

TILBURG UNIVERSITY

The influence of imagined helping behavior on self-esteem.

Social Psychology Perspective

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A thesis submitted to the University in Tilburg
in fulfillment of the requirements for the Bachelor
degree in Liberal Arts and Sciences.

July, 2012

Abstract:

Almost everyone says that helping others is important and that they want to help others. Nevertheless, there are still many people who do not engage in any type of pro-social activities. How is it possible that there is such a discrepancy between people's beliefs about who they are and their actual behavior? Most of the recent research suggests the strong connection between imagined and executed behaviors, since both of them elicit the same processes in the brain. Building on those findings that "thinking is doing" it is possible that imagining helping behavior actually reduces the likelihood of this behavior taking place. Therefore, the aim of this thesis is to test whether imagined helping behavior can influence individuals' self-esteem to the same extent as does actual behavior. The results of this study prove that imagining helping behavior can indeed have an effect on self-esteem. The significant increase in explicit self-esteem was observed when imagining helping, however implicit self-esteem has not been affected.

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Chapter 1: Introduction

“Volunteering can be an exciting, growing, enjoyable experience. It is truly gratifying to serve a cause, practice one's ideals, work with people, solve problems, see benefits, and know one had a hand in them”. -Harriet Naylor

Background information

The importance of helping behaviors is deeply emphasized in societies. It is considered to be a crucial and necessary component for the creation of the ideal type of living (e.g., Gailliot, 2009) that each country strives to achieve. Therefore, individuals are confronted with many advertisements and communications on a daily basis which aim at persuading them to donate money, volunteer or simply help others. Webster's Online Dictionary defines helping behavior as “behaviors associated with the giving of assistance or aid to individuals.” Helping behavior therefore includes any pro-social, altruistic or voluntary action, which can be either formal or informal and aims at helping another individual or improving his well-being. It can be seen as any form of activity in which an individual either invests time, effort or money in order to help someone in need. Each of the terms mentioned above, associated with helping behavior, such as pro-social, altruistic or voluntary behaviors will be used in this thesis interchangeably and will refer to helping behavior in general.

Public Opinion Analysis sector of the European Commission (2007) reports that almost 80 % of Europeans consider helping others and engaging in voluntary work as one of the most important aspects in their lives. The numbers differ between the countries, but they are still relatively high in each of them. It can be seen therefore that helping behaviors are considered to be essential in most of the countries in the world and people regard them as a necessary component of a balanced, satisfying life.

In the United States of America, altruistic behaviors play an especially important role, because in order to function well, the country strongly depends on the number of volunteers within society. This is also why most individuals in the United States agree that helping behavior is one of the most important aspects keeping the society together. However, even though almost everyone says that helping others is crucial and that they want to take an active

role in creating this ideal type of living, there are still many people who do not engage in any type of voluntary activity, or never donate money to charitable organizations.

The Charities Aid Foundation (2010) was the first organization to focus on researching peoples' engagement in helping behavior on a world scale. The main aim of the study was to investigate the level of philanthropy in over 150 different countries in 2010. In order to research these effects, they developed a scale, which did not solely focus on the number of charitable donations within the country, but also included the time spent within the charitable organization and the actual time spent on helping others. Since being charitable is not only about giving money, these three measures were to give a valid and objective insight on how charitable specific countries in the world are. The results have shown that, for example, in the USA 60% of people donated money in the month prior to the interviews, 65% engaged in informal help and only 39% actually invested time in volunteering activities. Therefore, the general score of philanthropy in the USA is 55 percent which still implies that it is number five on the list of the most philanthropic countries in the world.

Furthermore, the CAF (2010) report also presented the same results on a world scale. The numbers are even more striking than the results of particular countries, since only 30 % of the world population donates money to charity, 20 % volunteers their time and 45% engages in informal helping behaviors, such as helping a stranger. The numbers are already relatively low and since they also widely overlap, it implies that there is a large amount of people who do not engage in any kind of helping behavior. This proves that even the most philanthropic countries in the world, such as the USA, are not quite as charitable as individuals indicate that they would like them to be. Taken together, all these statistics show that there are many people in the world who do absolutely nothing during the entire year in order to help others and a large number of people engage in helping behavior only sporadically. It is a very shocking finding, especially if one realizes how important people indicate pro-social behavior to be.

Therefore, if helping behavior is so important in every society and for each individual, how is it possible that there is such a disconnection between how people imagine themselves to be, as people who help others, and who they actually are? Why do people think and say that helping behavior is essential if so many of them do not take any initiative to help others?

Recent research in the field of imagined behavior seems to provide one basis for understanding this phenomenon through the idea that “thinking is doing.” It shows that imaginary actions share the same neural processes and can result in similar effects in the brain as the executed actions. They can also similarly affect one’s emotions and behavior. For instance, “The thought of a spider crawling across one’s leg can produce the same increases in perspiration and heart rate that would result from a spider’s actual presence” (Morewedge, Huh & Vosgerau, 2010, p. 1531). Similarly, Wang and Morgan (1992) found that while externally or internally imagining a physical exercise the same mechanisms are activated in the brain as when actually performing this action. Those findings therefore, prove that some behaviors either imagined or executed can elicit identical processes in the brain, but also the same feelings.

Based on the idea described above, it is possible that mental imaginary can be one of the reasons why people do not engage in pro-social behaviors. When an individual is imagining helping others, he may elicit the same emotions and feelings as when actually performing this behavior. This would mean that a person does not need to perform the action to be able to benefit from it. Focusing on the phenomena that “thinking is doing”, it is possible that imagining helping others actually decreases the chance that the helping behavior will take place, since it can be assumed that both imaginary and executed actions will have the same effect on the individual, such as increasing his happiness, self-esteem or well-being. It can be hypothesized therefore, that imagining doing good deeds decreases the chance for the execution of the actual helping behavior.

