Helping Others Helps Me: Prosocial Behavior as a Function of Identity Development and Self-

Regulation in Emerging Adulthood

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Abstract

Many people believe that today's young people are narcissistic and self-involved (e.g., Twenge, 2006), but research has suggested that emerging adults are engaging in explorations of positive behaviors as well. The purpose of this study was to examine the relationship between identity development, self-regulation, and prosocial behavior in emerging adulthood. Data from 182 undergraduate students (17 to 22 years old) at a small, private Midwestern liberal arts college indicated that self-regulatory style predicted prosocial tendencies and behavior more strongly than identity development variables of exploration, commitment, self-focus, and other-focus. Emerging adults are choosing to engage in prosocial behaviors and internally regulate positive aspects of their behavior even as there are continuing to progress in their identity development.

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Perceptions that contemporary Americans have of today's young adults paint a pessimistic picture of society's future. The Baby Boomer generation tends to see today's young people as selfish, irresponsible, and narcissistic; this view has permeated much of American society and the popular media as well (Chapman, 2007). Some social scientists have supported these opinions with empirical research. In her 2006 book *Generation Me*, Jean Twenge argues that those born in the late 1970s, 1980s, and 1990s are "a generation unapologetically focused on the individual" who have been "taught to put their own needs first and to focus on feeling good about themselves" (p. 2; p. 7). Twenge (2006) also has found evidence of increases in narcissism, self-focus, and entitlement in recent generations. She asserts that these changes have created a belief system that places little value on following social rules or putting the needs of the group above the needs of the individual (Twenge, 2006).

Other researchers have raised concerns about Twenge's negative conclusions regarding today's young adults. Trzesniewski, Donnellan, and Robins (2008) criticized the methodology employed by Twenge and her colleagues, arguing that conclusions drawn from convenience samples of college students are not representative of the whole population and cannot be generalized to an entire generation of young people. They also argue specifically against the conclusion that the overall rise in narcissism is uniformly problematic. Instead, they contend that there are several components of narcissism which could contribute to changes in overall narcissism scores. Some of these facets, such as entitlement/exploitativeness and vanity, are maladaptive, but there are others, such as self-sufficiency, that do not have an appreciable "dark side" (Trzesniewski, Donnellan, & Robins, 2008, p. 911).

Similar to Trzesniewski et al. (2008), the current study looks beyond the selfish, negative images put forth by Twenge (2006) and others and instead focuses on positive aspects of the behavior of today's young people. The purpose of the present study was an examination of how developing identity and self-regulation are related to prosocial behavior in emerging adults.

Emerging Adulthood

Recent researchers have examined the unique characteristics and experiences of this generation of young people who are no longer adolescents but do not yet consider themselves to be fully adults. Jeffrey Arnett (2000) has identified this period as emerging adulthood. He suggested that the years from approximately ages 18 to 25 now constitute a developmentally distinct period of the life course which has come to characterize the experiences of young people in industrialized Western societies. This conceptualization differs from others that have been proposed previously because of its focus on an extended period of identity development without strong commitments to adult identities or roles. Emerging adulthood is distinguished by the exploration of many possibilities and choices in love, work, and worldview while society grants a moratorium from conformity to social roles or normative expectations. According to Arnett (2004), the five main identifying features of emerging adulthood are: identity exploration, especially regarding love and work; emotional instability; self-focus; feeling in-between, in the sense of no longer being an adolescent but also not yet being an adult; and a sense of possibilities.

Most emerging adults consider themselves to be adults in some ways but not in others. Many researchers have begun to explore the criteria these emerging adults use for determining whether or not they have achieved full adult status (e.g., Arnett 2004; Nelson & Barry, 2005; Walker & Iverson, 2009). In general, emerging adults consider independence, self-reliance,

compliance with societal norms, the ability to form mature relationships, and the ability to

provide and care for a family to be important conditions for reaching adulthood (Nelson, Padilla-

Walker, Carroll, Madsen, Barry, & Badger, 2007). In addition, the small group of individuals

who do consider themselves to be adults when many of their peers do not have been shown to

view adulthood as characterized by more mature and fewer risk behaviors (Nelson & Barry,

2005).

Prosocial Behavior

As emerging adults engage in individual exploration on the road to adulthood, they are

also being socialized to function appropriately as a member of their social group. Arnett (2007a)

argued that the three main goals of socialization in emerging adulthood are: increased self-

regulation of emotion, thought, and behavior; internalization of social norms and values; and the

development of role-taking skills in interpersonal relationships. Throughout this process,

emerging adults are working toward the development of relational maturity, which includes

increased perspective-taking skills and a greater consideration for others (Nelson et al., 2007).

One way in which these qualities are demonstrated is in prosocial behavior. Prosocial

behavior is defined by Dovidio, Piliavin, Schroeder, and Penner (2006) as "a broad category of

actions that are defined by society as generally beneficial to other people and to the ongoing

political system" (p. 21). Prosocial behavior can occur in many different contexts, and people

will act in ways which are beneficial to others for a variety of reasons. As research has been

conducted on people's motivations for helping others, two conflicting hypotheses have emerged:

the negative state relief model (e.g., Cialdini, Kenrick, & Bauman, 1982) and the empathy-

altruism hypothesis (e.g., Batson, 1987).

Cialdini, Kenrick, and Baumann (1982) argued that witnessing another person's distress generally causes a negative mood state, and one way for individuals to reduce this mood state is through helping the other person. Since individuals are receiving the benefit to the self of improved mood state, Cialdini et al. (1982) contended that prosocial behavior is not truly altruistic. Contrastingly, Batson (1987) proposed that perceiving the distress or need of another person could also lead to empathy, a distinct emotional response invoked when the individual perceiving the situation is able to take the perspective of the person in need. Then, the empathic response would motivate the individual to act altruistically to increase the welfare of the other person.

