for altruism;  $F(1,168)= 0.938$ ,  $p= .334$  for dire;  $F(1,175)= .688$ ,  $p= .408$  for compliant and  $F(1,173)= .001$ ,  $p= .972$  for anonymous.

### **Test re test reliability**

The subscales reliability of this measure by test re test after 55 days for altruism was 0.703 ( $p<0.01$ ), for dire was 0.397 ( $p<0.05$ ), for anonymous was 0.579 ( $p<0.01$ ), for emotional was 0.745 ( $p<0.01$ ), for compliant was 0.547 ( $p<0.01$ ), and for public was 0.482( $p<0.01$ ).

## **DISCUSSION**

The prosocial tendency measure was made in American college students (Carlo and Randall, 2002). The fitness of this measure on Iranian students is acceptable ( $\chi^2/df = 1.930$ ; GFI = .840; AGFI = .795; RMSEA = .072; NFI = .739; CFI = .850). The correlations of subscales to additional items were acceptable and significant, and the internal consistency by Cronbach alpha for its subscale was acceptable (at 0.586 to 0.771). Also the stability by test re test is desirable (all  $p<0.05$ ). So this measure seems to be usable for Iranian college students. But in inter correlation between subscales, divergence and convergence validity and gender difference there are some discrepancy to previous studies.

According to Carlo and Randall (2002) we predicted the negative relationship between public and altruism. The interrelations of this research showed that there are negative and high relationship between altruism and public ( $r= -0.632$ ,  $p<0.01$ ). But also altruism was significantly negative correlation to dire, emotional subscales. This is opposite to Laibin (2007) that consider altruism, emotional, dire and anonymous as conceptually related constructs; And also opposite to Carlo and Randall (2002) that found positive significant relationship between altruism and emotional. Also altruism hadn't significant positive relationship to compliant that is also opposite to Carlo and Randall (2002).

One explanation to this discrepancy is the difference between altruism items and other subscale items in this measure. Altruism items in this measure assess motivation or reason behind the prosocial behavior but other types more directly assess behaviors or behavior situations. In the other hand Altruism items seem that is similar to assessing prosocial (moral) reasoning or at least some aspects of prosocial reasoning. If we accept that these items are more similar to prosocial reasoning than prosocial behavior we must consider moral (prosocial) reasoning difference around cultures (see Gibbs, Basinger, Grime, Snarey, 2007; and Jensen, 2008). Perhaps in the Third World countries there are less moral reasoning development than western countries and perhaps this moral cognition is more related to higher education or higher socio economic class in that countries. If these suppositions proved in further researches, this might cause some moral disengagement (see Bandura, 1999) for helping other helpless people from lower socio economical levels in third countries like Iran. Because that psychological distance can cause moral disengagement (see, Hardy, Bhattacharjee, Reed, Aquino, 2010). And perhaps it can explain the different relationship types of altruism and other prosocial tendency (emotional and dire and compliant) in this study.

There are different subscales that researchers showed have positive inter correlation. (See, Carlo and Randall, 2002; Laibin, 2007; Calderón-Ten, Knight, Carlo 2011). positive and significant inter correlation between compliant, dire, anonymous, and emotional in this research is according to Carlo and Randall (2002), except that there are not significant relationship between anonymous and emotional that is somewhat according to Calderón-Ten, Knight, Carlo (2011) that they consider just dire, compliant and emotional as latent variable. Positive significant relationship between altruism and anonymous in this research was qualified by Laibin, 2007 and not reported by Carlo and Randall (2002) and Calderón-Ten, Knight, Carlo (2011).

There was another significant positive correlation between public and dire that was not reported by previous researchers (Carlo and Randall, 2002; Laibin, 2007; Calderón-Ten, Knight, Carlo 2011). Perhaps in Iranian student dire and public both perceived as situational based prosocial behavior and both show the social attendance.

According to previous research (Carlo and Randall, 2002 and Carlo et al 2003) we predicted that social desirability hasn't any relationship to any types of prosocial behavior. But in Iranian students social desirability positively and significantly related to anonymous, altruism, also negative and significantly related to public. Now it shows that high score in altruism and anonymous in Iranian students might be considered as effort for positive self-presentation rather than altruism or anonymous prosocial tendencies. Also high score public might represented as be honest and self-discouraging rather than public prosocial tendency. So it is important to parting social desirability effects when, studying the relationship between this 3 subscale and other constructs in Iranian population.

According to Hardy and Carlo (2005) we predicted that religiosity must be related to altruism, anonymous, compliant and not related to public, dire and emotional prosocial behavior. In Iranian student this related to anonymous and compliant prosocial behavior but hadn't significant relationship to altruism and other prosocial behavior. Altruism has been defined as special type of helping in which the benefactor provides aid to another person without anticipating the rewards from external sources for providing assistance while incurring some personal costs for taking this action (Kazdin, 2000). But perhaps in some religious people helping deed by motivation of going to heaven and not going to hell and this is opposite to concept of altruism. So if we assessed different types of religiosity or spirituality, it might found different relationship between types of religiosity or spirituality and altruism (for example see: Ji, Pendergraft, & Perry, 2006.). As we told the content of altruism

items in this measure is near the moral reasoning that moral behavior. If our view was right it is better that also attend to some research about relationship of moral reasoning and some types of religiosity (For example see Glover, 1997 or Ji, 2004 or Ji, Ibrahim, Dong Kim, 2009).

According to some researches (Carlo and colleagues, 2003, Carlo and Randal, 2001, Hardy, 2006) we predicted that there is positive relationship between empathy and altruism, anonymous, dire, emotional also probably compliant prosocial behavior, but negative or non-relationship between empathy and public prosocial behavior. In this research also there were negative and significant correlation between empathy and public, significant and positive correlation between empathy and compliant, emotional, anonymous, altruism, also there are not any significant relationship between empathy and dire. Consideration to inter correlation between public and dire subscale, it seem that these both at least in Iranian student perceived as more situational stimulating helping than personality attitude like dispositional empathy.

According to finding about gender differences by Carlo and Randall, (2002) and Carlo and et al (2003), we predicted that girls scores in altruism, anonymous, compliant and emotional prosocial behavior must be more than boys, but in public, boys must be more than girls, also in dire there must not any significant difference seed between girls and boys. But in Iranian students there is not any gender difference in any of this subscale. If any gender difference somewhat considered as social learning (Bussey & Bandera, 1999), it must attending that this social learning can be differently between cultures. Nunner-Winkler, Meyer-Nikele, and Wohlrbab (2007) found that there is a marginally significant relationship between high gender identification and low moral motivation in boys, but not in girls. Perhaps in Iranian college student identification with gender stereotypes isn't considerable. But more researches needed to study gender difference in moral issues or study the relationship between gender identification and moral issues in Iranian culture.

## CONCLUSION

Finally this research reveals that the prosocial tendency measure (PTM) is relatively suitable scales in order to assess prosocial behaviors for Iranian students. But it is necessary to considering some culturally difference for using this measure on Iranian students. Perhaps for Iranian population it is better to considering altruism by different meaning (as a point of view instead to a behavioral tendency). Also Social desirability in work by this measure for Iranian population (in the subscales of public, anonymous, and altruism) must be considered and parted from relationships to other constructs.

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