

**Affirming Yourself as Imagined Offender: Its Impact on Victim Empathy,
Responsibility-Taking and Apology Intention**

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February 14th, 2022

Abstract

Offering an apology and reparation to their victim places offenders in a vulnerable position, which can make it difficult for offenders to take this big step and participate in restorative justice. Several psychological processes have been shown to motivate offenders to apologize and repair, like empathic concern, perspective-taking, and responsibility-taking. However, these processes can induce a threat to the moral self-image. A way to possibly buffer against this threat is by means of self-affirmation. The current study therefore investigated the effect of self-affirmation among imagined offenders on empathic concern for the victim, taking the perspective of the victim, responsibility-taking, and willingness to apologize and repair. A total of 105 participants either did a self-affirmation task (i.e. choosing a most important core value, and writing about it) or a control task (i.e. choosing a favourite landscape picture, and writing about it) before taking the perspective of a victim in a 360° video. Results did not show an effect of self-affirmation (yes versus no) on the dependent variables. However, results of additional exploratory analysis did show that it seems to depend on what type of core value the imagined offender focuses on whether one feels empathy for the victim, is willing to take the perspective of the victim, takes responsibility, and is willing to apologize and repair. Based on these results, the recommendation for offenders participating in restorative justice is to reflect on a core value based on morality, like respect or trust. However, future research is needed to confirm this suggestion.

Keywords: Empathic concern, perspective-taking, responsibility-taking, willingness to apologize and repair, self-affirmation, 360° video

Affirming Yourself as Imagined Offender: Its Impact on Victim Empathy, Responsibility-Taking and Apology Intention

Crime can have a major impact on victims, varying from problematic feelings of fear to feelings of anger towards the offender (Bradshaw & Umbreit, 2003; Kirchhoff et al., 2012). These feelings of fear and anger can be reduced by an apology and/or form of reparation from the offender (Exline et al., 2007; Fehr et al., 2010; Ohbuchi et al., 1989). Despite this major impact, victims seldom hear a sincere expression of remorse in the form of an apology or receive a form of reparation from the offender. Receiving an apology or form of reparation is important to reduce the fear and anger felt toward the offender. It promotes forgiveness in victims and validates the victim's perceptions (Exline et al., 2007; Ohbuchi et al., 1989). An apology or form of reparation might eventually even rebuild the relationship between the offender and the victim (Van Ness & Strong, 2014). However, offering an apology and/or form of reparation is a big step to take as an offender (Schneider, 2000).

There are several psychological processes that can contribute to offenders apologizing and/or repair for their deeds to victims. Tangney and colleagues showed that an apology is fostered by feelings of guilt and empathic concern for the victim (Tangney, 1995; Tangney & Dearing, 2002; Tangney et al., 2009). Howell et al. (2012) confirmed this last finding and showed that greater empathy is associated with a greater generalized willingness to apologize. Importantly, empathic concern for another person can be stimulated through perspective-taking among the general population (Abu-Akel et al., 2015; Batson et al., 1997; Lamm et al., 2007; Myers et al., 2014; Stotland, 1969). Besides empathic concern, responsibility-taking can also be stimulated through perspective-taking, and this can contribute as well to the willingness to apologize and repair (Zebel et al., 2009).

Being asked to take the perspective of someone in distress and take responsibility can produce resistance and defensive behavior to deal with the negative emotions that are

produced by thinking of the distress of the victim (Thornton, 1984), perhaps especially if one is implicated in the harm doing oneself. This behavior can manifest itself, for example, in blaming victims for what has happened to them and not taking the responsibility for the offense (Janoff-Bulman, 1979; Shaver, 1970). These defensive behaviors can hinder the reconciliation process between parties after an offense (McLaughlin et al., 1983), so it is important to investigate how to buffer against these behaviors. A way to possibly buffer against these defensive behaviors is by the use of self-affirmation (Cohen & Sherman, 2014; Sherman & Cohen, 2002). According to the self-affirmation theory of Steele (1988), people can protect their own integrity from threats by reflecting first on meaningful core values for themselves. In this way, the self-integrity stays intact, through boosting self-resources (Sherman, 2013), broadening their perspective with which they view stressful events (Cohen & Sherman, 2014), and uncoupling the self from the threat itself (Sherman & Hartson, 2011).

Even though it is known that self-affirmation can be effective in reducing defensive strategies (Cohen & Sherman, 2014; Sherman & Cohen, 2002), it is not widely researched if it is also effective in reducing defensive strategies among offenders when taking the perspective of a victim. A first indication for this comes from the study of Schumann (2014), who showed that self-affirmation helps transgressors to protect their own integrity when facing their wrongdoing, reducing defensive behaviors and as a result facilitates offering a more comprehensive apology to the victims. However, the study of Schumann (2014) did not research the effectiveness of self-affirmation in relation to taking the perspective of the victim. The current study will provide more insight into the way self-affirmation could promote taking the perspective of victims. It can thus help to understand the processes contributing to increase empathic concern for victims and responsibility-taking. In addition, the current study can also provide insight into potential processes underlying reduced reoffending in the future (although this latter aspect is not assessed in this study). That is, a

study of Tangney et al. (2014) already showed that taking the perspective of victims and empathic concern for victims in jail inmates can influence guilt-proneness, and this in turn negatively predicted future criminal behavior among their sample.

It is important to research the effect of self-affirmation on empathic concern for the victim, taking the perspective of the victim, responsibility-taking, and willingness to apologize and repair, as these processes play a role in fostering an apology in someone (Howell et al, 2012; Kim et al, 2004; Schumann, 2014; Stotland, 1969). To validate the perceptions of a victim, an apology or some form of reparation is needed from the offender (Exline et al., 2007; Ohbuchi et al., 1989). It is also important to reach the goal of rebuilding the relationship between offender and victim (Van Ness & Strong, 2014). More insight into these processes may also contribute to designing effective interventions to eventually lower the recidivism rate. To facilitate in the design of effective interventions, the current study will answer the following research question: *To what extent does self-affirmation among imagined offenders influence empathic concern for and perspective-taking of the victim, responsibility-taking, and in turn the willingness to apologize and repair to the victim?*

Restorative Justice

An opportunity for an offender to apologize or offer a form of reparation is by means of restorative justice. A clear definition of restorative justice is: “a process whereby parties with a stake in a specific offence collectively resolve how to deal with the aftermath of the offence and its implications for the future” (Marshall, 1999, p. 5). It is important that all affected parties, such as the offenders, the victims, and their direct communities, are involved in the justice process (Wenzel et al., 2008).

Restorative justice provides a structured environment for offenders and victims to meet. It is an opportunity for victims to explain their injuries and for offenders to explain their motives. Restorative justice includes different elements, like apologies, restoration,

acknowledgments of wrongdoing and reintegration of offenders into their communities (Menkel-Meadow, 2007; Shapland et al., 2006). This often entails direct contact between victims and offenders, accompanied by a facilitator. In this setting, the offender has the opportunity to acknowledge guilt or make some kind of restitution to the victim. This can be in the form of an apology or a material transaction (Menkel-Meadow, 2007). The ultimate goal is to reach shared understanding. This can be achieved when offenders take responsibility for their wrongdoing, express regret and offer a sincere apology or form of reparation. In this way, the victim can potentially develop some forgiveness (Dhami, 2012; Retzinger & Scheff, 1996).

Gevangenzorg Nederland

An example of an organisation that offers restorative justice services in the Netherlands is the organisation Gevangenzorg Nederland. Gevangenzorg Nederland is a voluntary organization for prisoners, patients in preventive detention and their family members (gevangenzorg.nl). This organisation is relevant for the research question of this study, as they already make use of perspective-taking during the courses they offer, by means of roleplays and showing videos of victims (De Jong, 2018). The findings of this study may therefore be used to inform and contribute to these courses. A self-affirmation intervention could perhaps be used to help increase the victim awareness of offenders in the SOS course, which in turn may eventually lower the recidivism rate. Volunteers of the organisation meet up with prisoners to offer a helping hand in finding their destination in life and support their families during detention. During courses, prisoners try to repair the damage caused by their crime and are working together with the volunteers on a meaningful future, with a minimal chance of recidivism (gevangenzorg.nl; Zebel et al., 2016).

In 2006 Gevangenezorg Nederland started with the SOS group course for adult inmates. SOS¹ stands for speaking about victims, guilt and society. Inmates can participate in this course voluntary. Individual SOS courses are offered since 2013. During the group and individual courses, prisoners gain more insight into the consequences of crime for all affected parties. The SOS courses are accessible for every kind of prisoner and can even be offered to people with a mild intellectual disability. Central aspects of the course are gaining more insight into one's own responsibility, victim empathy and working on recovery. The ultimate goal of the SOS course is to establish recovery between offender and victim and to help and motivate participants to take that step (Zebel et al., 2016).