It is clear that the relationship between imagined and executed behavior will operate through a third variable. When an individual would imagine doing a good deed, he or she could receive personal benefits, the same as when actually performing this behavior, which might in turn decrease the need to engage in helping behavior. That is also why it is necessary to focus on the specific effect helping behavior has on the individual and use it to see the possible impact that imagined behavior has on the same variable.

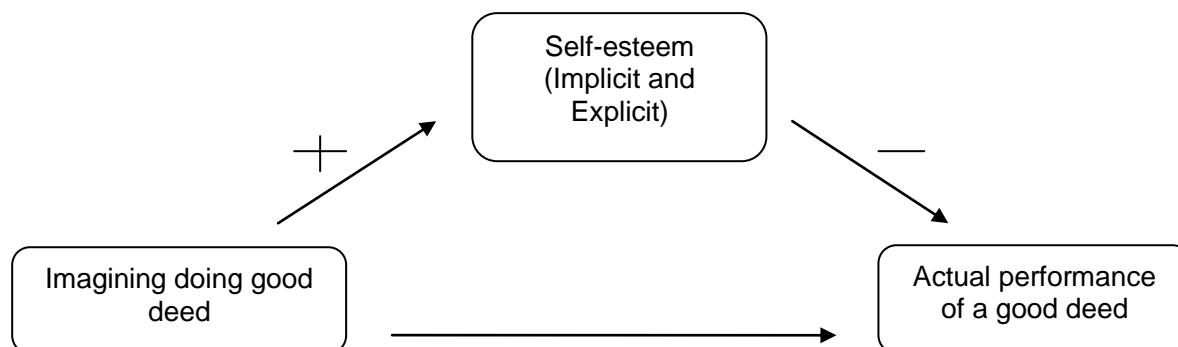
There is a lot of evidence in literature that shows that voluntary activities have a positive influence on the individuals’ well-being and self-confidence, which is at least partially a result of increased self-esteem. The Institute for Volunteering Research (2007)

declares that 85 percent of survey respondents reported that engagement in voluntary work increased their levels of self-esteem. This implies that improvement in self-esteem can be considered to be one of the primary motives to engage in helping behavior and if this increase could also be elicited by imagining an altruistic action, it would explain why so many individuals do not have a need to actually perform pro-social behavior.

Self-esteem is however a complex concept with a distinction between an implicit and explicit self-esteem. “Implicit self-esteem refers to highly efficient self-evaluations that may exist largely outside of awareness. Self-esteem as traditionally conceptualized, in contrast, can be considered to be explicit; that is, deliberately reasoned and controlled” (Jodan, Spencer and Zanna, 2005, p. 693). This implies that explicit self-esteem is the one reported by the individual himself and is considered to be a rather stable concept. It is mostly being measured in the form of self-report that participants complete themselves. Implicit self-esteem, on the other hand, exists outside of the individual’s conscious awareness and requires the use of implicit, unobtrusive measures that do not alert the individual as to what is actually being measured.

This paper will focus on both kinds of self-esteem in order to investigate the effects that imagined helping behavior can have on an individual. It will be hypothesized therefore that imagining doing good deeds causes increase in explicit and implicit self-esteem, what may in turn decrease the chance that the executed action will actually take place.

Conceptual Model



To test the validity of this hypothesis and estimate the exact effect that the imagined behavior has on an individual it is necessary to manipulate participants to imagine a situation, where they would perform helping behavior and measure the difference in their resulting implicit and explicit self esteem. The results will show the direct impact that imagining helping behavior has on both types of self-esteem and could form an explanation for the inconsistency between individual's actions and beliefs. This evidence may also create possibilities for the future research that could specifically check if it is due to the increase in self-esteem that the need to actually perform the action decreases. Furthermore, this research would provide charitable and voluntary organizations with necessary knowledge that could create new opportunities for improvement of the recruitment processes and donation systems.

Although it would be most appealing to test the whole mediation process in this paper, it will not be possible to check the actual behavior of participants and thus this thesis will particularly focus on the first link in the mediation model, that is, on the relationship between imagined helping behavior and implicit and explicit self-esteem.

Structure of the Paper

In order to perform this experiment however, it is necessary to first provide a theoretical background for this thesis. Chapter two will therefore focus on the theory and evidence available in already existing literature. The evidence for the idea that “thinking is doing” will first be explained. Then, literature will be reviewed on the topic of helping behavior as a factor that increases the self-esteem of an individual. In addition, in the end of this chapter the research question and hypothesis will be presented and discussed. Based on these theories, chapter three will provide a method section, where the design of the experiment will be presented and explained. Chapter four will show the results of the experiment and will reveal whether the hypothesis can be accepted. Finally, chapter five will provide a conclusion of the study, a brief discussion, and it will point out the limitations of the study and implications for future research.

Chapter 2: Theory

As seen in the previous chapter, helping behavior is not solely determined by the individual's willingness to help others. People's actions are also often inconsistent with their attitudes and beliefs. This is also why in order to try to understand the discrepancy between people's beliefs and behavior, this paper aims at finding out whether imagined behavior can affect self-esteem in a similar manner as the actual behavior does. However, in order to do so, it is necessary to first provide an overview of an already existing research in this field. This chapter will therefore provide the theoretical background for the two primary aspects of this paper; the idea of "thinking is doing" and the effects that helping behavior has on self-esteem.

The idea of "thinking is doing"

Existing research reveals several theories that explain the relationship between imagined and executed actions. The field of cognitive neuroscience in particular provides evidence for this phenomenon and discusses the specific activations of neural mechanisms within the human brain.

Decety (1996) investigated whether the brain processes, which are accountable for the preparation of the actual movements, are also the ones involved in motor imagery. He defined motor imagery "as a dynamic state during which a subject mentally simulates a given action. This type of phenomenal experience implies that the subject feels himself performing a given action" (Decety, 1996, p. 87). Therefore, motor imagery can be seen as a very similar process to the actual action, although in which the actual execution of the movement is blocked. This study proves that imaginary actions share the same neural mechanism as the executed actions. In both cases the timing of the actions was very similar, cerebral blood flow increased and autonomic responses were mimicked. On account of these findings, the study shows compelling evidence for the idea that "thinking is doing."