Dovidio, Allen, and Schroeder (1990) investigated the ability of these two competing theories to explain the motivation underlying prosocial behavior. They found support for both models. Self-focused egoistic motivation was shown to lead to more generalized helping behavior because prosocial behavior in any situation would accomplish the goal of relieving one's negative mood states. Other-focused altruistic motivation was shown to be specific to the current goal, as the empathy was invoked by taking the perspective of the other in the current situation alone. Since they did find evidence in support of both the negative state relief model and the empathy-altruism hypothesis, Dovidio et al. (1990) suggested that there could be mixed motivations for helping, such that egoistic and altruistic motivations are operating at the same time, with the relative strength of emotional reaction affecting the predominance of motivation type.

As in the work of Dovidio et al. (1990), most previous research on prosocial behavior has focused on either global prosocial behavior or prosocial behavior in specific contexts. Global prosocial behavior refers to an individual's overall tendency to engage in various prosocial

behaviors across different contexts and due to different motivating factors (Carlo & Randall,

2002). According to Carlo and Randall (2002), measuring prosocial behavior in this way fails to

capture the variance in different types of prosocial behavior that are related to different personal

and situational factors, leading to the weak and inconsistent relationships often found between

prosocial behavior and other sociocognitive or socioemotional variables. In examining prosocial

behavior in specific contexts, researchers provide participants with specific, often laboratory-

created, opportunities to behave prosocially, but measuring prosocial behavior in this way is

subject to bias in coding and is often difficult, time-consuming, and expensive (Carlo & Randall,

2002).

Instead of limiting conceptions of prosocial behavior to either the global or the specific,

Carlo and Randall (2002) have proposed that there are different types of prosocial behavior

which are dependent on personal and situational factors. Based on their own work and reviews

of the work of others, they have proposed six main types of prosocial behaviors. *Altruistic*

prosocial behaviors are those in which one person voluntarily helps another. *Compliant*

prosocial behaviors are those in which a person helps another because he or she is asked to.

Emotional prosocial behaviors are those in which people help others in highly emotionally-

evocative circumstances. These three types of behaviors were found to be positively related to

perspective-taking, sympathy, other focus, and high levels of internalized prosocial moral

reasoning. *Anonymous* prosocial behaviors are those in which help is given when there will be no

knowledge of who helped. *Dire* prosocial behaviors are those in which help is given in response

to an emergency or crisis situation. These two types of behaviors were found to be positively

related to perspective-taking, sympathy, and other focus. *Public* prosocial behaviors are those

which are performed in front of an audience and are motivated by the potential for gaining

respect and approval from others and enhancing feelings of personal self-worth. These behaviors were related negatively to perspective-taking, sympathy, other focus, and high levels of internalized prosocial moral reasoning, but were positively related to low levels of prosocial moral reasoning. Carlo and Randall (2002) refer to these six types as prosocial tendencies, as they measure the likelihood that an individual will behave prosocially in various contexts.

Self-Regulation

In addition to referring to different situations, the six prosocial tendencies show that the motivation to behave prosocially can vary as well. For example, public prosocial tendencies can be motivated by external factors such as the other people observing the interaction, while altruistic prosocial tendencies tend to be more self-motivated (Carlo & Randall, 2002).

Deci and Ryan have studied this ability to self-motivate more generally in their work with self-determination theory (SDT; e.g., Ryan & Deci, 2000). SDT examines how people motivate themselves and make decisions about directing their behavior toward particular goals (Ryan & Deci, 2000). An individual's self-regulatory style reflects the degree to which the value given to a specific behavior and the social requirements for its regulation have been internalized and integrated into the self. SDT proposes that motivation can be extrinsic if a behavior is performed in order to obtain an external outcome or because of the opinions of others. Motivation becomes intrinsic when a behavior is done because it is internally valued or for the inherent satisfaction that it brings to the individual (Ryan & Deci, 2000). Extrinsic reasons for acting can either be *external*, in which a person behaves in order to conform to a social authority or rule or to avoid punishment; or *introjected*, in which people obligated to act according to external values in order to avoid guilt or gain approval. Intrinsic reasons for acting can either be *identified*, in which people act according to their own values or goals; or *integrated*, in which people act for the

inherent enjoyment it brings them and because it is in accordance with goals and values which have become important to the self and brought into congruence with one's other needs and values (Ryan & Deci, 2000, p.73). More internalized motivation has been shown to be associated with greater efficacy, increased belief in one's ability to make choices, an enhanced subjective well-being, and with becoming better integrated into one's social group (Ryan & Deci, 2000).

Ryan and Connell (1989) examined how the construct of self-regulation could help to explain people's reasons for engaging in prosocial behavior in various contexts. In examining prosocial behavior at external, introjected, and identified levels of self-regulation, they found that self-focus was associated with external motivations for prosocial behavior, as the main concern was to avoid punishment and to comply with prescribed external rules or norms. Other-focus, in contrast, was associated with more autonomous and internally motivated prosocial behavior. Internal motivation for acting prosocially was also shown to be related to higher levels of moral reasoning (Ryan & Connell, 1989).

Identity Development

The abilities to self-motivate and to self-regulate behavior have been important components in many theories of identity development. Erik Erikson (1968) argued that as children grow and mature, they move from introjections, in which they incorporate the teachings of their parents into their behavior in order to avoid punishment, to identifications with other social groups and expectations. The identity becomes fully established when childhood identifications are no longer useful on their own and so the significant identifications and relevant social standards are synthesized into "a unique and reasonably coherent whole" (Erikson, 1968, p. 161). Erikson (1968) contended that this integration occurs at the end of

adolescence, following a period of psychosocial moratorium in which young people are granted

selective permissiveness to experiment with various social roles and delay their adult

commitments.

The emphasis on exploration and commitment as central aspects of identity development

during adolescence has been expanded upon by many other researchers. For example, Marcia

(1980) developed ego-identity status theory in order to provide a way to empirically evaluate

Erikson's theoretical propositions about identity crisis and commitment. Four different identity

statuses have been proposed: *identity diffusion*, which refers to a lack of commitment to either

ideological or occupational goals; *foreclosure*, in which the individual has committed to

occupational and ideological goals that have been chosen by one's parents rather than as the

result of an identity crisis; *moratorium*, in which the individual is currently in the midst of an

identity crisis and is struggling with occupational and ideological issues; and *identity*

achievement, which is characterized by having experienced an identity crisis and having since

committed to occupational and ideological goals (Marcia 1980).

