What Factors affect the Public's Willingness for Restorative Justice Programs?

Bachelor Thesis

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Abstract

Recent developments in the Dutch criminal justice system align with the model of restorative justice which aims at repairing the damage done by an offense and involving offender, victim, and the public in the process. Even though, the public is expected to take an active part in restorative justice programs, there is a gap in research about the factors affecting the willingness of the public to participate in such programs.

Therefore, this study aimed at exploring what factors might affect the willingness for participation of the public. It was expected that crime seriousness negatively affects the public's willingness for participation. On the other hand, offender identification, mediated by attribution style and offender empathy were expected to positively affect willingness.

To test these hypotheses an online survey was done where participants were randomly distributed to one of two differently serious burglary scenarios. Then they were asked to indicate the extent to which they agree with different statements to measure the above-mentioned constructs. Lastly, participants were informed about restorative justice and asked to indicate their willingness to participate in a restorative justice program.

The study yielded no effects of crime seriousness or offender identification, mediated by attribution style on willingness, which suggests that the public may be willing to participate in these programs even in more serious cases and when identification with the offender is unlikely. There was a positive effect found of offender empathy on willingness which highlights the importance of information shared with the public about the offense and offender.

Despite the limitations of this study, the study starts filling a research gap about the public's willingness and thereby gives suggestions for the broader implementation of restorative justice with respect to the public. This research reveals insights into the factors that affect the public's willingness and therefore highlights the potential of restorative justice to improve the criminal justice system.

Introduction

Every modern society needs some form of criminal justice system (CJS). In the Netherlands, the CJS made a shift from a mainly retributive model, aiming at the punishment of the offender proportionally to the offense (Walen & Alec, 2023) to a model that aims at punishing the offender while "improving the position of the victim" (Ministerie van Justitie en Veiligheid, 2017).

Despite this effort, victims are often dissatisfied with the CJS and perceive the process as very stressful and not supportive enough, for example because of lacking access to information, protection from further victimization and moral support (Freeman et al., 2013). Additionally, the Dutch CJS seems to partly fail in their goals of rehabilitating offenders, because in 2013 35% of those prisoners released were reconvicted within one year, 46% within two years and 51% within three years (Yukhnenko et al., 2019). This suggests a rather high reconviction rate when considering that the worldwide reconviction rates range from 20-63% (Yukhnenko et al., 2019). Lastly, in 2006 the confidence level of the Dutch CJS was only in the middle third of a comparison amongst 25 countries (Van De Walle, 2009). This indicates that the Dutch society is not very satisfied with the current CJS which in turn can lead to distrust. Distrust in the CJS can have drastic consequences such as lack of willingness to cooperate with the criminal justice system, whether that is by not reporting a crime in the first place or by refusing to act as a witness in court (Van De Walle, 2009). Thereby, distrust weakens the CJS by reducing the willingness to cooperate with the system which can reinforce the former distrust even more, producing a vicious cycle of public distrust in the CJS that can do much harm to victims but also society in general (Van De Walle, 2009). These flaws in the current CJS highlight the importance to improve it to ensure the perceived safety of the citizens as well as general happiness and stability of society.

One way of complimenting the current CJS is to focus more on rehabilitation and reparation for all parties, including victim, offender, and the public. Restorative justice is an alternative approach to current criminal justice systems that distinguishes itself from the retributive system, by focusing on the needs of victims, offender, and the public rather than punishing the offender proportional to their crime (Roberts & Stalans, 2004). The aim is that the harm made by the offender is repaired as good as possible. Therefore, it is important that the offender takes responsibility for the offense by meeting the needs of the victim and the public as good as possible (Johnstone, 2013).

With this switch of focus, restorative justice may be able to solve problems of the current CJS. De Beus and Rodríguez (2007) found for example that the recidivism rates of

offenders that completed a restorative justice program are lower than of those who did not complete the program. This indicates that restorative justice might be more effective in declining the high reconviction rate compared to the traditional CJS. Additionally, in a paper by Sherman (2002) about trust and confidence in the justice system, most suggestions for changes in the justice system made by respondents of the survey include restorative practices, such as victim-impact statements, financial compensation, or victim-offender mediation (VOM). This indicates that restorative justice may increase the confidence in and satisfaction with the CJS.

Even though much is known about the victims' and offenders' opinion on and willingness to participate in restorative justice programs, there is a considerable research gap about the public's willingness to participate in restorative justice programs (Roberts & Stalans, 2004). Yet, according to the definition of restorative justice, the public is expected to take an active role in these programs (Roberts & Stalans, 2004), which makes it necessary to fill this research gap. Additionally, the inclusion of the public in this process is important because the public, especially closer communities such as family and close friends of the victim, may also be indirectly affected by an offense, whether that is for example of financial or emotional nature. Therefore, they also might have needs (e.g. for support) that the justice system should address to repair justice. Furthermore, the outcome of court decisions should at least to some extent reflect an interplay of politics and the public's opinion to ensure the public's confidence in the CJS (Roberts & Stalans, 2004). However, because politicians' interpretation of the public opinion may not always be accurate, a scientific evaluation of the public's opinion on restorative justice is crucial (Roberts & Stalans, 2004). Robert's and Stalans' (2004) review showed widespread support for restorative justice programs. The next step for the implementation of restorative justice seems to be to explore when and why the public would be willing to participate in restorative justice options. Consequently, the research question of this paper is: "*What factors affect the willingness of the public to participate in a restorative justice program?*".

Crimes are often distinguished in their seriousness. Warr (1989) proposed a model to measure the seriousness of a crime with the two factors, wrongfulness and harmfulness. Hereby, wrongfulness refers to the evaluation of a crime based on norms (Akdeniz, 2020), meaning that crimes that are perceived as not in line with the evaluator's norms are then perceived as wrongful. Harmfulness on the other hand refers to the negative consequences of a crime (Akdeniz), which can be for example emotional, physical, or financial harm. Akdeniz (2020) tested whether the model is still up to date and found that the model still holds. People

often assume that the more serious the crime, the less appropriate restorative justice is, especially for the victim (Kahl et al., 2022; Batchelor, 2023). However, research indicated that a factor such as time elapsed since the crime seems to moderate the relationship between the crime seriousness and the victim's willingness to participate in VOM (Zebel et al., 2017). On the other hand, the findings about the relationship between crime seriousness and public's willingness seem to be limited. Generally, the support of the public seems to be almost non-existing for the most serious crimes and a more severe form of punishment is preferred (Roberts & Stalans, 2004). Nevertheless, it needs to be investigated whether crime seriousness not only negatively affects the public's support for restorative justice but also reduces the public's willingness to participate in such a program. Therefore, the first hypothesis of this paper is:

H1: "*The more serious the crime, in terms of wrongfulness and harmfulness, the less likely the public is to participate in restorative justice programs*."