Different layers of recovery are discussed with the participants during the course. These are recovery to oneself, recovery to their family, recovery to the community and society, and recovery to the victim. Most offenders are in the phase of recovery to oneself, which means to restore ones self-esteem and accepting oneself. This is an important step that must first be established before further steps can be taken. Most offenders are also victims themselves, so it is crucial to first listen to their story's (Zebel et al., 2016). Apologizing or offering a form of reparation is part of the recovery of the relationship between offender and victim (Van Ness & Strong, 2014). However, offenders seeing themselves as a victim could possibly make it harder for them to apologize and repair.

Apology and Repair

In restorative justice, also in the SOS course, offenders are encouraged to take responsibility for their acts by making genuine attempts to fix the damage they have caused and rebuild the relationships that have been destroyed (Van Ness & Strong, 2014). This is all voluntary. Apologies and/or a form of reparation can reduce the anger and hostility felt by the victim toward the offender, promote forgiveness in victims, validate the victim's perceptions,

¹ SOS: Spreken Over Slachtoffers, Schuld en Samenleving (gevangenezorg.nl).

and facilitate in reconciliation with the victim (Exline et al., 2007; Fehr et al., 2010; Ohbuchi et al., 1989).

An apology involves different elements: taking responsibility, acknowledging the harm done, expressing regret, offering a form of reparation, and promising forbearance (Dhami, 2016). Apologies that include these elements are called comprehensive apologies (Kirchhoff et al., 2012). These kind of apologies increase forgiveness in the victim and reduce the victim's blame and anger felt for the offender (Schumann, 2012). In turn, this increases the chance to reconcile the relationship between offender and victim (Kirchhoff et al., 2009). Often, the offenders that participate in the SOS course are not ready for this big step. They are just starting to learn to take responsibility for their offense, to confess, or to empathize with their victim (Zebel et al., 2016).

Important psychological processes associated with apologizing and repairing are empathic concern felt for other people, perspective-taking, and responsibility-taking (Howell et al, 2012; Kim et al, 2004; Stotland, 1969). The current study aims to investigate a possible intermediate step that eventually can contribute to offenders taking the big step of apologizing and offering a form of reparation to their victims. This will be done by looking into the associations between the mentioned psychological processes and apologizing and repairing.

Empathy

Increasing empathy is seen as an important step before the offender is ready to apologize and/or offer a form of reparation to their victim. Greater empathy is associated with a greater generalized willingness to apologize and repair (Howell et al, 2012). Empathy is the ability to understand and adapt to another person's specific affective experiences (Decety & Jackson, 2004).

Empathy is seen as an individual difference factor, which means that it is thought to exist within and vary between persons (Eisenberg & Strayer, 1987). According to Jolliffe and

Farrington (2004), empathy can be seen as a continuous variable (e.g., lower to higher empathy). It has been suggested that lower levels of empathy encourage antisocial or violent behavior (Miller & Eisenberg, 1988). A high level of empathy is seen as an individual protective factor, lowering the risk of some forms of criminal behavior (Jolliffe & Farrington, 2004).

Offenders with low levels of empathy are relatively poor at perspective-taking and interpreting the intention of other people. This limits their ability to see the consequences of their behavior on other people (Farrington, 1998). Because empathy plays such a big role in offending, a lot of programs are designed to promote empathy in offenders and these programs are often part of treatment programs within prisons (Serin & Kuriychuk, 1994).

Empathy is needed to improve one's willingness to apologize and repair (Howell et al., 2012), therefore it is important to promote empathy. A way to promote empathy is by means of perspective-taking (Stotland, 1969). Multiple studies showed that empathy is adaptable and it can be temporarily increased by instructed perspective-taking among the general population (Abu-Akel et al., 2015; Batson et al., 1997; Lamm et al., 2007; Myers et al., 2014). Different studies emphasize that the imagine-other perspective, where a person imagines the thoughts and feelings of the person in the other situation, can evoke empathic concern for a person in pain among the general population (Abu-Akel et al., 2015; Batson et al., 1997; Lamm et al., 2007).

Instructed Perspective-Taking: 360° Video

Frequently used methods of instructed perspective-taking among offenders include watching videos of victims describing their experiences surrounding the offense and group therapy with role plays (Hildebran & Pithers, 1989; Knopp, 1984; Maletzky, 1991; Marshall, 1993, 1996). During the SOS course of Gevangenenzorg Nederland, participants also participate in roleplays and watch videos victims of a real crime (De Jong, 2018). During

these roleplays, participants can practice apologizing and repairing (De Jong, 2018; Zebel et al., 2016).

A relatively new form of perspective-taking is by means of a 360° video. Users in this kind of virtual worlds (VE) have a feeling of being in the world, in contrast to more conventional media (Slater & Wilbur, 1997). Users get the feeling that they are entering another world, feel like they are looking through the eyes of the person in that world and approach the situation from their perspective (Witmer & Singer, 1998). In other words, it gives the user a “first-person experience” and a feeling of presence (De la Peña et al., 2010). Presence refers to the “subjective experience of being in one place or environment, even when one is physically situated in another” (Witmer & Singer, 1998). This “transformation of reality” is one of the reasons why it is a viable tool for inducing empathy.

Imagining yourself in the shoes of someone else can be cognitively demanding (Oh et al., 2016). Since everything is digitally rendered, an advantage of using these virtual worlds (VE) is that it requires fewer mental resources to construct a specific situation, than traditional perspective-taking exercises that rely on mental simulation (Galinsky & Moskowitz, 2000; Vescio et al., 2003). This makes it possible for the user to focus on the experience and not to rely on pre-existing schemas (Macrae & Bodenhausen, 2000).

Responsibility-Taking

It is up to the offender to offer the victim an apology or form of reparation. Kim et al. (2004) show that it is important that an offender takes responsibility for an apology to happen. Taking responsibility means perceiving oneself as the cause of a victim's suffering (Baumeister et al., 1994). According to the study of Zebel et al. (2009), instructed perspective-taking can positively predict responsibility-taking in people when they are confronted with their group's past mistreatment of outgroups and in turn, this predicts feelings

of guilt. These feelings of guilt can foster an apology in offenders (Tangney, 1995; Tangney & Dearing, 2002; Tangney et al., 2009).

Offenders may feel driven to defend themselves after committing a crime (Schumann, 2014). This can be the case, because committing a crime, in other words a moral failure, can be threatening for the self-image of the offender (Gausel & Leach, 2011; Woodyatt & Wenzel, 2013). This threat to the self-image can lead to minimizing their responsibility for a crime (Weiner, 1985).

The study of Zebel et al. (2016) already made clear that offenders that participate in the SOS course are just starting to take responsibility for their offense. For this reason, it is important to investigate how to promote responsibility-taking in offenders, to eventually foster an apology and reparation.

Self-Affirmation

Previous mentioned studies already showed that taking the perspective of a victim and taking responsibility can cause stress and people cope in different ways with this stress (Gausel & Leach, 2011; Woodyatt & Wenzel, 2013). Some people adopt defensive strategies to cope with the distress (Schumann, 2014). Defensive strategies can manifest itself, for example, in blaming the victim and resisting perspective-taking (Janoff-Bulman, 1979; Shaver, 1970). They are used as an attempt to deal with the negative emotions produced when thinking about the distress of the victim (Thornton, 1984). These defensive strategies may benefit the transgressor in the short term by restoring his/her self-worth, but this can also hinder the reconciliation process (McLaughlin et al., 1983).

To promote the reconciliation process, it is important to buffer against these defensive strategies. This can be done by means of self-affirmation (Cohen & Sherman, 2014). Steele (1988) introduced the theory of self-affirmation. This theory states that people have a flexible self-system and can respond to threats in one domain of life by affirming self-worth in other

domains (Sherman, 2013). This self-system exists of many responses a person can draw on (Gilbert et al., 1998). According to Steele (1988), by reflecting on meaningful core values, people can protect their self-integrity from threats. By protecting one's self-integrity, it stays intact and the use of defensive strategies is no longer needed (Cohen & Sherman, 2014).

Sherman (2013) proposed three psychological mechanisms underlying the effect of self-affirmation. The first proposition is that values boost self-resources, in other words, the psychological resources people use to cope with threats. This can be done by encouraging people to reflect on meaningful core values through value affirming activities. The mechanism underlying this proposition is that people focus on the stressful event and this interferes with the ability to draw on their adaptive resources. By engaging in value affirming activities, psychological resources in the form of a valued self-domain are introduced. It is possible that this valued self-domain has helped coping with stressful events in the past.

The second proposition is that people can broaden the perspective with which they view the stressful event by using self-affirmation. In other words, the person expands his/her view of the self and are less focused on the threat (Cohen & Sherman, 2014). By reminding people of important aspects of the self, other people, valuable relationships, or other external resources, a broader perspective is established (Crocker et al., 2008).

The third proposition is that by means of affirmation, the self and threat become uncoupled, and this reduces the impact of the threat on the self (Sherman & Hartson, 2011). Without affirmation, the self-evaluation of people can become overwhelmed by the threat. When people use self-affirmation, their perspective is broadened and the threat can be evaluated on their own terms, and this in turn leads to less self-evaluative consequences.

