DO ALTRUISTIC ACTS IN EMERGING ADULTS

TRANSLATE TO A WILLINGNESS

TO FORGIVE?

by

CANDACE S. PETERS

CASEY TOTENHAGEN, COMMITTEE CHAIR
DEBORAH CASPER
STEVE THOMA

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ABSTRACT

Forgiveness is linked with a host of benefits for the forgiver and is an important predictor of well-being; therefore, it is important to understand what predicts an individual's willingness to forgive others, especially within emerging adults due to their unique developmental stage (individuation issues and emergence of an understanding of forgiveness) (Subkoviak et al., 1995). This study aimed to explore the association between frequency of altruistic acts and willingness to forgive within emerging adults. Furthermore, pressure-based and pleasure-based motivations were explored to determine if they alter this association. Self-report surveys from emerging adults (N=177, individuals 18-25 years old) attending a large public university in the southeast were used. Results indicated that frequency of altruistic acts, on their own, did not significantly predict willingness to forgive. Moreover, the results showed that pleasure-based prosocial motivation did not have a significant interaction with altruistic acts in association with willingness to forgive; however, a significant interaction between altruistic acts and pressure-based motives was found. As anticipated, with low pressure-based motives, when altruistic acts increased there was an increase in willingness to forgive; with high pressure-based motives, when altruistic acts increased there was a decrease in willingness to forgive. Future directions concerning willingness to forgive and altruism in emerging adults are discussed.

Keywords: willingness to forgive, altruistic acts, prosocial motivations, emerging adults, pleasure, pressure, higher education

LIST OF ABBREVIATIONS AND SYMBOLS

α Cronbach's index of internal consistency

B   Unstandardized regression coefficient

β Standardized beta

F Fisher's F ratio: A ratio of two variances

M Mean: the sum of a set of measurements divided by the number of measurements in the Set

N Total number of participants

p Probability associated with the occurrence under the null hypothesis of a value as extreme as or more extreme than the observed value

r Pearson product-moment correlation

R^2 Coefficient of determination

SE B   Unstandardized standard error

t Computed value of t test

$<$ Less than

$=$ Equal to

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INTRODUCTION

"Humans cannot survive alone" (Satici, Uysal, & Akin, 2014, p. 157); indeed, relating to

others in a fair, harmonious and peaceful way remains the true essence of humanity (Enright &

North, 1998). In spite of this fact, Enright and North (1998), well-known researchers in the field

of forgiveness, state that no one is untouched from the fear and anxiety that a world filled with

warring nations, nearby crime, and violence within homes and families creates. Robert Frost

stated that, "'If one by one we counted people out, For the least sin, it wouldn't take us long, To

get so we had no one left to live with. For to be social is to be forgiving'" (as cited in Hill,

Allemand, & Heffernan, 2013, p. 273). A few decades ago not much empirical research had been

conducted on the subject of forgiveness due to the general idea that forgiveness was a religious

connotation (Glaeser, 2008). Although more research exists now, the subject of forgiveness

remains a hard concept to grasp, and "relatively few attempts have been made to validate it"

(Strelan & Covic, 2006, p. 1061). In the present study, I will examine associations among

altruistic acts, motivations for helping others, and willingness to forgive in emerging adults.

LITERATURE REVIEW

Forgiveness

The definition of forgiveness itself has been a point of debate among researchers; however, they tend to agree on what forgiveness is not – it is not excusing, condoning or forgetting the offense (Knutson, Enright, & Garbers, 2008; Strelan & Covic, 2006). Some researchers believe forgiveness involves cognitive responses (acknowledgement of the hurtful feelings) and affective responses (emotional response to a hurtful event), with the possibility of abehavioral response to the transgression (Strelan & Covic, 2006). Others believe that the behavioral response (a pro-social motivational change that fosters empathy towards the offender) is the prime outcome of forgiveness (Satici et al., 2014, Enright & North, 1998; Riek & Mania, 2012). Psychological literature states that forgiveness is a behavioral response to a transgression that involves two main aspects: 1) a negative dimension that includes no longer desiring to seek revenge or harbor anger towards the offender, and 2) a positive dimension that includes a pro-social change in behavior towards the offender that includes the essence of love and empathy or, in the least, includes the institution of positive feelings and thoughts towards the offender (Strelan & Covic, 2006; Knutson et al., 2008; Satici et al., 2014; Riek & Mania, 2012; Subkoviak et al., 1995; Enright & North, 1998). In essence, forgiveness encompasses an act of mercy towards the offender and a positive transformation for the self that produces psychological healing (Enright & North, 1998).