In the criminal justice process, it often plays a role whether an offender is an adult or a juvenile, meaning that there is greater support for juvenile cases to be dealt with restorative justice than for adult cases (Roberts & Stalans, 2004). One explanation on why the age of the offender matter to the public can be found in the Attribution theory. The Attribution theory by Heider from 1958 states that people seek explanations for (other) people's behavior and by doing so make certain attributions about that person or situation (Manusov & Spitzberg, 2008). This theory has been expanded over the years, for example by two dimensions on which behavior can be attributed. First, there is the dimension 'stability', referring to whether the cause of the behavior is rather stable or unstable. Second, there is the dimension 'locus', which refers to whether the cause is internal (within a person) or external (due to outer circumstances) (Manusov & Spitzberg, 2008). According to Robert and Stalanas (2004) people also seek explanations for crimes in order to be able to determine how likely reoffending would be. The more people attribute a crime to internal, stable causes, the more severe these people want the punishment of the offender to be (Roberts & Stalans, 2004). Interestingly, people are more likely to make internal, stable attributions about wrongful behavior when they cannot identify with the person who showed this behavior, or in other words when this person is perceived as an outgroup-member (Jhangiani & Tarry, 2022). This could mean that the less people can identify with an offender, the more likely they are to make internal, stable attributions, which can lead to wanting a more severe punishment and therefore to less willingness to participate in restorative justice as it might be perceived as too mild. Therefore, the second hypothesis of this paper is:

H2: "*The less people identify with the offender, the less likely they are to participate in restorative justice programs because they make more internal, stable attributions for the offender's behavior*."

Related to that, another model can be used to explain the needs of the public with regards to the justice system, namely the general model of individual punitiveness. Punitiveness in general refers to the "public support for crime control policies that increases the level of punishment for individual offenders" (Unnever & Cullen, 2009, p.284). In their study, Unnever and Cullen (2009) focused on individual punitiveness and suggested that there is a relationship between the image of offenders the public has, and the empathy people have with the offender. The typical image of offenders shaped by mass media, elites, and politicians is often distorted and dehumanized (Unnever & Cullen, 2009). When people have such an image of offenders and this is not challenged by real-life offenders, people are less likely to identify with the offenders, which also makes empathy with the offender less likely (Unnever & Cullen, 2009). By having a dialogue with the offender (e.g. VOM), the victim and the public may be able to better contextualize the offense and express empathy, thereby also making forgiveness and reconciliation more likely when the offender can show responsibility for their action (Unnever & Cullen, 2009). The model suggests that restorative justice can be helpful when there is a chance of empathy with the offender, presupposed that the offender is actually remorseful about their behavior (Unnever & Cullen, 2009). Therefore, the third and last hypothesis of this paper is:

H3: "*The more empathy the public has with the offender, the more willing they are to participate in a restorative justice program."*.

This study aims at answering the research question: "*What factors affect the willingness of the public to participate in a restorative justice program?".* Therefore, the study will test three hypotheses with potential factors affecting the public's willingness being crime seriousness, offender identification mediated by attribution style, and lastly offender empathy. In order to do so, the study will offer participants two types of conditions in which they have to imagine belonging to a neighborhood where a burglary happened, and which aim at manipulating the perceived seriousness of crime. Also, offender identification, attribution style and offender empathy will be tested to see whether these variables affect the public's willingness to participate in restorative justice programs.

Method

Participants

From a total number of 59 participants who gave their consent to the survey, 20 (33,9%) had to be excluded for either not meeting the inclusion criteria or for not finishing the survey. The remaining 39 participants were included in the analysis. From those participants, there were 28 persons who identified as females (72%) and 11 who identified as males (28%). Their age ranged from 18 to 53 with a mean age of 23. Participants were 87% German (34), 10% were Dutch (4), while one participant indicated being from Kenyan (3%). In order to achieve an 0.8 power to be able to detect an effect of 0.5, with a significance of 0.05, 51 participants were required in each of the two conditions (Faul et al., 2009). Unfortunately, the final sample could not meet these requirements.

Ethical approval was obtained from the Ethics Committee BMS before recruiting participants. Because of availability and time constraints, the snowball sampling method was used, meaning that the researcher shared the survey via social media and asked respondents to further share the survey. Also, the platform SONA (www.utwente.sona-systems.com) was used, where studies are made available to students at the University of Twente and students are getting compensation in terms of credits. When participating in this study, students got 0.25 SONA credits. Additionally, the survey was on SurveyCircle (www.surveycircle.com) where participants could gain points that help them to rank their survey higher and get more participants themselves. In order to get as much insight into the public's opinion as possible, the only inclusion criteria were being at least 16 years old, to be able to give informed consent, and having sufficient English skills. The only exclusion criterion is being triggered by imagining themselves or closed ones being affected by burglary to protect participants from psychological distress.

Design

The study is experimental and has a between-subjects design in which two groups of people are compared to each other. The participants are randomly assigned to one of two conditions. In both of these conditions, participants have to imagine that a burglary happened in their neighborhood. The conditions aim to differ in wrongfulness and harmfulness which in the end aim to represent a more and a less serious crime scenario. The independent variables in this design are seriousness of crime, identification with the offender and empathy with the

offender. The dependent variable is willingness to participate in a restorative justice program and there is one potentially mediating variable, namely attribution style.

Materials

The questionnaire was made on the software "Qualtrics" (www.qualtrics.com) and consisted of 19 items used to get information about demographic data and constructs such as crime seriousness, offender identification, offender empathy, and willingness for participation (see Appendix A). All constructs were measured by a 7-point Likert scale ranging from 1-7 if not indicated otherwise.

Participants were randomly assigned to one of two conditions. The conditions differed in seriousness of crime in terms of harm that was done by the burglary and in terms of the motive. In the less serious scenario the offender only stole non-personal, financially valuable items without destroying anything else in order to get money for their family. In the more serious scenario, the offender stole not only financially valuable items, but also personal items such as letters and damaged the property of the victim with the motive to get money for their drug consumption. These conditions were chosen, to manipulate the perceived harmfulness, for example by causing psychological distress because of personal items that were stolen, and the perceived wrongfulness, for example by different motives, one where the burglary is done for others and one where it is done for the offender themselves. For the crime, the burglary was chosen because on the one hand burglary is a serious crime which requires prosecution but on the other hand it is not that difficult to imagine and also not that psychologically distressing compared to for example personal injury. Additionally, with respect to the research focus on the public, a burglary is likely to have an impact on other people, besides the victim, such as the neighborhood which makes it reasonable to include them in the restorative justice process.

Crime Seriousness

To test whether the manipulation of the scenarios in terms of seriousness of crime worked, a manipulation check was used, inspired by Kahl (2022). The items differed from those of Kahl (2022) first in terms of the scenarios because in Kahl's study participants had to imagine a scenario themselves and in this study the scenario is given and second in terms of to whom the scenario happens. In Kahl's study the event happened to the participants themselves or a close one and in this study the victim is a neighbor. A factor analysis indicated that, even though in Kahl's study the items were valid and reliable (Kahl, 2022), the adapted version of items loaded on two factors. Therefore crime seriousness was divided into

two separate constructs. First, four items were put together and named “harmfulness” because of their focus on hurting and harm, for example “The offense caused psychological harm”. This scale was reliable ($\alpha = 0.68$). Two items were used to measure wrongfulness of the crime, for example “The offender intended to commit this offense”. The items have a significant moderate correlation coefficient ($r(37) = 0.494$, $p = 0.001$).

Attribution Style

To measure the attribution style of the participants, four items were used. Two of them were reversed coded to check for participant’s attention and comprehension of the items. An example of an item is “The offender will commit a crime again”. The factor analysis indicated that there is one underlying factor with an eigenvalue of 1.768 explaining 29% of the variance and all items loaded high on the factor (FLs > 0.370), except for item two “The offender was in control of their behavior during the crime” (FL>0.277). However, dropping item two would not profit the rather poor but not unacceptable reliability of this scale ($\alpha = 0.53$).