Further research has refined the conception and measurement of identity in these terms.

Balistreri, Busch-Rossnagel, and Geisinger (1995), for example, have proposed that a process of

exploration is more relevant for today's young people than the experience of an identity crisis.

Further, they have argued that examining levels of exploration and commitment separately rather

than as components of specific identity statuses provides a more meaningful description of ego-

identity status than examining scores for each status separately (e.g., Adams, Shea, & Fitch,

1979). In this framework, the exploration and commitment dimensions are the most important

variables to consider, but they can be mapped on to the four identity status categories as well:

identity achievement is characterized by high scores on exploration and commitment, foreclosure

by low scores on exploration and high scores on commitment, moratorium by high scores on exploration and low scores on commitment, and identity diffusion by low scores on both exploration and commitment (Balistreri et al., 1995).

Previous Research on Prosocial Behavior in Young People

The period of emerging adulthood incorporates these concepts of exploration and commitment, as many emerging adults use the psychosocial moratorium to investigate the various possibilities open to them before committing to specific goals, beliefs, and values and ultimately completing the transition to adulthood. Most existing research on emerging adults has focused on their exploration through risk behaviors such as binge drinking and unprotected sex which according to Padilla-Walker, Barry, Carroll, Madsen, and Nelson (2008) are motivated by a narcissistic self-focus and lack of social responsibility. However, today's emerging adults are not a hopeless generation and have been shown to engage in many positive behaviors and explorations of the self in relation to others as well. For example, the Higher Education Research Institute at UCLA has been studying college freshman since the 1960s and has found that today's young people are more likely than ever before to engage in volunteer work (Astin, 2002).

Most previous research has focused on the development of prosocial behavior in childhood and into adolescence, but little work has been done with older adolescents or emerging adults. Eisenberg, Cumberland, Guthrie, Murphy, and Shepard (2005) examined changes in self-reported helping, the ability to take the perspective of others, and moral reasoning used to make decisions about prosocial behavior from mid-adolescence to early adulthood (ages 15 to 26). The established link between prosocial behavior and perspective-taking skills, which continue to develop during adolescence, suggests that prosocial behavior would develop during this period

as well. Changes in moral reasoning and sympathy during adolescence have also been linked to

the development of altruistic tendencies, which are a contributing factor to prosocial behavior.

Eisenberg et al. (2005) found that self-reported helping increased with age from 15-16 to 17-18,

dropped a little and stabilized from 21-22 to 23-24, and then increased somewhat by age 25-26.

Perspective-taking increased with age, while personal distress decreased. All together, these

results showed the most change in prosocial moral reasoning and self-reported helping from late

adolescence into the early 20s, during the period classified as emerging adulthood.

Other researchers have examined theses changes in prosocial reasoning that occur during

emerging adulthood and found that there is a correlation between levels of internal regulation

and prosocial tendencies. Barry, Padilla-Walker, Madsen, & Nelson (2008) found that in a

national sample of undergraduate emerging adults, external regulation of prosocial values was

positively related to public prosocial tendencies and negatively related to compliant, anonymous,

and altruistic prosocial tendencies. In contrast, internal regulation of prosocial values was

negatively correlated with public prosocial tendencies and positively correlated with all five

other prosocial tendencies. This work suggests that as emerging adults develop their identities

and begin to internalize societal norms such as prosocial values, resulting changes in prosocial

behavior and motivation will occur in various contexts as well.

Recent work has emerged within the literature exploring the relationship between identity

status and prosocial behavior in emerging adults (Hardy & Kisling, 2006). The authors measured

identity status by assessing the extent to which participants identified with each of the four

identity status groups. They found that identity diffusion scores were negatively related to

prosocial behaviors, and identity achievement scores were positively related to prosocial

behaviors. Using regression analysis, identity achievement was shown to be the only significant

positive predictor of prosocial functioning and the only identity status to explain a significant amount of variance in the three measures of prosocial behavior (Hardy & Kisling, 2006). These findings support the idea that a mature identity is related to the ability to form interpersonal connections, to develop an other-focus, and to become motivated to help others and contribute to society.

In a study which provided the guiding framework for the current research, Padilla-Walker et al. (2008) investigated the relationship between identity status, gender, and prosocial tendencies in emerging adults. They found that when compared with the other identity status groups, emerging adults who were low on identity exploration and commitment had significantly higher levels of public prosocial tendencies and lower levels of altruistic, emotional, dire, and compliant prosocial tendencies. Individuals who demonstrated high identity exploration and commitment reported greater altruistic prosocial tendencies than either foreclosed or diffused individuals. In addition, identity achieved individuals reported the highest levels of identified and integrated internalization of prosocial values and identity diffused individuals reported the lowest levels. In terms of gender, the researchers found that emerging adult males reported higher levels of public prosocial tendencies than females, while emerging adult females reported higher levels of emotional and altruistic prosocial tendencies than males. The emerging adult women in this sample also reported greater internalization of prosocial values than did the men, suggesting that perhaps they have reached a higher level of moral development at this stage.

Based on these results, Padilla-Walker et al. (2008) suggest that emerging adulthood is indeed a time of exploring positive tendencies, values, and beliefs. As emerging adults are exploring their identities, they are also pursuing relational maturity and internalizing the value of helping others. The lower levels of prosocial tendencies and lower internalization of values

reported by identity diffused emerging adults could indicate high levels of self-focus and an inability to balance self-interests with the interests of others at the early stages of this process of exploration.

Hypotheses

It was expected in the present study that identity development would predict prosocial behaviors and tendencies (H_1). Because identity achievement has been shown to be a positive predictor of prosocial functioning and identity status has been found to be related to prosocial tendencies (Hardy & Kisling, 2006; Padilla-Walker et al., 2008), it was expected that those individuals who are higher on the identity status dimensions of exploration and commitment would be more likely to engage in prosocial behavior because of the progress they are making towards a more mature identity. It also was predicted that as an alternative measure of identity development, scales measuring the strength of identification with emerging adulthood would be related to prosocial behaviors and tendencies in some way. This relationship has not been examined previously in the literature, but like with identity status variables, the relationship between emerging adulthood variables and prosocial behavior would be positive as well.