Research has shown that the benefits of forgiving and no longer harboring resentment towards another are plentiful for the forgiver, including physical, psychological, and social well-

being. For example, the act of forgiving influences physical health in that it can lower levels of stress that typically create poor health behaviors, headaches, sleep disturbances, high blood pressure, an increased rate of injury, and increased occurrences of the common cold (Oman, Shapiro, Thoresen, Plante & Flinders, 2008; Hill et al., 2013; Riek & Mania, 2012). It impacts psychological health in that it reduces rumination and feelings of vengeance, reduces anxiety, and produces greater life satisfaction, hope, and positive affect as well as promotes resiliency (Riek & Mania, 2012; Oman et al., 2008; Satici et al., 2014; Subkoviak et al., 1995; Hill et al., 2013). The social benefits of forgiveness are countless; in fact, forgiveness remains a critical aspect of maintaining friendships or close relationships and often leads to reconciliation (Johnson, Wernli, & LaVoie, 2013; Knack, Jacquot, Jensen-Campbell, & Malcolm, 2013; Hill et al., 2013). In sum, forgiveness is linked with a host of benefits for the forgiver and is an important predictor of well-being. Given these benefits, it is important to understand what predicts an individual's willingness to forgive others.

Forgiveness in emerging adulthood. Emerging adulthood is a particularly important time to study forgiveness given certain characteristics that are present within this developmental stage. The category of emerging adulthood extends from the late teens through the twenties with a focus on ages 18-25 and possibly being prolonged through age 30 (Arnett, 2000; Syed & Krenke, 2013). Emerging adults experience continued development that began in the adolescent stage and consists of identity, psychosocial, psychological, and personality development (Jones, Vateriaus, Jackson, & Morrill, 2014; Syed & Krenke, 2013). Doumen and colleagues (2012) state that identity and relationships with peers are interconnected, and both the continued development of identity and social networks is vital during this stage of life. In fact, support and conflict within friendships are strongly related to the psychosocial development of emerging

adults (Jones et al., 2014). Hill and colleagues (2013) state that identity commitment or knowing who you are should lead to a greater ability to forgive and mature socially as emerging adults strive to make sense of the social environment that encompasses them. Moral experiences that arise during this developmental stage are foundational aspects of moral character, identity and agency (Paciello, Fida, Cerniglia, Tramontano, & Cole, 2013). Although identity development of emerging adulthood is not assessed in the present study, it remains an important characteristic in relation to developing the capacity to forgive.

Emerging adulthood not only comprises of identity development but it also, in the pursuit of individuation, involves psychological development, a predictor for social behavior (Campbell, Bonnacci, Shelton, Exline, & Bushman, 2004; Konrath, O'Brien, & Hsing, 2011). In addition, ego development involves the way a person interprets self and relationships with others and is considered a fundamental component of personality development, and its growth is experienced from social interactions that challenge and require individuals to think deeply about the relationship between self and others (Syed & Krenke, 2013). When a person is agreeable and focused on others, they are more likely to be forgiving (Steiner, Allemand, & McCullough, 2011; Hill et al., 2013); conversely, a person focused on self that feels entitled, predicts less forgiveness (Exline, Baumeister, Bushman, Campbell, & Finkel, 2004), lower empathy, less respect for others, and greater selfish behavior (Campbell et al., 2004). This process of moral identity development and the ability to engage in moral reasoning is a critical aspect of forgiveness (Klatt & Enright, 2009). Due to this developmental stage of emerging adults, the individuation issues that they are experiencing, and the emergence of an understanding of forgiveness, it is an important time period to study forgiveness (Subkoviak et al., 1995).

Altruistic Acts and Willingness to Forgive

Given the importance of the emerging adult period for the study of forgiveness (Subkoviak et al., 1995) and the benefits of forgiveness (Oman et al., 2008; Hill et al., 2013; Riek & Mania, 2012; Satici et al., 2014; Subkoviak et al., 1995; Johnson et al., 2013; Knack et al., 2013), it is important to understand what predicts willingness to forgive in emerging adults. Research suggests that engaging in altruistic acts may be one construct for predicting willingness to forgive (Exline et al., 2004; Paciello et al., 2013). For example, it is known that empathy for others is linked to a willingness to forgive; indeed, Exline et al. (2004) affirm that if empathy can be established, forgiveness is more likely, and Xu, Kou, and Zhang (2012) assert that empathy fosters forgiveness and promotes cooperation with others. Therefore, "empathy could shift the decisional balance in the direction of cooperation" (Xu et al., 2012, p.106).

Researchers define empathy as sympathy and concern for someone in distress that often produces altruistic motivation, rendering this attribute a robust predictor of helping behavior (Pavey, Greitemeyer & Sparks, 2012; Batson, 2011; Enright, 2001; Strauss et al., 2016). Helping or prosocial behaviors that arise from empathy are also referred to as empathy-based behaviors (Paciello et al., 2013) and include acts such as voluntarily offering someone his/her seat, assisting someone in moving to a new location, providing monetary relief, and sacrificing time to help others (Rushton & Sorrentino, 1981). Research also shows that "inducing empathetic concern does not simply activate a general inclination to help; it increases the motivation to help relieve the specific need for which empathy is felt" (Batson, 2011, p. 69). Therefore, since empathy is associated with a willingness to forgive and empathy has the capability of creating a behavioral response that includes acting altruistically towards others, it is plausible that those who engage in more altruistic acts will also be more willing to forgive.