Identification with the Offender

Three items inspired by Farooq et al. (2024) were used to test the identification of participants with the offender. Originally, the items were about identification with a group of people but for the purpose of this study they were adapted to refer to a single person, namely the offender, for example “The offender is a person like me”. In the study of Farooq et al. (2024) this scale had a composite reliability of 0.87 and a convergent validity of 0.73. In this study, the factor analysis indicated that all items load on one underlying factor with an eigenvalue of 2.419 explaining 72% of the variance, and all items load high on this factor (FLs > 0.783). Additionally, the scale was also reliable in this study ($\alpha = 0.88$).

Empathy with the Offender

The degree of empathy with the offender was measured by two items, “I have empathy with the offender” and “I understand why the offender committed the crime”. According to the factor analysis, there was one underlying factor found for both items with an eigenvalue of 1.51 and a significant moderate correlation coefficient ($r(37) = 0.511$, $p = 0.001$).

Willingness to Participate

Lastly, the willingness to participate in a restorative justice program was measured by asking participants to indicate their willingness on a scale from one to ten.

Procedure

The participants were invited, either through social media, SurveyCircle or SONA, to participate in the survey online on Qualtrics. The survey started with an informed consent form, in which it was stated that participation is completely voluntary and that participants should be aware that burglary will be thematized, which might be a trigger to some people. After agreeing to the consent form, participants were asked about their gender, age, and nationality. Next, all participants were randomly assigned to one of two conditions. In both conditions, participants had to imagine that a burglary happened in their neighborhood. The scenarios differed in terms of seriousness of crime, meaning one indicates a more harmful and wrongful crime than the other. Afterwards, participants were questioned about their perception of crime seriousness, wrongfulness, and harmfulness. Following that, they had to answer items that measured the constructs attribution style, offender identification and offender empathy. Next, participants were informed about restorative justice and asked about their willingness to participate in such a program. Lastly, participants got a debriefing about the manipulation at the beginning and the purpose of the study.

Results

Descriptive Statistics

The mean values of the subscales harmfulness and wrongfulness (Table 1) indicate that participants did not differ strongly in their perception of harmfulness and wrongfulness in the different conditions (harmfulness high severity $M = 5.333$, low severity $M = 5.181$ and wrongfulness high severity $M = 5.833$, low severity $M = 5.694$). Still, wrongfulness is positively correlated (Table 2) with attribution style ($r(37) = 0.576$, $p < 0.001$), indicating that the more wrongful the crime is perceived, the more internal and stable attributions are made about the offender. Generally, the mean value for offender empathy is in the middle of the Likert Scale ($M = 4.013$), while the mean of offender identification is in the lower half ($M = 3.077$). Offender empathy is positively correlated with willingness ($r(37) = 0.378$, $p = 0.018$), indicating that those who score high on offender empathy also score high on willingness. Interestingly, the mean values for the willingness to participate in a restorative justice program differed for each condition, meaning that in the less harmful and wrongful condition, the mean value of willingness was lower ($M = 6.5$) than the mean value in the more harmful and wrongful condition ($M = 7.524$).

Additionally, harmfulness and wrongfulness are negatively correlated with offender empathy, but these effects are only marginally significant ($r(37) = -0.296$, $p = 0.06$ and ($r(37) = -0.3$, $p = 0$ .064). Also wrongfulness is negatively (and only marginal significantly) correlated with offender identification ($r(37) = -0.289$, $p = 0.074$), meaning that people who score high on wrongfulness score low on offender empathy and offender identification. Both offender identification and offender empathy also correlate positively with each other, but also only marginally significant ($r(37) = 0.273$, $p = 0.093$).

Table 1

Table of Means and Standard Deviation

Variable	Condition	Mean	SD
Harmfulness	High severity	5.333	1.208
	Low severity	5.181	1.084
	Total	5.263	1.140
Wrongfulness	High severity	5.833	0.926
	Low severity	5.694	0.972
	Total	5.769	0.938
Attribution Style	Total	4.274	0.873
Offender Identification	Total	3.077	1.452
Offender Empathy	Total	4.013	1.393
Willingness	High severity	7.524	1.913
	Low severity	6.5	2.479
	Total	7.051	2.224

Note. SD represents standard deviation.

Table 2

Correlation table

Variable	1	2	3	4	5
1. Harmfulness					
2. Wrongfulness	-0.013				
3. Attribution Style	0.025	0.576*			

4.	**Offender Identification**	-0.142	-0.289**	-0.065		
5.	**Offender Empathy**	-0.296**	-0.3**	0.273	0.273**	
6.	**Willingness**	0.080	-0.095	-0.09	-0.001	0.378*

Note. * indicates p< 0.05, ** indicates 0.05 > p > 0.1

The distribution for attribution style, offender empathy and offender identification were normal. For wrongfulness (figure 1), harmfulness (figure 2), and willingness (figure 3) there was no normal distribution found and all three were negatively skewed. Still, the outliers were not removed as the sample size should not be decreased further. Other parametric assumptions are met.

