Bachelor Thesis

The Influence of Threat of Victimization on Attitudes

Towards Justice and the Role of the Big Five Personality

Traits

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Abstract

In past research, many contradicting findings have been made regarding the concept of fear of crime. Therefore, a reconceptualization is introduced, specifically the threat of victimization. This concept is comprised of fear of crime (emotional reaction), perceived risk (cognitive reaction) and constrained behaviours (behavioural reaction) which are responses to the threat of victimization. The current research investigates whether the found relationships between fear of crime, personality and attitudes towards justice also exist when looking at the threat of victimization. It was hypothesized that people who are more conscientious and neurotic experience a higher threat of victimization and extroverted, agreeable and open people perceive a smaller threat of victimization. Next to that, it was hypothesized that people who perceive a higher threat of victimization hold more retributive justice attitudes and in contrast, the people who perceive a smaller threat of victimization hold more restorative justice attitudes. In the study, only some of the hypothesis could be supported. The threat of victimization seems to be an umbrella construct for fear of crime, perceived risk and constrained behaviours and therefore the proposed model was supported. Additionally, neuroticism was found to have a positive significant influence on the threat of victimization which partly supported the hypothesis. The current research is the next step to investigate fear of crime and especially the new conceptualization threat of victimization. Future research should aim to further validate the concept and examine already found relationships between fear of crime and other variables.

Introduction

During the last decades, much research has been done on the topic of fear of crime. Thereby, many factors have been identified that could possibly influence the fear of crime and have an impact on a person's risk perception (Collins, 2016). In general, fear of crime can be described as the individual perception and evaluation of crime (Gabriel & Greve, 2003). The concept includes an emotional component, namely the response to any potential form of victimization (Adams & Serpe, 2000). This emotional reaction can be characterized by the perception and sensing of danger and anxiety (Garofalo, 1981). Therefore, fear of crime is mainly introduced as a personal parameter and as varying between individuals. However, two distinctions of fear of crime can be made which are situational and dispositional (Gabriel & Greve, 2003). The authors describe the first in terms that the fear of crime varies while being in different situations. For example, walking outside when it is dark generally elicits a higher fear of crime. On the other hand, Gabriel and Greve (2003) describe the dispositional factor of fear of crime in a way as some individuals generally score higher on the fear of crime than others. In this case, the fear of crime is a constant variable within a person. It is referred to this second distinction when fear of crime is mentioned in the current study.

Previous studies investigated many influences on fear of crime. Next to demographical variables like age, gender and education, the impact of personal values and personality on fear of crimes has been investigated (Klama & Egan, 2011; Barni, Vieno, Roccato, & Russo, 2016). The fear of crime is uniquely influenced by the values a person holds. People that highly value self-protection and that are concerned about the safety of themselves and their environment score generally higher on fear of crime (Barni et al., 2016). Opposing to this, openness to change and values regarding self-transcendence, meaning values promoting other's welfare and interests, have a negative impact on the fear of crime, lowering its score (Barni et al., 2016) Additionally, Klama and Egan (2011) found significant relationships between certain personality traits and fear of crime. By using the Big Five model of personality, especially neuroticism was found to positively influence fear of crime. Additionally, openness correlates with fear of crime negatively and conscientiousness has a positive correlation with fear of crime (Klama & Egan, 2011). In general, a relationship between personal variable and fear of crime can be seen.

Next to that, the construct fear of crime was found to explain the development of justice attitudes. Being more afraid of crime predicts a more punitive attitude towards justice. People are in favour of more police and more prison punishments (Dowler, 2003). A reason for this causal relationship might be that when scoring higher on the fear of crime, people tend to

evaluate the justice system negatively and as having difficulties to deal with crime to diminish crime incidence, care for citizens and treat offenders reasonably. This changes the public's attitudes towards justice to being more in favour of punishing policies (Kort-Butler & Hartshron, 2011). Therefore, when the fear of crime seems to have a positive influence on attitudes towards justice.

However, until now fear of crime has been mainly investigated as a dependent variable, being seen as the outcome of certain influences. However, this perspective might be too narrow as it can also be seen as an influence on other variables related to fear of crime (Barni et al., 2016). Additionally, a high degree of disagreement about the conceptualization can be found. This results in contradicting findings of the correlates of fear of crime with other constructs. Therefore, the results and outcomes are unstable, depending on the conceptualization of fear of crime (Rader, 2017). These conceptual issues could not be resolved over the time research on fear of crime was done (Rader, 2004). Therefore, a new and broader concept including fear of crime was developed and proposed the threat of victimization (ToV). This concept is elaborated below

Opposing to fear of crime, the ToV is a fairly new topic that is not yet broadly investigated (Rader, May, & Goodrum, 2007). The question arises, whether the influences on fear of crime can be transferred to this broader concept. According to Rader (2004), the model of ToV offers a more holistic picture for the fear of crime research. Already existing literature about fear of crime offers a lot of ways to take actions in dealing with fear of crime. However, conceptualization issues seem to influence these possibilities and potential actions can be rather limited, depending on the approach taken (Rader, 2004). By using the model of ToV, these concerns are hopefully diminished and more holistic findings can be made. These then better explain the working mechanistic of fear of crime and related concepts. Consequently, the concern of the current study is the question whether personality traits influence ToV. Additionally, the question whether the threat of victimisation has an influence on the attitudes towards justice punishments is examined.