The study of Schumann (2014) showed that the use of self-affirmation can contribute to offering a more comprehensive apology to victims and reducing the use of defensive strategies among transgressors. According to Schumann (2014) this is because of the

protected self-integrity, and this makes transgressors less likely to defend their negative behavior. In the study of Schumann (2014) the first proposition mentioned by Sherman (2013) probably played a role in protecting self-integrity among participants. By reflecting on meaningful core values, participants boosted their self-resources, and in turn protected their self-integrity. Another study showed that perspective-taking combined with self-affirmation can promote empathetic feelings towards a minority target among the general population and can protect an individual from feeling threatened as a result from perspective-taking (Persson & Hostler, 2021).

Although research has been done on the benefits of using self-affirmation, it remains unclear whether self-affirmation can promote empathic concern for the victim, taking the perspective of the victim, and responsibility-taking. For this reason, the aim of the current study is to investigate the role of self-affirmation in these different psychological processes among imagined offenders.

Hypotheses

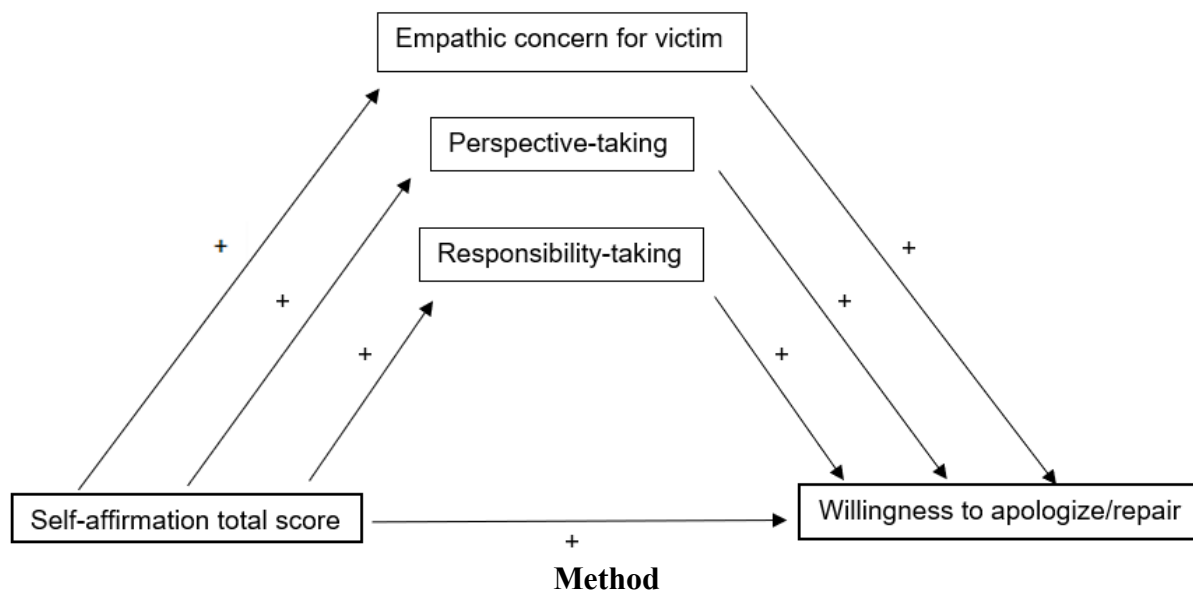
Based on the previously discussed research, the following hypotheses are formulated (see Figure 1 for the conceptual model):

H1: Participants in the self-affirmation condition score higher on the degree of empathic concern, perspective-taking, and responsibility-taking than participants in the control condition.

H2: Participants in the self-affirmation condition score higher on the willingness to apologize and repair, and this relationship is mediated by empathic concern, perspective-taking, and responsibility-taking.

Figure 1

Conceptual Model of the Hypothesized Effect of Self-Affirmation (yes versus no) on Willingness to Apologize and Repair, and the Hypothesized Mediators Empathic Concern, Perspective-Taking, and Responsibility-Taking.



Design

The study used a one-way between-subjects design, with the experimental manipulation of self-affirmation (no versus yes) as the independent variable and perspective-taking, empathic concern felt for the victim, responsibility-taking, and the willingness to apologize and repair as dependent variables.

Participants

Participants were recruited by sharing an anonymous link on social media (Facebook, WhatsApp, LinkedIn) and SONA, a website used by the University of Twente to recruit participants. Participants that participated through SONA received a SONA-credit. Students of the University of Twente can earn SONA-credits when participating in experiments. These credits are needed to complete the curriculum. Of all participants, 88 participated through social media and 17 participated through SONA. The anonymous link led them to the online questionnaire on Qualtrics. The only selection criterion was being of the age of 18 or older

and agreeing with the informed consent prior to the study. The current study received ethical permission from the University of Twente to be conducted.

In total 105 people participated voluntarily in the study, 72 female participants (68.75%), 32 male participants (30.48%), and one participant identified as non-binary (0.95%). The age of the participants ranged from 18 to 72 ($M = 38.38$, $SD = 17.43$). Most of the participants had the Dutch nationality ($n = 87$; 82.86%). This was followed by the German nationality ($n = 12$; 11.43%), and the rest had a different nationality ($n = 6$; 5.71%). In addition, a bachelor degree was the most prevalent level of education ($n = 35$; 33.33%). The second most prevalent level of education was high school ($n = 30$; 28.57%). This was followed by community college ($n = 24$; 22.86%) and a master degree ($n = 15$; 14.29%). Most of the participants were employees ($n = 52$; 49.52%), followed by students ($n = 41$; 39.05%). A part of the participants was retired ($n = 8$; 7.62%), and the rest of the participants had other daily occupations ($n = 4$; 3.81%). A few participants indicated they had been a victim of serious crime ($n = 11$; 10.48%), even more participants indicated they had someone in their social environment who had been a victim of a serious crime ($n = 26$; 24.76%). No one indicated that they had committed a crime themselves, and a few participants had someone in their social environment who committed a serious crime ($n = 9$; 8.57%).

Procedure

Participants received a link to Qualtrics, an online survey tool. The participants who received a link were randomly assigned to either the self-affirmation condition or the control condition. The online questionnaire consisted of 47 items and one open question. After agreeing to the informed consent, participants had to read a story about an offender that committed a robbery (see Appendix A). The story was about an offender who committed an armed robbery in times of financial trouble, violently stole a wallet, and is now serving a sentence in prison. The participants were asked to imagine themselves as the offender in the

story they just read about. They were then asked to indicate with two items to what extent they could imagine themselves as an offender and to what extent they felt regret for the robbery they committed on a 5-point Likert scale from 1 (*Not at all*) to 5 (*Extremely*). These items were used to assess to what extent participants were able to imagine themselves as an offender, and were used in the analysis to check if differences in these scores would lead to different outcomes.

Experimental Manipulation of Self-affirmation

In the self-affirmation condition, the story was followed by a self-affirmation task. The self-affirmation task was based on the task used in the study of Schumann (2014). In her study, Schumann made the participants rank different personal values and characteristics, for example creativity. Participants had to write about why the value they had ranked highest was so important to them. In the current study, participants were asked to choose their most important core value out of 10 pictures that symbolized different core values (Family, friendship, love, respect, adventure, enthusiasm, trust, fitness, animal rights, and creativity) (see Appendix A) or think about another core value themselves. The different core values were based on the core values used in the study of Schumann (2014). Participants were then asked to write about why this core value is so important to them. In this way, by focusing on a core value, the participants affirmed themselves.

In the control condition, the participants were asked to choose their favourite landscape picture out of 10 different landscape pictures (see Appendix A). They were then asked to write down why they chose this landscape. In this way, the participants in the control condition did not focus on a core value and did not affirm themselves. The current study made use of landscape pictures, because these are neutral pictures. These pictures were considered to be unlikely to elicit a positive feeling about oneself, unlike pictures of core values. This way, both the tasks of the self-affirmation condition and the control condition were similar,

except for the working ingredient: the self-affirmation part. Before the start of the study, the effectiveness of the self-affirmation manipulation was tested in a pilot study. The results of the pilot study showed that the participants in the self-affirmation condition scored significantly higher on the degree of self-affirmation than the participants in the control condition.

Manipulation Check

After the task in both conditions, the degree of self-affirmation was measured with five items (e.g., “The task made me think about positive aspects of self”; “The task made me focus my attention on who I am”). The scale was developed by Napper, Harris and Epton (2009). Participants indicated to what extent they agreed with each item on a 5-point Likert scale from 1 (*Strongly disagree*) to 5 (*Strongly agree*). Together, these five items formed a reliable scale ($\alpha = .89$) and a higher score on this scale indicated that participants experienced a higher degree of self-affirmation.

360° Video

After participants completed either the self-affirmation task or the control task, they received a second instruction to imagine being the victim of the robbery they committed. The robbery in the video was similar to the scenario they read about at the start of the research. The instruction made clear that the participants were going to watch a 360° video of a similar robbery they committed from the perspective of the victim (see Appendix B). Participants were asked to, as an offender, imagine themselves as the victim of the robbery. The instruction also stated that it was possible to rotate the 360° video and that the participant could ‘look’ in different directions by clicking and dragging the screen.