Similar results were found in other studies that have focused on motor imagery. Papaxanthis, Schieppati, Gentili & Pozzo (2002) have arrived at the conclusion that imagined and executed arm movements share the same physiological substrates. Their study has shown clear similarities in duration between imagined and actually performed actions, regardless of the differences in the workspace or possibly added mass. In addition, Fadiga, Buccino,

Craigero, Fogassi, Gallese & Pavesi (1998) found that both motor imagery and executed actions activate the same cortical circuits in the brain, which proves that the same processes are responsible for the imagination of the movement and for its actual execution. Consistent with previous findings, another study on motor imaginary conducted by Sabaté, González & Rodríguez (2004) demonstrated concurrence in the brain processes that are involved in imaginary and actual movements. They found that even patients with brain damage that was caused by a stroke have replicated these findings. Imaginary and actual movements had similar durations, but the performance time of an action increased for both virtual and real movements compared to healthy participants. This proves that virtual movements, which are not actually executed, resemble the brain activities that are active during the real movement, even in the case of patients that suffer from unilateral brain damage. Each of the studies described above therefore confirms that imagined behavior results in similar processes in the brain as the actual behavior.

Another piece of evidence supporting the idea of “thinking is doing” can be found in the study of Decety & Grezes (2006) who focus on a specific aspect of imagination, which is simulation. “The simulation hypothesis states that thinking consists of simulated interaction with the environment and rests on the following three core assumptions: (1) simulation of actions: we can activate motor structures of the brain in a way that resembles activity during a normal action but does not cause any overt movement; (2) simulation of perception: imagining perceiving something is essentially the same as actually perceiving it, only the perceptual activity is generated by the brain itself rather than by external stimuli; (3) anticipation: there exist associative mechanisms that enable both behavioral and perceptual activity to elicit other perceptual activity in the sensory areas of the brain. Most importantly, a simulated action can elicit perceptual activity that resembles the activity that would have occurred if the action had actually been performed” (Decety & Grezes, 2006, pg 5). This theory indicates that there is a direct link between the perception and the actual action, because it can influence behavior, stereotyping and can even cause an individual to adopt certain values. It proves that the imaginary actions and the executed actions are far from different and that they both activate similar brain areas when imagining one’s own behavior

but also those of others. An individual can therefore imagine an action or perception that will resemble the actual behavior and is able to perceive it as a real action.

Meister, Krings, Foltys, Boroojerdi, Muller, Topper & Thron's (2003) study on music imagery and performance in pianists also supports the phenomenon that imagined actions resemble the ones that are actually performed. The study analyzed the activations within the cortical network, which is known for its relatedness to music performance. The results show that when participants were playing on the silent keyboard they activated the same processes in the brain as when imagining their music performance. "In both conditions, activations of a bilateral frontoparietal network comprising the premotor areas, the precuneus and the medial part of Brodmann Area 40 were found. The notion that the same areas are involved in visuomotor transformation/motor planning and music processing emphasizes the multimodal properties of cortical areas involved in music and motor imagery in musicians" (Meister et al., 2003, p. 219). This study serves as another example that illustrates the direct connection between the imagined and executed behavior. It also proves that similarities within brain activities between imagined and actual behavior are also encountered in different, more complex disciplines than just simple motor imaginary.

Congruent findings have been reported in a more recent investigation on the effects of imagined consumption on actual consumption. "Perception and mental imagery differ in their source (the senses and memory, respectively), but there is great overlap within modalities. Both engage in similar neural machinery and similarly affect emotions, response tendencies, and skilled motor behavior. (...)Because perception and mental imagery tend to elicit similar responses, one would expect that thinking about the consumption of a stimulus should habituate one to it" (Morewedge, Hun & Vosgerau, 2010, p. 1531). Even though the common assumption would suggest that the simple thought of food would generally increase the actual desire to consume this food, the authors argued that it contradicts the existing literature on the idea of perception and mental imagery. This is also why, for the purpose of this study, they have conducted five experiments that were to test whether mental imaginary that is more similar to the repeated consumption of food would lead to the decrease in the actual consumption of the same sort of food. The results of these studies were consistent with the authors' expectation that when an individual repeatedly imagines consuming food, he or she

will habituate to it. After repeatedly imagining the consumption of a certain food, the desire and the motivation to acquire this food declined, which in turn led to the decrease in the actual consumption of the food. Nevertheless, this effect was stronger for individuals who imagined consuming more of the food, than for participants who imagined consuming less of the same sort of food and was only present for the imagined kind of food. It did not influence the consumption of other sorts of food. Although this finding refers only to the specifically imagined stimulus, it still proves that imagining a certain behavior causes an individual to familiarize with the concept. It reduces his motivation to perform this behavior and can also influence the actual execution of the imagined behavior. Imagining behavior can therefore decrease the execution of the intended action to the certain extent if it needs to be performed, such as eating, but it may also cause an individual's inaction when it comes to the execution of this behavior.

All of these findings, taken together, show that the imagined actions indeed elicit the same processes in the brain as the executed actions. They also affect the emotions and the behavior in the same manner as the actual behavior does. Therefore, these theories and results provide a strong foundation for the idea that "thinking is doing," which serves as a building ground for this thesis.

Helping behavior and self-esteem

The psychological definition of self-esteem states that "self-esteem is used to describe a person's overall sense of self-worth or personal value. It can involve a variety of beliefs about the self, such as the appraisal of one's own appearance, beliefs, emotions and behaviors. There are three key components of self-esteem: (1) it is an essential human need that is vital for survival and normal, healthy development.(2)Self-esteem arises automatically from within based upon a person's beliefs and consciousness, and (3) it occurs in conjunction with a person's thoughts, behaviors, feelings and actions" (Cherrie, 2010). This definition implies that self-esteem plays a very important role in the individuals' lives. It can also be characterized as one of the primary motivations, which is present in the human hierarchy of needs, as suggested by Maslow (1943). This proves that self-esteem is an essential factor, when it comes to an individuals' well-being and each person is motivated to enhance his self-

esteem. It is important, however to notice that self-esteem is not only influenced by one's beliefs about the self but also by one's feelings, behavior and actions. The relationship between self-esteem and helping behavior seems therefore to have a motivational foundation. It can be assumed that individuals would engage in helping behaviors in order to improve their self-esteem and therefore also increase their general well-being.