Figure 1

Histogram of Distribution of Wrongfulness

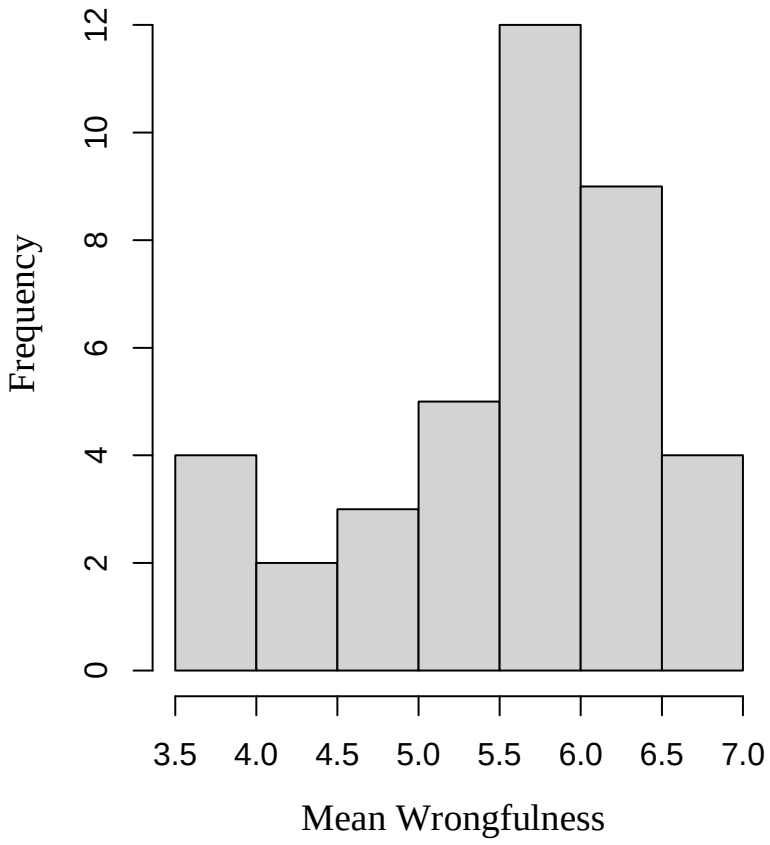


Figure 2

Histogram of Distribution of Harmfulness

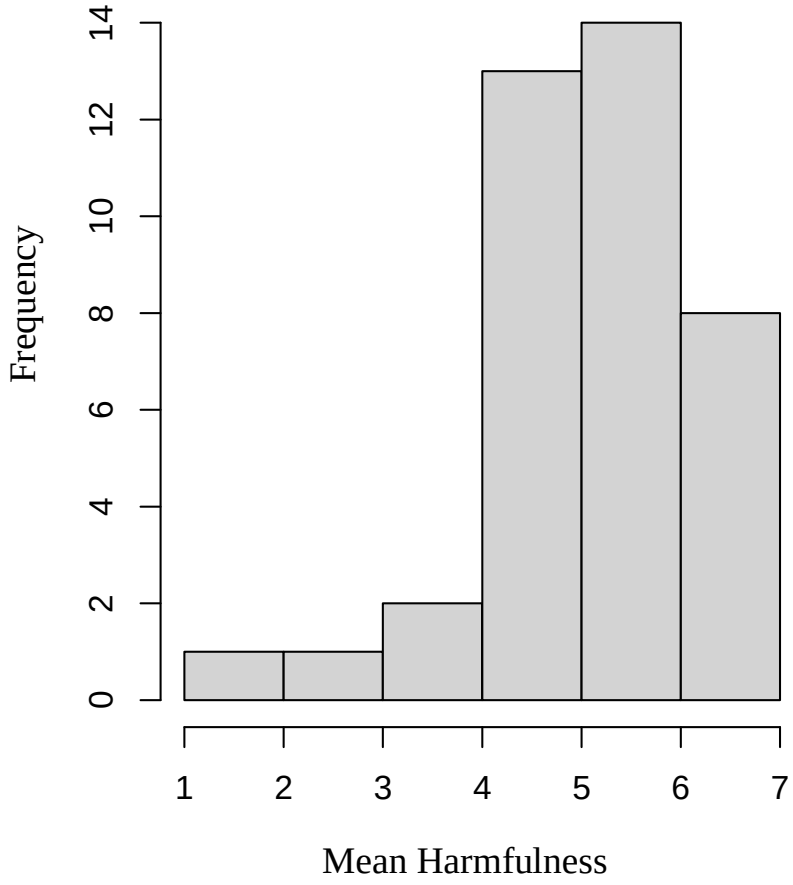
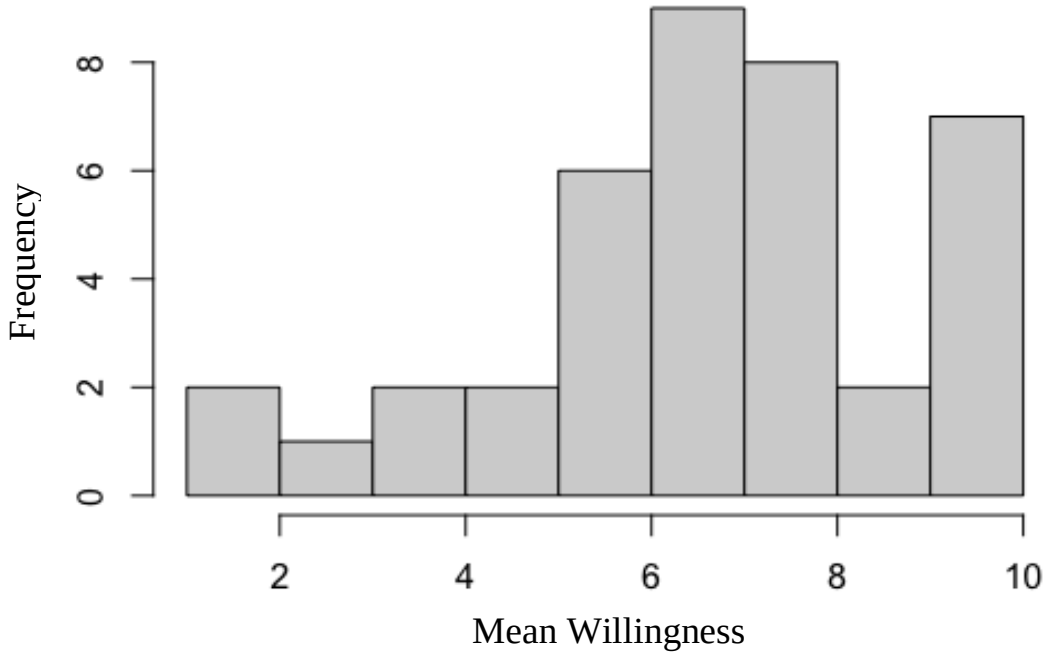


Figure 3

Histogram of Distribution Willingness to Participate in Restorative Justice Program



Hypothesis Testing

In order to test the hypotheses, the statistical software R-Studio as well as the packages ‘tidyverse’, ‘psych’, ‘readr’, ‘topicmodels’ and ‘dplyr’ (see Appendix B) were used. The first hypothesis, that seriousness of crime has a negative effect on the public’s willingness to participate in restorative justice programs, was divided into two separate hypotheses because seriousness of crime revealed two latent factors, namely harmfulness and wrongfulness. Therefore, to test the hypothesis whether harmfulness has a negative effect on the willingness to participate in a restorative justice program a simple regression analysis was used. Harmfulness was the independent variable and willingness the dependent variable. Against the expectations of this study, harmfulness did not have a relationship with willingness to participate in a restorative justice program (b = 0.157, t = 0.489, p = 0.627), meaning that the hypothesis needs to be rejected. The same analysis was done to test whether wrongfulness has a negative effect on the willingness to participate in a restorative justice program, with wrongfulness being the independent variable and willingness the dependent variable. Similarly, wrongfulness was not found to be related to willingness (b = -0.226, t = -0.581, p = 0.565) and therefore the hypothesis needs to be rejected as well. When looking at the means of willingness in the two conditions, one can see that the mean of willingness in the condition that is more severe is higher than for the condition that is less severe. Because of that, it is interesting to check whether there is a significant difference between the two conditions with regards to willingness. Therefore, a one-way ANOVA-test was performed with willingness as the dependent variable and condition as the independent variable. Interestingly, the test revealed no significant effect of the condition on the willingness (F(1,37) = 2.115, p = 0.154).

To test hypothesis two, identification with the offender has a positive effect on the public’s willingness to participate in restorative justice programs and this effect is mediated by the attribution style, a mediation analysis was used. The independent variable was offender identification, the mediating variable was attribution style, and the dependent variable was willingness. Also, against the expectations of this study, offender identification, mediated by attribution style, did not affect willingness significantly (B = -0.011, t(37) = -0.043, p = 0.966), meaning that the hypothesis needs to be rejected. Furthermore, because the mediation analysis did not reveal a significant effect, it is interesting to check for the separate relationships. Therefore, a simple regression analysis was used to test the relationship between attribution style as independent variable and willingness as dependent variable. The test revealed no significant effect of attribution style on willingness (b = -0.228, t = -0.548,

$p = 0.587$). Additionally, the same analysis was used to test the direct relationship between offender identification as independent variable and willingness as the dependent variable. Also this test did not reveal a significant effect of offender identification on willingness ($b = -0.002$, $t = -0.008$, $p = 0.994$).