The 360° video was originally developed for the study of Koetsier (2019). In the video, the victim is withdrawing money from an ATM. While withdrawing money, the participants can hear footsteps running towards them. If they turn the camera around,

participants can see an anonymous male with a hoodie and a gun behind them. The man screams “Give me your fucking money! Give me your fucking money, I’ll fucking kill you!” The man grabs the wallet and the participant can see him run away (see Appendix B). The 360° video was directly followed by four questions about rotating the video (see Appendix A).

Dependent Measures

The questionnaire measured the following dependent variables: ‘Perspective-taking’, ‘Empathic concern for the victim’, ‘Responsibility-taking’, and ‘Willingness to apologize and repair’. Besides these dependent variables, the questionnaire also measured the degree of self-affirmation as a manipulation check.

Measuring Perspective-Taking

Taking the perspective of the victim was measured with the Perspective-Taking Scale used in the study of Ventura et al. (2021). The questions of the original scale in the study of Ventura et al. (2021) were rephrased to fit this study. The original questions mention a woman who is bullied. In the current study, the questions mentioned the victim of the robbery. The Perspective-Taking Scale consists of eight items (e.g., “To what extent did you identify with the victim of the robbery, during the experience?”; “To what extent did you see yourself from the perspective of the victim of the robbery?”). The item: “Did you ever imagine how you would act if you really were a victim?” was excluded from the perspective-taking measure, because the current study is mostly interested in taking the perspective of the specific victim in the video and not of victims in general. For the seven remaining items, participants indicated to what extent they agreed with each item on a 5-point Likert scale from 1 (*Not at all*) to 5 (*Extremely*). The seven items formed a reliable scale ($\alpha = .89$) and a higher score on this scale indicated that participants showed a higher degree of perspective-taking.

Measuring Empathic Concern for the Victim

The scale to measure empathic concern was designed by Batson et al. (1987). Participants were asked to indicate the extent to which they felt each of a number of six emotions for the victim when watching the video: *sympathetic, soft-hearted, warm, compassionate, tender, and moved*. Using a 7-point Likert scale from 1 (*Strongly disagree*) to 7 (*Strongly agree*). Together, these six items formed a reliable scale ($\alpha = .94$) and a higher score on this scale indicated that participants experienced a higher degree of empathic concern for the victim.

Measuring Responsibility-Taking

The items of the scale to measure responsibility-taking were based on the responsibility-taking scale used in the study of Bonensteffen et al. (2020). The items were adjusted to match the robbery mentioned in the current study. Participants were asked to indicate their agreement with seven different statements (e.g., “I feel responsible for the harmful consequences of the robbery for the victim.”; “I admit that I caused harm on the victim of the robbery.”). A 7-point Likert scale was used from 1 (*Strongly disagree*) to 7 (*Strongly agree*). Together, these seven items formed a reliable scale ($\alpha = .94$) and a higher score on this scale indicated that participants showed a higher degree of responsibility-taking.

Measuring Willingness to Apologize and Repair

The scale to measure willingness to apologize and repair was used in the study of Zebel et al. (2020). Participants were asked to indicate to what extent they were willing to do something (e.g., “To what extent would you be willing to offer some form of compensation for the harmful consequences of the robbery for the victim?”; “How much are you inclined to apologize for the harm caused to the victim of the robbery?”). Using a 7-point Likert scale from 1 (*Extremely small extent*) to 7 (*Extremely large extent*). Reliability analysis indicated

that these items together constituted a reliable scale ($\alpha = .92$) and a higher score on this scale indicated that participants showed a higher degree of willingness to apologize and repair.

Demographics

To assess the demographics of the participants, five items were used (age, gender, nationality, highest completed educational level, daily occupation). Moreover, four additional items were used to assess the participants' experiences with crime. The questionnaire ended with a debriefing (see Appendix A).

Results

Descriptive statistics and correlations

Means, standard deviations and correlations for the self-affirmation and the control condition are shown in Table 1.

Table 1

Means, Standard Deviations and Correlations for the Variables in the Self-Affirmation Condition and Control Condition

Self-affirmation condition	<i>M</i>	<i>SD</i>	Self-affirmation check scores	Perspective-taking	Empathic concern	Responsibility-taking
Self-affirmation	3.98	.69	—			
Perspective-taking	2.97	.93	.13	—		
Empathic concern	4.27	1.50	.04	.57**	—	
Responsibility-taking	4.90	1.18	.45**	.47**	.42**	—
Willingness to apologize and repair	4.64	1.30	.11	.42**	.52**	.77**
Control condition						
Self-affirmation	3.39	.89	—			
Perspective-taking	3.16	.81	.20	—		
Empathic concern	4.21	1.34	.04	.60**	—	
Responsibility-taking	5.17	1.05	.01	.26	.38**	—
Willingness to apologize and repair	4.69	1.21	.34*	.39**	.36**	.65**

Note. * $p < .05$, ** $p < .01$

When looking at the degree of self-affirmation, Table 1 shows that the participants in the self-affirmation condition as expected scored higher than the participants in the control

condition. Participants who affirmed themselves through a self-affirmation task, indicated a higher degree of self-affirmation than participants who did not affirm themselves.

It is striking that the mean scores on the outcome variables perspective-taking, empathic concern, responsibility-taking, and willingness to apologize and repair were almost the same for the participants of both groups, or even higher for the participants in the control group. This is not in line with the expectation that the participants who participate in a self-affirmation task would score higher on these outcome variables than the participants who do not participate in a self-affirmation task.

The outcome variable perspective-taking stands out. The mean scores on this outcome variable remained low in comparison with the mean scores on the other outcome variables. The mean scores on the outcome variables responsibility-taking and willingness to apologize and repair were relatively high in comparison with the mean scores on the other outcome variables. This could mean that participants had a hard time taking the perspective of the victim in the video, possibly due to the task being too complex. And it could possibly be easier for the participants to take responsibility and show willingness to apologize and repair.

Self-Affirmation Manipulation

To investigate if the self-affirmation manipulation was successful, a manipulation check analysis was conducted using an independent samples T-test with the degree of self-affirmation as test variable and condition as grouping variable. The participants in the self-affirmation condition scored significantly higher on self-affirmation ($M = 3.98$, $SD = .69$) than the participants in the control condition ($M = 3.39$, $SD = .89$); $t(103) = 3.73$, $p < .001$. These results suggested that the manipulation was successful.

Effects of Self-Affirmation on Perspective-Taking, Empathic Concern for the Victim, Responsibility-Taking, and Willingness to Apologize and Repair

To test the first hypothesis, namely that self-affirmation will lead to higher scores on perspective-taking, empathic concern for the victim and responsibility-taking, a MANOVA was done. The MANOVA was used to examine the association between self-affirmation (1 = control condition versus 2 = self-affirmation condition) as independent variable, and perspective-taking, empathic concern for the victim, responsibility-taking, and willingness to apologize and repair as dependent variables.

Results indicated no significant multivariate main effect of self-affirmation on perspective-taking, empathic concern for the victim, responsibility-taking, and willingness to apologize and repair $F(4, 100) = 1.05, p = .383$; Wilk's $\Lambda = 0.96$, partial $\eta^2 = .04$. This indicates that the scores of the participants in the self-affirmation condition and the control condition did not significantly differ on the different outcome variables altogether.

The results of the univariate tests did not show a significant effect of self-affirmation on taking the perspective of the victim ($F(1,100) = 1.18, p = .280$), empathic concern for the victim ($F(1,100) = .04, p = .836$) and responsibility-taking ($F(1,100) = 1.43, p = .234$). This indicates that the scores of the participants in the self-affirmation condition and the control condition did not significantly differ on the different outcome variables when analysed separately.

Altogether, the results of both the multivariate tests and the univariate tests did not offer support for the first hypothesis. Thus, the participants in the self-affirmation condition did not score significantly higher than the participants in the control condition. According to Baron and Kenny (1986), different steps are needed to establish mediation. The first step is to show that the causal variable, in this case self-affirmation, correlates with the outcome variable, in this case willingness to apologize and repair. The results of the univariate tests did

not show a significant effect of self-affirmation on willingness to apologize and repair ($F(1,100) = .05, p = .827$), which was needed for mediation to happen. The analysis thus showed that there is no effect that may be mediated. The results therefore did not offer support for the second hypothesis in this study. There was no effect of self-affirmation on willingness to apologize and repair that could be mediated by perspective-taking, empathic concern for the victim and responsibility-taking.

Exploratory Analyses: Mediation Analysis with Total Score of Self-Affirmation

Manipulation Check

To find clues as to why the hypotheses were not supported, other exploratory analyses were performed. First, individual differences in self-affirmation were examined. Differences between conditions in self-affirmation showed no effects. There might have been unexpected effects of the intervention that worked against finding the expected effects. To check whether individual differences in the degree of self-affirmation across the two conditions were (also not) associated with the outcome variables perspective-taking, empathic concern, responsibility-taking, and willingness to apologize and repair, the scores on the self-affirmation manipulation check were used for further analyses.