The threat of victimization

Although much research has been done on the topic of fear of crime, researchers were not able to come up with a general universal definition of the concept. Many different conceptualizations exist that shed light on fear from different perspectives (Henson & Reyns, 2015). As stated before, this disagreement has resulted in several conflicting findings dependent on the definition of fear of crime. Therefore, fear of crime has been reconceptualized to the concept of the ToV

(Rader, 2004). ToV is a broader construct, including fear of crime, perceived risk and constrained behaviours (see Figure 1). These subcategories all represent possible responses to ToV (Rader, 2004). However, the responses cannot be seen exclusively. Rather they have a reciprocal relationship, each influencing the other two. Therefore, the concept of ToV presents a more holistic picture than solely looking at the fear of crime (Rader et al., 2007). The reciprocal relationships might also be partly the reason why some variables of the construct have been used interchangeably. This especially holds for fear of crime and perceived risk. Much research used worries about crime not separated from the perception of possible victimization although these are distinct concepts that both have much relevance individually (Rader, 2004). This further supports the introduction of the concept of ToV.

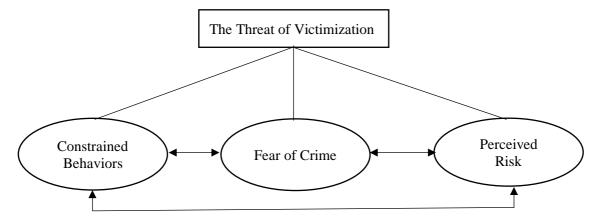


Figure 1. Reconceptualization of fear of crime (Rader, 2004)

The first concept of ToV, fear of crime, is the emotional response to the broader construct. This means that, in this context, fear of crime can be defined as people's worry or emotion in reaction to ToV (Rader, 2004). Therefore, fear of crime gets a clear definition and conceptualization issues that occurred before might be erased when carrying out new studies. As Rader et al. (2007) suggest, it seems that the feedback loop introduced in this model shed new light on this social topic making variations more explicit. Fear of crime cannot only be seen as a dependent variable but rather as also influencing closely related concepts (Rader et al., 2007). ToV gives a broader perspective to a topic that has been narrowly investigated before.

Next to fear of crime, perceived risk is the cognitive response to ToV (Rader, 2004). Perceived risk can be defined as an "individual's cognitive judgement or calculated chance of victimization" (p. 309, Chon & Wilson, 2016). Noteworthy, in this definition, the cognitive component is central to the conceptualization of the perceived risk. Chon and Wilson (2016) are among those that make a distinction between cognitive and emotional variables with regard

to fear of crime which is not done in past studies. They stress that fear of crime (emotional) is distinct from the cognitive concept of perceived risk (Chon & Wilson, 2016). Perceived risk is one of the strongest predictors of fear of crime. The higher one perceives their risk concerning crime the higher they also score on fear of crime (Ferguson & Mindel, 2007). Nevertheless, the perceived risk of victimization can also be significantly predicted by the fear of crime score of a person (Rader et al., 2007). The relationship seems to be reciprocal.

Lastly, constrained behaviours represent the behavioural responses to ToV (Rader, 2004). Constrained behaviours can be further divided into two categories. The first category is defensive behaviours, characterized by actions like "buying a watch dog, keeping a weapon in the home for protection, and taking self-defence classes" (p. 198, Rader & Haynes, 2014). The other category of constrained behaviours includes avoidance actions. These comprise behaviours like "avoiding unsafe areas during the day because of crime, avoiding unsafe areas during the night because of crime, and limiting or changing one's daily activities because of crime" (p. 198, Rader & Haynes, 2014). Therefore, all actions that are intended to protect oneself from crime can be regarded as constrained behaviours.