However, recent studies have shown that empathetic concern and perspective taking among college students has declined steadily since 1979 with a more notable decrease during this past decade (McCarty, Mullins, Geller, & Shushok, 2013; Konrath et al., 2011). This fact is discouraging since emerging adults are our future leaders, and this is an ideal time for them to develop the necessary skills needed to work with others. Researchers also show that higher education has a significant impact on a person's values, attitudes, and beliefs and, in fact, "shapes a student's cognitive, moral, and psychosocial characteristics" (Rashedi, Plante, & Callister, 2015, p. 135). Therefore, college students are the prime subjects to study and reflect on the relationship between altruism and the willingness to forgive.

Motivations. People are motivated to help others through altruistic acts for a variety of reasons that often involves the desire, triggered by empathetic concern, to benefit another (Paciello et al., 2013; Batson, 2011), but this is not always the primary motive (Rushton & Sorrentino, 1981). Gebauer, Riketta, Broemer, and Maio (2008) found that two subscales exist when describing the motivation for helping behavior: pleasure-based motivation and pressure-based motivation. Pleasure-based motivation is intrinsic in nature and involves gaining genuine pleasure or a positive state from the helping behavior, whereas pressure-based motivation is extrinsic in nature and involves engaging in altruistic acts out of a sense of duty, in an effort to live out certain social norms, or to escape a negative guilt-induced state (Gebauer et al., 2008; Cunningham, Steinberg, & Grev, 1980). Pavey et al. (2012) describe pleasure-based motivations as being autonomous in nature and cultivated from personal interest, enjoyment and values; in contrast, they describe pressure-based motivations as controlling in nature due to the motivation of rewards, punishments, guilt, or pressure. Gebauer and colleagues (2008) found that when motives for altruistic acts are pleasure-based, individuals exhibited empathy; however, empathy

was not a factor in acts that were pressure-based. In sum, motives play a key role in understanding whether or not altruistic acts are performed out of the desire to help others or out of a sense of duty. Understanding these factors may be important in discerning the association between altruistic acts and a willingness to forgive due to the role empathy plays in both pleasure-based helping behavior and a willingness to forgive, as well as the lack of empathy exhibited among pressure-based motivations.

HYPOTHESES

The present study measured emerging adults' willingness to forgive others, frequency of altruistic acts, and whether or not motives for engaging in altruistic acts alters this association. My first hypothesis was that engaging in altruistic acts will be positively associated with a willingness to forgive (H1). However, I expected that this association would be moderated by the motives for engaging in the altruistic acts. As previously reviewed, motivation in itself has intrinsic and extrinsic values that are represented by two subscales: pleasure-based motives (gaining pleasure from helping others), and pressure-based motives, (feeling obligated to help; Gebauer et al., 2008). Therefore, the second hypothesis stated that the association between altruistic acts and willingness to forgive would be moderated by the *motive* for engaging in those acts. Given that others have found empathy to be a factor in pleasure-based motives (Gebauer et al., 2008) and empathy is linked with a greater willingness to forgive (Exline et al., 2004; Xu et al., 2012), I expected that the positive association would be stronger for those individuals who are high (versus low) in pleasure-based motives (H2a), whereas the positive association would be weakened for those who are high (versus low) in pressure-based motives (H2b).

METHOD

Participants

The participants were college students from a large public university in the southeast. Participants were recruited from Human Development (HD) 101 courses, a core general education requirement, that are made up of largely freshmen and sophomore students with a breath of majors represented. The target sample size was 150. The sample size was configured based on the recommendation from Green (1991) where a sample size for multiple regression should be 50 plus eight times the number of predictors. When calculating on the high side of a possible seven predictors (e.g., 4 controls, two conditional main effects, and 1 interaction term), a total sample size of 106 was suggested; therefore, the estimated sample size for this study was rounded up to 150 subjects to accommodate possible alternative models and controls. The final single regression model contained 6 predictors, as described below. All students in these classes were invited to participate, but only data from students ages 18-25, the standard age range for emerging adults (Arnett, 2000), were used in the data analyses.

A total of 190 surveys were collected; however, 7 were removed because they did not meet the age requirement and 6 were removed due to incomplete data. The final sample consisted of 177 participants ($N = 177$, $M_{age} = 18.84$) made up of 70.1% Freshmen, 20.3% Sophomores, 6.2% Juniors, and 3.4% Seniors. Of the sample, 87.0% identified as female and 13.0% as male. The ethnic makeup of the sample was 83.4% Caucasian, 10.3% African American, 2.9% Hispanic, 2.9% Asian, and 0.6% American Indian or Alaska Native. Of the sample, 84% identified as Christian, 5.9% Agnostic, 5.3% Non-denominational, 1.2% Jewish,

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0.6% Atheist, and 3.0% Other. In addition, 82.5% stated that they had participated in one or

more volunteer organizations, which included 49.7% that noted participation through their

fraternity or sorority as at least one of the organizations they had participated with and 32.8%

that participated in other organizations (i.e., civic, education/youth, hospital/health,

environmental/animal, social/community, religious), while 17.4% stated that they had zero

participation in volunteer organizations.

