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Altruism and Popularity

Eda Egilmez

Fort Hays State University, e_egilmez_zrv@mail.fhsu.edu

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ALTRUISM AND POPULARITY

being

A Thesis Presented to the Graduate Faculty
of the Fort Hays State University in
Partial Fulfillment of the Requirements for
the Degree of Master of Science

by

Eda Egilmez

B.S., Fort Hays State University

B.S., Zirve University, Turkey

Date _____

Approved _____
Major Professor

Approved _____
Chair, Graduate Council

ABSTRACT

Popularity, as a manifestation of social status, has been widely researched and appears to be determined by members of a social group. Individuals' either aggressive or prosocial characteristics and environment lead them to one type of popularity. Prosocial behaviors are actions with intention of benefiting others or society as whole with little or no personal gain and may include helping, sharing, cooperating, donating, and other voluntary works. Altruism is a type of prosocial behavior that could affect individuals' popularity. Altruism has been studied in different disciplines with the general definition of cooperative behavior that has a cost to the actor with a benefit to the receiver. From the Evolutionary Psychology perspective, altruistic behaviors decrease the fitness of individuals, which is against the principles of evolution. Two main evolutionary hypotheses provide an explanation of altruistic behavior: kin selection and reciprocity. Kin selection by Hamilton (1964) explains altruistic behaviors of individuals towards family members based on the genetic relatedness of individuals. Conversely, Trivers (1971) aims to explain altruistic behaviors towards non-family members as an exchange for helping behaviors. Social Psychology also studies altruistic behaviors with several hypotheses or theories including the Social Exchange Theory and Altruism-Empathy Hypothesis. The common theme in both perspectives is that there is an inevitable cost for the actor with a benefit to the receiver. The current study aims to examine the relationship between altruistic behaviors that are towards friends and popularity by the endorsement of aforementioned hypotheses and theories.

Keywords: altruism, popularity, Evolutionary Psychology, Social Psychology

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INTRODUCTION

Previous literature in social psychology has attempted to look at the relationships between reputation and altruistic behavior, although a solid conclusion could not be made because of a few limitations, such as looking at behavioral *intentions* instead of the behaviors themselves (Griskevicius, Tybur, & Van den Bergh, 2010). The current thesis will address the relationships between altruism and *popularity*.

It may appear that reputation and popularity are the same concepts, making the current study redundant with past research by Griskevicius et al. (2010). However, as it will be explained in depth, popularity and reputation are only superficially similar concepts. An additional extension of the current research is to look at altruism from two different perspectives: Social psychology and evolutionary psychology, so that a broad, but still detailed, understanding can be pursued. The research presented in this current paper is valuable because it approaches the concepts of altruism and popularity using experimental methodology, which allows for the control of many situational factors. Therefore, the current study aims to eliminate some limitations while also extending the explanation of altruism into different domains. Also, the current study emphasizes the relationship between altruism and popularity, which although has been studied in psychological research, remains relatively poorly understood.

Griskevicius et al. (2010) studied a similar topic with the variables of altruism and reputation, in which the authors used vignettes to gather related data. Even before that particular research, altruism was studied and explained in various perspectives such as social and evolutionary psychology. One perspective is that people help each

other to be helpful, not because of the expected return, but because of another-oriented emotional response (i.e., empathy) (Batson, 1988).

Empathy-altruism theory explains that people help others and receive benefits as a byproduct. However, the ultimate goal of helping actions is to reduce the stress of others. It was believed that empathetic emotions are the main motivation of helping behavior. Eventually, empathetic feelings, perspective taking, and altruistic behaviors may promote individuals' likability and reproductive potential. Thus, popularity and altruistic behaviors are somewhat tied together.

ALTRUISM

Altruism has been defined as a cooperative behavior by which the person who acts helpfully increases the other person's fitness with a cost of his or her own fitness (Le Galliard, Ferriere, & Dieckmann, 2003). The term "fitness" indicates one's survival chance from an evolutionary perspective rather than the more common usage of "fitness" in sports or other athletic contexts. Li, Kirkman, and Porter (2014) also explained altruistic behavior as a list of voluntary actions, including self-sacrifice, potentially benefiting other people. Because altruistic actions are voluntary, people are not obligated to be altruistic. However, they are done to increase other people's fitness (Hamilton, 1964), or gain higher social status and personal benefit later (Griskevicius et al., 2010).

The selfless nature of altruistic acts is difficult to explain. However, as Buss (2008) explains, the problem of altruism becomes even more complicated by the findings that altruistic behaviors are neither new nor unusual in human history. And, as Palmer and Palmer (2002) explain, altruistic behaviors are not limited to *Homo sapiens*. Other organisms also act altruistically towards members of the same species, and sometimes toward members of other species.

When helping behavior is directed towards members of the same species, it is called altruism. Altruism can also be observed in every society in any time period even though it carries costs for the actors (Van Vugt & Van Lange, 2006). Members of some societies may show less altruistic behaviors compared to others, yet members of all known societies behave altruistically in some ways (Rushton, 1982).

Types of Altruism

Aligned with the previously discussed literature, Kitcher (2010) described altruism as a multidimensional concept and distinguished several different types, including biological and psychological. Biological altruism happens when organisms improve the likelihood of reproduction in other organisms, which may result in lowering altruistic agent's own survival or reproductive chances. Vampire bats are a representative example of biological altruism. These mammals are known for helping members of the same group who are starving. To do this, they vomit up some of the blood they have consumed so that the starving member will have sustenance (Hamilton, 1972). Sharing the nutritional resources is costly for actors because of lowered supplies, yet beneficial for the receivers in the survival aspect.

Another kind of altruism discussed by Kitcher (2010), psychological altruism, may be described as adjusting one's own intentions according to another person's desires. Psychological altruism is highly important in social settings. People may change their desires by the social group that they are in. An example of this might be a situation in which two running partners are trying to schedule a run together, and they have different time preferences. One of them prefers mornings while the other one prefers evenings. The one who prefers evenings may demonstrate psychological altruism by agreeing to run in the mornings to be more accommodating to their running partner.

Swank, Ohrt, and Robinson (2013) created the Altruism Development Model (ADM) to organize different types of altruism. Basically, ADM includes several aspects of altruistic behavior including biological, cognitive, and social learning. The ADM has a wider perspective about how altruism varies on different aspects. Biological aspect of the model is highly similar to Kitcher's (2010) and Hamilton's (1972) biological altruism. This aspect mainly covers helping behaviors towards family members to increase their biological well being. In addition, Kitcher's (2010) psychological altruism is similar to cognitive aspect of ADM. Cognitive aspect of ADM emphasizes on minimizing the perceived costs of the helping behavior by focusing on the given benefit. Finally, social learning aspect of the model is simply understanding the importance of helping in social life by modeling others. Even though there are different aspects of altruistic behaviors, they all have similar key components.

Researchers often have diverse focus on those key components of altruism, which include the forces that lead altruistic actions like benefits, intentions, and costs. These differences have sparked a debate about whether altruism truly exists at all, in addition to already existing various definitions of altruism (Li et al., 2014). On one side of the debate, it is suggested that true altruism cannot be observed because there is always expected returns for helping behaviors. The other side of the debate believes that no matter the intention or reward, if helping behaviors are present at any cost, then true altruism exists.

There are several studies that suggested that true altruism does not exist. Li et al. (2014) explained that the behavior itself is more important than the internal drive. However, this viewpoint of the debate focuses on the behavior with external forces and feedbacks. This indicates that true altruism does not exist because sociocultural

systems promote altruistic behavior through positive feedback. Similarly, Durrant and Ward (2013) suggested that altruistic behavior is a prosocial norm. People without altruistic behavior are acknowledged as dysfunctional and destructive in social groups. A failure to exhibit altruistic behavior may lead to social isolation, confusion, and possibly the infliction of formal or informal sanctions by the community. The negative feedback from society in the absence of altruism is considered negative reinforcement that aims to increase the number of altruistic actions.