Already in 1988, Liska, Sanchirico and Reed (1988) discovered the reciprocal relationship between fear of crime and constrained behaviours. This means, constrained behaviours seem to positively influence fear of crime, as well as the other way around that fear of crime, has a positive influence on constrained behaviours (Liska et al., 1988). This is also suggested in the reconceptualization of fear of crime into ToV. Therefore, fear of crime and constrained behaviours are included in this model in a way that suggests that both influence each other (Rader et al., 2007). Additionally, it also seems that a somewhat reciprocal relationship exists between constrained behaviours and perceived risk as suggested in the model of Rader (2004). Foster and Giles-Corti (2008) described that the perceived safety of a person influences the physical activity they engage in. Additionally, the activities of a person positively correlate with the safety perceived in a neighbourhood (Foster & Giles-Corti, 2008). Therefore, this supports the introduction of perceived risk and constrained behaviours having a reciprocal relationship in the model.

In general, it can be said that all subcategories of ToV seem to have a reciprocal relationship. This means all variables seem to have an influence on the others. It is suggested that the full model, including perceived risk and constrained behaviour next to fear of crime, is better suitable for the research on crime perception. All three concepts together seem to build the model of ToV. Therefore, the following is hypothesized:

H1: The threat of victimization is comprised of the subconstruct fear of crime, perceived risk, and constrained behaviour.

The role of personality

As described earlier, past research has found a relationship between individual personal variables, like personal values or personality, and fear of crime. One of the most popular models to describe personality is the Big Five model of personality. The Big Five describe five different personality dimensions (Ciccarelli & White, 2017). These dimensions are independent of one another and every individual has a score on each of the dimensions. The first dimension is openness. This means the extent to which people are open to making new experiences and to which people are willing to try out things new to them. The second dimension is conscientiousness. Conscientiousness describes a person's motivation and organization. Thirdly, extraversion describes the distinction between introverts and extraverts. Introverts are people who do not feel comfortable when being the centre of attention. In contrast, extroverts are more sociable and outgoing. The fourth dimension is agreeableness. People who score high on this dimension are described easy-going, pleasant and friendly. The fifth dimension is neuroticism. This dimension either refers to people who are emotionally stable or who are highly emotional (Saundra & White, 2017). Altogether, the Big Five dimensions offer a good approach to describe the many facets of one's personality.

Beyond that personality seems to be an important factor to consider when looking at fear of crime and related concepts. Personality has a significant influence on the fear of crime people experience. One example is emotionality. People who are highly emotional experience a higher fear of crime (Ellis & Renouf, 2018). Next to that, people who are generally more other-oriented, are less likely to fear any type of crime (Ellis & Renouf, 2018). Also, in their study using the Big Five model, Klama and Egan (2011) found small but significant effects of neuroticism, openness, and conscientiousness on fear of crime. Especially, conscientiousness has a positive influence on fear of crime. When one is more conscientious the person is also highly likely to be aware of crime in general. Additionally, neuroticism seems to influence fear of crime positively. In contrast to that, a significant negative relationship was found between openness and fear of crime (Klama & Egan, 2011). Next to that, people scoring low on agreeableness tend to be more fearful. Therefore, a negative relationship exists between agreeableness and anxiety. The same relationship exists between extraversion and fear of crime. So, scoring high on extraversion indicates a low predisposition to anxiety (Mueller & Roeder,

2014) These results show that in general a relationship can be found between personality and fear of crime.

Nowadays, it is well known that personality is important to predict many outcomes, one of them being fear of crime. As suggested in previous literature, personality can be important to explain fear of crime. However, since fear of crime is reconceptualized into the model of ToV the question arises, whether personality has the same influence on this concept. ToV gives a broader picture of the topic of fear of crime but is also rather new. Therefore, possible influences on this concept should be investigated. A better idea of how the model works and how it can be explained might be conceived. Consequently, by looking that the influence personality might have, the possibility rises that ToV can be better explained and understood. Therefore, the second and third hypothesis are:

H2: Conscientiousness and neuroticism have a positive influence on the perceived threat of victimization

H3: Openness, agreeableness and extraversion have a negative influence on the perceived threat of victimization.

Attitudes towards justice punishment

As mentioned before, more punitive justice attitudes can be predicted by a higher degree of fear of crime (Dowler, 2003). Currently, a shift in the conceptualization of justice punishments can be seen. Demands are made to adjust the justice towards the needs and concerns of the victims (Okimoto, Wenzel, & Feather, 2011). Therefore, a new approach is suggested which differentiates between restorative and retributive justice attitudes. Retributive justice punishments are the more traditional way of punishments. It refers to the "unilateral assertion against the offender, reducing status and power usurped by the offender through the transgression" (p. 270, Okimoto et al., 2011). Retributive justice is mainly oriented towards resecuring the normal life of the victim. It most of the times includes sanctions for the offender such as imprisonment. Sometimes it can also involve some kind of compensation for the threat experienced for example in the form of money. In all cases, the offender experiences some kind of blame (Darley & Pittman, 2003). Generally speaking, in this form of justice, punishing the offender is at the focus.

