Prosocial behavioural tendencies and orientation towards individualism–collectivism of Greek young adults

Efthymios Lampridis\textsuperscript{a}\textsuperscript{*} and Donna Papastylianou\textsuperscript{b}

\textsuperscript{a}Department of History and Ethnology, Democritus University of Thrace, 1 P. Tsaldari Street, Komotini, Greece; \textsuperscript{b}Department of Social Administration, Democritus University of Thrace, Komotini, Greece

(Received 23 July 2013; accepted 29 January 2014)

This study aimed to investigate the prosocial behavioural tendencies of Greek young adults and to examine the relationship between prosocial behavioural tendencies and individualism–collectivism. Four hundred and eighty four (N = 484) undergraduates completed the Prosocial Tendencies Measure and the Auckland’s Individualism Collectivism Scale. Altruism and compliant were the most preferable prosocial types followed by dire and emotional, while public was the least preferable type. Females and social sciences students were found to hold more positive attitudes towards prosocial behaviour. Also, females were oriented towards collectivism, while males and science and technology students were oriented towards individualism. Correlation analyses indicated a constant positive relationship between altruism, emotional, compliant and anonymous types and collectivism, whereas individualism was positively correlated only with the public type. Multiple regression analysis revealed that gender, age, religiosity, field of studies and collectivism, but not individualism, are strongly related to the dependent variables indicating prosocial behavioural tendencies.

Keywords: prosocial behavioural tendencies; individualism–collectivism; young adults

Introduction

For the last four decades, research on prosocial behaviour and the factors contributing to it has attracted the interest of a significant number of social psychologists. Although research has presented a number of interesting findings, little is known about prosocial behavioural tendencies in late adolescence and early adulthood (Carlo, Hausmann, Christiansen, & Randall, 2003). Yet, scholars point out that this specific developmental period offers great research opportunities, since the social contexts in which individuals act have been found to facilitate the performance of prosocial behaviours (Carlo, Fabes, Laible, & Kupanoff, 1999), as the nature of social interactions shifts from competitive to more prosocial and a notable increase of the capability for social perspective-taking occurs (Eisenberg et al., 1999). Moreover, Individualism and collectivism (I/C) orientation during emerging adulthood becomes more clear, and indications imply that this affects numerous domains of social behaviour including the tendency to act prosocially (Schwartz, 2010; Van Lange et al., 1997).

This study is based on the theoretical conceptualisations of prosocial behavioural tendencies formulated by Carlo and Randall (2002) and those of individualism–collectivism suggested by Hofstede (1991) and Triandis, Leung, Villareal, and Clack

\textsuperscript{*}Corresponding author. Email: elamprid@he.duth.gr
(1985) and aims to (a) investigate the prosocial behavioural tendencies of young adults and particularly which types of prosocial behaviour they appear to choose in their everyday lives and how these relate to a number of variables (e.g. age, gender, orientation of studies and religiosity) and (b) examine the possible associations between prosocial behavioural tendencies and I/C, as it has been found that in a period of time sensitive to changes (such as the transitional phase from adolescence to adulthood), the orientation towards these constructs affects their tendencies for prosocial behaviour.

**Prosocial behavioural tendencies: theoretical implications and empirical evidence**

Prosocial behaviour is defined as any voluntary act performed with the goal of benefitting another person (Dovidio, Piliavin, Schroeder, & Penner, 2006). This definition holds two implications. First, prosocial behaviour does not refer to the same notion as altruism since the helping action of one person could be beneficial for both, the helper and the receiver. Thus, altruism can be defined as the selfless behaviour that benefits another person, no matter if the cost is greater than the gain for the benefactor, who is motivated by concern for others or by internalised values, goals and self-rewards rather than by the expectation of concrete or social rewards or the avoidance of punishment (Eisenberg, Fabes, & Spinrad, 2006). Therefore, prosocial behaviour could be conceived as a broader category that includes altruism, among other forms of helping behaviours, as well. Second, a behaviour that benefits others to be guided by different motives is possible, and these motives would be easier to be explained in terms of types of prosocial behaviour. Batson (1991) tried to prove that pure, truly unselfish altruism does not exist and that in any case of prosocial behaviour, individuals tend to exhibit such a behaviour driven by four motives: egoism (benefiting another as a means to benefit oneself), altruism (benefiting another as an end in itself), collectivism (benefiting another to benefit the group) and principlism (benefiting another to uphold a moral principle). Batson (2006) considered motives as goal-directed forces allowing one to distinguish among instrumental goals, ultimate goals and unintended consequences, and he pointed out that motives are not mutually exclusive, any or all of them might be ultimate goals in their own right with the self-benefits being unintended consequences.