Another study conducted by Flynn and Black (2011) illustrates that altruism can only be observed with external feedbacks by focusing on altruism and self-interest in social structures. It was found that humans experience conflict between their own needs and wants, which is self-interest, and the needs and wants of others, which is altruism. People's excessive self-interest might not be welcomed by society, and the behavior may be labeled by negative words such as egocentric or selfish. However, individuals with altruistic behaviors are highly welcomed and labeled with relatively positive words such as altruistic or selfless. The labels do not necessarily vary by language, yet the degree of the definitions may vary because of cultural acceptance of the range of selfish behaviors. These negative or positive labels are feedback from the group, which shapes the number of altruistic actions. This indicates that helping behaviors are socially motivated instead of coming from truly altruistic act.

Several studies indicate that altruism does not truly exist because it can be observed only with sociocultural feedback. These studies suggest that the presence of personal gain as motive for helping behavior discredits the definition of altruism (Durrant & Ward, 2013; Flynn & Black, 2011). This perspective of debate focuses on

the internal drives. If it were possible to observe altruistic acts without personal gain and social influences, only then these helpful behaviors would be true altruism.

In contrast, numerous other studies showed that altruism truly exists. In the research by Flynn and Black (2011) the argument about existence of altruism was explained in both sides. The study established that to act altruistically people must be somehow egocentric since true altruistic behavior can only be observed with some personal gains for both actors and individuals. Therefore, even if the motive of the helpful actions is external drives, those actions are still helpful so that it can be called altruistic. The study also reveals that altruistic behaviors have positive influences on people's own developmental process, in addition to immediate benefits. It also is important to note that self-actualizing people are both altruistic and self-interested. Because people enjoy being altruistic, that joy decreases the costs of the behavior. Similarly, Clarken (2011) explained that purpose of the life is personal wholeness and self-actualizing, which can only be achieved via authenticity, autonomy, and altruism. In addition, Swank et al. (2013) also added the caring factor into the understanding of the altruistic behavior suggesting that altruism is motivated by the internal force of concern for others instead of the desire to avoid punishment.

The motive behind the altruistic behavior may never be truly known, and therefore, what is important is identifying mechanisms that can lead to altruism. Those mechanisms can be internal or external drives. Aforementioned, external drives may include sociocultural feedbacks and social rewards. Also, internal drives may include personal gains and intentions. Then again, in some ways, the intentions do not matter: it is the behavior itself that counts (Li et al., 2014). Some previous studies indicated that altruism truly exists (Clarken, 2011; Li et al., 2014; Swank et al., 2013), and this perspective will be assumed throughout the current study. After the

assumption of existence of altruism, the research goes more in depth with the question of when people help others.

Everyday situations arise where people help others. For instance, a friend may have flat tire, or a neighbor might be locked out of his/her house. On the other hand, it is also not uncommon to spot situations when actors choose not to help others. Some cultural stereotypes teach individuals to be altruistic towards certain people based on characteristics like age or gender. Helping females every time that they need is one possible example that can be learned through cultural stereotypes (Blau, 1964). In addition, the gender of actors and recipients are other situational factors that may alter the decision of helping behavior. Males tend to help more when the recipients are females. However, individuals do not always follow the social customs and help people in need. For example, people help one another in daily life commonly unless the actor is in rush and fails to see the need of help. Another explanation by Darley and Batson (1973) suggested that helping one in need depends on not only one but also several situations. The situations that were studied include gender of the actor and the receivers, daily rush, the number of bystanders, and etc.

In addition to explanations of why people would help others, researchers focused on the times when people do not help. There are several factors that affects the decision making process of helping or not helping. Possible situational factors that make people not help include personality variables, gender of the helper and the receiver, presence of other potential helpers, and the speed of the daily life (Darley & Batson, 1973). In the Good Samaritan study, participants were exposed to a condition in which they pass through an alley and see a victim in need of help. The participants varied in the amount of rush in which they were placed, and it was found that people in a hurry were less likely to help. The research explains if it were possible to control

all of the situational factors at once, people may act helpful to others. However, because being helpful is costly, several researchers studied to clarify why people act helpful to others.

Two different viewpoints provide an explanation of why people help others: Social Psychology and Evolutionary Psychology. Evolutionary Psychology studies helping behaviors with two hypotheses, Kin Selection and Reciprocal Altruism. On the other hand, Social Psychology aims to justify the reasons people help each other by Social-Exchange Theory.

Social-Exchange Theory

The Social Exchange Theory mainly focuses on interpersonal relations and social interactions (Blau, 1964). Social exchange can be detected anywhere in daily life. Exchange is an activity, concrete or abstract, between at least two individuals. Friends, acquaintances, colleagues, and even neighbors constantly engage in social exchange. The theory explains that two or more individuals interact with each other and exchange tangible or intangible resources. Tangible resources or tangible assets are generally concrete or financial such as cash, bonds, and land. On the other hand, intangible resources or intangible assets are abstract or nonphysical such as copyright, knowledge, and time.

The theory of Social-Exchange approaches interpersonal relations in the perspective of given services and received gratitude with service when needed (Blau, 1964). The key concepts of the Social Exchange Theory are giving service, receiving gratitude, and receiving service back. If social interactions miss just one of the concepts, the relationship becomes isolated from help. The relationship might be kept in that individuals would stay friends, but they would stop helping each other. This could be because one of the individuals fails to reciprocate helpful actions or show

that they are grateful. Further, if people fail to reciprocate any received help, they may no longer receive help again. In addition, showing gratitude is as critical as the other concepts maintaining the interpersonal relation. People who do not show gratitude might be labeled as ungrateful and undeserving of help.

On the other hand, as long as the helping behavior or services are reciprocated on both sides, the social bond between the two people strengthens (Blau, 1964). Overall, the sum of actions is mutual exchange, which is the basis of the relationship and gratitude. However, when the help or service is not reciprocated, a differentiation of power would occur. People who do not reciprocate help would end up losing some power, like social status or properties. For example, a CEO of a big company who makes millions of dollars but does not give to charity would lose respect from employees over time.

Social exchange is not only the basis of interpersonal relationships but also relations between groups (Blau, 1964). Similar to individuals, as long as the both groups of people keep giving and receiving services and show gratitude, the relationship between groups reaches a stronger level. Trade agreements between countries is a possible example of social exchange applied to groups rather individuals. As long as both countries exchange the needs and wants with gratitude, the alliances become stronger.

In sum, Social-Exchange Theory explains that reciprocated help with the support of gratitude creates social bonds or strengthens the present ones. Also, if the helping behavior is not reciprocated, a differentiation of power is most likely to be observed (Blau, 1964). Not reciprocating received help or not showing gratitude may dissolve relationships amongst people if differentiation of power does not occur.

Darley and Batson (1973) have explained that the presence of helping behavior not only depends on the gender, age, and daily rush but also situational factors. Helping behavior is considered as an ethical act in literature. People who choose not to help others are not reinforced for their behavior and lose respect. Others may even name call people who do not help and act selfishly. The absence of help to the people who need it was incredibly surprising for researchers when the participants defined themselves as religious people. One of the possible explanations for that conflict is that there were other factors that block helping actions from taking place such as the speed of daily life. The study suggests that people who are in a hurry would not be as helpful because they may fail to identify the individuals who need help. In addition, priming the helping behaviors with an emphasis of ethical importance does not increase helping behaviors. To sum up, the presence or the amount of helping behavior depends on exceptionally complex situational variables including the daily rush, gender, and presence of other people.

In a more narrow perspective, Darley and Latane (1968) suggested that the presence of other people is a particularly important factor on helping. The authors explained the concepts of bystander intervention and diffusion of responsibility. The study has shown that as the number of bystanders increase, witnesses are less likely to help others. Even if people are in need of urgent help, the presence of multiple people decreases the chances of and delays the speed of help from others. The concept of bystander intervention was a stronger predictor than daily rush (Darley & Latane, 1968).

The gender difference, meaning that male actors would help female receivers more, was not found as a reliable predictor of helping behavior. The bystander intervention also explains how the moral responsibility spreads out among bystanders,

which is called diffusion of responsibility. Diffusion of responsibility is the idea of shared costs, which indicates as the number of bystanders increases, the cost of not helping to the person in need decreases. The decrease of cost or responsibility was observed because all of the bystanders share the responsibility of not helping.