Data were collected from participants using an anonymous Qualtrics survey, and students

were given extra credit as an incentive for participating in the study. At the end of the survey,

participants were asked to email a screen shot of the completion screen to either the instructor or

the principal investigator so that the information was in no way linked to the responses collected

within the Qualtrics system. Informed consent was obtained prior to participating in the self-

reported survey. Upon reading the full Research Invitation and Informed Consent on the first

page of the survey, the participants checked a box that they agreed to the terms of the study

before they were able to proceed. An Institutional Review Board responsible for human

subjects' research reviewed this research project and found it to be acceptable, according to

applicable state and federal regulations designed to protect the welfare of participants in

research.

Materials

Some demographics were collected to provide background information on participants

and to determine other possible factors for helping behavior. Potential control variables included

gender, ethnicity, religion, and participation in volunteer organizations. Gender was coded as

male and female (Male = 0, Female = 1). Due to low numbers of different ethnic minorities, all

ethnic minorities were collapsed into a single category; therefore, ethnicity was coded as white

and non-white (Non-white = 0, White = 1). Due to low numbers of non-Christian religions, all religious minorities were collapsed into a single category; therefore, religion was coded as Christian and Other (Other = 0, Christian = 1). Participation in voluntary organizations were summarized into two categories: participation in one or more organizations and zero participation (Zero = 0, Participation = 1).

The *Scenario-based Willingness to Forgive Scale (WFS)* was used to assess willingness to forgive in 12 scenario-based situations. The WFS includes 12 situations that involve relationships with co-workers, family, friends, and strangers. Some examples include a co-worker getting credit for your idea, finding a roommate looking at your personal journal, a friend borrowing money and not returning it, and your significant other cheating on you. The instrument contains a 7-point Likert scale, ranging from 0 (*not at all willing*) to 6 (*completely willing*). In prior research, the WFS had a Cronbach's alpha of .91 demonstrating high internal consistency (DeShea, 2003). In the current study, the WFS had a similar Cronbach's alpha of .90.

The *Self-Report Altruism Scale (SRA)* is a 20-item measure that assesses frequency of carrying out altruistic acts. Some examples include giving directions to a stranger, giving money to charity, offering to carry items for a stranger, helping a classmate with homework, voluntarily looking after a neighbor's pet, helping an elderly person across the street, and offering your seat to someone else. This instrument contains a 5-point Likert scale ranging from 0 (*never*) to 4 (*very often*). In prior research, the SRA had a high reliability rating where Cronbach's alpha = .89 (Rushton, Chrisjohn, & Fekken, 1981). In the current study, the SRA had a similar Cronbach's alpha of .84.

The *Pleasure-based versus Pressure-based Prosocial Motivation Scale (3PMS)* is an 8-item measure that assesses two subscales of motivations to help others: pleasure-based and pressure-based (Gebauer et al., 2008). Some examples for the pleasure-based subscale include "Supporting other people makes me very happy," "I do not feel obligated to perform selfless acts towards others," and "When I was able to help other people, I always felt good afterwards." Some examples of the pressure-based subscale include "I feel indebted to stand up for other people," and "I feel a strong duty to help other people in every situation where it is possible for me." This instrument contains a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). In prior research, the 3PMS had a Cronbach's alpha rating of .80 for pleasure-based motivations and .70 for pressure-based motivations when tested for internal consistencies (Gebauer et al., 2008). In the current study, the 3PMS had a significantly lower Cronbach's alpha rating of .56 for pleasure-based motivations and .45 for pressure-based motivations.

The *Interpersonal Reactivity Index (IRI)* is a 28-item questionnaire that assesses empathy (reactions to observations of another person's experiences) within four subscales: Empathetic Concern (EC), Perspective Taking (PT), Personal Distress (PD), and Fantasy (FS) (Chrysikou & Thompson, 2016). Although the hypotheses for the current study did not specify interpersonal reactivity, this measure was included as a potential alternative to the 3PMS to try to determine possible reasons why people might engage in altruistic acts. The current study focused on two of the four subscales: Empathetic Concern (helping behavior to alleviate the other's suffering) and Personal Distress (helping behavior to alleviate own discomfort) (Carrera, Oceja, Caballero, Munoz, Lopez-Perez, & Ambrona, 2013). Some examples are "I often have tender, concerned feelings for people less fortunate than me" (EC), and "In emergency situations, I feel apprehensive and ill-at-ease" (PD). This instrument contains a 5-point Likert scale ranging from

1 (*does not describe me well*) to 5 (*describes me very well*). In prior research, the subscales had Cronbach's alpha rating of Empathetic Concern (EC), alpha = .80; and Personal Distress (PD), alpha = .75 (Pulos, Elison, & Lennon, 2004). In the current study, the subscales had a Cronbach's alpha rating of Empathetic Concern (EC), alpha = .76; and Personal Distress (PD), alpha = .64.