The motives proposed by Batson and their conceptual components appear to underlie the starting point of Carlo and Randall’s (2002) proposition of a six-type typology of prosocial behavioural tendencies. Through definition of these types, Carlo and Randall highlighted the existence of plausible motives underlying the tendency towards a certain type of prosocial behaviour. What appears to be important in their typology is that it makes the study of different kinds of prosocial behaviour more concrete and enables researchers not only to become aware of the mentality of individuals with regard to prosocial behaviour but also to move a step forward and attempt to explain the tendency for a certain type of prosocial behaviour. The types of prosocial behavioural tendencies proposed by Carlo and Randall (2002) are as follows:

**Altruism**: Voluntary helping motivated primarily by concern for the needs and welfare of another, often induced by sympathy responding and internalised norms/principles consistent with helping others, a behaviour that sometimes incurs a cost to the helper.

**Compliant**: Helping others in response to a verbal or non-verbal request. It is more frequent than spontaneous helping.

**Emotional**: An orientation towards helping others under emotionally evocative circumstances. The perceived emotional evocativeness might influence the observer’s emotional responses.

**Public**: Helping behaviour, conducted in front of an audience, motivated, at least in part, by the desire to gain the approval and
respect of others. *Anonymous*: Helping behaviours performed without the knowledge of who helped. *Dire*: Helping behaviours in situations in which the helper offers his help because of the repugnance he experiences from the condition of another person.

The question of age-related changes in prosocial behaviour has been the subject of much inquiry (see Eisenberg & Fabes, 1998) although adolescents generally are not included in studies of prosocial behaviour, at least as much as children (Fabes, Carlo, Kupanoff, & Laible, 1999). In their meta-analysis study regarding age differences in prosocial behaviour in studies published between 1974 and 1994, Fabes and Eisenberg (1996) found that prosocial behaviour generally increased with age, a tendency that was becoming more concrete as the age span between comparisons increased. More recently, Carlo and Randall (2002) found that the structure of prosocial behaviours is differentiated during adolescence and adolescents tend to differentiate among different types of prosocial behaviours. Fabes and Eisenberg (1996) found that across childhood and adolescence girls were more prosocial than boys and the difference generally increased with age. Eisenberg and Fabes (1998) reported that girls tend to act more prosocially than boys, a pattern that increased significantly between childhood and early adolescence. Moreover, Carlo and Randall (2002) found that adolescent girls scored higher than adolescent boys on altruistic, anonymous, compliant and emotional types of prosocial behaviours. Adolescent boys scored higher on the public type of prosocial behaviour. These findings are consistent with prior studies (Eagly & Crowley, 1986) supporting the notion that in general females tend to exhibit prosocial behaviours more often and more easily, while males tend to prefer more heroic prosocial behaviours aiming to gain the approval and recognition of others.

The relation between education and prosocial behaviour has not attracted the interest of researchers. Relative implications appear to be indirect. For example, Carlo et al. (2003) point out that as individuals continue their education in school and simultaneously entering adolescence, the combination of the development of new cognitive, emotional and communicational skills along with their continuous education favours the emergence of prosocial behaviours. Furthermore, Healy (2000) and Brooks (2005) found that the individuals with higher education levels are more likely to perform prosocial behaviours than the individuals with lower education levels. Hillygus (2005) found that the field of education is related to the attitude of college students towards prosocial behaviours, that is social sciences students tended to hold more positive views towards prosocial behaviours. Furthermore, Frey and Meier (2004) found that economic students were less generous to a university fund than students in social sciences. Also, Bekkers (2004) reported that different fields of education yield different effects on membership in voluntary associations. According to Hardy and Carlo (2005) relatively little research has examined the relations between religiosity and prosocial behaviour. Most of these studies indicated that higher religiosity was associated with higher rates of prosocial behaviours (e.g. Donahue & Benson, 1995; Regnerus, 2003). In addition, Benson, Williams, and Johnson (1987) found significant positive correlations between religiosity and tendencies to help others. Similarly, Furrow, King, and White (2004) presented results pointing out a positive relation between religiosity, everyday helping and prosocial responding.