In order to test the last hypothesis, empathy with the offender has a positive effect on the public's willingness to participate in restorative justice programs, a simple regression analysis was used. The independent variable was offender empathy, and the dependent variables was willingness. In line with the expectations of the study, empathy with the offender did have a significant positive effect on willingness to participate in a restorative justice program ($b = 0.603$, $t = 2.482$, $p = 0.018$), meaning that the hypothesis can be accepted.

Discussion

The purpose of this study was to test for factors that might affect the public's willingness to participate in restorative justice programs. Thereby the study tries to fill a research gap and the insights might enable an implementation of restorative justice that considers the public's opinion and its active part in restorative justice programs. Literature suggests that crime seriousness, offender identification and offender empathy might be such factors. Two different conditions were used to manipulate the perception of crime seriousness, before testing whether the above-mentioned variables have an effect on the public's willingness.

The outcome of this study suggests that generally there is a high willingness of the public to participate in restorative justice programs. Against the expectations of this study, neither crime seriousness (later divided into wrongfulness and harmfulness) nor offender identification mediated by attribution style seem to have affected the public's willingness to participate in restorative justice options. In line with the study's expectations, offender empathy positively affects willingness. Therefore, the research question what factors affect the public's willingness to participate in restorative justice options can be answered with offender empathy being one factor.

Results showed that perceived harmfulness and wrongfulness did not explain the public's willingness to participate in restorative justice programs. This is not in accordance with previous research in which it was shown that there is greater public support for less

serious crimes (Roberts & Stalans, 2004). Still, Roberts and Stalans (2004) also hypothesized that this decrease in public support for serious crimes may be due to the proposed scenarios of past research. Often the proposed crime scenarios do not include any scenarios where the offender committed a crime due to external circumstances, which makes a decrease in public support for restorative justice in more serious cases more likely (Roberts & Stalans, 2004). The study of this paper proposed a crime scenario of higher severity which might have been interpreted as being due to external circumstance, thereby not being perceived as wrongful, which might be a reason why crime seriousness in this study was found to not affect willingness negatively. Additionally, it might be that the relationship between crime seriousness and willingness is affected by other factors such as positive attitudes towards resocialization and emotional or informational needs (Janowski, 2024), which this study did not focus on, but future research should.

For the second hypothesis there was no effect found for offender identification nor attribution style on willingness, which is against the expectations of this study. Also this does not support current literature which suggested that not being able to identify with a person, makes people more likely to make internal stable attributions about that person (Jhangiani & Tarry, 2022) which in turn positively affects the punitiveness (Roberts & Stalans, 2004). Possible explanations from literature might be that the identification of oneself with the offender is not as important as sharing the same group identity with the person, in this case the offender. It might be that the black sheep effect comes into play when people see the offender as an ingroup member, meaning that the offender would be evaluated more negatively when they are in the ingroup because they threaten the evaluator's group identity (APA, 2018) by for example committing crimes. The lack of effect of offender identification on willingness may be because offender identification was not manipulated in this study. The participants could only base their identification on the information available about motive and harm but not on the offender and their group. Future studies should manipulate the identification with the offender to see whether an offender that is an ingroup member is perceived more negatively than one that is an outgroup member. Another explanation might be that restorative justice is not perceived as a way to determine the severity of the offender's punishment. Therefore, even if low identification triggers high punitiveness because of internal, stable attributions, deciding for or against participation in restorative justice program is not seen as a possibility to satisfy this high punitiveness. The absent effect of offender identification and attribution style might then be found because restorative justice is not

perceived as milder form of punishment and therefore willingness is not being connected to punitiveness.

As expected, offender empathy affects willingness positively. This supports the general model of individual punitiveness which suggests that the degree of offender empathy is related to individual punitiveness (Unnever & Cullen, 2009). One possible explanation from the literature that the outcome of this study supports is that the more people have empathy with the offender, the more they contextualize their behavior and therefore the less punitive they are (Unnever & Cullen, 2009). The reduced punitiveness might make people more willing to participate in restorative justice programs because restorative options might be perceived as more human and less punitive.

It is important to note that the generalizability of this study is limited due to a small sample size. This goes together with not having ideal subscales, such as the attribution style scale that has a low reliability or the wrongfulness, harmfulness and willingness scale which are negatively skewed and therefore do not meet all parametric assumptions. This can negatively affect the validity of the p-values (Nahhas, 2024) and thereby decreases the confidence with which one can talk about the (non-)found effects. Additionally, a small sample size can lead to small effects such as in the attribution style and harmfulness scale. In general, the reduced statistical power of the study because of the small sample size makes it difficult to find significant effects even if there is one, meaning that a type two error is more likely (Bhandari, 2023). Even though the sample does not represent the diversity of the true population, this study needs to be understood as belonging to the beginning of an exploration of the factors that affect the public's willingness towards restorative justice. Still, to deal with these limitations future research should ensure a larger sample to be able to get closer to the population and to finding the factors that affect the public's willingness and being more confident in their implications.

Another limitation that needs to be discussed concerns the proposed scenarios. Even though a burglary scenario is a good scenario to imagine oneself in, the scenarios are purely hypothetical which makes the reaction hypothetical as well and therefore might differ from the reality one actually wants to capture. People might for example over- or underestimate the extent to which they are emotionally affected by a burglary and therefore be more or less willing to participate than hypothetically suggested. Additionally, by stating how one would react, people may fall under the social desirability bias, meaning that they state what they think others would expect from them instead of simply reacting (APA, 2018a). This bias limits the confidence with which one can talk about the relationships found, or in other words

it limits the external validity of the study. Following from that, further research with actual close community members of burglary victims on their willingness towards restorative justice programs would be very interesting and could produce more confident implications for future use of restorative justice programs.

Another limitation might be that the manipulation of the crime seriousness did not seem to work as intended. This can be seen because even though the conditions were supposed to differ in terms of harmfulness and wrongfulness, the mean on both subscales did not differ significantly when comparing the conditions. It is possible that the intended difference in harmfulness and wrongfulness did not came across clearly because for example having a drug addict as offender leaves space for interpretation whether they were selfish or whether they are ill and feel like they have no other choice but to commit a burglary. Therefore, future research should make use of different scenarios where a wrongful motive and more severe harm is made clearer than in this study, for example by making them scenarios more explicit, using pictures or comparisons to other crime scenarios.

This study is one of the first to study the factors affecting the public's willingness to participate in restorative justice programs. It might also be interesting to explore other variables, such as responsibility. Roberts and Stalans (2004) suggest that people differentiate between responsibility and blameworthiness, meaning that committing a crime and being responsible of it does not equal being blameworthy of the crime and deserving to be punished for it. It seems that this difference depends on the perceived wrongfulness of a crime as other research suggests that when "the amount of harm caused and the offender's intent diverge (…), it is people's judgements of moral wrongfulness that determine punishment" (Gromet & Darley, 2009, p.51). This indicates an importance of the intention or the wrongfulness of a crime when evaluating the punishment of an offender, which should be explored further in future research.

Lastly, instead of only focusing on the crime itself and the offender, it might also be interesting and practical to explore what factors affect the public's willingness with regards to the victim, for example their relationship to the victim. Studies found that independent observers of criminal offenses prefer retributive justice over compensatory justice when they do not feel emotionally close to the victim (Van Prooijen, 2009). This implies that there might be an effect of the relationship to the victim on the public's willingness to participate in restorative justice programs and therefore this might be worth to further explore.