The European Volunteering Center (2007) shows that volunteering has many positive effects on an individual. Most importantly, it can increase one's self-esteem and contribute to one's general happiness. "Over 80 % of volunteers report that engagement in voluntary work makes them happy and improves their self-esteem" (European Volunteering Center, 2007). This means that individuals are aware of the positive influences of helping behaviors, such as an increase in self-esteem and that in many cases they are even able to report them.

Gergen, Gergen & Meter (1972) examined "Individual Orientations to Pro-social Behavior." Their research investigates several different factors that are influenced by or can affect helping behaviors, among others things, the relationship between pro-social behavior and self-esteem. The analysis has shown a significant correlation between helping behavior and self-esteem, which implies that engagement in pro-social behavior, can cause an increase in self-esteem.

In addition, Wymer (1997) supports the same idea since he suggests that "there is a strong relationship between helping behavior and volunteering, and, therefore, between self-esteem and volunteering" (Wymer, 1997, p. 6). The author reports however, that this relationship can work in two directions. On the one hand, volunteering can increase self esteem, but on the other, people who have high self-esteem also regard themselves as being helpful people. These theories therefore prove that there is a strong correlation present between helping behaviors and self-esteem. Moreover, it also provides the understanding that people with high self-esteem are inclined to think of themselves as being helpful people regardless of their actual actions or behavior. It can be therefore assumed that individuals with high levels of self-esteem could be more easily affected by imagining helping behavior and would improve their self-esteem to a greater extent.

In line with the previous findings, volunteering was found to have a positive effect on the volunteer and his mental health. People who engage in helping behaviors are generally

more confident and have a more positive self-image than individuals who do not perform voluntary work. This means that helping behavior increases one's self-esteem and therefore also positively affects his or her general well-being (Musick & Wilson, 2003). In addition, Musick and Wilson (2003) identified a positive relationship between self-esteem and volunteering, but also between self-esteem and depression. The results of the study show that individuals who engaged in volunteering had higher self-esteem and higher social capital than individuals who did not engage in helping behavior. Moreover, individuals with low self-esteem were more prone to depression. Volunteering however could lessen this effect, since it could act as a buffer against the negative influence of low self-esteem on an individual.

Thoits & Hewitt (2001), on the other hand, focused on the broader scope of volunteering. They examined the effects that volunteer work in American society has on an individual's well-being. They specifically focus on the six primary aspects of personal well-being, which were: happiness, life satisfaction, self-esteem, sense of control over life, physical health and depression. In their paper, however, they did not only try to investigate the consequences of volunteer work, but they also wanted to see whether personality traits can influence one's engagement in voluntary activities. The findings indicate that volunteering has a positive effect on each of the six primary aspects of personal well-being and that the more hours one spent on volunteering the stronger the effect was. In addition, individuals who score high on well-being tend to invest more hours in volunteering than people with lower levels of well-being. This implies that people with high levels of self-esteem would also be more likely to actually engage in helping behavior, which in turn would be very beneficial for the society. Consistent with these results, the study of Wilson (2000) has also confirmed that volunteering increases self-esteem, which in consequence positively affects one's life satisfaction.

Weinstein and Ryan (2010) have also investigated the effects that helping behavior has on one's self-esteem and well being, but they suggested that the effects would differ depending on the kind of helping motivation which was present (autonomous versus controlled). Authors have checked this influence for both the helper and the recipient of help. The results of the experiments show that the actual engagement in helping behavior increases self-esteem and well-being, but the more autonomous the motivation to help the other person,

the stronger the effect. This effect was present for both care givers and recipients, but only in the condition where the motivation to help was autonomous. In the controlled help condition individuals failed to increase their self-esteem and well being and often reported even lower well-being than in no help condition. Those findings therefore suggest that the extent to which one experiences the increase in self-esteem and well-being strongly depends on the kind of helping motivation that is present. This notion is best illustrated in the study where participants took part in the online dictator game- “an economics game in which one individual is in charge of distributing funds between him/herself and a partner, while another can only accept or reject the money given” (Weinstein and Ryan, 2010, pg 230). The individuals in the autonomous condition, who could choose to either donate or not to donate money to the participant in the less favorable condition, experienced the increase in self-esteem and well-being if they were generous and chose to donate money. This effect however was not present in no-choice (controlled) condition, where participants were obliged to help another player. These findings imply that imagined behavior could have an influence on self-esteem, but only in the case when individuals would perceive the motivation to help as being autonomous.

Two other previous studies have also examined the effects of volunteering; however they have both focused on the specific age groups in their research. Moore & Allen (1996) have studied the effects that volunteering has on the adolescent volunteers. The authors expected that volunteering will positively influence one’s self-esteem, self-worth, personal responsibility and may also help to establish better contacts with others. The results show that pro-social behaviors have many positive effects on adolescence volunteer and helping behaviors are strongly correlated with self-esteem. This relationship can therefore be used to explain the beneficial effects that helping behavior has on the young volunteer and confirms that engagement in helping behavior can cause an increase in self-esteem.

Another study of Haski-Leventhal (2009) with elderly participants in twelve countries finds that when people do good deeds for others, their self-esteem increases and they feel more positively about themselves. Older people especially feel as if volunteering gives them a purpose to live, a sense of usefulness, and it can help them to believe in themselves again. Through volunteering the elderly can become more self-assured and confident which in turn

will decrease depression, isolation and a feeling of being a burden for society and their kin. Haski-Leventhal (2009) explains that the benefits that come from pro-social behaviors have very strong effects on older volunteers. Therefore, engagement in volunteering can be seen as a reciprocated action, because when an individual decides to help others, he will also receive benefits and ‘help himself’. Helping behavior can be perceived as especially important in the countries where the elderly are often discriminated against, because they would display particularly low self-esteem and volunteering could help them regain their self-worth.