**Individualism–collectivism: within country variations and its relation with prosocial tendencies**

I/C can be considered as world views, broad tendencies or preferences spanning varied realms of human activity (Kagitsibasi, 1997). They are social constructions and views of
the social world able to be conceptualised on both a cultural (Hofstede, 1991) and an individual level (Triandis et al., 1985). Green, Deschamps, and Paez (2005) by lending Hofstede’s (1991) definition of I/C note that typical attributes associated with individualism are independence, self-reliance, uniqueness, achievement orientation and competition. Individualists tend to have control over and take responsibility for their actions, they seek for freedom of choice, personal autonomy and self-fulfilment, whereas collectivism is associated with a sense of duty towards one’s group, interdependence with others, a desire for social harmony and conformity with group norms. They are more likely to internalise the group’s goals and values and give higher priority to them.

Nevertheless, it would be false to consider I/C as separated entities and think that the prevalence of one revokes the other. They could be conceptualised as poles of a continuum on which people are placed. In fact, Triandis (1993) suggested that most societies include a mixture of individualistic and collectivistic elements and most individuals include both the patterns in their socio-cognitive systems. I/C are not mutually exclusive and as Voronov and Singer (2002) point out they can co-exist not only in a society with a certain orientation towards the one or the other aspect, but it would also be possible for a person in a given society to hold both individualistic and collectivist point of views. Notably, recent research by Yamagishi (1988), Yamagishi and Yamagishi (1994), Ho and Chiu (1994) and Sinha and Tripathi (1994) yielded similar data.

There is not much evidence regarding the association between prosocial behaviour and I/C. The vast majority of the relative studies assess their relationship indirectly and the data reported are inconsistent. Some evidence suggests that children in western societies are less prosocial than children in other cultures, but some studies find no differences along these lines (for a review see Eisenberg, Fabes, & Spinrad, 2006). Particularly, Stevenson (1991) found small differences and equivalently high scores in prosocial behaviour tendencies among children coming from typically individualistic (USA) and collectivistic (Japan) societies. Furthermore, Trommsdorff (1995) found equal levels of prosocial behavioural tendencies in five-year-old girls from Germany and Japan. However, in other studies males were found to be more individualistic and females more collectivistic (Kashima et al., 1995; Lorenzi-Cioldi & Dafflon, 1998). Girls from an individualistic culture demonstrated more intensive prosocial behaviour compared with boys coming form an individualistic culture as well (Kienbaum & Trommsdorff, 1999).

A number of studies (for a review see Grusec, Davidov, & Lundell, 2002) have indicated an association between prosocial behaviour and I/C stating that the orientation towards individualism or collectivism forms individuals’ tendencies towards prosocial behaviour. Mullen and Skitka (2009) found that people who grew up in a collectivist society are more familiar to the idea of helping others, but it appears that this tendency is restricted to the members of the in-group. On the contrary, people who grew up on individualistic societies tend to perform helping behaviours more rarely, but it is more possible to help a stranger or in cases of an emergency. Similarly, Kemmelmeier, Jambor, and Letner (2006) reported that individualism was related to both higher levels of giving and volunteering. Individualists were more likely to act prosocially to types of causes that represent individualistic values: specifically, self-actualisation, personal growth and development and individual achievement. Also, individualists tend to prefer prosocial behaviours that are less formal (assistance to someone in distress or in case of an emergency). In individualistic societies, people tend to prefer spontaneous types of prosocial behaviour, whereas in collectivistic societies people tend to favour prosocial behaviours that entail reciprocity and commitment (Miller & Bersoff, 1994).
Other studies arrived at their assumptions by assessing the characteristic tendencies of I/C such as cooperativeness and competitiveness in relation to helping behaviours. Carlo, Roesch, Knight, and Koller (2001) have shown that, in general, individualistic values are linked to greater competitive behaviours whereas collectivistic values are linked to greater cooperative behaviours. In a very recent study with adolescents, Armenta, Knight, Carlo, and Jacobson (2011) suggested that I/C might facilitate specific types of prosocial behaviours. They found an association between I/C and prosocial behavioural tendencies and they reported that adolescents coming from an individualistic culture (mainstream American) scored higher on public prosocial behaviours, although their scores on all the other types of prosocial behavioural tendencies were also high.

**This study**

This study aims (a) to investigate the prosocial behavioural tendencies of Greek young adults to reveal the preference towards specific types of prosocial behaviour, the possible relationship between prosocial behavioural tendencies and a number of variables that international research reviewed earlier has reported to be associated with certain types of prosocial behavioural tendencies and (b) to examine the possible relationship between prosocial behavioural tendencies and I/C via self-report measure assessing this specific concept, with regard to an age group that has been little studied so far with regard to the specific issue.