Second, it was predicted that an individual's self-regulatory style would predict prosocial behaviors and tendencies (H_2). Based on previous findings that self-regulation correlates with prosocial tendencies (Barry et al., 2008; Padilla-Walker et al., 2008), it was expected that extrinsic self-regulation would positively predict public prosocial tendencies which occur in the context of a potential external reward, while intrinsic self-regulation will predict altruistic prosocial tendencies which include actions that solely benefit others. The relationship between identity status and self-regulation also will be explored to see if self-regulation might mediate the effects of identity development on prosocial behavior or tendencies.

Finally, it was predicted that gender differences would be found in prosocial behaviors and tendencies (H_3). In order to replicate previous findings of Padilla-Walker et al. (2008), it was expected that overall there would be more prosocial behavior in women than in men. Specifically, women were expected to report more altruistic and emotional tendencies than men. Men were predicted to report more public and dire prosocial tendencies than women, because of the increased recognition they receive, the lower levels of empathy required, and a greater physical ability to help in these situations.

Method

Participants

One-hundred eighty-two undergraduate students (50 men, 131 women, 1 unreported) at a small, private Midwestern liberal arts college took part in the study. Participants ranged in age from 17 to 22 years old (*M*=19.55, *SD*=1.33). Sixty-nine participants were first-year students, 41 were sophomores, 23 were juniors, and 49 were seniors. Of these students, 125 reported having already declared a major (38 psychology majors) while 57 reported that they had not yet declared a major.

Participants were recruited from the General Psychology pool and from intermediate level Social Psychology classes and received course credit for their participation. Additional student acquaintances of the researcher were recruited to participate on a voluntary basis.

Materials

The current study employed self-report measures of emerging adulthood, identity status, satisfaction with life, self-regulation, and prosocial behavior.

Identity Status. Identity status was measured with the Ego Identity Process Questionnaire (EIPQ; Balistreri, Busch-Rossnagel, & Geisinger, 1995). The EIPQ is comprised

of 32 statements which evaluate the dimensions of exploration and commitment in the domains

of occupation, religion, politics, values, family, friendships, dating, and gender roles.

Participants rated the extent to which they agreed with each statement on a 6-point scale, ranging

from 1 *(strongly disagree)* to 6 *(strongly agree)*. Sample statements include "I have definitely

decided on the occupation I want to pursue" (commitment) and "I have discussed religious

matters with a number of people who believe differently than I do" (exploration). Factor

analysis showed that items loaded strongly onto the two factors of exploration and commitment,

with a goodness of fit of 0.94 (Balistreri et al., 1995). Test-retest reliability and internal validity

were both moderately high for this scale (Balistreri et al., 1995).

Emerging Adulthood. The degree to which participants identify with various facets of

the period of emerging adulthood was assessed using the Inventory of Dimensions of Emerging

Adulthood (IDEA; Reifman, Arnett & Colwell, 2007). The IDEA includes 31 statements

regarding identity exploration, experimentation/possibilities, negativity/instability, other-focus,

self-focus, and feeling in-between. For example, "is this period of your life a time of many

possibilities?" or "is this period of your life a time of focusing on yourself?" Participants were

asked to indicate the extent to which each statement described this period of their life on a 4-

point scale, ranging from 1 *(strongly disagree)* to 4 *(strongly agree)*. Factor analysis has shown

that the items load reliably onto the six subscales, some of which correlated strongly ($r > .7$) with

one another (Reifman, Arnett & Colwell, 2007). The IDEA has been shown to have high

internal reliability, with alpha levels ranging from .70-.85 for the different subscales. Test-retest

reliability was tested over a one-month interval, with inter-item correlations ranging from .64-.76

for all subscales except "feeling in-between" ($r = .37$; Reifman, Arnett & Colwell, 2007). Test-

retest reliability was also strong between the scores reported in a previous study with a similar

but distinct sample at the same institution as the current study (Walker & Iverson, 2009). In

addition, the IDEA has been shown to have reasonable construct validity through correlations

found with other scales such as satisfaction with life and future orientation (Reifman, Arnett &

Colwell, 2007).

      Self-Regulation. The Prosocial Self-Regulation Questionnaire was developed to

measure the reasons late elementary and middle-school aged children engage in prosocial

helping behavior (PSRQ; Ryan & Connell, 1989). These scales were shown to have high

internal consistency estimates (α = .62 to .86) and to explain 55% of the variance in squared

correlations (Ryan & Connell, 1989). The measure was also shown to have good construct

validity, correlating significantly with measures of related constructs of empathy, moral

reasoning, and relatedness (Ryan & Connell, 1989).

      An adapted version of this questionnaire was developed for emerging adults by Padilla-

Walker et al. (2008) that has been shown to have adequate internal reliability and validity.

Participants were asked to indicate whether statements about why they might help others and

why they might volunteer or give to charity were either *not at all true*, *not very true*, *sort of true*,

or *very true*. Each statement corresponded to one of four levels of self-regulation: external (e.g.

"I help those in need because I want people to think I'm a helpful person"), introjected (e.g. "I

volunteer or give to charity because my friends or parents would be disappointed if I didn't

help"), identified (e.g. "I help those in need because it is important to me to be a helpful

person"), and integrated (e.g. "I volunteer or give to charity because it is satisfying (feels good)

to help").

      Prosocial Tendencies and Behavior. Carlo and Randall (2002) developed the Prosocial

Tendencies Measure (PTM) to assess the degree to which participants would help another person

in six different types of situations, as opposed to global measures of prosocial behavior which

examine tendencies to exhibit prosocial behaviors across contexts and motives. Participants

indicated the extent to which a series of 23 statements regarding six different prosocial

tendencies described them. In the present study, though all six tendencies were measured, public

and altruistic prosocial tendencies were the most relevant as representatives of the differences

between external and internal motivating factor. Public prosocial behavior occurs when other

people are present and can provide rewards or recognition for the helping behavior. Altruistic

prosocial behavior refers to one person helping another because it is internally rewarding, rather

than for any external recognition.