The effect of diffusion of responsibility as a result of bystander intervention is focused on the costs in the absence of altruistic actions in Social-Exchange Theory. Shared costs as a result of not helping people in need are less problematic for individuals according to the theory. Social-Exchange Theory emphasizes continuous exchange of altruistic actions rather than absence of helping others.

Evolutionary Psychology Perspective of Altruism

Evolutionary Psychology explains the presence of altruism with focus on benefits. From the Evolutionary Psychology perspective, there are two main hypotheses about understanding altruism: kin selection and reciprocal altruism. Kin selection and inclusive fitness hypotheses were developed by Hamilton (1964). Also, Trivers (1971) suggested that kin selection is not the only type of altruism and created the hypothesis of reciprocal altruism.

Evolutionary benefits and costs of altruism. Since the cost of altruistic behavior decreases one's own fitness, people are expected to act in selfish ways. However, it is important to note that altruism is a balance or equation of benefits and costs. Le Galliard et al. (2003) explained that there are several costs of altruistic behavior, such as direct psychological cost or in direct genetic costs of competition for space. Also, it was found that more critical altruistic behavior have higher outcomes and more developed species reduce these costs and become less selfish over time.

Altruism is not all focused on costs rather there are always benefits as well. The benefits are basically investments including higher chances of passing similar genes to future generations, increasing social status, signaling health, and boosting reputation within the group.

Altruism always comes with cost for the actors and benefit for the recipients according to the evolutionary perspective. For kin selection, the actors receive costs to the self, which is balanced with the benefit gained by genetic relatives (Buss, 2015). The evolutionary benefit of altruism is increasing the chance of passing more similar genes to further generations, and the cost is decreasing one's own survival chance. Hamilton (1964) suggested that genetic benefits, increasing the chances of passing similar genes to future generations, are the force of all altruistic behaviors.

Altruism also has influences on mate choice, and it is critical for long-term relationships. Altruistic behavior indicates information about people's partners and/or parenting features or good characters in general. Altruistic traits are considered more desirable for both female and male sexes than non-altruistic behaviors (Buss 2015). In Farrelly's (2013) study about altruism and good parenting, female participants rated altruistic features more desirable for long-term relationships since those characteristics might be important in offspring care and relationship quality. After all, the study suggests that altruistic features and behaviors increase people's mate value, and are an important feature in mate selection. Being altruistic would make people more attractive mates and more likely to reproduce, as a result of increased mate value. The higher mate value people have the higher social status or reputation that they can gain because mate value is one of the determinants of high social status. The various benefits of altruistic behaviors are not isolated from each other; indeed, those benefits interact to rise or drop together.

Altruism is described as helping behavior that directly increases other people's fitness and decreases the actors'. Kin selection and reciprocity hypotheses were mainly discussed in Evolutionary Psychology, and Kin Selection suggested that people tend to help their kin to ensure that similar genes would pass to future generations. Moreover, reciprocity explains people help others as long as they are reciprocated. All those ideas acknowledge costs and benefits of altruistic behaviors. The costs are generally loss of resources, and benefits are various, such as increased social status or reproductive success.

Kin selection and inclusive fitness. Altruism could be expressed depending on genetic relatedness people and recipients (Buss, 2008). According to Hamilton (1964), altruistic behaviors could only be observed when the benefits of helping are multiplied by the relatedness between actors and receivers and when perceived benefits are higher than perceived costs. In addition to Hamilton (1964), another idea has explained that natural selection might favor the development of altruistic behavior that reduces actors' reproductive success provided that sufficient benefits accrue to the actors' kin (Wyatt, West, & Gardner, 2013). The main focus of natural selection is survival and reproductive success of organisms, and altruistic actions generally indirectly benefit to actors. The indirect benefits to actors were considered in Kin Selection and Inclusive Fitness Hypothesis, which focuses on the sum of direct and indirect reproductive success of the actors.

Jeon and Buss (2007) defined kin relationships as a composition of several subunits including motherhood, fatherhood, grandparenthood, and sibship. Those described subunits are highly important in Hamilton's (1964) equation as the benefits are weighted by genetic relatedness. The closer the genetic relation the greater the mathematical weight in Hamilton's equation. For example, if the actors are parents

and receivers are their children in the altruistic behavior, the relatedness would be 0.5. Thus, benefits are greater because of genetic closeness. Similarly to other human behaviors, altruistic behavior also has many components in itself such as emotional closeness to recipients, genetic relatedness, paternal certainty, and etc (Buss, 2008). Those all factors may influence altruistic behaviors even though the original equation does not suggest so. Because of numerous possible extraneous factors in helping towards kin, the hypothesis of kin selection may fail to explain the presence or absence of altruistic behaviors time to time. For example, in some cases people help others whom are not related to themselves close enough to overcome the costs. In fact, people even help others whom are not related at all, in which case kin selection fails to explain the presence of altruistic behaviors.

Reciprocity. Kin selection mainly focuses on genetic relatedness of recipients to the actors; however, people also act altruistically in the absence of any genetic relation during daily life. Palmer and Palmer (2002) explained that altruism may occur in the absence of close genetic relatedness, which means that altruistic actions can involve individuals who are not direct kin. Buss (2008) also suggested that friends are not generally genetic relatives, yet people act altruistically to friends. Any cost, which is incurred as a result of altruistic behaviors for friends, ends up with a loss to actors and a gain to the friends. According to the concept of reciprocal altruism, non-relative recipients understand that they should reciprocate such altruistic help (Palmer & Palmer, 2002).

Trivers (1971) created the hypothesis of reciprocal altruism as a prediction that organisms can benefit by engaging in cooperative exchange. The cliché about reciprocal altruism is “You scratch my back, I’ll scratch your back”. Reciprocal altruism is based on the exchange of helping behaviors with helping behaviors, social

status, or any other concrete or abstract wants and needs. Gaining social status, money, or tutoring as a result of helping behavior would be a possible example of reciprocal altruism. The exchange of resources has no limit as long as both parties are fulfilled with their wants and needs. There are various motivations for reciprocal altruism, such as ensuring the reproductive success of actors, increasing social status, or gaining any desired outcome.

Moreover, many of the potential exchanges or reciprocated altruistic behaviors do not occur simultaneously. Reciprocation of helping behaviors may occur later in time. The delay of reciprocation depends on variables of the situation including available resources and timing of needs. Additionally, chances for cooperation in which simultaneous exchange occurs is almost impossible (Buss, 2008). Because of the possible delay in exchange of resources, reciprocal altruism can only work if the members of the group can identify and exclude any cheaters who simply take favors, but never return them (Palmer & Palmer, 2002). The failure of detecting free riders will cost the actors. The mechanism of cheater detection ensures the returning benefits. Altruism not being simultaneous leads to development of cheater detection because reciprocal altruism suggests that there must be returning benefits to actors. Otherwise, all altruistic actions are loss of resources since the receivers are generally non-relatives. The returning benefits to altruistic behaviors are the main motivation.

Also, reciprocal altruism may evolve in completely selfish species when greater reproductive success for both individuals and groups is conferred as a result of the altruistic behavior. Improvement on personal and group reproductive success is also another great motivation for reciprocal altruism. For instance, meerkats generally have a member to watch for predators so that they can warn the others in case of an attack (Buss, 2008). Those guard members lose the chance of resting to ensure the

safety of themselves and the rest of the group. This example is also based on the idea of Inclusive Fitness. The sum of direct and indirect reproductive success is increased as a result of higher security with some self-cost only. The benefits in total are higher than the costs for each member.