The research questions based on data from relevant studies were set to investigate the preference towards altruistic types of prosocial behaviour, that is altruism, emotional and anonymous and, in addition, to study the effect of gender, that is whether females express more readiness to the idea of exhibiting prosocial behaviour than males, as well as the effect of the field of study on certain types of prosocial behaviour (e.g. social sciences and humanities students to prefer altruism, emotional and anonymous types of prosocial behaviour). Finally, another question set investigated whether higher level of religiosity is related to higher prosocial behavioural tendencies.

As far as the second goal is concerned, it is noted that there are two studies regarding I/C and Greek society, one by Georgas (1989) and another by Nezlek, Kafetsios, and Smith (2008). Both the studies appear to be very close to Triandis’ notion of the co-existence of I/C in the same society and in the same person as well. Specifically, Georgas (1989) studied the values of Greek family and suggested that Greek society is moving from collectivism to individualism indicating the existence of both in the same society. Almost 20 years later, Nezlek et al. (2008) proposed that in the case of Greece there appears a special hybrid of collectivism which encompasses many individualistic aspects. Under the light of these findings, a direct association between prosocial behavioural tendencies and I/C was hypothesised. Specifically, a positive correlation between collectivism and altruism, emotional and compliant types and a positive correlation between individualism and the public type were hypothesised. Also, it was hypothesised that – as found by Triandis (1995) – females would be more collectivistic than males and that those who are educated to work in professions requiring personal initiative and accomplishment tend to be more individualistic.

**Methods**

**Participants**

Participants were Greek university undergraduate students ($N = 484$) from various universities across the country ($M$ age $= 20.2$ years, $SD = 2$). Out of them, $n = 162$ were
males and \( n = 322 \) were females. \( N = 290 \) (59.9\%) participants were social sciences and humanities students (psychology, education, social administration and literature), whereas \( n = 194 \) (40.1\%) were science and technology (economics, engineering, physics and mathematics) students. Again, \( n = 440 \) participants (90.9\%) stated to be Orthodox Christians, while \( n = 39 \) (8.1\%) did not state any faith at all. Participants were recruited during their classes at several public universities. Participation was voluntary, and data were collected via self-reported questionnaires administered to the students in their classrooms.

**Measures**

**Prosocial behavioural tendencies:** The Carlo and Randall’s (2002) Prosocial Tendencies Measure (PTM) was administered to assess the participants’ prosocial behavioural tendencies. The PTM is a 23-item self-reported measure developed to estimate the tendencies of college students towards prosocial behaviour. It is composed of six subscales: public (four items, Cronbach’s \( \alpha = 0.78 \), sample item ‘I can help others best when people are watching me’), anonymous (five items, Cronbach’s \( \alpha = 0.85 \), sample item ‘I think that helping others without them knowing is the best type of situation’), dire (three items, Cronbach’s \( \alpha = 0.63 \), sample item ‘I tend to help people who are in real crisis or need’), emotional (four items, Cronbach’s \( \alpha = 0.75 \), sample item ‘I respond to helping others best when the situation is highly emotional’), compliant (two items, Cronbach’s \( \alpha = 0.80 \), sample item ‘When people ask me to help them I don’t hesitate’), altruism (five items, Cronbach’s \( \alpha = 0.74 \), sample item ‘I often help even if I don’t think I will get anything out of helping’). Participants were asked to rate the extent to which statements described themselves on a five-point Likert scale ranging from 1 (does not describe me at all) to 5 (describes me greatly).

**Individualism–collectivism:** In order to assess participants’ orientation towards I/C, we employed the Auckland Individualism Collectivism Scale (AICS) developed by Shulruf et al. (2011). Based on Oyserman, Coon, and Kemmelmeier’s (2002) meta-analysis of 83 studies regarding I/C, Shulruf et al. (2011) developed a 26-item self-reported measure for the assessment of I/C composed of two subscales: individualism (15 items, Cronbach’s \( \alpha = 0.75 \), sample item ‘I define myself as a competitive person’) and collectivism (11 items, Cronbach’s \( \alpha = 0.74 \), sample item ‘I sacrifice my self-interest for the benefit of my group’). Participants were asked to rate the extent to which statements indicated how often they would think or behave as described on a five-point Likert scale ranging from 1 (never or almost never) to 5 (always).