To see whether there was a difference between participants scoring lower or higher on self-affirmation in terms of the outcome variables, a mediation analysis was performed with the self-affirmation total score as predictor (X) instead of self-affirmation (yes versus no) and willingness to apologize and repair as outcome variable (Y). Perspective-taking, empathic concern and responsibility-taking were included as mediators (M). The mediation analysis was performed using PROCESS.

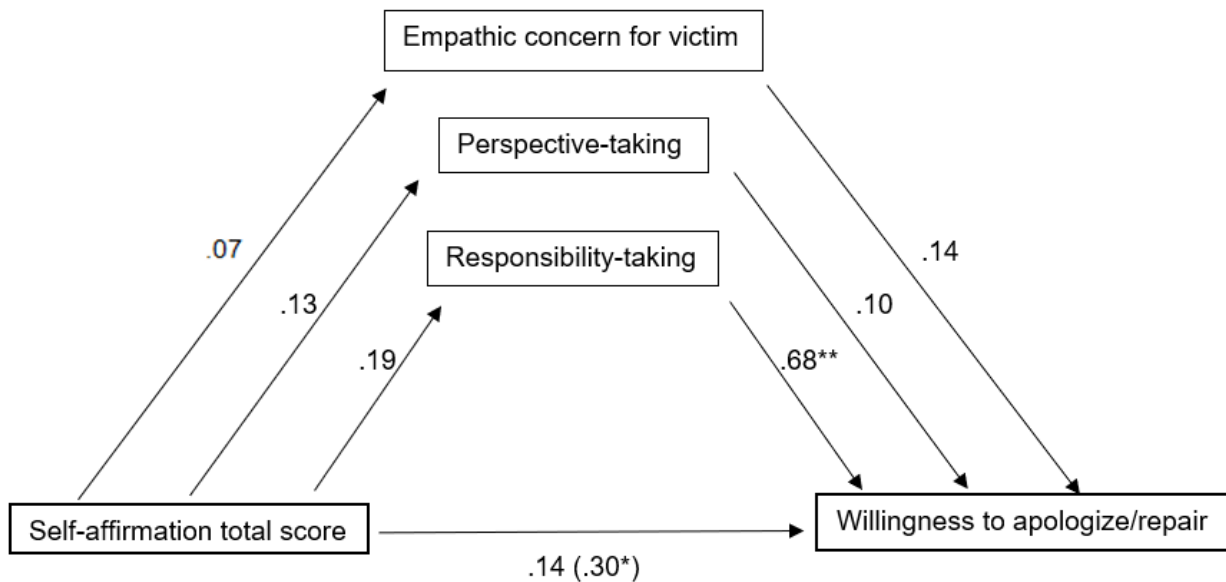
Results indicated a significant positive total effect of self-affirmation total score on willingness to apologize and repair, $b = .30, t(92) = 1.99, p = .050$. This means, the higher

degree of self-affirmation, regardless the condition, the higher the willingness to apologize and repair.

Results showed however no significant effect of self-affirmation total score on perspective-taking ($b = .13$, $t(92) = 1.28$, $p = .205$), empathic concern ($b = .07$, $t(92) = .38$, $p = .704$) and responsibility-taking ($b = .19$, $t(92) = 1.43$, $p = .1562$). In addition, there was no significant effect of perspective-taking ($b = .10$, $t(89) = .78$, $p = .436$) and empathic concern for the victim ($b = .14$, $t(89) = 1.83$, $p = .071$) on willingness to apologize and repair. However, the results showed a significant positive effect of responsibility-taking on willingness to apologize and repair, $b = .68$, $t(89) = 7.61$, $p < .001$. This means, the higher degree of responsibility-taking, the more willingness to apologize and repair. Given the fact that there was a significant positive effect of responsibility-taking on willingness to apologize and repair, we also looked at the indirect of responsibility-taking on willingness to apologize and repair. The indirect effect of responsibility-taking on willingness to apologize and repair was positive, but not robust as the confidence interval included the zero (Effect = .129, 95% CI [-0.049, 0.372]). The analyses did reveal that, after controlling for the mediators (perspective-taking, empathic concern for the victim, and responsibility-taking), self-affirmation total score was not a significant predictor of willingness to apologize and repair anymore, $b = .14$, $t(89) = 1.34$, $p = .185$. Taken together, these results do suggest a trend in the direction of responsibility-taking. It does seem like responsibility-taking plays a role in the relationship between self-affirmation and willingness to apologize and repair.

Figure 2

Paths of the Mediation Analysis with Self-Affirmation as the Predictor, Willingness to Apologize and Repair as Outcome Variable and Empathic Concern for the Victim, Perspective-Taking and Responsibility-Taking as Mediators.



Note. * $p < .05$, ** $p < .01$

Exploratory Analyses: Analysing the Different Core Values

Given that no support was found for the hypotheses, a number of additional exploratory analyses were conducted to investigate why the expectations have not been met. Data of the current study showed that participants chose a variety of core values in the self-affirmation condition. Further reflection on the nature of the self-affirmation task made us think there could be different effects of different core values. Some analyses were done with the different core values to investigate whether it was possible that different core values had different effects on the outcome variables perspective-taking, empathic concern, responsibility-taking, and willingness to apologize and repair.

The core values reported by participants were divided into three different groups, namely connectedness ($n = 20$), respect and trust ($n = 22$), and the control group without a core value ($n = 57$). Participants who were assigned to the connectedness group mentioned core values such as love, family, friendship, and meaning. A participant in the connectedness

group stated: “Family. My own flesh and blood. This means everything to me.” Participants who were assigned to the respect and trust group mentioned core values such as respect, trust, honesty, and compassion. A participant in the respect and trust group stated: “Respect. If we would all respect each other’s life and situation, a lot of problems would not even occur.” Other mentioned core values, like animal rights, enthusiasm, fitness, and creativity were not included in the analysis due to low numbers ($n = 6$). Table 2 shows the means and standard deviations for these three groups.

Looking at the means, the respect and trust group stands out. The participants in this group had a higher average score on most of the outcome variables in comparison to the participants in the connectedness group. The participants in the connectedness group had lower average scores on most of the outcome variables, except for empathic concern for the victim. It is notable that the participants who chose connectedness as a core value scored low on the outcome variables responsibility-taking and willingness to apologize and repair compared to the participants in the other two groups.

The mean scores on the two items where participants indicated to what extent they could imagine themselves as an offender and to what degree they have regret for the robbery they committed, did not differ much for the three groups. The participants in the respect and trust group scored higher on the degree of regret compared to the participants in the connectedness group. A possible explanation for this could be that the participants in the respect and trust group prioritize showing respect and trust, because that appeared from the self-affirmation task that followed this question. People who thought about respect and trust as a core value, probably did not prefer to act in a way that violated these core values and felt more regret for it.

Table 2

Means, Standard Deviations, and Correlations Among the Variables for the Connectedness, Respect and Trust, and Control Condition. Additionally, the Means, Standard Deviations, and Correlations for the Items to What Extent the Participants Could Imagine Themselves as an Offender and to What Extent They Felt Regret for the Committed Robbery

	<i>M</i>	<i>SD</i>	Self-affirmation	Perspective-taking	Empathic concern	Responsibility-taking	Willingness to apologize and repair	Imagine themselves as offender
Connectedness								
Self-affirmation	3.96	.84	—					
Perspective-taking	3.01	.93	-.02	—				
Empathic concern	4.52	1.53	-.32	.69**	—			
Responsibility-taking	4.67	1.19	.39	.31	.22	—		
Willingness to apologize and repair	4.45	1.43	-.27	.40	.50*	.64**	—	
Imagine themselves as offender	2.60	1.19	.19	.26	.09	.30	.36	—
Degree of regret	3.80	1.20	-.17	.54*	.62**	-.04	.19	-.10
Respect and trust								
Self-affirmation	4.11	.54	—					
Perspective-taking	3.07	.96	.30	—				
Empathic concern	4.15	1.54	.52*	.46*	—			
Responsibility-taking	5.26	1.11	.51*	.53*	.61**	—		
Willingness to apologize and repair	5.02	1.14	.52*	.35	.62**	.88**	—	
Imagine themselves as offender	2.59	1.26	-.18	.22	-.29	.14	.01	—
Degree of regret	4.05	.90	.15	.50*	.05	.46*	.18	.02
Control condition								
Self-affirmation	3.39	.89	—					
Perspective-taking	3.16	.81	.20	—				
Empathic concern	4.21	1.34	.04	.60**	—			
Responsibility-taking	5.17	1.05	.01	.26	.38**	—		
Willingness to apologize and repair	4.69	1.21	.34*	.39**	.36**	.65**	—	
Imagine themselves as offender	2.40	.96	-.28*	-.06	-.05	-.09	-.15	—
Degree of regret	3.96	.94	.37**	.26	.44**	.34*	.50*	-.56**

Note. * $p < .05$, ** $p < .01$

Exploratory Analyses: Correlations Between the Different Variables for the Three Groups

To find out whether the different core values in terms of self-affirmation indeed had different effects on the outcome variables, it is important to look at the correlations between self-affirmation and the different outcome variables. Table 2 shows the differences in the average scores of participants per chosen core value. This different effect per core value should also be reflected in the correlations between self-affirmation and the variables. Table 2 also shows the correlations among the different variables for the three groups.