RESULTS

A Pearson's bivariate correlation with a *p*-value of .05 was used to assess the bivariate relationships between the study variables (see Table 1). In the correlation matrix, the correlations between willingness to forgive and the other variables (i.e., altruistic acts, pleasure-based motivation, and pressure-based motivation) revealed no significant correlation. The correlation between altruistic acts and pleasure-based motivation revealed a small positive correlation ($r = .146$, $N = 177$, $p = .052$). The correlation between altruistic acts and pressure-based motivation revealed a small significant positive correlation ($r = .192$, $N = 177$, $p = .010$). The correlation between pleasure-based and pressure-based motives revealed a small to moderate significant positive correlation ($r = .343$, $N = 177$, $p < .001$).

In addition, a Pearson's bivariate correlation with a *p*-value of .05 was used to assess the bivariate relationship between willingness to forgive, altruistic acts, empathetic concern, and personal distress (see Table 1). No significant correlation was revealed between willingness to forgive, empathetic concern, and personal distress. The correlation between altruistic acts and empathetic concern revealed a small to moderate significant positive correlation ($r = .277$, $N = 177$, $p < .001$). The correlation between altruistic acts and personal distress revealed a small significant negative correlation ($r = -.197$, $N = 177$, $p < .001$). A moderate significant positive correlation ($r = .464$, $N = 177$, $p < .001$) was found between empathetic concern and pleasure-based motives, and a small to moderate significant positive association ($r = .369$, $N = 177$, $p < .001$) was found between empathetic concern and pressure-based motives.

Table 1

Correlations, means and standard deviations of model variables

Variable	M	SD	1	2	3	4	5	6
1. Willingness to forgive	2.668	1.007	-					
2. Altruistic Acts	1.735	0.509	.062	-				
3. Pleasure-based	4.051	0.658	-.051	.146	-			
4. Pressure-based	3.520	0.642	.066	.192*	.343**	-		
5. Empathetic Concern	3.748	0.649	.017	.277**	.464**	.369**	-	
6. Personal Distress	2.716	0.570	.046	.197**	-.014	.026	.071	-

Note: * $p < .05$, **$p < .001$

$N = 177$

In order to identify associations between potential demographic control variables (gender, ethnicity, religion, and participation in voluntary organizations) and willingness to forgive, a series of preliminary analyses were conducted. A one-way between subjects ANOVA was conducted to compare the effect of each demographic control on willingness to forgive. There was no significance found in the relationship between willingness to forgive and the following possible demographic controls: gender, religion, and participation in voluntary organizations; however, there was a significant effect of ethnicity (Non-white = 0, White = 1) on willingness to forgive at the $p < .05$ level; $F(1,173) = 8.739$, $p = .004$ suggesting non-white participants reported more willingness to forgive than white participants. Therefore, only ethnicity was included as a control in the regression analysis.

A single multiple regression analysis was run predicting willingness to forgive from the following variables: altruistic acts, pleasure-based motivation, and pressure-based motivation (conditional main effects); the interaction between altruistic acts and pleasure-based motivation

and the interaction between altruistic acts and pressure-based motivation were also included in the model; and ethnicity was included as a control variable (see Table 2). I used a p-value of .05 to determine significance. For Hypothesis 1, it was hypothesized that there would be a positive association between altruistic acts and willingness to forgive, where a higher score on frequency of altruistic acts would correlate with higher scores on the willingness to forgive scale. However, the results showed that the conditional main effect of altruism was not significant and, therefore, frequency of altruistic acts did not, on its own, predict willingness to forgive.

Table 2
Multiple regression analysis for pleasure and pressure-based motivations (N = 177)

Source	B	SE B	β	t	p
Ethnicity	-.272	.104	-.202	-2.613	.010*
Altruistic Acts (SRA)	-.029	.155	-.014	-.185	.853
Pleasure-based (PL)	-.116	.125	-.076	-.931	.353
Pressure-based (PR)	.173	.125	.111	1.378	.170
SRA x PL	.429	.236	.156	1.823	.070
SRA x PR	-.513	.243	-.178	-2.109	.036*
R^2		.086			
Adjusted R^2		.053			
F		2.621			

Note: * $p < .05$; $p = .019$; B, unstandardized regression coefficient; SE B, unstandardized standard error; β, standardized beta

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For Hypothesis 2, the relationship between frequency of altruistic acts and willingness to forgive as moderated by two subscales (pleasure-based motivations and pressure-based motivations) was analyzed. Using the Willingness to Forgive Scale, the Self-Report Altruism Scale and the Pleasure-based versus Pressure-based Prosocial Motivation Scale, the interaction between altruistic acts and pleasure-based motives (H2a), as well as the interaction between altruistic acts and pressure-based motives (H2b), was analyzed to explain the 8.6% ($R^2 = .086$) variance in the criterion variable. For H2a, I had expected to find that a positive association with altruistic acts would be stronger for individuals who are high (versus low) in pleasure-based motives. For H2b, I had expected to find that the positive association would be weakened for those who are high (versus low) in pressure-based motives.