For both measures, the permission of the authors was asked. Also, participants were asked to fill in a short list containing demographic information such as age, gender, field of studies, religion and religiosity (on a seven-point scale).

**Data analyses**

In order to investigate our participants’ overall prosocial behavioural tendencies and orientation towards I/C, we searched for mean differences. To do so and to clarify which of these differences were statistically significant the Wilcoxon’s signed-rank test was employed since the population could not be assumed to be normally distributed (Fay & Proschan, 2010). Then, in the case of gender and field of studies, both for prosocial behavioural tendencies and I/C, paired samples \( t \)-test was used. This was employed because paired \( t \)-tests are assumed to have greater power than unpaired tests especially
when the paired units are similar with respect to ‘noise factors’ (Zimmermann, 1997). In the case of religiosity, Mann–Whitney U-test was used since data regarding this variable were ordinal but not interval scaled, and the spacing between adjacent values could not be assumed to be constant (Nachar, 2008). Furthermore, the possible relationship between prosocial behavioural tendencies and I/C with respect to gender, field of studies and religiosity was examined. Pearson’s r coefficient was used as a criterion of the liner dependence of two variables at each time. Nevertheless, in the case of religiosity Spearman’s ρ was selected due to the specificity of this variable. Furthermore, a multiple linear regression analysis was conducted holding prosocial behavioural tendencies as the dependent variable and gender, age, religiosity, field of studies and orientation towards I/C as the independent ones, in order to check for effects that other variables might have on prosocial behaviour. Prosocial behavioural tendencies were treated as a single variable and used as independent variables at once. In this case, it is possible to view not only the effect that each one might have on the dependent variable, but also the extent to which each one of these independent variables would be related to prosocial behavioural tendencies in the context of a certain model especially when the aforementioned literature review points to the direction that all variables mentioned earlier (gender, age, and so on) might affect the performance of prosocial behaviour.

Results
Preliminary analyses

Prosocial behavioural tendencies: The internal consistency of the PTM was quite satisfactory: Cronbach’s α for public = 0.78, for emotional = 0.71, for anonymous = 0.84, for altruism = 0.68, for compliant = 0.74 and for dire = 0.67. In general, participants scored relatively high on the PTM (M = 3.28 (0.37)). The most preferable type was altruism (M = 4.2 (0.9)), followed by compliant (M = 4.0 (0.85)), dire (M = 3.7 (0.67)) and emotional (M = 3.6 (0.75)). Anonymous (M = 2.9 (0.9)) and public (M = 1.6 (0.75)) were found to be the least preferable. According to the signed-rank test, no significant differences were found between the mean values of altruism and compliant, dire and emotional.

Gender: In general, females tended to be more favourable towards prosocial behaviour than males (M = 3.30 (0.34) and M_males = 3.22 (0.35), t_{482} = 3.11, p = 0.002). Particularly, females scored higher than males on altruism (M_females = 4.2 (0.5) and M_males = 4 (0.75), t_{482} = 3.93, p < 0.001), emotional (M_females = 3.75 (0.75) and M_males = 3.5 (0.87), t_{482} = 4.13, p < 0.001) and anonymous (M_females = 2.9 (1) and M_males = 2.7 (0.81), t_{482} = 1.89, p = 0.048) types, while males scored higher on the public (M_females = 1.85 (0.87) and M_males = 1.5 (0.63), t_{482} = 4.74, p < 0.001). No significant differences were detected between females and males with regard to compliant and dire. However, it should be noted that both females and males scored high on both compliant and dire types (M_compliant = 4 and M_dire = 3.7).

Field of studies: Overall, social sciences and humanities students scored higher than science and technology students (M_social = 3.33 (0.35) and M_science = 3.22 (0.35), t_{482} = 3.45, p < 0.001). Social sciences and humanities students scored higher on altruism (M_social = 4.2 (0.6) and M_science = 4 (0.7), t_{482} = 2.03, p = 0.04), compliant (M_social = 4.1 (0.78) and M_science = 3.9 (0.84), t_{482} = 2.92, p = 0.004) and emotional (M_social = 3.75 (0.75) and M_science = 3.5 (0.75), t_{482} = 3.44, p = 0.001) types. Science and technology students scored higher only on public (M_science = 1.75 (0.75) and M_social = 1.51 (0.75), t_{482} = 1.88, p = 0.05). No significant differences were detected regarding dire and
anonymous, but dire was highly evaluated ($M_{\text{social}} = 3.67$), whereas anonymous was less preferable for all participants ($M_{\text{social}} = 2.9$ and $M_{\text{science}} = 2.8$, respectively).