Altruistic actions have also been explained with costly signaling perspectives (Griskevicius et al., 2010). Specifically with altruistic behaviors, individuals can signal to others that they are prosocial people, rather than pro-self individuals. Building prosocial reputations within the group is an important feature for individuals. According to a costly signaling perspective, altruistic acts are communicative signals. This signal, however, conveys more than individuals' prosociality; altruism can also signal individuals' capacity to incur costs. That is, in addition to signaling that people are prosocial, altruism can simultaneously signal that people have adequate time, energy, money, or other valuable resources to be able to afford to give away such resources without negative impacts on their fitness. Along these lines, from a costly signaling perspective, incidents of public self-sacrifice are connected with status because such acts demonstrate both people's willingness and capacity to incur the expenses of self-sacrifice for the public welfare. Therefore, people act more altruistically even when the costs exceed the benefits. However, increased social status and reputation are also beneficial for people. With the account of increased social status and reputation, the benefits overcome the costs, which motivates people to act more altruistically.

In short, costly signaling perspective is a subsection within the reciprocal altruism, which specifically indicates that altruistic behaviors do come with costs, but also they have investment aspects for future benefits to the actor (Palmer & Palmer, 2002). In comparison to costly signaling hypothesis, reciprocal altruism focuses on

the future returning benefit. Both of the hypotheses require the development of cheater detection to ensure the returning benefit. In addition to cheater detection strategy, helping people to invest in future benefits is common in both of the perspectives.

POPULARITY

Popularity is a manifestation of social status. During the 20th century, popularity has been defined by the people who are most liked. Thus, the term popularity is used as synonymously with social preference and peer acceptance (Marks, Cillessen, & Crick, 2012). Many of scientific assessments that are used to determine the most popular members of the group, in fact, indicate the most liked members of the group.

One perspective about popularity suggests that it indicates the amount that individuals were liked by their peer group (Sabongui et al., 1998). Therefore, more liked individuals are more popular. This particular perspective is also supported by Marks et al. (2012). Previous studies reported that participants who are voted as the most liked members of any group are the most popular people in those groups as well. Moreover, those research suggest that one of the most significant aspect of popularity is being liked. In addition, Mayeux and Cillessen (2008) suggested that no matter the age group, individuals are concerned with how their group members see them. From another perspective, popularity is based on being influential and visible within groups (Caravita & Cillessen, 2012). This particular perspective indicates that being liked and being popular are not the same concepts. Instead, being influential and visible makes people popular or not. This aspect of popularity is generally determined with the questions like who makes the final decisions in groups, or who is the most visible

member of groups. People who are rated as popular also rated highly on visibility and influence.

Popularity is more likely based on group agreement, and only group members can give people popularity or make them unpopular (Marks et al, 2012). In addition, becoming friends with popular people increase people's popularity indicating that popularity is contagious because being friends with popular members of groups increases the popularity of all people in the group. Interaction with popular people makes even unpopular people perceived differently, such as more likeable or more visible, which are, in fact, traits of popular individuals. Sabongui et al. (1998), similarly, suggested that by choosing to associate with popular friends, people increase the chance that they will also be popular. Aforementioned, interaction with popular people increase the actors' popularity so that people may get involved in friendships with popular people and increase their own popularity. Being friends or having relationships with popular people signals that those people also have similar traits as popular members.

Another factor that makes people popular or non-popular is how well individuals fit the group norms. If individuals fit the norms of the group, they will have a higher chance of being a member of the particular group and even becoming popular in the group (Sabongui et al., 1998). The members who fit the group norms well are not necessarily the most liked the members, yet they are the most popular members. This explains that the various factors and aspects of popularity do not always interact. Thus, there are a number of different definitions and types of popular people.

Not being a member of a group is highly related with adjustment problems, aggression, loneliness, and academic failure (Mayeux & Cillessen, 2008). Being a

member of a group and being popular in the group may not be prosocial.

Aforementioned, popular members of groups are not uniform, so popular members are not always prosocial (Palmer & Palmer, 2002). Previous research explained that popularity does not lead prosocial behaviors (Mayeux & Cillessen, 2008). As a result, being a member of a group or being the most popular member of the group does not necessarily indicate if people are prosocial or aggressive.

It is important to clarify the relationship between popularity and factors that affect popularity. The factors, such as prosociality, aggression, and fitting the group norms may make changes to members' popularity. However, being popular in a group does not make those members prosocial, aggressive, or a better fit the group norms. In fact, the relation between popularity and those factors is not bi-directional, but one directional. However, several studies have found that popularity, aggressive behavior, and prosocial behavior are somehow related. Mayeux and Cillessen (2008) have mentioned that popularity and aggression are positively correlated meaning that as the frequency of aggressive traits and behaviors increases, popularity of those group members increases. Marks et al. (2012) explained that most of the literature about popularity looked for the relationship of popularity with aggression or prosocial behavior, but a consistent direct link has not been reported yet.

Neither aggression nor prosociality are unique predictors of popularity. However, most of the popular individuals can be identified into two subgroups of popularity: aggressive popular and prosocial popular (Mayeux & Cillessen, 2008). Buss (2015) explained that aggression helps people to increase their status or strengthen it within existing social hierarchies. The gains, as a result of aggressive behaviors, associated with increases in hierarchical status are significant (Palmer & Palmer, 2002). All those findings support the positive relation between popularity and

aggression. This relation suggests that one of the many possible ways of gaining popularity is aggressive behaviors and traits. Popular but mean students in high schools, such as bullies, are common examples of aggressive popular people.

Sabongui et al. (1998) suggested that popularity does not rely on only people's characteristics, but also it relies on the environment. The environment is highly effective in the developmental perspective because development of people is both biological and environmental. The influences of environmental factors on popularity are similar to fitting the group norms. In some environments, aggressive behaviors might not be accepted so that aggressive members would not be chosen as popular member. Therefore, people must be analyzed with a consideration of environment, as well as their own characteristics. Aggressive popular individuals are not only aggressive because they are popular. Both being popular and being aggressive or prosocial depends on individuals' characteristics and the environment with which people are interacting. In addition, Marks et al. (2012) revealed that changes in individuals' behaviors could change their popularity level.

Another trait of popular people is being empathic (Marcus, 1980). More empathic people are rated higher in popularity. The link between popularity and empathy was found to be strong and positive, meaning that the more popular people were described as more emphatic. Most studied characteristics of popular people are likability (Sabongui et al., 1998), best fit to group norms (Sabongui et al., 1998), aggression (Mayeux & Cillessen, 2008), prosociality (Mayeux & Cillessen, 2008), and empathy (Marcus, 1980). Popular people generally reported high in those traits by their group members.

ALTRUSIM AND POPULARITY

Living in social groups has numerous benefits (Palmer & Palmer, 2002). Those benefits might be processed as reciprocal exchange of benefits. Altruistic behaviors can be invested in social status instead of any material exchange. After all, the prosocial, altruistic member may then become popular and have higher social status. Furthermore, it was found that having a high hierarchical status enables the development of reciprocal altruism (Palmer & Palmer, 2002).

It was previously explained that more popular, or higher hierarchical status, members can be aggressive popular or prosocial popular (Mayeux & Cillessen, 2008). The study indicates that popularity and prosocial behaviors can be observed together, yet the connection was not necessarily analyzed nor were any causal conclusions drawn about the relationship between the two concepts. Prosocial behavior is a wider concept than altruism, yet it still includes altruistic actions. Therefore, it is possible to expect that prosocial popular members might be altruistic popular as well.

In addition, as previously mentioned, popular people were rated more empathic (Marcus, 1980). Also, altruistic people were found to be more empathic (Batson, 1988). Empathy seems like the common component between those two variables. Moreover, the Empathy-Altruism Hypothesis might be used to explain the relation between popularity and altruism. The relation between popularity and empathy was tested in a number of studies (Caravita, Blasio, & Salmivalli, 2008; Marcus, 1980). Also, the relation between altruism and empathy has been explained via Empathy-Altruism Hypothesis (Batson, 1988).

A study conducted by Birkás, Bereczkei, and Kerekes (2006) was similar to the current research, but there are a number of key differences to separate significantly the two studies. The study showed that altruistic behaviors and

reputation are related. The study controlled for bystanders intervention and gender. The main focus of the study was helping others to increase the actors' reputation and/or popularity. In the view of sociometric ratings, more helpful participants were ranked higher in the reputation. However, the study failed to distinguish popularity from reputation. Therefore, it is hard to conclude a solid relation between popularity and altruism in the light of the study.