Responses to the PTM were given on a 5-point scale, ranging from 1 *(does not describe

me at all)* to 5 *(describes me greatly)*. Factor analysis has shown that items loaded onto the six

prosocial tendencies, with adequate inter-item reliability (α = .63 to .80; Carlo & Randall, 2002).

The scale was also shown to have adequate external validity, as the prosocial tendencies

correlated as expected with other measures of cognitive, emotive, trait value, and social behavior

(Carlo & Randall, 2002). The compliant subscale has been shown to be significantly related to

self-report measures of helping behavior, while the correlations with other subscales were not

statistically significant, indicating that further work needs to be done on the validity of these

separate prosocial tendencies (Carlo & Randall, 2002).

Prosocial behavior was also measured by asking participants to describe the frequency

with which they had engaged in volunteering or community service over the past year that they

had chosen to do on their own. Responses were provided using a 6-point scale, ranging from 1

(almost never) to 6 *(more than once a week)*.

Procedure

Participants were told that they would be participating in a study on college students' helping experiences and beliefs about the self. They were reminded that their participation was voluntary and assured of the anonymity of the information provided. Participants signed informed consent forms and then were given a packet containing the study materials presented in the order described. Participants were instructed to read the instructions in the packet and to return it to the researcher when completed. Upon completion of the survey, participants were debriefed with further information about the purpose and hypotheses of the study and dismissed. Most participants completed the survey packet in mass testing groups of five to ten students. Some participants were given a consent form and a copy of the study materials and asked to complete them on an individual basis and return the materials to the researcher. Most participants took an average of approximately fifteen to twenty minutes to complete the survey packet.

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Results

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Validation and Scoring of Measures

Identity Development. A median-split technique was used to group participants into the four identity status categories proposed by Balistreri et al. (1995) based on their responses to the EIPQ. Participants who scored below the median on both identity exploration and commitment were classified as diffused (N=36). Participants were considered to be foreclosed if they scored above the median on identity commitment but below the median on identity exploration (N=54), while participants in moratorium scored above the median on identity exploration but below the median on identity commitment (N=55). The identity achieved participants were those who scored above the median on both identity exploration and commitment (N=33).

The IDEA scale was shown to have sufficient internal reliability (Cronbach's α=.82) both when all 31 items were tested individually and when the six subscales were used (Cronbach's α=.60).

Self-regulation. The adapted version of the PSRQ was also shown to have sufficient internal reliability for both the external and introjected regulation scales (Cronbach's α=.61) and the identified and integrated scales (Cronbach's α=.72). Factor analysis of the four subscales showed that they loaded onto a two component model, with external and introjected regulation loading onto one component, and identified and introjected loading onto the second component (for all factor loadings, r>0.8).

Prosocial Tendencies. The PTM was found to have adequate internal reliability for both the 23 items individually (Cronbach's α=.74) and for the six subscales (Cronbach's α=.51). In this sample, factor analysis showed that the items loaded onto seven factors rather than the six proposed by Carlo and Randall (2002), suggesting that further work needs to be done to improve the validity of this measure.

Main Analysis

Stepwise multiple regressions were conducted using SPSS to determine whether measures of identity development and self-regulation were significant predictors of the prosocial outcome variables of public prosocial tendencies, altruistic prosocial tendencies, and volunteering behavior. See Table 1.

H$_1$: Identity development variables predicted prosocial behavior and prosocial tendencies. Identity status variables of exploration and commitment were first entered as predictors into three identical stepwise multiple regression equations with public prosocial tendencies, altruistic prosocial tendencies, and volunteer behavior as dependent variables,

respectively. Neither exploration nor commitment was a significant predictor of public prosocial tendencies or of volunteer behavior. Both exploration and commitment, however, significantly predicted altruistic prosocial tendencies. On its own, exploration was a significant predictor (R^2=.025, β=.16, p=.04). Adding commitment into the model (exploration: β=.21, $p<.01$; commitment: β=.18, p=.02) significantly accounted for additional variance in altruistic prosocial tendencies (R^2=.03, $F(2,171)$=4.94, $p<.01$).

Emerging adulthood scales of self-focus, other-focus, and total identification with the construct of emerging adulthood were also used as measures of identity development. These three variables were entered as predictors into identical stepwise multiple regressions with public prosocial tendencies, altruistic prosocial tendencies, and volunteer behavior as dependent variables, respectively. None of these variables emerged as significant predictors of volunteer behavior. For public prosocial tendencies, however, the emerging adulthood dimension of other-focus (β=.17, p=.03) provided a statistically significant model (R^2=.03, $F(1,170)$=4.92, p=.03). Self-focus (β=.20, p=.01), on the other hand, was a statistically significant predictor of altruistic prosocial tendencies (R^2=.04, $F(1,167)$=6.80, p=.01).

H$_2$: Self-regulatory style predicted prosocial behavior and prosocial tendencies. The variables of extrinsic and intrinsic regulation were used as measures of self-regulatory style and were entered as predictors into identical multiple regression equations, again with public prosocial tendencies, altruistic prosocial tendencies, and volunteer behavior as dependent variables, respectively. All three dependent variables were significantly predicted by self-regulatory style. Extrinsic regulation (β=.36, $p<.001$) positively predicted public prosocial tendencies (R^2=.13, $F(1,176)$=26.78, $p<.001$), while it was a significant negative predictor (β=.-.32, $p<.001$) of altruistic prosocial tendencies (R^2=.10, $F(1,172)$=19.46, $p<.001$). Including

intrinsic regulation as a positive predictor (β=.25, p=.001) with extrinsic regulation (β=-.38, p<.001) accounted for a significant amount of the variance in altruistic prosocial tendencies (R^2=.16, $F(2, 171)$=16.26, p<.001). Similarly, extrinsic regulation (β=-.16, p=.03) was a significant negative predictor of volunteer behavior on its own (R^2=.03, $F(1,176)$=4.78, p=.03), but including intrinsic regulation (β=.27, p<.001) as a positive predictor with extrinsic regulation (β=-.22, p<.01) explained more of the variance in volunteer behavior (R^2=.10, $F(2,175)$=9.53, p<.001).