Findings and theories previously discussed prove that pro-social behaviors can have many positive effects on the volunteer. Most importantly, it shows that there is compelling evidence in the existing research which indicates that helping behavior causes an increase in self-esteem. Consequently, those findings are consistent with the expectation that there is a strong relationship between those two factors. It can be assumed therefore, that because of the similarities between imagined and executed actions, similar effect should be observed when testing the effect of imagined behavior on self-esteem.

Explanations and Expectations

The present paper aims at measuring both individuals’ implicit and explicit self-esteem that will imagine helping behavior. Measuring self-esteem in both ways (explicit and implicit) will give an objective insight as to what extent individuals’ self-esteem is affected when he or she imagines pro-social behavior.

Both kinds of self-esteem are important in this research; however, since implicit self-esteem operates outside of one’s consciousness (Bosson, Swaan Jr. & Pennebaker, 2000), it can be expected to be especially vulnerable to the influence of imagined behavior. When an individual imagines doing good deeds for another person, his or hers unconscious parts of the mind may be tricked into believing that imagined behavior has already been performed. It can be therefore assumed that individuals who imagine helping behavior will show an increase in their implicit self-esteem.

The explicit self-esteem, on the other hand, is a rather stable concept that involves very rational and sophisticated self-evaluations (Koole, Dijksterhuis & van Knippenberg, 2001). Nevertheless, since individuals are able to explicitly report the increase in self-esteem

when engaging in volunteering, it will also be expected that imagining helping behavior can influence one's own evaluation of self-esteem. When working on the self-report, individuals are able to explicitly evaluate their behavior, so in order for imagined helping behavior to influence their self-report, it is necessary for an individual to believe that he or she would like to help which in turn would make them feel as if they are helpful people and also feel much better about themselves.

Furthermore, it can also be expected that the implicit and explicit self-esteem will be affected to a greater extent if an individual will be able to think a lot about performing helping behavior. It means that in a more specific, clear and detailed imagining scenario a person will be more likely to evaluate the situation well. In very realistic scenarios one will also be more likely to familiarize and identify with the person that needs to be helped. The more specific the imagining scenario will be, the higher the chance that the self-esteem will be affected. Therefore, for the purpose of the study we will use two very vivid and detailed scenarios in order to encourage participants to think a lot about helping behavior.

Nonetheless, if a person would not be presented with a detailed scenario, where he or she could think a lot about doing a good deed, or would be unwilling to imagine the scenario, the individual will be able to take into account that the imagined behavior has not actually been performed and there will be no effect on self-esteem.

Problem statement, Research questions and Hypothesis

Problem Statement:

The aim of this paper is to address the effects of imagined helping behavior on implicit and explicit self-esteem.

Research Question 1:

Does imagining helping others influence implicit self-esteem?

Research Question 2:

Does imagined behavior have an effect on explicit self-esteem?

Hypothesis:

Individuals who imagine helping behavior will have higher implicit and explicit self-esteem than individuals who do not imagine helping.

Chapter 3: Method

Participants

The individuals participating in the study were the volunteers on the Project Implicit Web site (<https://implicit.harvard.edu/implicit/research/>). In order to take part in the studies available on the website however, participants needed to first register and indicate some information about themselves, such as sex, origin and age. Next, they were randomly assigned to this experiment from numerous studies available on the research website. After being appointed to the study individuals were provided with information about the experiment and could decide if they wanted to participate in it. If the individuals wanted to continue, they were then randomly assigned to one of the three imagining conditions of the study, which were helping, donation and control condition. There were 455 participants in total who participated in this study (187 men and 263 women). Five participants did not indicate their sex. The mean age of participants was 29.38 years.

Manipulation

Imagining condition manipulation. There were three different imagining conditions in this study, which were helping, donation and control condition.

Participants in the imagined helping condition were asked to imagine a scenario where they would help a stranger in an every-day situation and were presented with this description:

“Imagine you are going to do some grocery shopping. It is a Friday evening, so you want to do your errands as quickly as possible so you can finally get home after a long working week. As you are walking toward the grocery store, you see an older woman whose grocery bag fell open; all of her things fell onto the parking lot. She has a hard time bending over and is struggling to pick up all of her stuff, so you decide to help her. Please take a few minutes before moving on to imagine this scenario in as much detail as possible - think about what the parking lot and the woman look like and how you feel as you go over to help her.”

Participants assigned to the donation condition were asked to imagine donating money to the victims of the natural tragedy and were provided with the following description:

“Imagine that a major hurricane has hit the East Coast. Several coastal areas were completely destroyed. Thousands of people were killed and the rest are struggling for survival without homes or access to food and water. The federal government is doing what it can but relief organizations are moving in quickly to provide for the victims. You think it is important

to help those in need, so you decide to donate money to an organization that is providing relief to the most devastated areas.

Please take a few minutes before moving on to imagine this scenario in as much detail as possible - think about how you feel when you see the victims and how you want to help them. Imagine going to a local organization or a website to donate money and how that would make you feel.”

In the control condition participants were asked to imagine a typical day and were given the description presented below:

“Imagine a typical weekday for you. Please imagine it in as much detail as possible - think about what you do in the morning, the afternoon, and at night.”

Measures

Implicit Association Test (IAT; Greenwald, McGhee, Schwartz, 1998). An IAT was used to measure participants’ implicit self-esteem. The IAT assesses associations among two concept categories (Self and Other) and two evaluative attributes (good and bad) by requesting that participants classify stimulus items representing the four categories as quickly as possible using two keys of a computer keyboard. The four categories were: “*Self*” which included words such as *Self, Me, Mine, My*; “*Other*” which involved words like *Other, They, Them, Their*; “*Good*” which consisted of the words, such as *Pleasure, Joy, Peace, Wonderful, Laughter* and “*Bad*” contained words like *Terrible, Horrible, Agony, Evil, Awful*.