Additionally, altruism was defined as costly helping behaviors as discussed in various aforementioned studies (Griskevicius, Tybur, & Van den Bergh, 2010). However, the study has uniquely hypothesized that altruistic people gain a reputation in return for helping behaviors only if the altruistic actions are observed by their peer group. In addition, the authors considered the concept of altruism as an instant behavior, which was not supported by the findings. The study has also failed to find significant differences between anonymous and public helping behaviors. The research did not intentionally look for this, but it found that altruistic behavior has a positive effect on reputation. They have also used high reputation and high popularity as interchangeable terms. As a result of those findings, there is a clue that altruism may affect popularity in the general perspective, but no direct research has been conducted yet.

The link between altruism and popularity can be explained by the Empathy-Altruism Hypothesis (Batson, 1988). One of the most proposed sources of altruistic motivation is an other-oriented emotional response, which might be called as empathy. The main difference between the Empathy-Altruism Hypothesis and another theory to explain altruism is the inclusion of an explanation for the cause of the helping behavior. Empathy-Altruism Hypothesis suggests that humans feel stress when they witness someone who needs help; therefore, they help to others. Batson's

(1988) study is not the one of a few that proposes a possible relation between empathy and prosocial behaviors. Eisenberg and Miller (1987) also provided quantitative findings of a positive correlation between the two variables.

From another aspect, previous studies suggested that empathetic people are rated more popular (Adams, 1981; Marcus, 1980). The sum of those research studies creates the picture that empathy leads to more prosocial and popular individuals. It is highly important to study the relation between popularity and altruism because there are several indirect indicators about the relation but not a direct one. Also, it may clarify the importance of peer acceptance and appreciation for individuals who are trying to improve their interpersonal skills.

Aforementioned, it was found that people exchange in helping behaviors when the receivers are both grateful and previously helpful (Blau, 1964). Therefore, with the manipulation of such variables, the accurate relation between altruism, popularity, empathy, likeability, and niceness can be observed. The manipulation of previous help and gratefulness results in four different conditions: Helpful and grateful, helpful and not grateful, not helpful and grateful, and not helpful and not grateful. Empathy is a common variable of altruism and popularity because altruistic and popular people are high in empathy. However, previous research did not directly assess the relationship between altruism and popularity. The current study will examine this relationship using several vignettes.

The vignettes are all short scenarios about the participants' friends who need help. A gender-neutral friend is described in an environment isolated from other potential helpers. Based on previous research, gender, number of bystanders, and daily rush can have an effect on helping behaviors. The vignettes were created for this study to control for those extraneous variables to get a better idea of the relationship

between altruism and popularity. The study is important because previous research has not investigated the relationship.

The current study only focuses on the outcomes of helping behavior, both the benefits and costs. Thus, the vignettes instructed participants to choose to help. Then, a manipulation check took place by asking the reason that they helped. After, the participants were asked to rate themselves in five different characteristics on a Likert scale. The characteristics were empathy, popularity, altruism, likability, and aggression. Then, they rated themselves on the Likert scale from one to seven, one being strongly disagree and seven being strongly agree.

HYPOTHESES

Hypothesis One

It was hypothesized that there would be a main effect of previous help on perceptions of empathy, altruism, and aggression. Specifically, individuals would be perceived as more empathetic, altruistic, and likeable if they helped a person who had previously helped them (Blau, 1964). Conversely, individuals who helped a person who had previously helped them would be perceived as lower in aggression (Mayeux & Cillessen, 2008).

Hypothesis Two

It was also hypothesized that there would be a main effect of gratitude on perceptions of empathy, altruism, and aggression. Specifically, individuals would be perceived as more empathetic, altruistic, and likeable if they helped a person who expresses gratitude (Blau, 1964). These same individuals would be perceived as lower on aggression.

Hypothesis Three

It was expected that there would be an interaction between the variables of gratitude and previous help, meaning that the effect of gratitude on participants' ratings on the popularity items of empathy, altruism, and likeability would depend on presence of previous help (Blau, 1964).

Hypothesis Four

Based on previous research, it was expected that the gender of the participant might have an influence on altruism (Darley & Batson, 1973). It was expected that female participants, in comparison to male participants, would rate themselves higher on the altruistic items of empathy, altruism, and likeability.

METHOD

Participants

Total of 120 (51 females, 69 males) participants were recruited for the study by using an online site called Mechanical TURK. Participants were restricted by location and had to live in United States. The age of participants ranged between the ages of 18 and 65 ($M=35.03$, $SD=10.04$). Age of the participants was the other restriction to eliminate vulnerable populations. It was found that 15 (12.5%) of the participants completed high school, 32 (26.67%) college, 50 (41.67%) bachelors, 18 (15%) masters, and 5 (4.17%) doctorate/PhD. For ethnicity, there were 84 Caucasian, 15 Asian, 9 American Indian, 7 Hispanic, and 5 African American participants.

No additional exclusions were made based on gender or ethnicity. Participants were compensated for their time and participation via payment of 25 cents. Time commitment for participants was approximately 10 minutes. Institutional Review Board (IRB) approval was obtained to ensure that all ethical guidelines were followed (see Appendix D).

Measures

Demographics questionnaire. The demographics of the participants were assessed by using a demographics questionnaire (see Appendix A). The questions inquired for the fundamental elements including age, gender, education level, and ethnicity.

Vignettes. Participants were instructed to read four slightly different vignettes. The vignettes included a series of manipulations so that the researcher could observe the effects of independent variables. The manipulated variables were gratefulness and previous help. Vignettes were presented to participants with all of the four possible conditions of manipulation, which were grateful and previously helped, not grateful and previously helped, grateful and not previously helped, and not grateful and not previously helped.

Participants read through a scenario in which friends of the participants needed help because of a flat tire, and the participants helped with their friends. Those friends were purposefully chosen gender neutral so that the uncontrolled influences of the gender would be eliminated. Some other aspects of the vignette, such as control for daily rush and bystander effect, were chosen with respect to previous literature about the topic (Batson, 1988; Mayeux & Cillessen, 2008; Terry & Coie, 1991). Those aspects were controlled in the vignettes to remove their non-tested influences as confounding variables since they were found to affect the variables of empathy, altruism, likeability, aggression, and popularity (see Appendix B).

Manipulation check. To measure the effectiveness of the vignettes, participants were asked to explain the reason that they helped the receiver. The question did not vary by vignette. The manipulation check was needed because the research was using a self-constructed measure, which had not been tested for the

validity of the measure. This item used to assess the vignettes in construct validity aspect to determine whether or not the vignettes had the intended effect of promoting altruistic behavior (Cozby, 2009). It was assumed that when the participants read the vignettes, they could comprehend the information provided. However, the manipulation check item actually tested this assumption. Participants were expected to provide answers indicating that they had helped to their friends because they were noticing the difference in gratitude and reciprocity.

Popularity assessment. The Popularity Assessment aimed to evaluate participants in the aspects of empathy (Marcus, 1980), altruism (Mayeux & Cillessen, 2008), likeability (Sabongui et al., 1998), aggression (Mayeux & Cillessen, 2008), and popularity (Griskevicius, Tybur, & Van den Bergh, 2010) (see Appendix B). The scale included only Likert scale type of items. The participants were expected to rate themselves on the items of empathy, altruism, likeability, aggression, and popularity on the Likert scale range, which were between “1” being strongly disagree, “4” neutral, and “7” being strongly agree.

The main reason of using vignettes instead of any other popularity and altruism scale was the focus of the study, which is perceived popularity. A previous study about perceived popularity had also used vignettes to test the hypotheses (Mayeux, 2011). Terry and Coie (1991) suggested that there is no best way of measuring social and psychological topics similar to the current study’s concern. It was important to adjust present measurements and tools accordingly to the requirements of the research for the best fit. Therefore, some of the items in the vignette were picked from the sociometric research of Cillessen and Bukowski (2000), which had very similar interests such as assessing the popularity. Because the scale was created with a combination of various scales, the reliability of the

measurement was tested by using Cronbach's Alpha statistics, and the results had shown good internal consistency and reliability of the measurement ($\alpha=.80$).