**Individualism–collectivism:** The reliability analysis of the AICS was more than satisfactory for both the subscales of the instrument. Specifically, Cronbach’s $\alpha$ for the individualism subscale was 0.78 and for the collectivism subscale was 0.79. Overall, participants were found to score higher on collectivism, although differences were minor ($M_{\text{collectivism}} = 3.9 (0.73)$ and $M_{\text{individualism}} = 3.77 (0.67)$). However, the signed-rank test revealed a significant difference in mean values at the level of 0.1. Females scored higher on collectivism ($M_{\text{females}} = 4 (0.73)$ and $M_{\text{males}} = 3.73 (0.77)$, $t_{482} = 4.11, p < 0.001$), whereas males scored higher on individualism ($M_{\text{males}} = 3.87 (0.73)$ and $M_{\text{females}} = 3.73 (0.6)$, $t_{482} = 1.99, p = 0.04$). Similarly, social sciences students scored higher on collectivism ($M_{\text{social}} = 4 (0.73)$ and $M_{\text{science}} = 3.8 (0.73)$, $t_{482} = 2.04, p = 0.04$), while science and technology students scored higher on individualism ($M_{\text{science}} = 3.87 (0.67)$ and $M_{\text{social}} = 3.71 (0.63)$, $t_{482} = 2.31, p = 0.02$).

**Religiosity:** As mentioned earlier, 440 (0.9%) participants stated that they are Orthodox Christians with an average level of religiosity, $M = 3.5 (2)$. According to the Mann–Whitney $U$-test, females were found to be more religious than males ($M_{\text{females}} = 4 (2)$ and $M_{\text{males}} = 3 (2)$, $z = 5.078, p < 0.001$). Also, social sciences and humanities students were more religious than science and technology students ($M_{\text{social}} = 4 (3.5)$ and $M_{\text{science}} = 3 (2.4)$, $z = 5.498, p < 0.001$).

**Main analyses**
In order to examine the possible associations between the types of prosocial behavioural tendencies and I/C with respect to gender and field of studies, Pearson’s $r$ coefficient was employed. In general, prosocial behavioural tendencies were significantly correlated only with collectivism ($r = 0.302, p < 0.001$). Results are presented in Table 1.

Overall, altruism was negatively correlated with individualism. Compliant, emotional and anonymous were positively correlated with collectivism. Public was positively correlated with individualism. No significant correlations were found for dire. **Gender:** For females, altruism was negatively correlated with individualism. Compliant, emotional and anonymous were positively correlated with collectivism. No significant correlations were found for public and dire. For males, public correlated positively with individualism, while emotional and anonymous correlated positively with collectivism. Altruism correlated negatively with individualism. No significant correlations were found for dire and compliant.

**Field of studies:** Then, for social sciences and humanities studies altruism and anonymous correlated negatively with individualism. Compliant and emotional correlated positively with collectivism. Public correlated positively with individualism. No significant correlations were found regarding dire. In the case of science and technology studies, altruism correlated negatively with individualism. Emotional, anonymous and compliant correlated positively with collectivism and public correlated positively with individualism. No significant correlations were found for dire.

**Religiosity:** In order to examine the relationship between the types of prosocial behavioural tendencies and religiosity, we employed Spearman’s coefficient ($\rho$). Overall, prosocial behavioural tendencies were positively correlated with religiosity ($\rho = 0.326, p < 0.001$). With regard to specific types, analysis revealed significant correlations only for emotional ($\rho = 0.331, p < 0.001$), anonymous ($\rho = 0.308, p < 0.001$) and compliant ($\rho = 0.233 p = 0.003$).
Table 1. Pearson’s r correlations between the six types of prosocial behavioural tendencies and individualism–collectivism.