Individuals used the “e” key if the appearing word belonged to the categories presented on the upper left side of the screen and the “i” key if it should have been included in the category on the upper right side of the screen (Ranganath & Nosek, 2008).

In order to interpret the results of this test it is necessary to check how fast individuals were in categorizing words into the specific categories. As explained by Greenwald, McGhee & Schwartz (1998), “When instructions oblige highly associated categories (e.g., flower + pleasant) to share a response key, performance is faster than when less associated categories (e.g., insect + pleasant) share a key. This performance difference implicitly measures differential association of the 2 concepts with the attribute” (Greenwald, McGhee & Schwartz, 1998, pg 1464). This means that participants with higher implicit self-esteem will be able to classify words faster when Self & Good categories will be placed together on the screen than when Other & Good will be in the same key condition. “The self-esteem IAT

effect measures how much easier it is for subjects to categorize self items with pleasant items than self items with unpleasant items” (Greenwald & Farnham, 2000, pg 1024). It implies that when an individual thinks positively about himself (has high implicit self-esteem), he or she will have much more difficulties when trying to categorize the bad words into the Self & Bad categories. The scores for the IAT represent the mean response time to the categorization tests and are scored in such a way that the higher the mean response time, the more positive the implicit self-esteem.

10 individuals participating in the study had Implicit Association Test errors that were higher than the cutoff for usable data, which means that the error rates for these participants were either greater than 40% on a given block or higher than 30% overall (Ratliff & Nosek, 2011). In addition, 3 individuals did not complete the IAT. All these participants were therefore excluded from every analysis.

Rosenberg Self-esteem Scale (RSES; Rosenberg, 1965) is a widely used measure to determine individuals’ explicit self-esteem and is designed in the form of a self-report. This scale contains 10 items and individuals are asked to indicate to what extent they agree with each of them. The appropriate items were first reverse-coded and then the responses were averaged in order to create a general self-esteem score.

The statements refer to the feelings and beliefs about oneself and were phrased as follows: *“I am able to do things as well as most people”*, *“On the whole I am satisfied with myself”*, *“I feel I do not have much to be proud of”* (reverse-coded), *“All in all I am inclined to feel that I am a failure”* (reverse-coded), *“I certainly feel useless at times”* (reverse-coded), *“At times I think I am no good at all”* (reverse-coded), *“I take a positive attitude toward myself”*, *“I feel that I have a number of good qualities”*, *“I wish I could have more respect for myself”* (reverse-coded), *“I feel I am a person of worth, at least on an equal plane with others.”* Each item is answered on the four point scale that indicates whether an individual either *strongly disagrees*, *disagrees*, *agrees* or *strongly agrees* with a given statement. The more positive the responses to the questions, the higher the individuals explicit self-esteem.

Manipulation check. At the end of the experiment, participants were asked to answer the manipulation check question indicating to what extent they tried to think about the scenario that they were asked to imagine at the beginning of the study. The question was phrased as follows: *“Earlier in the study you were asked to imagine a scenario, to what extent did you try to do so?”* and was answered on a 5-point scale ranging from not at all to extremely.

33 participants who answered 1 (“not at all”) on the manipulation check question did not pass the manipulation test and were dropped from analysis. Furthermore, there were 3 people who did not answer the manipulation check question and were also excluded from the sample. This implies that in total there were 49 participants excluded from the analyses and the results of this study are based on the responses of 406 remaining individuals.

Procedure

After being randomly assigned to this experiment participants were presented with the explanation about the purpose of the present study. Individuals were not told about the actual purpose of the study, but there was also no deception. The information was phrased as follows:

“Studies at Project Implicit examine your ideas, beliefs, and opinions about different topics. In this study we will ask you to imagine a scenario and to answer some questions and complete a categorization task. This study will take about ten minutes to complete.”

If the participants agreed to continue with the study they were presented with the information about the procedure and the content of the study. They also received an indication as to how much time each part of the study would take. After that, before the study actually began, participants were randomly assigned to one of the three imagining conditions, which were helping, donation or control condition. In each of the three imagining conditions participants were presented with a very vivid and detailed scenario, which would help them to think a lot about a situation and a concrete place.

After imagining the scenario, individuals were then asked to participate in the Implicit Association Test, where they were instructed to categorize certain words into specific groups, as fast and with as little errors as possible. When the first task was completed, participants

were then asked to answer several questions about themselves, which were derived from the Rosenberg Self-esteem Scale (RSES). Finally, at the end of the experiment, individuals were instructed to answer the manipulation check question indicating to what extent they tried to think about the scenario that they were asked to imagine at the beginning of the study. After answering this question participants had fully completed the study and received some feedback about their performance. At that point of the study, they were also informed about the actual purpose of the research and were thanked for their participation.

Chapter 4: Results

Explicit self-esteem

To test whether imagining helping behavior influenced explicit self-esteem, the data was analyzed with a one-way, between-subjects ANOVA. Different imagining conditions (helping, donation and control condition) served as the independent variable and Rosenberg Self-Esteem score served as the dependent variable.

Contrary to the expectation, there was not a significant main effect of imagining conditions, $F(2, 403) = 2.18$; $p = 0.12$, *eta-square* = 0.01 on explicit self-esteem. See Table 1 for means and standard deviations.

These results led to the expectation that the two imagining conditions, which were helping and donation condition might not have worked equally well and that is why the main effect could not have been found. Further investigation was necessary to determine whether any of the imagining conditions would significantly differ from the control condition.

Table 1: Means and Standard Deviations of the Rosenberg self-esteem Scale for imagining conditions.

Rosenberg self-esteem scale		
	Mean:	St. Deviation:
Imagining condition:		
Control	2.96	0.57
Helping	3.09	0.51
Donation	3.03	0.54

In order to estimate the differences between the two imagining conditions and the control condition, two independent t-tests were conducted with explicit self-esteem as the dependent variable- one comparing the imagined helping condition to the control condition and one comparing the imagined donation condition to the control condition.