Procedure

Informed consent was obtained from participants prior to data collection. Once participants consented to the study, they were asked to fill out the demographics questionnaire, read all of the vignettes, completed the manipulation check, and complete the popularity scale. The sequence of the materials was not expected to cause any difference because no special order was expected to have an influence on participants. Therefore, the order of first demographics questionnaire then the vignettes were presented. To eliminate any carryover effects, vignettes were presented in four different versions. The versions differed only in the order of vignettes. The first version presented the vignettes in the order of 1, 2, 3, and 4. The second version followed 2, 1, 4, and 3 order. The third version was 4, 3, 2, and 1. Finally, the last version presented the vignettes in the order of 3, 4, 1, and 2. Four different versions of the same study were needed in order to create counterbalance effect. Upon completion of the study, participants were debriefed and thanked for their participation.

RESULTS

Data Cleaning

Before starting the data analysis, data cleaning was necessary. As the first step, the accuracy of data was checked by looking at the minimum and maximum values in the variables in order to eliminate human error of entering the data incorrectly. This showed that all data was entered correctly.

Next, the data was scanned for any missing values. One of the participants did not respond to any Likert scale questions, which unfortunately covers the majority of the data. This participant was removed casewise from the data. Other than this

particular case, there were missing data points sporadically located in some variables. After dummy coding the variables with related vignette groups based on presence or absence of data points, it was found that data was missing at random (MCAR) by running independent samples *t*-test. Table 1 summarizes the results of the independent samples *t*-test. Because the data was MCAR, a mean substitution technique was used for every variable that had missing data points, which was 53 data points in total.

Table 1

Missing Values t-Test Results

Variable Name	<i>df</i>	<i>t</i>	<i>p</i>
Education	117	0.97	.336
Helpful, Grateful Vignette	113	1.15	.251
Not Helpful, Not Grateful Vignette	117	-0.19	.852
Helpful, Not Grateful Vignette	117	-0.75	.456
Not Helpful, Grateful Vignette	117	-0.02	.982

After inputting the missing data points with the means, data was checked for outliers. All scale variables were standardized to z-scores. There were four cases with z-scores greater than |3.29|. Following the Tabachnick and Fidell (2007) guidelines, these cases were found to be outliers so that they were removed casewise. Finally, the total sample size decreased to $N=115$.

Data were checked for normality by looking at the skewness and kurtosis scores and histogram. Skewness and kurtosis was calculated for all Likert scale results and other continuous variables such as age. Skewness and kurtosis scores were checked for significance with the score of |3.29|. The results showed that not helpful and not grateful condition for altruism ($z = -3.50$), helpful and grateful condition for

likable ($z = -3.82$), and not helpful but grateful condition for likable ($z = -3.34$), helpful and grateful condition for aggression ($z = 4.69$), and age ($z = 3.62$) were significantly skewed (see Table 2). Also, the variables were found to be mesokurtic meaning that there was not a violation in kurtosis. There was a violation of normality in the listed variables, yet data transformation was not performed because it would limit the ease of interpreting the results from analyses.

Table 2

Skewness and Kurtosis Results

Variable	Vignette ^a	Skewness	Skewness/Error	Kurtosis	Kurtosis/Error
Empathy	1	-0.72	-3.17	-0.04	-0.09
	2	-0.58	-2.55	-0.34	-0.75
	3	-0.22	-0.96	-0.01	-0.02
	4	-0.70	-3.11	0.47	1.05
Popularity	1	-0.51	-2.26	-0.06	-0.13
	2	-0.08	-0.35	-0.54	-1.21
	3	-0.51	-2.24	0.79	1.76
	4	-0.17	-0.77	-0.07	-0.15
Altruism	1	-0.44	-1.96	0.09	0.19
	2	-0.79	-3.50 ^b	0.40	0.90
	3	-0.71	-3.14	0.89	1.99
	4	-0.74	-3.28	0.82	1.82
Likeable	1	-0.86	-3.82 ^b	0.83	1.86
	2	-0.25	-1.09	-0.61	-1.37
	3	-0.27	-1.21	-0.23	-0.51
	4	-0.75	-3.34 ^b	0.75	1.67
Aggression	1	1.06	4.69 ^b	-0.08	-0.17
	2	0.24	1.06	-0.92	-2.06
	3	0.41	1.80	-0.91	-2.02
	4	0.50	2.23	-0.87	-1.94

Age	0.82	3.62 ^b	0.49	1.11
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Notes. Standard Error of Skewness was found 0.226, and Standard Error of Kurtosis was 0.447 for all of the variables listed above.

^a Vignette 1 was helpful and grateful condition, Vignette 2 was not helpful and not grateful condition, and Vignette 3 was helpful and not grateful condition, and Vignette 4 was not helpful and grateful condition.

^b Statistically significant findings.

Data Analysis

The study utilized five two-way within-subjects (2: Grateful and Not-Grateful X 2: Previously Helped and Not Previously Helped) factorial analysis of variance (ANOVA) design for each dependent variable to compare four conditions, which were grateful and previously helped, grateful and not previously helped, not grateful and previously helped, and not grateful and not previously helped. The dependent variables were self-assessed popularity items, which were empathy, popularity, altruism, likeable, and aggression, and the two independent variables were being helpful and grateful. Aforementioned, the independent variables were manipulated in the vignettes, and the dependent variables were measured with the follow-up questions.

Hypothesis one. The results of the analysis supported hypothesis one's predictions for a main effect of previous help on empathy $F(1, 114) = 13.66, p < .001$, partial $\eta^2 = .11$, popularity $F(1, 114) = 6.66, p = .011$, partial $\eta^2 = .06$, and likeability $F(1, 114) = 24.54, p < .001$, partial $\eta^2 = .18$, which suggests that presence or absence of previous help from a friend has statistically significant effects on participants' ratings on those listed items with higher rating of the Likert items. Participants had higher scores on the items of empathy, popularity, and likeability when previous help was

present rather than absent. However, trend was not found for the altruism item, $F(1, 114) = 1.41, p = .238$, partial $\eta^2 = .01$, or the aggression item $F(1, 114) = 1.91, p = .169$, partial $\eta^2 = .02$.

Hypothesis two. A significant main effect for gratefulness was found on the items of empathy, popularity, and likeable as listed in the Table 2. These findings show that the presence of gratitude has a statistically significant effect on participants' ratings on the items of empathy, $F(1, 114) = 25.68, p < .001$, partial $\eta^2 = .18$, altruism $F(1, 114) = 9.89, p = .002$, partial $\eta^2 = .08$, popularity, $F(1, 114) = 11.57, p = .001$, partial $\eta^2 = .09$, likeability, $F(1, 114) = 38.96, p < .001$, partial $\eta^2 = .26$, and aggression, $F(1, 114) = 16.38, p < .001$, partial $\eta^2 = .13$. The results reflect that participants' ratings were higher in all of the items when gratitude was positively stated compared to negatively stated vignettes.

Hypothesis three. The interaction between previous help and gratefulness was not found to be significant in any of the items, suggesting that the effects of helpfulness do not necessarily depend on the presence of gratefulness (see Table 3). The interaction was analyzed separately for each item, empathy (see Figure 1), popularity (see Figure 2), altruism (see Figure 3), likable (see Figure 4), and aggression (see Figure 5).

Table 3

Results of With-in ANOVA

DV	IV	<i>F</i>	<i>p</i>	<i>Partial η²</i>
Empathy	Helpful	13.66	<.001 ^a	.11
	Grateful	25.68	<.001 ^a	.18
	Helpful*Grateful	.000	.959	.00
Popularity	Helpful	6.66	.011 ^a	.06
	Grateful	11.57	.001 ^a	.09
	Helpful*Grateful	0.59	.445	.01
Altruism	Helpful	1.41	.238	.01
	Grateful	9.89	.002 ^a	.08
	Helpful*Grateful	0.11	.745	.00
Likable	Helpful	24.54	<.001 ^a	.18
	Grateful	38.96	<.001 ^a	.26
	Helpful*Grateful	0.64	.402	.01
Aggressive	Helpful	1.91	.169	.02
	Grateful	16.38	<.001 ^a	.13
	Helpful*Grateful	2.70	.103	.02

Note. df for between subjects was 114 for all of the variables.