In the connectedness group, the first column shows negative correlations between self-affirmation and taking the perspective of the victim, empathic concern for the victim, and willingness to apologize and repair. This means, the higher the score on self-affirmation through connectedness, the less empathy they experienced for the victim and the less willing they were to apologize and repair. This is striking, because the expectation was that the participants who would affirm themselves through a self-affirmation task would feel more positive of themselves and this in turn would lead to higher scores on the different outcome variables.

The correlations in the respect and trust group are in line with the expectations. The positive correlations indicated the higher the score on self-affirmation through respect and trust, the more participants took the perspective of the victim, the more empathy they experienced for the victim, the more responsibility they wanted to take and the more willing they were to apologize and repair.

For the control group there was a significant correlation between self-affirmation and willingness to apologize and repair. The higher one scored on (spontaneous) self-affirmation, the more willing one was to apologize and repair. This is striking because in the control condition, the participants did not affirm themselves. It seems like the large differences in

self-affirmation between participants were related to the differences in willingness to apologize and repair.

All in all, it looks like it very much depended on the nature of the self-affirmation if people were willing to take the perspective of the victim, felt empathy for the victim, took responsibility, and were willing to apologize and repair.

Looking at the correlations between the two variables of the extent to which participants could imagine themselves as an offender and the degree of regret and the different outcome variables, something stands out. The correlations between the variable to what extent participants could imagine themselves as an offender and the outcome variables were mostly low and not significant. However, the correlations between the variable of degree of regret and the outcome variables were mostly higher and significant.

It seemed especially important that the participants felt regret about the crime they committed to see a change in the different outcome variables. It seemed to matter less whether they could imagine themselves as perpetrators or not. For participants in the connectedness group did high levels of regret have a positive effect on perspective-taking and empathic concern. This could mean that if the participants had more regret, they were more likely to choose the side of the victim by taking their perspective and having more empathy for the victim. For the participants in the respect and trust group did high levels of regret also have a positive effect on perspective-taking. But in contrast to the connectedness group, it did not have a positive effect on empathic concern. On the other hand, it did have a positive effect on responsibility-taking. A possible explanation for this could be that when the participants in this group felt high levels of regret, they possibly also felt the obligation to take responsibility, because of the group attached much value to respect and trust. These results suggest that it seems to depend on the type of core value people focus on during a self-affirmation task what kind of psychological process is affected by it.

Discussion

The purpose of the current study was to gain a better understanding of how self-affirmation can play a role in promoting empathic concern for the victim, taking the perspective of the victim, taking responsibility, and willingness to apologize and repair among imagined offenders.

The expectation that self-affirmation (yes versus no) would have a positive effect on taking the perspective of the victim, empathic concern for the victim, and responsibility-taking, was not confirmed. Results of the current study do not support this hypothesis and showed no influence of self-affirmation (yes versus no) on the different outcome variables. These results are inconsistent with the claim that perspective-taking and empathetic feelings towards a minority target among the general population can be promoted by self-affirmation (Persson & Hostler, 2021). The results of the current study are also inconsistent with the results of the study of Schumann (2014), that showed self-affirmation can promote responsibility-taking in offenders.

The expectation that the positive effect of self-affirmation (yes versus no) on willingness to apologize and repair would be mediated by taking the perspective of the victim, empathic concern for the victim, and responsibility-taking was not confirmed. The findings of the current study are not in line with the findings of previous research. Schumann (2014) showed that offenders are more willing to make extensive apologies when they can protect their self-integrity by doing a self-affirmation task. An explanation for not finding an effect of self-affirmation (yes versus no) could be the fact that the participants were not offenders themselves. Leunissen et al. (2021) predicted in their study that self-affirmation could be especially helpful in getting apologies and reparations from those people who experience a transgression as a strong threat to their self-integrity. For this reason, the situation in this

study might not have been threatening enough to the participants for the self-affirmation task to fully work.

A second explanation for the difference in results could be that it was probably easier for the participants to imagine themselves as a victim than an offender. Participants got the opportunity to imagine themselves as a victim through a 360° video, whereas they needed to imagine themselves as an offender through their own mental simulation. It is already known that imagining yourself in the shoes of someone else can be cognitively demanding (Oh et al., 2016). Using a virtual world, like a 360° video, for instructed perspective-taking requires fewer mental resources than mental simulation (Galinsky & Moskowitz, 2000; Vescio et al., 2003). Perhaps participants felt more like a victim than an offender, and this may have made it difficult to see through the eyes of an offender when participating in this study.

Another explanation for the difference in results between the current study and the study of Schumann (2014) could be the fact that Schumann investigated the role of self-affirmation on the comprehensiveness of apologies by reducing the use of defensive strategies. The study of Schumann (2014) showed that offenders are more willing to offer a more comprehensive apology when they participated in a self-affirmation task. The idea for the current study was to increase willingness to apologize and repair by promoting empathic concern, perspective-taking, and responsibility-taking with a self-affirmation task. A possibility could be that with the use of self-affirmation the apology becomes more comprehensive, but the willingness to apologize and repair is not altered.

A number of exploratory analyses do point to an effect of self-affirmation, regardless of the condition, on willingness to apologize and repair. The results show no difference between the degree participants are willing to apologize and repair when doing a self-affirmation task or not, but they do show an association between individual differences in self-affirmation overall and willingness to apologize and repair. Perhaps the self-affirmation

manipulation caused too small and too weak differences, while the individual differences in self-affirmation were probably large enough to show an effect. This may indicate that participants who already feel positive about themselves are more willing to apologize and repair. It could be the case that the participants who naturally score higher on self-affirmation, regardless of doing a self-affirmation task or not, use fewer defensive strategies that hinder the reconciliation process (McLaughlin et al., 1983). They are possibly more capable to protect their self-integrity (Steele, 1988), broaden their perspective with which they view stressful events (Cohen & Sherman, 2014), and uncouple the self and the threat (Sherman & Hartson, 2011).

Additionally, the exploratory analysis point to different core values having different outcomes. It seems to depend on the nature of the self-affirmation whether one is willing to take the perspective of the victim, feel empathy for the victim, take responsibility, and apologize and repair as an imagined offender. Participants who chose connectedness as most important core value during the self-affirmation task are, in comparison with participants who chose respect and trust as most important core value, more empathetic towards the victim. On the other hand, these participants show a lower degree of responsibility-taking, and willingness to apologize and repair than participants in the respect and trust group. A possible explanation for this could be that the participants with connectedness as core value, focus on 'the side' and well-being of the victim more than the participants with respect and trust as most important core value. The latter may focus more on the violations of important rules and norms by the offender.

According to social psychology, there are two fundamental dimensions from which one judges oneself and others. On the one hand there is the agency dimension. This dimension represents strength and competence. On the other hand, there is the moral-social dimension, which represents morality and trustworthiness (Abele & Wojciszke, 2013). According to the

needs-based model of Shnabel and Nadler (2008) are the identities of victims and offenders threatened asymmetrically. Victims tend to experience a threat to their agency dimension and feel they have no ability to influence the outcome, whereas offenders tend to feel threat to their moral-social dimension and this is sometimes accompanied by feeling guilty (Baumeister, 1997). According to the data of the current study, participants chose either a core value related to connectedness, or to respect and trust. Connectedness is about the sense of belonging and experiencing close relationships with friends, family or even strangers (Lee & Robbins, 1998). This is in line with the answers given by the participants in the connectedness group during the self-affirmation task. According to the answers of participants in the connectedness group, they consider relationships with their close family and friends, and the protection and well-being of these people to be very important. People are motivated to maintain their positive identities. To maintain the positive identity of caring about and protecting the wellbeing of other people, participants in the connectedness group possibly felt the need to show more empathy for the victim. Possibly because they felt that the strength and competence, that is the agency dimension, of the victim were affected. They did this by feeling, for example, more warmth and tenderness for the victim in the video. As a consequence they were perhaps more focused on the plight of the victim and their protection. This could be a possible explanation for the fact that the participants in the connectedness group felt more empathetic towards the victim, and (therefore) feel less responsible and are less willing to apologize and repair as an offender.

On the other hand, the participants in the respect and trust group feel less empathy for the victim, but feel more responsibility, and are more willing to apologize and repair as an offender. Being moral is all about being honest, trustworthy, and sincere (Brambilla & Leach, 2014). The participants in this group consider being moral to be very important and this possibly activates the moral-social dimension more. To maintain the positive identity of being

a moral person and to restore their moral dimension, participants in the respect and trust group possibly felt the need to take more responsibility, and were more willing to apologize and repair.