Mediational Analysis. In order to examine whether self-regulatory style might be mediating the effect of identity development on prosocial tendencies and behavior, stepwise multiple regressions were used to enter identity status variables into the equation along with self-regulation variables as predictors.

Identity status variables of exploration and commitment were entered along with extrinsic and intrinsic regulation as predictors for altruistic prosocial tendencies. All four predictor variables correlated significantly with altruistic prosocial tendencies (exploration: r=.15, p<.05; commitment: r=.13, p<.05; extrinsic: r=-.32, p<.001; intrinsic: r=.16, p<.05). The subsequent addition of each predictor variable into the equation strengthened the prediction of the model, thus indicating that no meditational effect was occurring.

When looking at actual volunteering behavior, the identity status dimension of commitment, extrinsic regulation, and intrinsic regulation were all significant correlates (commitment: r=.13, p<.05; extrinsic: r=-.18, p<.01; intrinsic: r=.23, p<.001). When exploration, commitment, extrinsic regulation, and intrinsic regulation were all entered into a stepwise multiple regression analysis on volunteer behavior, however, only extrinsic regulation and intrinsic regulation produced significant models. Extrinsic regulation (β=-.18, p=.02) was a

significant negative predictor on its own (R^2=.03, $F(1,173)$=5.49, p=.02), while adding intrinsic regulation as a positive predictor (β=.29, p<.001) to extrinsic regulation (β=-.24, p<.01) produced a model that explained a greater percentage of the variance in volunteer behavior (R^2=.11, $F(2,172)$=10.51, p<.001). The fact that commitment was significantly related to volunteer behavior but was not a significant predictor when entered along with regulation variables suggests that the effect of identity status on volunteer behavior might be mediated by self-regulatory style.

A similar series of stepwise analyses were performed using the emerging adulthood variables of self- and other-focus as measures of identity development along with extrinsic and intrinsic regulation on public and altruistic prosocial tendencies. In each case, no mediational relationship was suggested because all significantly correlated predictor variables were included in the strongest predictor models.

H$_3$: Gender differences were found in prosocial behavior and prosocial tendencies. To examine gender differences in prosocial behavior and prosocial tendencies, the regression analyses described above were run again for men and women separately. No gender differences were found in models predicting public prosocial tendencies. For altruistic prosocial tendencies, there were no significant predictor models for men. Women's altruistic prosocial tendencies, on the other hand, were significantly predicted by commitment ($F(1,123)$=4.39, p=.04, β=.19), self-focus ($F(1,122)$=10.79, p=.001, β=.29), and negatively predicted by extrinsic regulation ($F(1,124)$=17.28, p<.001, β=.19). For volunteer behavior, extrinsic regulation as a negative predictor was the only significant model for men ($F(1,46)$=5.14, p=.03, β=-.32), while intrinsic regulation as a positive predictor was the only significant model for women ($F(1,127)$=8.95, p<.01, β=.28).

To replicate the gender differences found by Padilla-Walker et al. (2008), a 4x2 multivariate analysis of variance (MANOVA) was performed with identity status groups (diffused, foreclosed, moratorium, achieved) and gender (male, female) as independent variables and the six prosocial tendencies (public, emotional, altruistic, dire, compliant, anonymous) as dependent variables. The main effect of gender was replicated, $F(6,159)=3.40$, $p<.01$. Post-hoc comparisons showed that men ($M=2.02$, $SD=.70$) reported significantly greater public prosocial tendencies than women ($M=1.67$, $SD=.60$), $F(1, 177)=10.60$, $p=.001$. Women ($M=3.82$, $SD=.74$) reported significantly greater emotional prosocial tendencies than men ($M=3.48$, $SD=.82$), $F(1, 177)=7.89$, $p<.01$. Women ($M=4.16$, $SD=.58$) also reported significantly greater altruistic prosocial tendencies than men ($M=3.86$, $SD=.69$), $F(1, 173)=8.90$, $p<.01$. See Figure 1.

Discussion

The purpose of this study was to determine if there was a predictive relationship between identity development and self-regulation and prosocial behavior in emerging adults. Based on the present findings, it is suggested that such a relationship does exist. It was first hypothesized that measures of identity development would predict prosocial behaviors and tendencies, and this was confirmed for some of the identity development variables. Exploration and commitment both significantly positively predicted altruistic prosocial tendencies. This confirms previous work which showed that high commitment and exploration predict altruistic prosocial tendencies (Padilla-Walker et al., 2008) and that identity achievement is a positive predictor of prosocial behavior (Hardy & Kisling, 2006). This finding indicates that the more an individual has engaged in explorations of their identity and the more they have committed to their identity, the more likely they are to report that they would help others in situations when they would not receive any recognition or reward but are acting solely for the benefit of the other person.

Emerging adulthood variables as measures of identity development predicted some prosocial tendencies as well. Other-focus served as a significant positive predictor of public prosocial tendencies, while self-focus positively predicted altruistic prosocial tendencies. Though this may seem counterintuitive initially, other-focus could predict public prosocial tendencies because it includes an awareness of the other people who are present and provide the motivation and reward for action. On the other hand, self-focus, as conceptualized by Arnett (2007b), does not imply that emerging adults are selfish, "self-indulgent, [or] care little about the world around them" (p.25). Rather, it refers to "the opportunity to focus on their self-development" which can include the altruistic behavior that emerging adults consider to be an important characteristic of full adulthood (Arnett, 2007b, p. 26).