Conclusion

The aim of this research study was to fill a research gap about the factors that affect the public's willingness to participate in a restorative justice program. The research question is answered challenging former theories about crime seriousness negatively affecting the public's willingness, which calls for further studies investigating the impact of crime seriousness. If crime seriousness in other study also shows to not affect willingness negatively, it indicates that restorative justice should not only be offered to cases of less serious crimes, but that restorative justice can also help the public to recover from more serious ones. Furthermore, identifying with the offender seems to not be a factor for the public's willingness in this study, which indicates that the public may still be willing to participate in restorative justice programs even in cases where it might be hard for the public to identify with the offender for example if the offender belongs to a minority. The results of this study support other theories about offender empathy and the public's willingness. These results highlight the importance of the information about offenders that reach the public (e.g. through social media or the invitation to restorative justice programs), which indicates that in order to increase the willingness of the public, the public should be provided with information that allow empathy with the offender and help the public to contextualize their behavior instead of dehumanizing the offender. Nevertheless, there are some limitations which need to be considered when making practical implications and which indicate a need for further research into the topic. Still**,** this study gave first indicators for factors that might or might not affect the public's willingness for restorative justice programs and gave suggestions for potential future research. Studies like this are important because knowing when and why the public is willing to participate in restorative justice programs, allows complementation of the current CJS with restorative justice programs including all parties that are affected while still keeping the benefits of the current CJS such as deterrence. Restorative justice can be a chance to increase the public's confidence in the CJS, decrease reconvictions rates as well as increase support of affected communities, making research into the topic crucial for the future of effective CJS.

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Appendix A

Survey with Informed Consent Form

Start of Block: Introduction

Informed Consent:
Welcome to my study! This study investigates the criminal justice system and the public‘s opinion on certain procedures. The purpose is to fill a research gap about the public‘s opinion on these procedures and thereby making implications is for the further use of these procedures.

Participation is completely voluntary and will take around 15 minutes to complete. Because of the topic of criminal justice, participants will be asked to imagine a burglary in their neighborhood, which can trigger people with similar experiences and cause discomfort or stress. You can withdraw from the research at any given time, without negative consequences or being asked for a reason. There are also no right or wrong answers.

The data will be collected anonymously, stored at least ten years (because of validation), handled confidentially and the results will also only be published anonymously.

If you have any questions, feel free to contact me. My e-mail address is s.a.weidner@student.utwente.nl .

I consent that I have read the information above and agree that my answers will be used only for research aims. I understood that I can withdraw at any moment and that my participation is completely voluntary.

- ○ I consent (1)
- ○ I do not consent (2)

Skip To: End of Survey If Informed Consent = I do not consent

End of Block: Introduction

Start of Block: Gender

Gender How would you describe yourself?

- ○ Female (1)
- ○ Male (2)
- ○ Other (3)
- ○ Do not want to give information on that (4)

End of Block: Gender

Start of Block: Age

Age What is your age? (in years)

End of Block: Age

Start of Block: Nationality

Nationality What is your nationality?

- ○ Dutch (1)
- ○ German (2)
- ○ Other (3) _____

End of Block: Nationality

Start of Block: Scenario More

Scenario More: Imagine you live in a friendly neighborhood and you meet one of your neighbors when walking outside. They tell you that someone broke into their house a few weeks ago and that this person stole many things, not only of financial value but also personal things such as letters. That person also destroyed many things and left the house in a mess. The offender was already arrested and confessed that their motive was to get money for their drug consumption.

End of Block: Scenario More

Start of Block: Scenario less

Scenario less: Imagine you live in a friendly neighborhood and you meet one of your neighbors when walking outside. They tell you that someone broke into their house a few weeks ago and that this person stole many things of obvious financial value, like a TV, but nothing personal. The offender was already arrested and confessed that their motive was to get money to feed their family.

End of Block: Scenario less

Start of Block: Crime seriousness, harmfulness and wrongfulness

Page Break

Crime seriousness Please indicate to what extent you disagree/ agree with the following statements:

	completely disagree (1)	disagree (2)	slightly disagree (3)	neutral (4)	slightly agree (5)	agree (6)	completely agree (7)
The harm that was inflicted by this event was serious. (1)	○	○	○	○	○	○	○
The offense is morally reprehensible. (2)	○	○	○	○	○	○	○
The offender intended to commit this offense. (3)	○	○	○	○	○	○	○
The offense caused psychological harm. (4)	○	○	○	○	○	○	○
The offense caused financial damage. (5)	○	○	○	○	○	○	○
The offense hurt someone on an emotional level. (6)	○	○	○	○	○	○	○

End of Block: Crime seriousness, harmfulness and wrongfulness

Start of Block: Attribution style

Attribution style Please indicate to what extent you disagree/ agree with the following statements:

	completely disagree (1)	disagree (2)	slightly disagree (3)	neutral (4)	slightly agree (5)	agree (6)	completely agree (7)
The offender will commit a crime again. (1)	○	○	○	○	○	○	○
The offender was in control of their behavior during the crime. (2)	○	○	○	○	○	○	○
The offender was affected by outer circumstances during the crime. (3)	○	○	○	○	○	○	○
The offender is unlikely to commit a crime again. (4)	○	○	○	○	○	○	○

End of Block: Attribution style

Start of Block: Identification

Identification Indicate to what extent you disagree/ agree with the following statements:

	completely disagree (1)	disagree (2)	slightly disagree (3)	neutral (4)	slightly agree (5)	agree (6)	completely agree (7)
The offender is a person like me. (1)	○	○	○	○	○	○	○
The offender is a person who has the same values like me. (2)	○	○	○	○	○	○	○
The offender is a person who believes as I do. (3)	○	○	○	○	○	○	○

End of Block: Identification

Start of Block: Empathy

Empathy Indicate to what extent you disagree/ agree with the following statements:

	completely disagree (1)	disagree (2)	slightly disagree (3)	neutral (4)	slightly agree (5)	agree (6)	completely agree (7)
I have empathy with the offender. (1)	○	○	○	○	○	○	○
I understand why the offender committed the crime. (2)	○	○	○	○	○	○	○

End of Block: Empathy

Start of Block: Willingness to participate

Restorative Justice: After a while the offender gets caught and is brought to trial. The judge believes that restorative justice conferencing might be a good program for the involved parties of the offense. You receive a letter from the victim support office, explaining the following: In restorative justice, the aim is to focus on the needs of victim(s), affected communities and the offender(s) to repair the harm that is done as good as possible. Therefore, conferences can be useful in which the victim and the affected community have the opportunity to express themselves and the offender can take responsibility for their offense. When all parties agree, these conferences are held with a mediator who (with the input of all participants) tries to identify actions that can be done to repair the harm and makes a written agreement with all participants. After the signing, the conference is considered to be completed.

Page Break

Willingness: As a community member of the neighborhood, on a scale from 1-10, please indicate how likely it would be that you would participate in a restorative justice conferencing. 1 indicating not willing to participate and 10 indicating that you would be willing to participate.

	1	2	3	4	5	6	7	8	9	10
Willingness to participate ()										

End of Block: Willingness to participate

Start of Block: Debriefing

Q13 Thank you for taking the time to complete my survey!
This survey aims at investigating the factors that affect the willingness of communities to participate in restorative justice programs. Therefore, participants of this study were divided in two conditions, that differ in the degree of crime seriousness, harmfulness and wrongfulness. Afterwards, other variables such as identification or empathy with the offender were measured to see whether they affect the willingness to participate.
If you would like to stay informed or have any questions, send an e-mail to s.a.weidner@student.utwente.nl.