^a Statistically significant findings.

Hypothesis four. To test the hypothesis that female participants, in comparison to male participants, would rate themselves higher on the altruistic item, an independent samples *t*-test was performed. The altruism item was tested separately in all four vignettes. The statistical results of the *t*-test in the helpful and grateful condition

$t(111) = 0.47, p = .640$ suggested that female participants are not statistically different from male participants on the item of altruism. Similarly, results in the not helpful and not grateful condition $t(111) = -0.49, p = .624$ did not suggest any statistically significant findings. Helpful and not grateful condition $t(111) = 0.63, p = .533$ and not helpful but grateful condition $t(111) = -0.11, p = .915$ also showed no statistically significant results. The findings of the independent samples t -tests failed to reject null hypothesis. It appears there is no gender difference on perceptions of altruism in the current study.

DISCUSSION

The current study analyzed four main hypotheses. With necessary statistical analyses, it was found that some of the hypotheses were supported, whereas some were not. The hypothesis that the scores for popularity items of empathetic, altruistic, and likable would be higher when participants read vignettes with previous help compared to no previous help was only supported for the items of popularity, empathetic, and likable. However, the results were not supported for the item of altruism. This finding suggests that previous help does not affect if participants are altruistic or not, yet it does affect if participants are popular, likable, and empathic. For instance, participants rate themselves higher in the popularity items if their friend has previously helped them. This might be because of different definitions and understandings about altruism. Some participants might not have considered themselves altruistic as they may not even think altruism exists, similarly to previous literature findings (Li et al., 2014), whereas, the other items would have a clear understanding.

The aggression item, similar to altruism, was also not affected by the presence of previous help similarly to altruism. Results for the aggression item did not differ

significantly to suggest that the participants scored higher in this item when their friends did not help them. Rather, participants rated themselves with similar scores in both conditions. These findings suggest that scores in aggression do not depend on the presence of previous help. The current study also failed to reveal the relationship between aggression, popularity, and altruism as previous findings (Mayeux & Cillessen, 2008).

The hypothesis that the scores for popularity items of empathetic, altruism, and likable would be higher when participants read vignettes with positively stated gratitude compared to negatively stated gratitude was supported for the items of popularity, empathetic, and likable. These results suggest that being grateful is significantly important in relations, which was also reported in the previous literature on Social-Exchange Theory (Blau, 1964). The same results were found for aggression item meaning that participants rated significantly lower when their friends were grateful for their help compared to when the friends were not grateful. These findings are important for daily life relationships and can be used to improve social interactions.

The research has shown very similar results for the items of aggression and altruism. For both of the items, previous help did not reflect significant effects, yet gratefulness had. Since the results are consistent for both of the items, findings support that being grateful towards a friend affects their perspectives on altruism and aggression. When gratefulness was positively stated in the vignettes, participants rated themselves higher in altruism and lower in aggression. These findings also support previous research in Social-Exchange Theory (Blau, 1964).

Additionally, participants reported higher scores in empathetic, popularity, and likable items whenever previous help or gratitude was present. Those findings are also

consistent with previous literature. Empathy-altruism theory suggested that people who are helpful would be observed more empathetic, popular, and likable (Batson, 1988). Further, Social-Exchange Theory explained that reciprocal help and gratitude would increase scores in the same popularity items (Blau, 1964). The results of the current study contribute even further knowledge to the both theories.

The main result that was found in the research was empathetic, popularity, and likable items comparison to altruism and aggression items were significant when previous help was positively stated. The presence of previous help affects empathetic, popularity, likable yet does not affect altruism and aggression. These findings contradict previous literature because Social-Exchange Theory suggested that presence of previous help would have an effect on altruism (Blau, 1964). The results could be contradictory with the previous literature because of the data collection technique. Possibly, participants failed to accurately experience the scenario so that they did not respond differently to the conditions.

Also, it was hypothesized that effects of gratitude on participants' ratings on the popularity items of empathetic, altruism, and likeability would depend on the presence of previous help. The presence of previous help does not interact with gratitude scores. Social-Exchange Theory also did not necessarily state that reciprocated help and gratitude interacts (Blau, 1964). These findings explain that the effects of gratitude did not depend on previous help. It was investigated a possible statistical interaction between the variables of previous help and gratefulness, and significant results were not found. Thus, the hypothesis was not supported. Previous literature also did not have any findings on this aspect. Social-Exchange Theory (Blau, 1964) suggests that both previous help and gratefulness should be present for continuous helpful relations. However, there was no study that looked if the presence

of one variable affects another. The current study analyzed the relation and found that the effects of previous help do not depend on the presence of gratefulness. This finding is an important contribution to the literature.

The last hypothesis was that female participants, in comparison to male participants, would rate themselves higher on the altruistic item. It was hypothesized based on previous findings, which suggested that the gender of the participant would show a difference for the self-perception of altruism (Blau, 1964). A possible reason that the results were not supportive of the hypothesis and previous literature could be the gender-neutral friend that was described in the vignettes. It is likely to observe different results with manipulation on the gender of the friend rather than control. The results of the statistical analyses did not show any difference based on the gender of the participant. The friend that was presented in the scenario had a gender-neutral name so that it was not tested if the participants would show a difference when the person in need was in a specific gender. This result suggests that the gender of the participant does not affect the scores that are expected to show similar results in real life as well.

Limitations

The current investigation has some limitations. The data was collected through a website on the Internet, and participants were paid in return for their time and feedbacks. This way of data collection might have caused participants to randomly answer the questions rather than reporting their honest feedback. Additionally, the study was based on self-report techniques, which might have caused failure in objective self-observation. Even though the data collection was made anonymously, participants might not desire to rate themselves high or low in some items. For example, participants responded very low in aggression item. These results could be

because of failure of self-observation, social desirability bias, or effects of vignettes. These are main limitations of the study.

The same limitations could also be valid for the rest of the research. For example, participants could have responded high in empathetic, altruism, or likeability items because of failure of self-observation, social desirability bias, or effects of vignettes.

Future Research

Future studies could focus on the previously mentioned limitations of the survey technique. Other kinds of popularity scale could be used such as sociometric techniques. In this case, the researcher would eliminate suspicions on the variability of the test as well as other disadvantages of self-rating scales.

Also, the participants were asked to picture a scenario. The research is based on the assumption that responses to reading a vignette and experiencing the case would be similar. A future research could benefit using a real-life situation rather than a scenario.

Additionally, participants were recruited through a website, which may cause some other limitations as mentioned. Direct interactions with the participants can eliminate issues of random answers and honest feedback.

Appendix A

Demographic Questionnaire

Age:

Gender:

Ethnicity:

- a. Caucasian
- b. Hispanic
- c. African American
- d. American Indian
- e. Native Hawaiian or Pacific Islander
- f. Asian
- g. Other: _____

Education Level:

- a. No formal education
- b. High School
- c. College
- d. Bachelor's degree
- e. Masters
- f. Doctorate\ PhD
- g. Other

Appendix B

Vignettes

Helpful and Grateful Vignette

One of your friends, Sam, calls you and tells you that their car has a flat tire, so Sam needs your help. You have helped Sam previously a number of times, and Sam was extremely **grateful** for your help. Sam has also been **helpful** to you several times in return. You are not in a rush today, and there are not any other people around who could help your friend. Since you have enough resources and skills to do so, you choose to help Sam with their flat tire.

· Why did you help?