Contrary to my hypothesis for H2a, the results showed that pleasure-based motivations did not have a significant interaction with altruistic acts in the association with willingness to forgive ($\beta = .156$, $p = .070$). Therefore, H2a was not supported in this study. As hypothesized for H2b, the results showed that pressure-based motivations significantly interacted with altruistic acts in the association with willingness to forgive ($\beta = -.178$, $p = .036$). Although altruistic acts did not predict willingness to forgive on its own, there is an effect once we add pressure-based motives as a moderator. To further explain this effect, the interaction between altruistic acts and pressure-based motives was probed at 1 standard deviation above and below the mean (Aiken & West, 1991). As shown in Figure 1, and as expected, for individuals with low pressure-based motivation (PMS-PR-low), willingness to forgive increases with an increase in altruistic acts. For individuals with high pressure-based motivation (PMS-PR-high), willingness to forgive decreases as altruistic acts increase (see Figure 1).
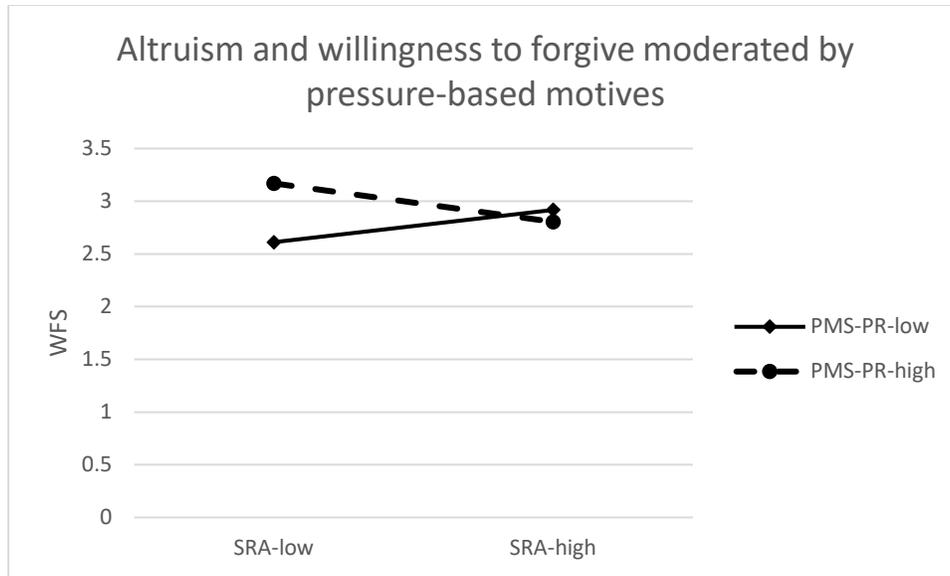
Figure 1.The interaction effect of pressure-based motives (i.e., PMS-PR-low, PMS-PR-high) on the association between the frequency of altruistic acts (i.e., SRA-low, SRA-high) and willingness to forgive (WFS)

Given the low alphas for the pleasure-based and pressure-based prosocial motivation scale, I also tested the empathetic concern (EC) and personal distress (PD) subscales of the IRI as potential moderators by running a single model regression analysis with 6 predictors (ethnicity, altruistic acts, empathetic concern, personal distress, the interaction between altruistic acts and empathetic concern, and the interaction between altruistic acts and personal distress); however, neither EC ($\beta = .070$, $p = .360$) nor PD ($\beta = -.118$, $p = .134$) had a significant interaction with altruistic acts in the association with willingness to forgive (see Table 3). Prior studies reported slightly lower means (for EC, $M = 2.84$; for PD, $M = 1.69$) and also reported a majority of female participants with a mean age of 22.09 (SD = 5.34) (Pulos et al., 2004).

Table 3
Multiple regression analysis for empathetic concern and personal distress (N = 177)

Source	B	SE B	β	t	p
Ethnicity	-.274	.104	-.204	-2.640	.009*

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	B	SE B	β		
Altruistic Acts (SRA)	.015	.164	.007	.090	.929
Empathetic Concern (EC)	.001	.123	.001	.009	.993
Personal Distress (PD)	.139	.141	.078	.986	.326
SRA x EC	.216	.236	.070	.917	.360
SRA x PD	-.407	.270	-.118	-1.506	.134
R^2	.067				
Adjusted R^2	.033				
F	1.986				

Note: * $p < .05$; $p = .070$; B, unstandardized regression coefficient; SE B, unstandardized standard error; β, standardized beta

DISCUSSION

The aim of this study was to explore whether frequency of altruistic acts is associated with willingness to forgive within emerging adults. Furthermore, pressure-based and pleasure-based motivations were explored to determine if they alter this association. Contrary to my hypothesis, altruistic acts did not, on their own, significantly predict willingness to forgive. This pattern is inconsistent with prior literature that links these two variables through empathy, a robust predictor of both helping behavior and a willingness to forgive (Batson, 2011; Paciello et al., 2013; Xu et al., 2012). This unexpected result could be interpreted in several ways. First, it may be that there truly is no link between altruistic acts and willingness to forgive within emerging adults or, if a link exists, it could be that the relationship is based on a third factor (i.e., motives). Second, it may be that an association exists but, due to the decline in emerging adults possessing empathetic concern and perspective taking (McCarty et al., 2013; Konrath et al., 2011), there is a possible decline in emerging adults' general helping behavior and, therefore, the parameters set forth in this study did not significantly predict altruistic behavior. Third, it may be that an association exists, but due to emerging adults' developmental phase, individuals within this age group have not fully learned to regulate their emotions (Steiner et al., 2011) and are more deeply affected by hurtful situations than older adults and, therefore, less willing to forgive and offer help to others (Subkoviak et al., 1995; Konrath et al., 2011). Within this study the means for the willingness to forgive scale ($M = 2.67$ out of a possible 6) and the self-reported altruism scale ($M = 1.73$ out of a possible 4) were just below the halfway point which could

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validate the plausibility that emerging adults have a lower tendency to forgive and help others; however, this study did not seek to compare emerging adults with older adults.