End of Block: Debriefing

Appendix B

R-Script

```
setwd("~/Desktop/BT")

library("tidyverse", "readr")
library("topicmodels")
library ("dplyr")

rawdata <- read.csv("rawdata5.csv", sep = ",")

#variable for condition
rawdata$condition<- rep(c(0, 1))

#data cleaning
rawdata <- rawdata[ , ! names(rawdata) %in% c("Sona.ID",
"StartDate","EndDate", "RecipientFirstName", "RecipientLastName",
"RecipientEmail", "ExternalReference", "IPAddress", "Status",
"RecordedDate", "ResponseId", "LocationLatitude", "LocationLongitude",
"DistributionChannel", "UserLanguage")]

rawdata <- rawdata[rawdata$Progress == 100,]

rawdata <- na.omit(rawdata)

#revert

rawdata$Attribution.style_3 <-  8 - rawdata$Attribution.style_3
rawdata$Attribution.style_4 <- 8 - rawdata$Attribution.style_4


#central tendency (for all) and variability (for demographics)

#means per row
rawdata$mean_crimeseriousness <- rowMeans(rawdata[,c
("Crime.seriousness_1", "Crime.seriousness_2", "Crime.seriousness_3",
"Crime.seriousness_4", "Crime.seriousness_5", "Crime.seriousness_6")],
na.rm = TRUE)
rawdata$mean_harmfulness <- rowMeans(rawdata[,c ("Crime.seriousness_1",
"Crime.seriousness_2", "Crime.seriousness_4", "Crime.seriousness_6")],
na.rm = TRUE)
rawdata$mean_wrongfulness <- rowMeans(rawdata[,c
("Crime.seriousness_3", "Crime.seriousness_5")], na.rm = TRUE)
rawdata$mean_identification <- rowMeans(rawdata[,c ("Identification_1",
"Identification_2", "Identification_3")], na.rm = TRUE)
rawdata$mean_attributionstyle <- rowMeans(rawdata[,c
("Attribution.style_1", "Attribution.style_2", "Attribution.style_3")],
na.rm = TRUE)
rawdata$mean_empathy <- rowMeans(rawdata[,c ("Empathy_1",
"Empathy_2")], na.rm = TRUE)

#total means
mean(rawdata$mean_crimeseriousness, na.rm = TRUE) #5.432
mean(rawdata$mean_harmfulness, na.rm = TRUE) #5.263
mean(rawdata$mean_wrongfulness, na.rm = TRUE) #5.769231
mean(rawdata$mean_attributionstyle, na.rm = TRUE) #4.274
mean(rawdata$mean_identification, na.rm = TRUE) #3.077
mean(rawdata$mean_empathy, na.rm = TRUE) #4.013
```

```
#means per condition
mean(rawdata$mean_crimeseriousness[rawdata$condition == 1], na.rm =
TRUE) #5.5
mean(rawdata$mean_crimeseriousness[rawdata$condition == 0], na.rm =
TRUE) #5.352

mean(rawdata$mean_harmfulness[rawdata$condition == 1], na.rm = TRUE)
#5.333
mean(rawdata$mean_harmfulness[rawdata$condition == 0], na.rm = TRUE)
#5.181

mean(rawdata$mean_wrongfulness[rawdata$condition == 1], na.rm = TRUE)
#5.833
mean(rawdata$mean_wrongfulness[rawdata$condition == 0], na.rm = TRUE)
#5.694

mean(rawdata$mean_attributionstyle[rawdata$condition == 1], na.rm =
TRUE) #5.143
mean(rawdata$mean_attributionstyle[rawdata$condition == 0], na.rm =
TRUE) #4.778

mean(rawdata$mean_identification[rawdata$condition == 1], na.rm = TRUE)
#3.079
mean(rawdata$mean_identification[rawdata$condition == 0], na.rm = TRUE)
#3.074

mean(rawdata$Willingness_1[rawdata$condition == 0], na.rm = TRUE) #6.5
mean(rawdata$Willingness_1[rawdata$condition == 1], na.rm = TRUE)#7.524

mean(rawdata$mean_empathy[rawdata$condition == 1], na.rm = TRUE) #4.119
mean(rawdata$mean_empathy[rawdata$condition == 0], na.rm = TRUE) #3.889

mean(rawdata$Age) #23.48718
sd(rawdata$Age) #7.294092
nat_table <- table(rawdata$Age)
print(nat_table) #18-53

mean(rawdata$Willingness_1) #7.051282
mean(rawdata$Willingness_1[rawdata$condition == 0], na.rm = TRUE) #6.5
mean(rawdata$Willingness_1[rawdata$condition == 1], na.rm = TRUE)
#7.524

nat_table <- table(rawdata$Nationality)
print(nat_table) #Dutch: 4, German:34 and other: 1

nat_table <- table(rawdata$Gender)
print(nat_table) #female: 28, male: 11

#variability

sd(rawdata$mean_crimeseriousness[rawdata$condition == 1], na.rm = TRUE)
#0.85
sd(rawdata$mean_crimeseriousness[rawdata$condition == 0], na.rm = TRUE)
#0.796

sd(rawdata$mean_harmfulness[rawdata$condition == 1], na.rm = TRUE)
#1.208
sd(rawdata$mean_harmfulness[rawdata$condition == 0], na.rm = TRUE)
#1.084
```

```
sd(rawdata$mean_harmfulness, na.rm = TRUE) #1.140

sd(rawdata$mean_wrongfulness[rawdata$condition == 1], na.rm = TRUE)
#0.926
sd(rawdata$mean_wrongfulness[rawdata$condition == 0], na.rm = TRUE)
#0.972
sd(rawdata$mean_wrongfulness, na.rm = TRUE) #0.938

sd(rawdata$mean_attributionstyle[rawdata$condition == 1], na.rm = TRUE)
#0.850
sd(rawdata$mean_attributionstyle[rawdata$condition == 0], na.rm = TRUE)
#0.447
sd(rawdata$mean_attributionstyle, na.rm = TRUE) #0.873

sd(rawdata$mean_identification[rawdata$condition == 1], na.rm = TRUE)
#1.445
sd(rawdata$mean_identification[rawdata$condition == 0], na.rm = TRUE)
#1.502
sd(rawdata$mean_identification, na.rm = TRUE) #1.452

sd(rawdata$mean_empathy[rawdata$condition == 1], na.rm = TRUE) #1.139
sd(rawdata$mean_empathy[rawdata$condition == 0], na.rm = TRUE) #1.668
sd(rawdata$mean_empathy, na.rm = TRUE) #1.393

sd(rawdata$Willingness_1[rawdata$condition == 1], na.rm = TRUE) #1.914
sd(rawdata$Willingness_1[rawdata$condition == 0], na.rm = TRUE) #2.479
sd(rawdata$Willingness_1, na.rm = TRUE) #2.224


#correlation

cor.test(rawdata$mean_crimeseriousness, rawdata$mean_attributionstyle)
#cor=0.124
cor.test(rawdata$mean_crimeseriousness, rawdata$mean_identification)
#cor= -0.243
cor.test(rawdata$mean_crimeseriousness, rawdata$mean_empathy) #cor= -
0.39*
cor.test(rawdata$mean_crimeseriousness, rawdata$Willingness_1) #cor=
0.038

cor.test(rawdata$mean_attributionstyle, rawdata$mean_identification)
#cor= 0.121