Please rate yourself on the following criteria

	Strongly Disagree			Neutral			Strongly Agree	
Empathetic	1	2	3	4	5	6	7	
Popular	1	2	3	4	5	6	7	
Altruistic	1	2	3	4	5	6	7	
Likeable	1	2	3	4	5	6	7	
Aggressive	1	2	3	4	5	6	7	

Not Helpful and Not Grateful Vignette

One of your friends, Sam, calls you and tells you that their car has a flat tire, so Sam needs your help. You have helped Sam previously a number of times, and Sam was **not** extremely **grateful** for your help. Sam has **not** also been **helpful** to you several times in return. You are not in a rush today, and there are not any other people around who could help your friend. Since you have enough resources and skills to do so, you choose to help Sam with their flat tire.

· Why did you help?

Please rate yourself on the following criteria

	Strongly Disagree			Neutral		Strongly Agree	
Empathetic	1	2	3	4	5	6	7
Popular	1	2	3	4	5	6	7
Altruistic	1	2	3	4	5	6	7
Likeable	1	2	3	4	5	6	7
Aggressive	1	2	3	4	5	6	7

Only Helpful Vignette

One of your friends, Sam, calls you and tells you that their car has a flat tire, so Sam needs your help. You have helped Sam previously a number of times, and Sam was **not** extremely **grateful** for your help. Sam has also been **helpful** to you several times in return. You are not in a rush today, and there are not any other people around who could help your friend. Since you have enough resources and skills to do so, you choose to help Sam with their flat tire.

· Why did you help?

Please rate yourself on the following criteria

	Strongly Disagree			Neutral		Strongly Agree	
Empathetic	1	2	3	4	5	6	7
Popular	1	2	3	4	5	6	7
Altruistic	1	2	3	4	5	6	7
Likeable	1	2	3	4	5	6	7

Aggressive	1	2	3	4	5	6	7
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Only Grateful Vignette

One of your friends, Sam, calls you and tells you that their car has a flat tire, so Sam needs your help. You have helped Sam previously a number of times, and Sam was extremely **grateful** for your help. Sam has **not** also been **helpful** to you several times in return. You are not in a rush today, and there are not any other people around who could help your friend. Since you have enough resources and skills to do so, you choose to help Sam with their flat tire.

- Why did you help?

Please rate yourself on the following criteria

	Strongly Disagree			Neutral		Strongly Agree	
Empathetic	1	2	3	4	5	6	7
Popular	1	2	3	4	5	6	7
Altruistic	1	2	3	4	5	6	7
Likeable	1	2	3	4	5	6	7
Aggressive	1	2	3	4	5	6	7

Appendix C

Figures



Figure 1. Means and standard errors for Empathy.

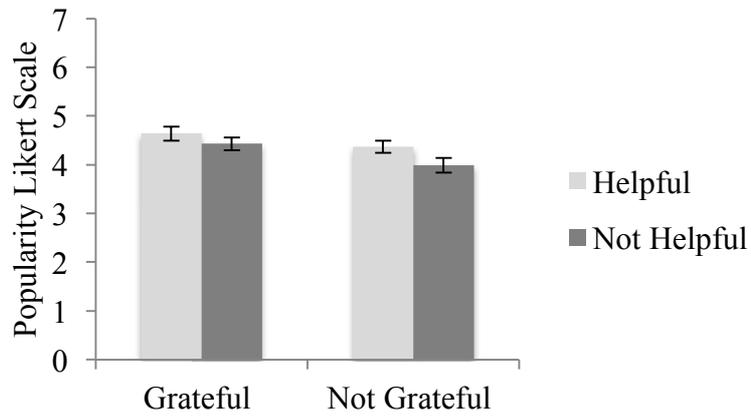


Figure 2. Means and standard errors for Popularity.

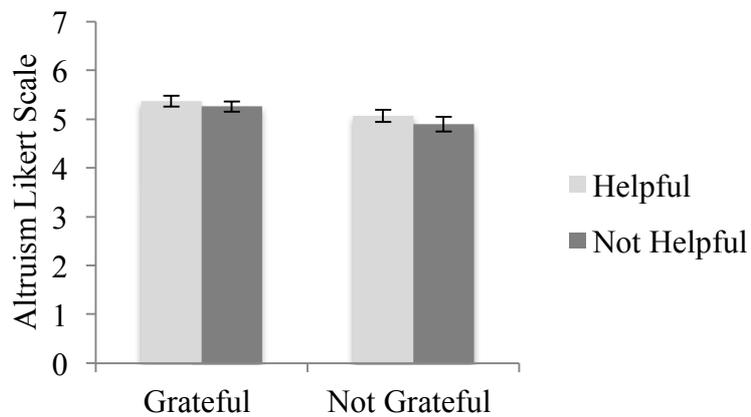


Figure 3. Means and standard errors for Altruism.

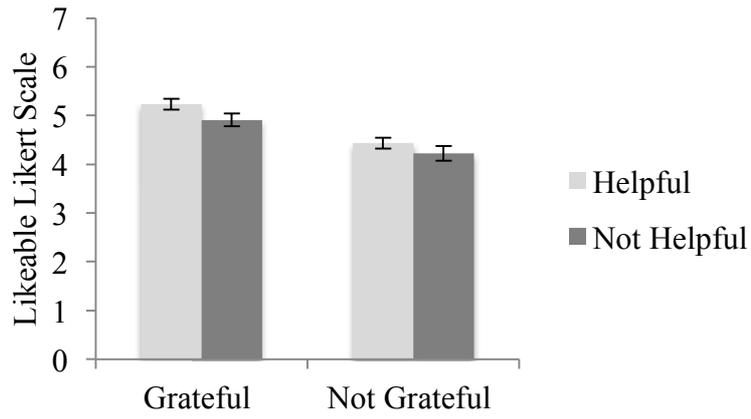


Figure 4. Means and standard errors for Likeable.

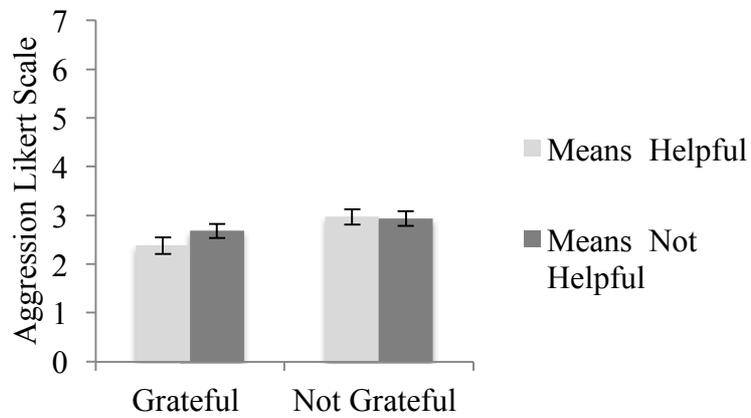


Figure 5. Means and standard errors for Aggression.

Appendix D

IRB Approval



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OFFICE OF SCHOLARSHIP AND SPONSORED PROJECTS

DATE: September 15, 2016

TO: Eda Egilmez
FROM: Fort Hays State University IRB

STUDY TITLE: [947170-1] Altruism and Popularity
IRB REFERENCE #: 17-011
SUBMISSION TYPE: New Project

ACTION: DETERMINATION OF EXEMPT STATUS
DECISION DATE: September 15, 2016

REVIEW CATEGORY: Exemption category # 2

Thank you for your submission of New Project materials for this research study. The departmental human subjects research committee and/or the Fort Hays State University IRB/IRB Administrator has determined that this project is EXEMPT FROM IRB REVIEW according to federal regulations.

Please note that any changes to this study may result in a change in exempt status. Any changes must be submitted to the IRB for review prior to implementation. In the event of a change, please follow the Instructions for Revisions at <http://www.fhsu.edu/academic/gradschl/irb/>.

The IRB administrator should be notified of adverse events or circumstances that meet the definition of unanticipated problems involving risks to subjects. See <http://www.hhs.gov/ohrp/policy/AdvEvtGuid.htm>.

We will put a copy of this correspondence on file in our office. Exempt studies are not subject to continuing review.

If you have any questions, please contact Leslie Paige at lpaige@fhsu.edu or 785-628-4349. Please include your study title and reference number in all correspondence with this office.

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