There was partial support for the hypotheses that explore whether or not pleasure-based and pressure-based motivations alter the association between altruistic acts and willingness to forgive. Unexpectedly, pleasure-based prosocial motivation did not have a significant interaction with altruistic acts in association with willingness to forgive. Since pleasure-based motivation involves empathy and receiving pleasure from helping others (Gebauer et al., 2008), these results could also, in part, be due to the decline in emerging adults' empathetic concern and perspective taking (McCarty et al., 2013; Konrath et al., 2011). However, it is interesting to note that the mean score for the pleasure-based motivations in the present study was rather high ($M = 4.051$ out of a possible 5) and could possibly represent participants' over-reporting of their pleasure-based motivations. This over-reporting could be due to social desirability, a feeling of obligation or duty to act responsibly by helping others (Carlo & Randall, 2002). Therefore, it is plausible that emerging adults feel that helping others is the right thing to do but possibly do not fully understand the meaning of helping others for pleasure versus helping others because they feel they should. Consequently, a lack of pleasure in helping others could potentially alter the frequency that emerging adults produce helping behavior and may not be a valid motivation for emerging adults.

However, when exploring pressure-based prosocial motivation as a moderator, I found a significant effect between altruistic acts and willingness to forgive. As anticipated, with low-pressure-based motives, when altruistic acts increased there was an increase in willingness to forgive and, with high-pressure motives, when altruistic acts increased there was a decrease in willingness to forgive. These results are in line with previous literature whereas helping others

out of a desire to relieve another's pain rather than doing so out of a feeling of obligation tends to produce a greater tendency to forgive others and vice versa (Exline et al., 2004; Paciello et al., 2013; Xu et al., 2012; Gebauer et al., 2008). In addition, these results show a plausibility that altruistic acts performed due to high pressure-based motives have the capability of producing a callousness towards others. Therefore, willingness to forgive can actually decrease when a person feels forced to help others.

Limitations and Future Research

There are some limitations to the present study. First, the low alpha scores on the 3PMS are a limitation. In previous studies, Gebauer et al. (2008) found satisfactory internal consistencies using a 7-point Likert scale; however, throughout the three studies conducted, alphas were not consistently high. In Study 1, Gebauer et al. (2008) reported a Cronbach's alpha of .80 for Pleasure and .70 for Pressure. In Study 2, they reported a Cronbach's alpha of .76 for Pleasure and .57 for Pressure; and, in study 3, they reported a Cronbach's alpha of .86 for Pleasure and .77 for Pressure. Similar to the present study, all three of these studies were made up primarily of females; however, the Gebauer et al. (2008) studies reported a more nationally diverse population. The second and third studies were conducted in German versus English. In addition, the mean age of the average participant in all three studies was at or above age 25 and, therefore, is above the range for emerging adulthood (Study 1 M_{age} = 25.50; Study 2 M_{age} = 28.07; Study 3 M_{age} = 27.93). In another study using the 3PMS with a 7-point Likert scale, the Cronbach's alpha for Pleasure was reported at .69 and Pressure at .76 where most were female and the mean age was 31 (SD = 13.00) (Vecina & Fernando, 2013). The only study I found that used the 3PMS within the emerging adulthood population was Okun and Kim's (2016) study that, similar to the current study, had a primarily white female population with 66% female and

54% Caucasian. Okun and Kim (2016) used a 5-point Likert scale and reported a Cronbach's alpha of .62 for Pleasure and .53 for Pressure.

In sum, previous studies using the 3PMS have shown inconsistent reliability. In the studies with participants above emerging adulthood ($M_{age} > 25$), the reliability scores appear to be somewhat higher than those studies that focused on participants ages 18-25, although a pattern of inconsistent reliability still exists. Since the present study that focused on emerging adults (ages 18-25 years of age) revealed low alpha scores, and Okun and Kim's (2016) study that focused on emerging adults also revealed low alpha scores, it is possible that this scale does not fit the emerging adult population. Moreover, the 3PMS could be eliciting responses towards frequency of behaviors that emerging adults have not had the opportunity to experience thus far and, as a result, are unable to clearly understand and provide accurate answers to the statements provided in this scale.