Strengths, Limitations and Future Research

There are some potential limitations concerning the results of this study. A limitation is that it could be hard for participants to imagine themselves as an offender. Participants were asked to imagine themselves as an offender during the entire study. All the participants indicated they never committed a crime themselves. For people who never committed a crime, it can be very cognitively demanding to imagine themselves as an offender and the situation was (therefore also perhaps) not threatening enough to affect their self-integrity. Besides imagining themselves as an offender, participants needed to take the perspective of the victim in the video as well. Taking these two perspectives simultaneously may have been too complex for the participants. Moreover, it was perhaps easier for the participants to imagine themselves as a victim than as an offender. It possibly required less mental resources to imagine themselves as a victim through the 360° video than as an offender through their own mental simulation.

Another limitation is that the current study was based on convenience sampling. Most of the participants were personally known by the researcher and the study was about a sensitive topic, which is crime. Participants could think the researcher could link their names to their answers, even though it was emphasized that participating was completely anonymous. This can lead to a social desirability bias. Due to this bias, people tend to underreport socially unfavorable attitudes and overreport more favorable attitudes (Latkin et al., 2017). It could be that participants wanted to present themselves more positively because of the social desirability. This could prevent them from giving truthful answers and possibly

made them answer, for example, more empathetically. In this way, the social desirability could have impacted the results.

A last limitation is that it was not possible to check whether participants rotated the camera when watching the 360° video. A lot of participants indicated that they did not rotate the camera and therefore did not see the perpetrator behind them. Not seeing the armed perpetrator could have made the situation less threatening. These participants did not fully experience the robbery. The fact that not all participants experienced the robbery in the same way could have influenced the results.

Despite some limitations, the current study also had some strengths. A strength of the current study was that a 360° video was used instead of a written scenario. Many studies that research perspective-taking use a written scenario and this can be very cognitively demanding (Oh et al., 2016). When using a 360° video, users feel like they are looking through the eyes of the person in that world and approach the situation from their perspective (Witmer & Singer, 1998). It gave the participants a “first-person experience” (De la Peña et al., 2010).

Another strength of the study was that the big variety in most demographics. The demographics showed a big variety in age, highest completed educational level and daily occupation. This made the results of the study more applicable on the general population, and in turn increase the external validity.

Although, the current study gave some insights into the role of self-affirmation on taking the perspective of the victim, empathic concern for the victim, responsibility-taking and willingness to apologize and repair, there is still research needed. Future research could investigate the role of the different core values used in a self-affirmation task. A recommendation would be to change the format of the self-affirmation task. In the current study, participants could choose their most important core value out of random core values. Results indicated that a core value based on morality, like respect and trust, would lead to the

expected outcomes. Future research could make use of a self-affirmation task where participants are instructed to choose a core value based on morality and write about why this is important in their life. In this way, the norms of participants are more likely to be activated. A possible obstacle that could arise is the so called psychological reactance people can have when they are told what to do and when people feel a threat to their freedom (Brehm, 1966). This psychological reactance can manifest itself in feelings of uncomfortableness, hostility, aggressivity, and anger (Brehm & Brehm, 1981). A way to possibly overcome this obstacle is by giving the participants the option to choose between different core values that are based on morality. The self-affirmation task in the current study included pictures of different core values. Future research can make use of a similar self-affirmation task where the pictures only represent core values based on morality (e.g., respect, trust, honesty), and give the participants the opportunity to choose their most important value out of these pictures.

A second recommendation would be to extend the current findings by examining the role of responsibility-taking on willingness to apologize and repair. Results do suggest a trend in the direction of responsibility-taking. It does seem like responsibility-taking plays a role in the willingness to apologize and repair, so more research is needed to explore this possible relationship. A recommendation would be to prioritize responsibility-taking as variable to investigate in future research about willingness to apologize and repair.

Another recommendation is to test this among real offenders. Real offenders do not have to imagine themselves as an offender. This could make the threat of taking the perspective of a victim more real and in turn could make it more likely to be a threat to the offenders' self-integrity. Something what could possibly make this research among real offenders hard, is that offenders consider themselves victims (Zebel et al., 2016). Future research is needed to investigate the effect of self-affirmation on empathic concern for a

victim, taking the perspective of a victim, responsibility-taking, and willingness to apologize and repair among real offenders.

In addition to those already mentioned, another suggestion for future research would be to investigate the role of defensive strategies in willingness to apologize and repair. Schumann (2014) already showed that self-affirmation can reduce the use of defensive strategies, and in turn this facilitates offering a more comprehensive apology among transgressors. The current study did not investigate the role of defensive strategies used among imagined offenders. It is likely that defensive strategies, such as victim blaming or justification, also play a role in the willingness to apologize and repair. However, more research is required to test this assumption.

The last recommendation is to replace the 360° video with a VR-simulation. Although, a 360° video already creates more of a feeling of being in the world, in contrast to conventional media (Slater & Wilbur, 1997), using a VR-simulation with a headset can ensure an even more immersive experience. People report feeling more involved, as they feel if they are really experiencing the event for themselves and are less aware of their surroundings. This leads to a stronger sense of presence (De la Peña et al., 2010). Perhaps using a VR-simulation could eventually lead to a higher degree of perspective-taking, which stayed low in comparison to the other outcome variables in the current study. Participants would experience the situation “through the eyes” of the victim and perhaps feel more presence. This could possibly make it easier for participants to fully take the perspective of the victim in the VR-simulation.

Conclusion

The aim of the current study was to investigate the effect of self-affirmation on empathic concern for the victim, taking the perspective of the victim, responsibility-taking, and willingness to apologize and repair. Even though the results were not as expected, some

interesting findings emerged. It seems to depend very much on the nature of the self-affirmation whether one is willing to feel empathy for the victim, to take perspective of the victim and (or) take responsibility as an offender, and is willing to apologize and repair. The results of the current study should be treated with caution, given the complexity of the current study and the fact that the current study did not investigate real offenders. A study among real offenders could yield different results, given that the offenders would probably experience a stronger threat to self-integrity than the participants in the current study. However, the current findings tentatively suggest that activating norms by reflecting on a core value that represents some form of morality is most promising to stimulate the willingness to apologize and repair in offenders.

Restorative justice is primarily focused on the reconciliation of the relationship between offender and victim, and this is often done by offenders taking the responsibility for their wrongdoing, expressing regret, and offering a sincere apology or form of reparation (Dhami, 2012; Retzinger & Scheff, 1996). The focus is therefore mainly on important values of the victim. The self-affirmation task used in the current study focuses on the important values of the offender, and results show that it is also important to pay attention to these important values to affect the psychological processes that need to happen before offenders are ready to apologize and repair.

Based on the finding in the current study, the recommendation for Gevangenzorg Nederland is to focus on core values that represent morality (e.g., respect and trust) through a self-affirmation task for offenders. However, more research is needed to make a definitive recommendation. Yet, this is a first step to contribute to an effective intervention for offenders and to reach the ultimate goal of shared understanding between offender and victim.

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Appendix A

Questionnaire

Self-affirmation study

Start of Block: Informed consent

Q1 Welcome to this research!

This study focuses on responses to crime and perspective-taking. The study starts with a task followed by a video of a robbery and a questionnaire. Please know that you have the right to withdraw at any point during the study without the need to give a reason.

Your participation in this research is voluntary. Your responses will be kept completely confidential and anonymous.

The duration of this study will be around 15 minutes. Students of the University of Twente will receive SONA-Points for participation.

If you have any questions about the study, your rights as a research participant, or you want to obtain information about this study, please contact: n.smeenk@student.utwente.nl

By agreeing on participating in this study, you acknowledge that your participation in the study is voluntary, you are at least 18 years of age, and you are aware of your right to withdraw from this study at any time and for any reason.

Important note: During this research a 360° video will be shown. For the best experience, it is recommended to use a laptop/pc for this research. Not all smartphones support the 360° video function.

Q2 Do you agree to participate in this survey?

- Yes (1)
- No (2)

Skip To: End of Survey If Do you agree to participate in this survey? = No

End of Block: Informed consent

Start of Block: Imagine yourself as an offender

Q3 The results of this research will contribute to the courses for prisoners given by the existing Dutch organisation Gevangenzorg Nederland in the Netherlands. It is currently not possible to conduct this research among inmates. To simulate this research

, it is important to imagine yourself as an offender during this research. Imagine that you committed a robbery. At the time of the robbery, you were in financial trouble and influenced by the wrong friends. You saw no other solution than to commit a robbery. In disguise, you threatened a person and stole a wallet. The security camera recorded this and you have been recognized. You are now serving your sentence in prison. Please keep this in mind during this research.

Q4 Please answer the following questions regarding imagining yourself as an offender.

	Not at all (1)	Slightly (2)	Moderately (3)	Very (4)	Extremely (5)
To what extent are you able to imagine yourself as an offender? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To what extent do you feel regret for the robbery you committed? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Imagine yourself as an offender

Start of Block: Self-affirmation task

Q5 Below you can see several photos that represent important core values. Core values are the fundamental beliefs of a person. They represent an individual's highest priorities. An example of a core value is kindness. Kindness can be a core value to someone: "Kindness is an important core value for me, because I think it is very important to be friendly, generous, and considerate to others. I show my kindness to others by being helpful or showing empathy. I often do something nice without expecting nice things in return."