The results of these independent sample t-tests on the explicit self-esteem are partially in line with the expectations. The first independent sample t-test has shown a significant difference between the imagined helping condition and control condition. As expected, participants in the imagined helping condition ($M=3.09$; $SD=0.51$) had significantly higher explicit self-esteem than participants in the control condition ($M= 2.96$, $SD=0.57$), $t(263) = -2.08$, $p=0.04$, Cohen's $d=0.54$.

Contrary to expectation, the results of the second independent t-test has shown no significant difference in explicit self-esteem between the participants in the imagined donation condition ($M=3.03$; $SD=0.54$) and the participants in the control condition ($M= 2.96$, $SD=0.57$), $t(272) = -1.09$, $p=0.28$, Cohen's $d=0.55$. This implies therefore that the scores for the control and the donation imagining condition can be seen as statistically the same.

Implicit self-esteem

To test whether imagining helping behavior influenced implicit self-esteem the data was analyzed with a one-way, between subjects ANOVA. Different imagining conditions (helping, donation and control condition) served as independent variable and Implicit Association Test represents an outcome (dependent variable).

Contrary to the expectation, there was also not a significant main effect of imagining conditions, $F(2, 403) = 1.36$; $p = 0.26$; $\eta^2 = 0.01$ on implicit self-esteem. See Table 2 for all means and standard deviations per condition. Because of the fact that these results were similar to those of the explicit self-esteem, the same steps were taken to exclude the possibility that the imagining conditions did not significantly differ from control condition, which could have had an effect on the results of the ANOVA tests.

Table 2: Means and Standard Deviations of the Implicit Association Test in the three imagining conditions.

	IAT	
	Mean:	St. Deviation
Imagining condition:		
Control	0.57	0.35
Helping	0.53	0.38
Donation	0.50	0.41

For the purpose of this experiment, another two independent t-tests were conducted, this time with implicit self-esteem as the dependent variable- one comparing the imagined helping condition to the control condition and one comparing the imagined donation condition to the control condition.

Contrary to expectation, the first independent t-test has shown no significant difference in implicit self-esteem of those participants in the imagined helping condition ($M=0.53$; $SD=0.38$) and those participants in the control condition ($M= 0.57$, $SD=0.35$), $t(263)=0.82$, $p=0.41$, Cohen's $d= 0.36$).

Similarly, the results of the second independent t-test are also not in line with the previous expectations. The results indicate that there is no difference in implicit self-esteem between the participants in the imagined donation condition ($M=0.50$; $SD=0.41$) and the participants in the control condition ($M= 0.57$, $SD=0.35$), $t(272) =1.64$, $p=0.10$, Cohen's $d= 0.38$.

These results therefore show that there is no increase in implicit self-esteem when imagining helping behavior. This finding therefore allows the inference that the scores are statistically the same in all of the three imagining conditions, which means that imagining helping behavior does not have an influence on implicit self-esteem.

Chapter 5: Discussion

The present research explored the influence of imagined helping behavior (donating money and helping a stranger) on implicit self-esteem, measured with an Implicit Association Test (Greenwald et al., 1998) and explicit self-esteem measured with the Rosenberg Self-esteem scale (Rosenberg, 1965).

The difference between explicit and implicit self-esteem

The results of the study provide partial support for the hypothesis that imagining helping behavior will increase explicit self-esteem. Nevertheless, this result was only present in the imagined helping condition, which suggests that imagining actually helping someone, such as delivering assistance or aid can increase explicit self-esteem, but imagining donating money does not. This implies that imagining supporting a good cause is not perceived in the same way as imagining helping a concrete person. It is possible that actions that are more passive and do not require much effort, such as simple act of donating money on the web site may not be enough for someone to think of himself as a helpful person and therefore would also have no influence on his self-esteem.

Perhaps, people need to feel as if they have invested an actual effort or time in a certain action in order to be able to give themselves credit for it. Furthermore, imagining helping someone is more direct and personal, because it always involves two or more actors and a helper can imagine that he or she receives gratitude or appreciation. It also makes it easier for a person to familiarize with the person in need and the actual situation, because natural tragedy is in general much less likely to occur than an every-day accident with your grocery bag. It might be the case that individuals in the helping condition perceived this scenario as more familiar and imaginable. This in turn helped them to think a lot about imagining scenario and tricked them into believing that they have already done something good, which in the end influenced their self-esteem.

Surprisingly, the findings also suggest that imagining helping behavior in either donation or helping condition did not have an effect on participants' implicit self-esteem. These unexpected results could be explained by the fact that implicit self-esteem could be actually less vulnerable to the influence of imagined helping behavior. It has been shown that implicit self-esteem often displays relatively high stability over time and that it tends to be very reluctant to change (Robins & Pals, 2002). In addition, "implicit measures reflect mental associations that, once formed, are highly robust and stable over time" (Gawronski, 2009, p. 145). This could mean that greater input and higher effort are necessary in order to be able to

influence implicit self-esteem, but it could also be the case that implicit self-esteem cannot get affected at all by imagining helping behavior.

Another possible explanation could refer to the fact that implicit self-esteem may reflect rather long-term associations and that is why it would be much harder to influence than explicit self-esteem. “Implicit beliefs about the self are believed to develop at an earlier age than their explicit beliefs about the self. Implicit beliefs that presumably have their origins in early childhood experiences may become automatic over time. Because the quality of people’s relationships may change over time and be rejected in their explicit belief system, their previously formed implicit beliefs may not be available for conscious articulation, but may still be elicited automatically” (DeHart, Pelham & Tenner, 2006, p.3). It has been suggested that there are several potential antecedents from which one’s existing associations originate, such as early childhood experiences (Gawronski, 2009). This implies that the things one experiences throughout his life can be seen as possible sources of the existing associations, which would have much stronger effect on one’s implicit self-esteem than newly formed associations. Furthermore, Greenwald & Banaji (1995) found that previous social experiences can influence what people think about themselves and others, which proves that the attitude people take towards themselves is often influenced or determined by other objects or individuals with which or whom one interacts.