|                  | Coll-overall | Ind-overall | Coll-M | Ind-M | Coll-F | Ind-F | Coll-social | Ind-social | Coll-science | Ind-science |
|------------------|--------------|-------------|--------|-------|--------|-------|-------------|------------|--------------|-------------|
| Public           | -0.12        | 0.28**      | -0.17  | 0.38**| 0.14   | 0.18  | -0.11       | 0.26**     | -0.13        | 0.27*       |
| Emotional        | 0.34**       | -0.17       | 0.40** | 0.18  | 0.27** | -0.13 | 0.23*       | 0.17       | 0.45**       | 0.11        |
| Dire             | 0.18         | 0.18        | 0.21   | 0.22  | 0.15   | 0.19  | 0.17        | 0.18       | 0.18         | 0.20        |
| Anonymous        | 0.22**       | -0.16       | 0.37** | -0.16 | 0.22** | -0.17 | 0.15        | -0.22*     | 0.30**       | -0.10       |
| Altruism         | 0.11         | -0.36**     | 0.13   | -0.44**| 0.13   | -0.30**| 0.14        | -0.38**    | 0.11         | -0.31**     |
| Compliant        | 0.26**       | 0.13        | 0.20   | 0.11  | 0.28** | 0.15  | 0.24*       | 0.16       | 0.27*        | -0.12       |

Notes: Coll, collectivism; Ind, individualism; Coll-M, collectivism males; Ind-M, individualism males; Coll-F, collectivism females; Ind-F, individualism females; social, social sciences and humanities students; science, science and technology students. *p < 0.01, **p < 0.001.
Finally, a multiple linear regression analysis was used to assess the association between prosocial behavioural tendencies (dependent variable) and gender, age, religiosity, collectivism, individualism and education (independent variables). The results of the analysis are presented in Table 2.

It appears that gender (females), age, religiosity, collectivism and education (the field of science and technology) are independent variables that affect prosocial behavioural tendencies. The increase in age, religiosity and collectivism predicts an increase in prosocial behavioural tendencies. Females tend to be more positively predisposed towards prosocial behaviour and science and technology students would be less willing to perform prosocial behaviours in comparison to social sciences and humanities students.

**Discussion**

In sum, results appear to be in line with those previous studies have yielded. Particularly, Greek young adults appear to hold a quite positive view towards behaviours that help others. Females tend to be more positive in performing prosocial behaviour, whereas men appear to hold weaker views regarding this. The same pattern appears with regard to the field of studies. Social sciences and humanities students (mainly females) scored higher on PTM than science and technology students (mainly males). Males and science and technology students scored higher only on the public type of prosocial behavioural tendencies. These findings are similar to those reported by Eisenberg and Fabes (1998) and Carlo and Randall (2002). Carlo et al. (2003) and Hillygus (2005) implying that females and males tend to shape different attitudes towards prosocial behaviour not only as a consequence of their different gender role socialisation, but also because the field of studies appears to formulate a different orientation towards their role in society, as science and technology studies usually lead to occupations that are more competitive in nature. Still, what appears to be more interesting is the standpoint of Greek young adults towards prosocial behaviour. Altruism and compliant were the two most popular types of prosocial behaviour followed by dire and emotional. The popularity of altruism and compliant types might be explained as a result of moral socialisation and social learning (Bandura, 1986), whereas the finding that the public type is the least preferable could be explained by the fact that as previous research (e.g. Carlo et al., 1999; Fabes et al., 1999) has shown the social contexts in which university students lead their everyday life and the development of certain socio-cognitive and perspective taking skills favour cooperation and solidarity. This reasoning could lead someone to think that the participants of this study have

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Table 2. Multiple linear regression analysis for variables associated independently with prosocial behavioural tendencies.

| Variate          | b-coefficient | 95% CI       | p-Value |
|------------------|---------------|--------------|---------|
| Gender           |               |              |         |
| Male             | –             | –            | –       |
| Female           | 0.015         | -0.081 to 0.090 | 0.05    |
| Age (per year increase) | 0.027         | 0.012–0.042  | <0.001  |
| Religiosity (per unit increase) | 0.034         | 0.017–0.051  | <0.001  |
| Collectivism (per unit increase) | 0.076         | 0.033–0.119  | 0.001   |
| Individualism (per unit increase) | 0.001         | -0.047 to 0.049 | 0.966  |
| Education        |               |              |         |
| Social sciences and humanities | –           | –            | –       |
| Science and technology | -0.081       | –            | –       |

Note: $R^2 = 0.202$. 
altruistic motives and, moreover, to the anticipation that anonymous was also popular as altruism and compliant. Yet, not much evidence stands for this as the three types of altruism following (compliant, dire and emotional) have a common characteristic: they are types of prosocial behaviours mainly performed when required and not in any given situation. Thus, it could be claimed that Greek young adults appear to hold a positive attitude towards helping behaviour, but they are willing to perform such a behaviour rather in instances when someone calls for help or when they do not have other alternatives. They, probably, have been taught from their family and during their school years that prosocial behaviour is a good thing to do, but they neither appear to be consciously oriented towards it nor tend to seize every given opportunity to act prosocially. In terms of Batson’s (1991) typology it could be argued that the motives that appear to drive prosocial behavioural tendencies of Greek young adults are principlism and egoism rather than altruism and collectivism. That is, they tend to help probably because helping others is a moral principle well learned and, thus, they want to uphold it and because they would like to reduce aversive arousal or to avoid empathy costs by not helping someone in need.