Try to reflect on the most important core value in your life or choose the most important one from the list below. Please write down below on this page which core value you have chosen and why this core value is so important to you.

Q6



Family: A family is a group of two or more persons related by birth, marriage, or adoption who live together; all such related persons are considered as members of one family.



Friendship: A friend is someone other than your family or partner that you share close affection with. You share kindness, sympathy, empathy, compassion, loyalty, fun, and probably some common beliefs and values with them.



Love: A feeling of deep affection, passion or strong liking for a person or thing.



Respect: A feeling of deep admiration for someone or something elicited by their abilities, qualities, or achievements.



Adventure: An unusual, exciting, and possibly dangerous activity, such as a trip or experience, or the excitement produced by such an activity.



Enthusiasm: A feeling of energetic interest in a particular subject or activity and an eagerness to be involved in it.

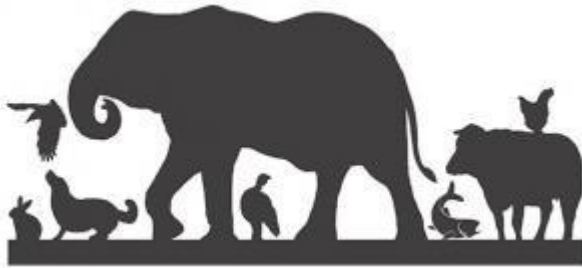


Trust: To believe that someone is good and honest and will not harm you, or that something

is safe and reliable.



Fitness: The condition of being physically fit and healthy.



Animal rights: The rights of animals to live free from human exploitation and abuse.



Creativity: The tendency to generate or recognize ideas, alternatives, or possibilities that may be useful in solving problems, communicating with others, and entertaining ourselves and others.

Q7 Please write down below in a few sentences what your most important core value is and why this core value is so important to you (You can answer in Dutch if you prefer).

End of Block: Self-affirmation task

Start of Block: Self-affirmation manipulation check

Q11 Please answer the following questions regarding the task you just did.

	Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)
The task made me think about positive aspects of myself. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The task made me focus my attention on who I am. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The task made me aware of things I value about myself. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The task made me think about things personally important to me. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The task made me think about my most important values. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Self-affirmation manipulation check

Start of Block: 360 robbery video

Q12 During a course for prisoners, Gevangenenzorg Nederland shows you the following video. It is a 360° video of a similar robbery you committed. The video shows the victim's perspective. As a prisoner, you are asked to imagine yourself in the victim's situation.

Important note: Please watch the 360° video below. For the best experience, watch the video in full screen on a laptop or pc. Be aware that you can rotate the video with your mouse by clicking and dragging your mouse when using a laptop/pc or by moving your smartphone in different directions. Not all smartphones support the 360° video function. If the 360° video does not work, please open the Youtube app and try playing the video again.

Q13

End of Block: 360 robbery video

Start of Block: Questions regarding rotating the 360 video

Q14 Please answer the following questions regarding the video of the robbery you just saw.

	Yes (1)	No (2)
Did you rotate the camera? (1)	<input type="radio"/>	<input type="radio"/>
Did you see the perpetrator behind you? (2)	<input type="radio"/>	<input type="radio"/>
Was the perpetrator carrying a gun? (3)	<input type="radio"/>	<input type="radio"/>
Was the perpetrator wearing a hoodie? (4)	<input type="radio"/>	<input type="radio"/>

End of Block: Questions regarding rotating the 360 video

Start of Block: Perspective-taking

Q15 You are serving your sentence in prison for a robbery similar to the one you just saw in the video. During the course for prisoners you are asked the following questions. Please

answer the following questions regarding the video of the robbery. Keep in mind to imagine yourself as an offender when answering these questions.

	Not at all (1)	Slightly (2)	Moderately (3)	Very (4)	Extremely (5)
To what extent did you identify with the victim of the robbery, during the experience? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To what extent did you see yourself from the perspective of the victim of the robbery? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To what extent did you experience the situation as if it were real? (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Did you ever feel that you were more vulnerable because the character that represented you in the video was a victim? (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To what extent did you feel affectively involved with the feelings of the victim of the robbery? (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To what extent did you feel worried about what was happening to the victim? (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To what extent did you feel you could understand how the victim felt during the robbery? (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To what extent did you experience the situation as if you were the victim? (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Start of Block: Empathic concern

Q16

You are serving your sentence in prison for a robbery similar to the one you just saw in the video. During the course for prisoners you are asked the following questions. Please indicate to what extent you agree with the statements below. Keep in mind to imagine yourself as an offender when answering these questions.

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
I felt sympathetic towards the victim in the video. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt moved towards the victim in the video. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt compassionate towards the victim in the video. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt tender towards the victim in the video. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt warm towards the victim in the video. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt softhearted towards the victim in the video. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Empathic concern

Start of Block: Responsibility taking

Q17

You are serving your sentence in prison for a robbery similar to the one you just saw in the video. During the course for prisoners you are asked the following questions. Please indicate

to what extent you agree with the statements below regarding the robbery you committed. Keep in mind to imagine yourself as an offender when answering these questions. When I think back to the robbery I committed...

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
I feel responsible for the harmful consequences of the robbery for the victim. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I take on the harmful consequences of the robbery for the victim. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel accountable for the fact that the consequences of the robbery harm the victim. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I admit that I caused harm on the victim of the robbery. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I acknowledge my role in the damage inflicted on the victim. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I try to avoid being held responsible for the harm the robbery caused the victim. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I deny that the robbery is bad for the victim. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Responsibility taking

Start of Block: Willingness to repair and/or apologize

End of Block: Willingness to repair and/or apologize

Start of Block: Question imagining yourself as an offender

Q19 Please answer the following question.

	Not at all (1)	Slightly (2)	Moderately (3)	Very (4)	Extremely (5)
During this research you were asked to imagine yourself as an offender. To what extent have you managed to imagine yourself as an offender? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Question imagining yourself as an offender

Start of Block: General questions

Q20 Please answer the following general questions.

Q21 What is your age?

Q22 What is your gender?

- Male (1)
 - Female (2)
 - Non-binary / third gender (3)
 - Prefer not to say (4)
-

Q23 What is your nationality?

- Dutch (1)
 - German (2)
 - Other, namely (3) _____
-

Q24 What is your highest completed educational level?

- Primary school (1)
 - High school (2)
 - Community college (MBO) (3)
 - Bachelor degree (4)
 - Master degree (5)
 - PhD (6)
-

Q25 What do you do in everyday life?

- Student (1)
- Employee (2)
- Retiree (3)
- Other, namely (4) _____

End of Block: General questions

Start of Block: Questions regarding crime

Q26 At last, some questions about crime.

	Yes (1)	No (2)
Have you ever been a victim of a serious crime yourself? (1)	<input type="radio"/>	<input type="radio"/>
Do you have someone in your social environment who has ever been the victim of a serious crime? (2)	<input type="radio"/>	<input type="radio"/>
Have you ever committed a serious crime yourself? (3)	<input type="radio"/>	<input type="radio"/>
Do you have someone in your social environment who has ever committed a serious crime? (4)	<input type="radio"/>	<input type="radio"/>

End of Block: Questions regarding crime

Start of Block: Debriefing

Q27

Thank you for participating in this research! Below you can read some more information about this research. If you are not interested in reading this information, please click on the yellow button at the bottom of this page to finish this research.

This research is interested in the effect of self-affirmation on perspective-taking, empathic concern, responsibility taking and willingness to apologize among offenders. During the courses of Gevangenenzorg Nederland, offenders have the chance to take the perspective of

victims or to offer an apology. This can be done by watching a video of a staged robbery, just like the video of a staged robbery in this study, or by watching a real victim talk about the consequences of crime. This can be very threatening and a lot of offenders are not ready for this big step. The current research aims to investigate a possible intermediate step for these offenders. In this research, every participant was randomly divided into one of two conditions. The participants in the self-affirmation condition did a task to affirm themselves. The aim of self-affirmation is to protect your self-integrity from threats. This can be done by reflecting on meaningful core values. The participants in the self-affirmation condition were asked to write about the most important core value for themselves. The participants in the control condition did not affirm themselves, because they had to choose between different pictures of landscapes and write about their favorite landscape. Research shows that self-affirmation can be used to increase the degree of perspective-taking, empathic concern and responsibility taking. And these variables can have a positive effect on the willingness to apologize. Based on these findings, we hypothesize that the participants in the self-affirmation condition score higher on the degree of perspective-taking, empathic concern and responsibility taking. And that these variables will mediate the effect of self-affirmation on willingness to apologize.

If you wish to receive more information regarding this research/results of this study, feel free to contact the researcher: n.smeenk@student.utwente.nl

Please click on the yellow button below to finish this research.

End of Block: Debriefing

Start of Block: Control task

Q8 Below you can see several photos of different landscapes.

Q9



1



2



3



4



5



6



7



8



9



10

Q10 Please write down the number of your favorite landscape and why this landscape is your favorite (You can answer in Dutch if you prefer).

End of Block: Control task

Appendix B

Screenshots 360° Video