cor.test(rawdata$mean_attributionstyle, rawdata$mean_empathy) #cor=
0.034
cor.test(rawdata$mean_attributionstyle, rawdata$Willingness_1) #cor= -
0.0468

cor.test(rawdata$mean_identification, rawdata$mean_empathy) #cor= 0.273
cor.test(rawdata$mean_identification, rawdata$Willingness_1) #cor= -
0.001

cor.test(rawdata$mean_empathy, rawdata$Willingness_1) #cor= 0.378*

#with harmfulness and wrongfulness instead of crime seriousness

cor.test(rawdata$mean_harmfulness, rawdata$mean_wrongfulness)
cor.test(rawdata$mean_harmfulness, rawdata$mean_attributionstyle)
cor.test(rawdata$mean_harmfulness, rawdata$mean_identification)
cor.test(rawdata$mean_harmfulness, rawdata$mean_empathy)
cor.test(rawdata$mean_harmfulness, rawdata$Willingness_1)
```

```
cor.test(rawdata$mean_wrongfulness, rawdata$mean_attributionstyle)
cor.test(rawdata$mean_wrongfulness, rawdata$mean_identification)
cor.test(rawdata$mean_wrongfulness, rawdata$mean_empathy)
cor.test(rawdata$mean_wrongfulness, rawdata$Willingness_1)

cor.test(rawdata$mean_attributionstyle, rawdata$mean_identification)
cor.test(rawdata$mean_attributionstyle, rawdata$mean_empathy)
cor.test(rawdata$mean_attributionstyle, rawdata$Willingness_1)

cor.test(rawdata$mean_identification, rawdata$mean_empathy)
cor.test(rawdata$mean_identification, rawdata$Willingness_1)

cor.test(rawdata$mean_empathy, rawdata$Willingness_1)


#instead of factor analysis because only 2 variables
cor.test (rawdata$Crime.seriousness_3, rawdata$Crime.seriousness_5)
#cor= 0.494

cor.test(rawdata$Empathy_1, rawdata$Empathy_2) #cor=0.511

#distribution

hist(rawdata$mean_crimeseriousness)
hist(rawdata$mean_wrongfulness)
hist(rawdata$mean_harmfulness)

hist(rawdata$mean_attributionstyle)

hist(rawdata$mean_identification)

hist(rawdata$mean_empathy)

hist(rawdata$Willingness_1)

shapiro.test(rawdata$mean_crimeseriousness) #p-value = 0.118, normally
distributed
shapiro.test(rawdata$mean_harmfulness)#p-value = 0.00667, skewed
shapiro.test(rawdata$mean_wrongfulness) #0.001054, skewed

shapiro.test(rawdata$mean_attributionstyle) #p-value = 0.221, normal

shapiro.test(rawdata$mean_identification) #p-value = 0.057, normal

shapiro.test(rawdata$mean_empathy) #p-value = 0.092, normal

shapiro.test(rawdata$Willingness_1) #p-value=0.012, skewed distribution

#reliability

library(psych)
psych::alpha(rawdata[c(9:14)])#crime seriousnes cronbrach's alpha =
0.58
psych::alpha(rawdata[c(9, 10, 12, 14)]) #harmfulness 0.68
psych::alpha(rawdata[c(11,13)]) #wrongfulness alpha: 0.66
psych::alpha(rawdata[c(15:18)]) #alpha for attribution style = 0.53
psych::alpha(rawdata[c(19:21)]) #identification = 0.88
psych::alpha(rawdata[c(22:23)]) #empathy = 0.68
```

```
#check if suitable for factor analysis
KMO(rawdata[c(9:24)]) #0.61
cortest.bartlett(rawdata[c(9:24)]) #significant

#Kaiser Criterion
pca_items <- rawdata[c(9:24)] %>%
  cor() %>%
  eigen()

pca_items$values #6 factors, eigenvalues: 4.20982309
#2.40687573 1.93663396 1.51314550 1.21281331 1.00503144

pca_harmfulness <- rawdata[c(9, 10, 12, 14)] %>%
  cor() %>%
  eigen()
pca_harmfulness$values #two factors with an eigenvalue of above 1

pca_harmfulness <- rawdata[c(9, 12, 14)] %>%
  cor() %>%
  eigen()
pca_harmfulness$values #one factor with an eigenvalue above 1

pca_wrongfulness <- rawdata[c(11, 13)] %>%
  cor() %>%
  eigen()
pca_wrongfulness$values #one factor with an eigenvalue above 1 namely,
1.494

pca_crimeseriousness <- rawdata[c(9:14)] %>%
  cor() %>%
  eigen()

pca_crimeseriousness$values #2 factors

pca_attributionstyle <- rawdata[c(15:18)] %>%
  cor() %>%
  eigen()

pca_attributionstyle$values #1 factor: 1.768

pca_identification <- rawdata[c(19:21)] %>%
  cor() %>%
  eigen()

pca_identification$values #1 factor: 2.419

pca_empathy <- rawdata[c(22:23)] %>%
  cor() %>%
  eigen()

pca_empathy$values #1 factor: 1.510

#Elbow Criterion
rawdata[c(9:24)] %>%
  scree(, factors = FALSE) #6 factors

rawdata[c(9:14)] %>%
  scree(, factors = FALSE) #2 factors

#factor analysis
```

```
FA_items <- factanal(rawdata[c(9:24)], factors = 6, rotation =
"varimax")
FA_crimeseriousness <- factanal(rawdata[c(9:14)], factors = 2, rotation
= "varimax")
FA_harmfulness <- factanal(rawdata[c(9, 10, 12,14)], factors = 1,
rotation = "varimax")
#for wrongfulness and empathy, correlation instead of factor analysis
FA_attributionstyle <- factanal(rawdata[c(15:18)], factors = 1,
rotation = "varimax")
FA_identfication <- factanal(rawdata[c(19:21)], factors = 1, rotation =
"varimax")


#hypothesis testing


#first
model1 <- rawdata %>%
  lm(Willingness_1 ~ mean_crimeseriousness, data = .)
summary(model1)

model1.1 <- rawdata %>%
  lm(Willingness_1 ~ mean_harmfulness, data = .)
summary(model1.1)

model1.2 <- rawdata %>%
  lm(Willingness_1 ~ mean_wrongfulness, data = .)
summary(model1.2)

#exploratory anova

model4 <- rawdata %>%
  aov(Willingness_1 ~ condition, data = .)
summary(model4)


#second (mediation)
model2 <- rawdata %>%
  lm(Willingness_1 ~ mean_identification + mean_attributionstyle, data
= .)
summary(model2)

model2.1 <- rawdata %>%
  lm(Willingness_1 ~ mean_attributionstyle, data = .)
summary(model2.1)

model2.2 <- rawdata %>%
  lm(Willingness_1 ~ mean_identification, data = .)
summary(model2.2)


#third
model3 <- rawdata %>%
  lm(Willingness_1 ~ mean_empathy, data = .)
summary(model3)

#exploratory anova

model4 <- rawdata %>%
  aov(Willingness_1 ~ condition, data = .)
```

```
summary(model4)
```