With regard to I/C, participants were found to be almost equally oriented towards individualism or collectivism, a pattern that appears to be in line with the conceptualisations by Georgas (1989) and Nezlek et al. (2008). Females and social sciences and humanities students (mostly females) were found to be more collectivistic, while males and science and technology students (mostly males) were found to be more individualists. These findings are consistent with those reported by Triandis (1995) who claimed not only that women tend to be more collectivistic than men but also that the professional field on which someone is activated, or prepared to become active, affects its orientation towards I/C.

Correlational analyses revealed three, not too sound, yet interesting and relatively stable patterns of findings. First, the altruism type was constantly negatively correlated with individualism. Second, the only type of prosocial behavioural tendencies that was correlated positively with individualism was public. Third, almost in any case, the emotional, anonymous and compliant types were positively correlated with collectivism. The finding regarding the compliant type is somewhat unexpected since it appears by definition (a non-spontaneous form of helping, offering help only if someone asks for) to be closer to individualism. This could be attributed to the specific conceptualisation of collectivism in the Greek culture. In addition, results concerning religiosity and types of prosocial behavioural tendencies are also expected. Females and social sciences and humanities students were more religious, and specific types of prosocial behavioural tendencies were found to be related with religiosity, a finding that corroborates previous research (e.g. Hardy & Carlo, 2005), since in this study emotional and compliant types were found to be related to religiosity.

Multiple regression analysis, although explains a 20.2% of the variability of the dependent variable in relation to the independent variables, it soundly indicates the correlation among these variables. Prosocial behavioural tendencies tend to increase as age and religiosity increase. Also, regression analysis confirmed the findings of the correlation analysis that gender, field of studies and collectivism are associated with the manifestation of prosocial behavioural tendencies. Nevertheless, significant correlation between prosocial behaviour and individualism was not found. This finding is similar to that of Mullen and Skitka (2009) and might be a consequence of the large number of females in our sample. Another plausible explanation might come from the conceptualisation of I/C in this specific society. The last could be a topic for further investigation regarding the nature of I/C in a more elaborate way.
Overall, this study revealed the prosocial behavioural tendencies of Greek young adults, an age group that has been little studied with regard to their tendencies of social values. Furthermore, it directly assessed I/C and indicated the existence of constant relations between certain types of prosocial behavioural tendencies and I/C. Moreover, it offered evidence that a number of variables can affect prosocial behavioural tendencies. Yet, certain limitations are to be reported for this study: no generalisations can be made with regard to the social values of the general population. The sample consisted of university students, and in a future study participants from the general population could be used. Also, more demographic data would have been taken under consideration, such as social class and place of birth (see Piff, Kraus, Cote, Cheng, & Keltner, 2010). In this, one could have assessed the prosocial behavioural tendencies in a more realistic setting (i.e. by designing an experiment in which participants would come up with various situations requiring prosocial action or even better assess prosocial behavioural tendencies in a natural setting, see Frey & Meier, 2004). Finally, a more complex research design could have enlightened the more detailed aspects of the specific issue such as the nature of I/C in Greek society or the effect that a number of independent variables such as those considered in this study might have on each one of the six types of prosocial behavioural tendencies.

Notes on contributors
Efthymios Lampridis is the assistant professor of social psychology. He holds an MSc in group processes and intergroup relations from the University of Kent, UK and a PhD in social psychology from the University of Ioannina, Greece. He has also conducted research on a postdoctoral level in the University of Ioannina, Greece, as well. He has published a number of research papers in English and Greek and he has published a research monograph in Greek regarding stereotypes prejudice and social identity. His current research interests are focused in the field of prosocial behaviour, social values and intergroup relations.

Donna Papastylianou is the professor of social psychology at the Department of Social Administration, Democritus University of Thrace, Greece. She holds an MSc from LSE, UK. and a PhD from the University of Athens, Greece. She has published many research papers in English and Greek. She has also written six books in Greek on social and cross-cultural psychology. Her current research interests focus on social and cross-cultural psychology (social values, individualism–collectivism, acculturation, minorities and immigrants).

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