The second hypothesis that self-regulatory style would predict prosocial behaviors and tendencies was confirmed as well. These results extend previous work that had shown extrinsic regulation to be positively correlated with public prosocial tendencies and negatively with altruistic prosocial tendencies (Barry et al., 2008). Extrinsic regulation served as a positive predictor for public prosocial behavior, due to the presence of others and the increased likelihood that the behavior would be motivated by external factors. Extrinsic regulation was a negative predictor of altruistic prosocial tendencies and volunteer behavior, but this relationship was strengthened by adding in intrinsic regulation as a positive predictor. The fact that both of these types of regulation together provide the strongest model for predicting these types of prosocial behaviors could indicate that these emerging adults are still exploring and being motivated in many different ways. They are not yet strongly internally motivated enough for intrinsic regulation to serve as a positive predictor on its own, but those emerging adults who are still

strongly externally motivated are not likely to engage in these more altruistic types of prosocial behavior.

Finally, as hypothesized, gender differences were found in prosocial tendencies. Men were shown to have higher prosocial public tendencies than women, while women demonstrated more emotional and altruistic prosocial tendencies than men. This confirmed previous findings by Padilla-Walker et al. (2008) and also supports the literature stating that women tend to be more altruistic, more likely to act prosocially, and more empathic than men (Dovidio et al., 2006). In addition, women are socialized to place more importance on interpersonal relationships and caring for others, skills which contribute to altruistic prosocial behavior, while men are more likely to be taught to remain independent and seek attention for themselves, which can be achieved in public prosocial behavior (Dovidio et al., 2006).

Overall, self-regulatory style emerged as the strongest predictor and was able to explain the greatest percentages of variance for public prosocial tendencies, altruistic prosocial tendencies, and volunteer behavior (See Table 1). Self-regulation was perhaps a better predictor of prosocial tendencies and behavior than identity development because these emerging adults have not yet finalized and committed to their identities. In fact, many people at this age still do not consider themselves to be fully adult (e.g., Arnett, 2004). The level of prosocial moral reasoning, a construct related to self-regulation, has been found to increase during the late adolescence and reach its peak development by the early 20s (Eisenberg et al., 2005). Thus, it is conceivable that as these young people still are continuing to explore their identities, they already are learning to think for themselves and internalize their own beliefs and values, leading to a stronger influence of self-regulatory style on their behavior during this period.

Another possible reason that self-regulatory style was a stronger predictor than identity development could have been the more direct conceptual relationship they had with the prosocial tendencies used as measures of prosocial behavior. Public prosocial behavior occurs when others are present to provide evaluation or reward, and thus lends itself to external motivating factors. Altruistic prosocial behavior is that which solely benefits another person and is not rewarded, so it would seem that at least some level of internal motivation or belief in the importance of helping is a prerequisite. However, the fact that self-regulatory style was also the only significant predictor of actual volunteer behavior indicates that this relationship goes deeper than a methodological connection.

The present findings indicate that emerging adults in the act of exploring and committing to their identities are indeed engaging in positive behaviors during a time when they are only thought to be taking self-gratifying risks and that they are helping others during a time when they are expected to be selfish and narcissistic (e.g., Twenge, 2006). It is possible that these misconceptions are due to a difference in perspective between older adults and emerging adults. Both emerging adults and their parents view achieving relational maturity, which includes "becoming less self-oriented [and] developing a greater consideration for others," as the most essential criterion for achieving full adulthood (Nelson et al., 2007). For adults, this consideration for others often includes direct responsibilities to others such as spouses or children, while most emerging adults have not yet taken on these responsibilities and are focused on their own development and preparation for adult life (Arnett, 2007b). As they work toward these goals, emerging adults engage in prosocial behavior because it allows them to explore and develop skills which they and the rest of society consider to be essential criteria for achieving

adulthood. By helping others, they are helping themselves to progress toward their own identity

development and achievement of adult status.

Implications

This research contributes to a growing body of literature on emerging adults and the

development of a sense of self by suggesting that when looking at the relationship between

identity development and a behavior, it is important to look at self-regulatory style as well,

especially when a stable adult identity has yet to be achieved. Before individuals have fully

committed to their identity, it appears that the extent to which they have internalized values

about the behavior serves as a better predictor of whether or not they will engage in that

behavior.

This research also can provide some theoretical understanding for the more applied

research regarding community service and volunteering in college students and other emerging

adults Many researchers have tried to understand when and why college students do or do not

engage in community service activities (e.g., Seider, 2007; Clary, et al., 1998). The current

research points to the need to foster an internalized value of helping in emerging adults in order

for them to engage in prosocial behavior. In addition, helping emerging adults to see the

connection between community service activities and their achieving relational maturity and

adult status might encourage them to engage in helping behavior to help themselves in this

process and provide additional impetus to service learning programs.

Limitations

There are several limitations which affected the present study. Methodologically, there

were concerns raised about the validity of the PTM, as the factor analysis conducted with this

sample did not coincide with that of the developers of the scale (Carlo & Randall, 2002). In

addition, all the measures of prosocial behavior and prosocial tendencies were self-reported and could reflect some biases towards social desirability rather than how the emerging adults actually behaved. This could be controlled by including a measure such as Crowne and Marlowe's (1960) Social Desirability scale to examine the extent to which participants may be affected by such biases. The prosocial tendencies also measured only how likely participants believed they would be to engage in prosocial behavior, so the only behavioral measure in the present study was based upon a single item asking about the frequency of volunteering. This shortcoming could be improved through more behavioral measures either in laboratory-created scenarios, natural observations, or in having others close to the emerging adult participants rate their prosocial behaviors as well.

In addition, some of the participants were recruited by the researcher and participated on a voluntary basis. Since not all individuals who were contacted agreed to participate or returned the survey packet, there could have been some self-selection bias toward those who are more likely to engage in prosocial behaviors in this section of the sample. However, there was an 83% return rate from volunteers who were given the survey packet, and the large numbers of other participants who received course credit most likely kept this from having a major effect on the data.

Future Research

There are many questions raised by this study which remain unanswered and could be addressed in future research. More work needs to be done to examine the relationship between identity development and self-regulation during emerging adulthood. The present study provided some initial support for the possibility of a mediational relationship in some contexts, but more analysis is needed to see if this relationship exists. In addition, it would be interesting

to look at how identity development and self-regulatory style relate to one another and serve as predictors for other behavioral measures. This would help to provide a broader picture of how these constructs are operating in emerging adults and influencing the decisions and behavior of these young people.