It was also noted that Gebauer et al. (2008) and Vecina and Fernando (2013) used a 7-point Likert scale, while Okun and Kim (2016) used a 5-point Likert scale (also used in the present study). Since a 7-point Likert scale provides more variation in responses, it is possible that the 5-point Likert scale does not capture the full array of possible responses. However, 5-point Likert scales are a popular method that are typically less time-consuming and, therefore, have the capability of creating an increased response rate. It is unknown whether or not the difference in the Likert scales plays a part in the low alpha scores. It seems more likely that the low alpha scores are due to the age of the participant; however, this difference cannot be dismissed. Also noted is the increased ethnic diversity that was present in the first two studies (Gebauer et al., 2008; Vecina and Fernando, 2013) mentioned above that could also play a part in the varying alpha scores. Therefore, this study could be done with an alternative motivation

for helping behavior scale that might prove to be more reliable and might possibly be more conducive to the knowledge-base and experiences of the emerging adult audience.

Second, a lack of diversity (i.e., gender, ethnicity, religion) exists in the present study, so the generalizability of the results is unknown. The study included mainly white Christian females and all participants were from a large public university in the southeast. Due to the significant effect ethnicity had on this study (i.e., non-White participants more likely to forgive), future studies might implore participation from numerous universities and/or additional areas of study in an effort to include a more diverse sample and determine how ethnicity might play a part (if any) in the association between altruistic acts and willingness to forgive. Third, data were based on self-reported scales that could be skewed due to the nature of self-reported data by the tendency of the participant to respond in a socially desirable manner (Konrath et al., 2011).

This study also had strengths, including demonstrating a general baseline for how motives can alter the association between altruistic acts and willingness to forgive and reveals the need for more research in the field of emerging adults' understanding of altruism and forgiveness. It also reveals the need for the creation of additional helping behavior and motivational scales that are relatable to college-aged students and the experiences that they have had thus far. Future research can extend these results by looking at emerging adults throughout their college careers to determine if any changes exist from the freshmen year (which was this study's main audience) to the senior year. Would students that have been exposed to more opportunities for helping behavior throughout their college careers have a different outcome from those that have just begun their college careers? It might also be beneficial for future research to probe further into emerging adults' perception of altruism and forgiveness and how those perceptions differ from older adults.

CONCLUSION

The benefits of forgiveness are numerous (Oman et al., 2008; Hill et al., 2013; Riek & Mania, 2012) and emerging adults' unique developmental stage characterized by individuation issues encountered through continued psychosocial development (Jones et al., 2014; Syed & Krenke, 2013; Doumen et al., 2012; Hill et al., 2013; Paciello et al., 2013; Campbell et al., 2004; Konrath et al., 2011) makes this a crucial time to study willingness to forgive. The present research examined altruistic acts' association with willingness to forgive and how pleasure-based and pressure-based motives might alter that association. I found that for people who report high pressure-based motives to help others, engaging in increased altruistic acts is associated with a decrease in willingness to forgive. Conversely, for people who report low pressure-based motives to help others, engaging in increased altruistic acts is associated with an increase in willingness to forgive.

Many universities provide activities to engage students beyond the field of academics to create a well-balanced, holistic college experience (Rashedi et al., 2015). Since researchers show that promoting involvement and engaging students on campus early on is an essential part of developing positive interpersonal relationships and empathy (McCarty et al., 2013; Rashedi et al., 2015), institutions of higher education could benefit from further studies to help predict and promote willingness to forgive in emerging adults. One area that universities often focus on involves altruistic acts whether through community service, leadership roles, or Greek organizations. Rashedi et al. (2015) state that students can experience negative reactions when altruism is required and that students are typically more caring towards others when they

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volunteer on their own. For that reason, it would be beneficial for colleges and universities to

learn other approaches to encouraging altruism and instilling civility among their students.

Future studies could help clarify the link between altruism and forgiveness and, by promoting

cooperation among others and greater opportunities for altruism within the college experience, it

is possible that empathy and forgiveness among younger generations might become more

prevalent and, in turn, reverse the decline that currently exists (Konrath et al., 2011; McCarty et

al., 2013).

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January 19, 2017

Candace Peters
Academic Advisor
Culverhouse School of Accountancy
The University of Alabama
Box 870220

Re: IRB # EX-17-CM-008 "Do Altruistic Acts in Emerging Adults Translate to a Willingness to Forgive?

Dear Ms. Peters:

The University of Alabama Institutional Review Board has granted approval for your proposed research. Your protocol has been given exempt approval according to 45 CFR part 46.101(b)(2) as outlined below:

(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless:
(i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Your application will expire on January 18, 2018. If your research will continue beyond this date, complete the relevant portions of Continuing Review and Closure From. If you wish to modify the application, complete the Modification of an Approved Protocol Form. When the study closes, complete the appropriate portions of FORM: Continuing Review and Closure.

Should you need to submit any further correspondence regarding this proposal, please include the assigned IRB application number.

Good luck with your research.

Sincerely,

Carpantato T. Myles, MSM, CIM, CIP
Director & Research Compliance Officer
Office of Research Compliance

358 Rose Administration Building | Box 870127 | Tuscaloosa, AL 35487-0127
205-348-8461 | Fax 205-348-7189 | Toll Free 1-877-820-3066

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