If this would be the case, and implicit self-esteem would be a source of the long-term associations, one-time actions would not be very likely to have an effect on implicit self-esteem. In order to influence it then, it would be necessary to repeatedly imagine helping behavior, so that the associations become habitual and therefore also more accessible in the memory on the unconscious level.

The findings of this research may seem conflicting; however because implicit and explicit self-esteem represent rather different attitudes about the self, the results are not contradictory. Some researchers suggest that explicit and implicit attitudes refer to rather different attitudinal concepts and therefore the correlations between them are often very small (e.g., Park & John, 2011; Gawronski, 2009). Furthermore, Greenwald & Nosek (2008) suggest that there is attitudinal dissociation present between implicit and explicit measures,

which can be attributed to the existence of dual attitudes that subsist within the same brain, but refer to different structural and mental representations.

Explicit self-esteem

The fact that imagining helping behavior influences self-esteem is very interesting and greatly contributes to the existing literature. Individuals who imagined helping, displayed higher explicit self-esteem than individuals in the control condition. Based on the idea that “thinking is doing,” this result could be explained by the fact that people who imagine doing a good deed for others tend to feel as if they have actually performed this behavior (e.g., Decety & Grezes, 2009; Decety, 1996). Since they already invested effort in imagining the scenario, they might feel as if they would want to do it and trick their minds into believing that they are already good people. This in turn makes them feel better about themselves and increases their self-esteem.

The result therefore proves that thinking about performing a certain behavior can make people act in a way as if they have already done something good. Even though this finding suggests that there is a simple way to increase one’s self-esteem, self-worth and happiness, it is not necessarily always a good thing. Because of the fact that people who imagine helping others tend to think of themselves as better people, they may also be less likely to actually perform helping behavior. If this would be the case, it would explain the individuals’ inaction when it comes to helping behavior, which is a very big problem in contemporary society.

Implicit self-esteem

Implicit results show that peoples’ self-esteem is not affected by imagining helping behavior. This unexpected result however could be attributed to the fact that “newly formed attitudes are accessible at an explicit level, whereas the older, more habitual attitudes may exist in memory, more likely at an implicit level. When dual attitudes exist, retrieving an explicit attitude from memory requires cognitive capacity and motivation, whereas an implicit attitude is activated automatically” (Park & John, 2011, p. 74). This means that implicit self-esteem is more likely to present long-term, “old” attitudes or associations and could be more

likely to show its effect when ones' ability and motivation to process these associations would be low.

Therefore, because participants in this study were not depleted, they had higher motivation and ability to evaluate and analyze their behavior; and their self-evaluations could not have been dominated by implicit and unconscious associations. It has been shown that individuals' implicit and explicit self-esteem tends to show strongest correspondence to each other when one's cognitive capacity is low (Park & John, 2011).

Moreover, individuals participating in the study had to report their self-evaluations immediately after imagining the scenario which could mean that their attitudes were not habitual yet and were not available in their unconscious parts of the mind. It is possible that it takes some time to influence implicit self-esteem after imagining helping behavior.

Limitations of the study and Implications for Future Research

There were some limitations to the present study, which may have had an influence on the results of this research. First of all, there is a possibility that participants consciously knew what the study was about and could therefore explicitly manipulate their responses on the Rosenberg Self-esteem scale. The desire for a positive self-presentation may have driven individuals to evaluate their responses more positively, so that they could present themselves in more favorable light (Gawronski, 2009). This however is very unlikely, since the Rosenberg inventory is a widely used and validated measure to access the individuals' explicit self-esteem. In addition, this scale consists out of ten items that are formed in different ways and in order to consciously influence them, it would require a lot of effort. Nevertheless, it is possible that this happened and therefore it should be acknowledged as the possible limitation of this study.

Secondly, the outcomes of the study were in general very surprising, because the results on implicit self-esteem were contrary to the previous expectations. It could be due to the fact that this research investigated only two different imagining scenarios and the results might have been different if the study had had more variety between them, especially taking into account the fact that helping behavior is a very broad topic that includes many different actions. In addition, it is also possible that the time given to imagine the scenario was not

sufficient and participants were not prepared to really think a lot about it. Perhaps, it could have been more effective if imagining a scenario would take several steps or would be repeated at a few different points in the study, so that the associations could become more habitual (e.g., Morewedge, Hun & Vosgerau, 2010). Therefore, it could be helpful if the future research would focus on a few more different scenarios and on an improvement of the experiments' procedure. This however, was not possible in this research since it was an online study that could not take longer than 15 minutes.

In addition, the nature of the study did not allow for the individuals' actual behavior to be tested and focused only on the relationship between imagined behavior and self-esteem. Future research should therefore also try to investigate the relationship between the increase in self-esteem and the participants' actual actions after imagining helping behavior.

Finally, it is also possible that the specificity of the scenarios were not encouraging enough to help participants think a lot about the imagining condition. Since it was expected that the more vivid the scenario, the more likely one will be to display the increase in self-esteem, it could be helpful for the future research to make the descriptions even more clear and specific than in this study.

Conclusions

As presented above, there are potential limitations to the present study, however it is important to acknowledge that this paper gives an insight into a very new topic in the research field and partially forms an explanation as to why people often do not act accordingly with what they say or believe. It proves that imagining helping improves explicit self esteem. It does not influence implicit self-esteem, but it affects what people actually feel and say.

This paper shows that it is important to realize that simple imagining helping behavior can have great effects on ones' self-esteem, especially when people imagine doing something good for others. The findings of this research could be especially interesting and helpful for the voluntary organizations, which could improve their recruitment and advertisement processes in order not to lose the potential volunteers and advance the possibilities to gain them. Therefore, it is important to further investigate this research and acknowledge the potential influences of the notion that "thinking is doing" also in other research fields.

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