In terms of prosocial behavior in emerging adults, it would be helpful to examine more behavioral measures of prosocial behavior. It would also be interesting to compare emerging adults who do engage in prosocial behavior or volunteering with those who do not, to see if they are more successful in their identity development or more satisfied with their lives. This research could also be connected to the literature on community service and service learning more directly, to see if these variables predict the success of those programs or if those programs are helpful for emerging adults in developing their identity as prosocial behavior appears to be.

Despite the limitations of the present study and the questions that it leaves unanswered for future research, this work still makes unique contributions to the literature. By examining several variables of identity development and self-regulatory style at the same time as predictors of both contextually-specific prosocial tendencies and actual volunteering behavior, it was possible to determine the predictive relationships that exist and to see that self-regulatory style appears to be the most important factor in predicting the prosocial behavior and prosocial tendencies of emerging adults. As a whole, this study provides further support for the idea that emerging adults do engage in positive and altruistic behaviors and that these helping behaviors can help them to progress in their own identity development and toward the achievement of adult status.

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Table 1

Summary of Stepwise Regression Analyses on Public Prosocial Tendencies, Altruistic Prosocial

Tendencies, and Volunteer Behavior.

Outcome	Predictor	Model	β	R^2
Public Prosocial Tendencies	Identity Status	*None significant*		
	Emerging Adulthood	Other Focus	.17*	.03
	Self-Regulation	Extrinsic Regulation	.36**	.13
Altruistic Prosocial Tendencies	Identity Status	Exploration	.16*	.025
		Exploration, Commitment	.21**, .18*	.03
	Emerging Adulthood	Self Focus	.20**	.04
	Self-Regulation	Extrinsic Regulation	-.32**	.10
		Extrinsic, Intrinsic Regulation	-.38**, .25**	.16
Volunteer Behavior	Identity Status	*None significant*		
	Emerging Adulthood	*None significant*		
	Self-Regulation	Extrinsic Regulation	-.16*	.03
		Extrinsic, Intrinsic Regulation	-.22**, .27**	.10

Note. *p<.05. **p<.01.
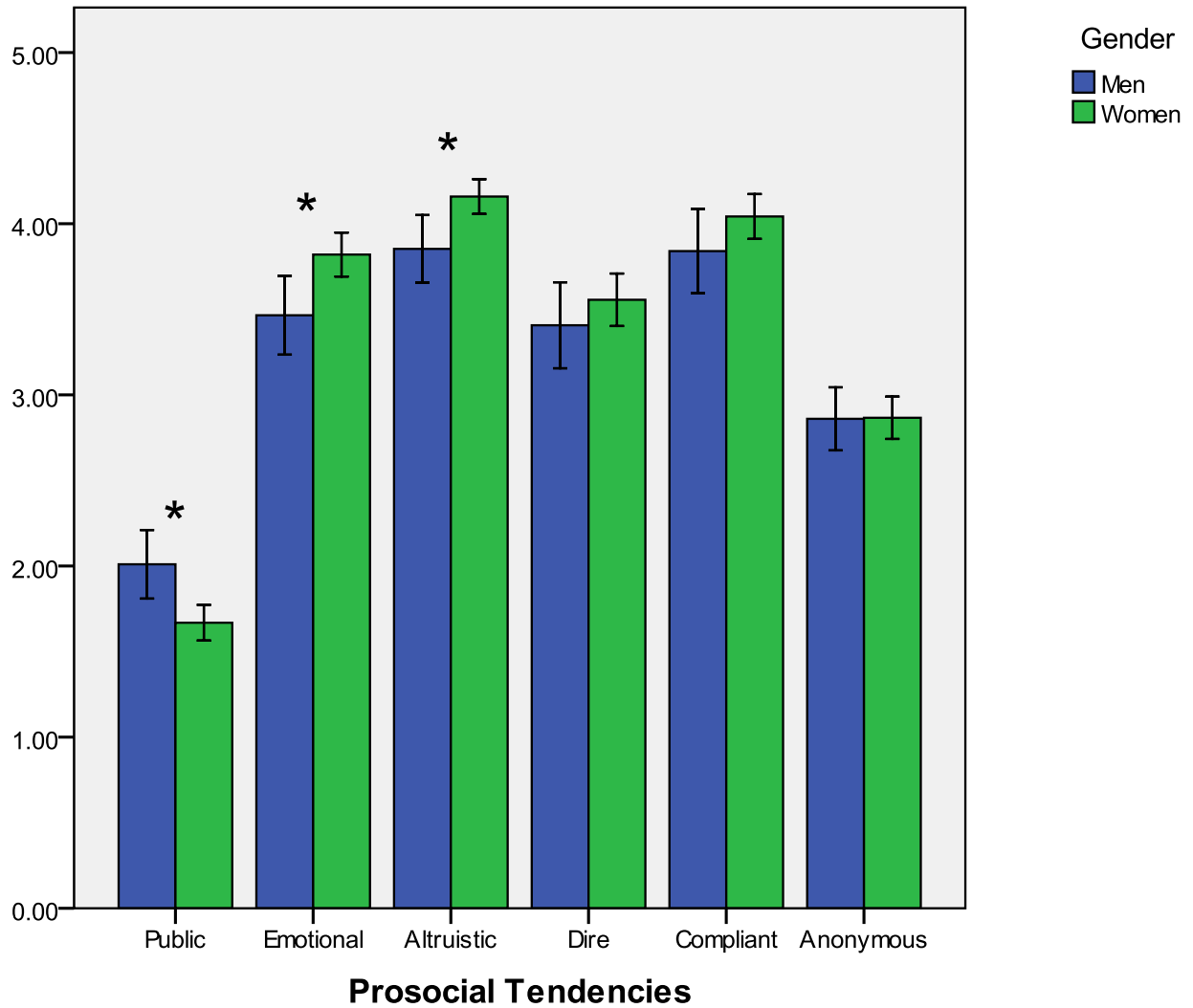
Figure 1. Gender Differences in Reported Prosocial Tendencies. This figure illustrates the

differences in each of the six prosocial tendencies reported by men and women, with those that

are significant indicated with an (*).