In contrast to this, Okimoto et al. (2011) describe that within restorative justice all parties involved in the crime come together to find a consensus that is renewed in a safe

environment. The main goal of restorative justice is to re-establish the relationship between the offender, the victim and other involved parties. Imbalances and tensions that might have developed due to the crime are targeted to possibly be resolved (Allais, 2011). Examples of restorative justice are victim-offender mediation, family conferences or other setups where all involved parties come together (Roach, 2000). It seems that this different perspective on justice is useful and highly valid to better understand public opinions on justice (Okimoto et al., 2011). Therefore, when measuring the public's attitudes towards justice, it seems reasonable to use this distinction.

Nowadays, people's attitudes towards justice seem to be influenced by many different factors. Part of this is fear of crime. As described before, punitive attitudes are influenced by the level of fear of crime a person possesses. People who are more afraid of crime are more likely to request harder punishments for criminals, occasionally even death penalties (Dowler, 2003; Klama & Egan, 2011). A reason is that people then often hold the opinion that punishment needs to follow a crime (Huang, Braithwaite, Tsutomi, Hosoi, & Braithwaite, 2012). A possible explanation for this can be that people scoring high in fear of crime request actions to prevent future crime (Huang et al., 2012). It seems that because of their fear they favour any actions to prevent becoming a victim.

In contrast to this, a slight negative relationship between the benefits of restorative justice and fear of crime can be found. Although the influence seems very small, people who are more afraid of crime and victimization perceive fewer benefits in the practice of restorative justice (Huang et al., 2012). Contrary, people possessing a high social capital, meaning being concerned about others, are more concerned with the rehabilitation and reintegration of the offender into society. Therefore, they favour restorative justice over retributive justice (Huang et al., 2012). A possible explanation is that these people have a higher trust in their society and network and therefore are less concerned about becoming a victim of crime. They highly value cooperation and bonding with everyone in society (Huang et al., 2012). In general, it seems that restorative attitudes are negatively related to fear of crime.

Taking all this together fear of crime seems to play a major role when talking about the formation of justice attitudes. Fear of crime seems to have a positive relationship with retributive justice attitudes and a negative relationship with restorative ones. Consequently, the question arises whether also the broader concept of ToV shows a similar relationship with justice attitudes. As described before, the construct seems to offer a more holistic picture and to better understand it, it seems important to look at possible influences of ToV. Therefore, the fourth and fifth hypothesis are:

H4: A higher score on the perceived ToV positively predicts people's retributive justice orientation.

H5: A higher score on the perceived ToV negatively predicts people's restorative justice orientation.

Current study

Taking all this together, due to conceptualization issues of fear of crime, a new concept is introduced called ToV. This offers a more holistic picture of fear of crime and important correlating concepts. By using this concept instead of fear of crime alone, better explanations for the actions of people might be found. Taking a look at the influence of personality on fear of crime, a first step is taken to have a look at how people might develop ToV. Additionally, investigating the relationship of ToV with justice attitudes, possible outcomes of ToV are considered. As these relationships seem to be important for fear of crime and some practical implications have been found it is crucial to investigate whether these implications can be also meaningful for the broader and more holistic concept of ToV. Summarizing, the current study aims to examine whether the ToV is influenced by personality. Additionally, also the relationship between the ToV and attitudes towards justice is investigated. For each variable, some questionnaire items are used to assess the scoring on that variable. Therefore, it is looked at whether the model (see Figure 2) can be confirmed.

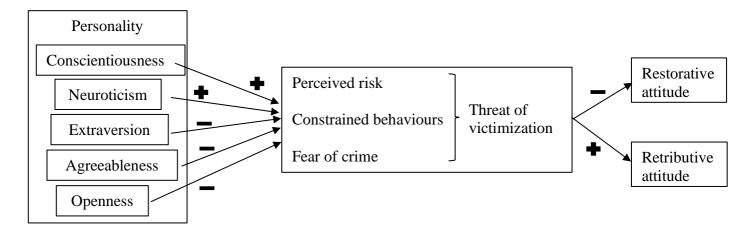


Figure 2. Research model

Method

Design

The variables, that can be found in Figure 2, were measured by a correlational survey design. The participants filled out a questionnaire that assessed whether the hypothesized relationships exist. The independent variable was personality. It was measured on five different levels that were conscientiousness, neuroticism, extraversion, agreeableness and openness. ToV with its hypothesized subcategories perceived risk, constrained behaviours and fear of crime was both an independent and a dependent variable. It was a dependent variable because it was hypothesized that conscientiousness and neuroticism positively influence it and that it is negatively influenced by extraversion, agreeableness and openness. ToV was an independent variable as it was hypothesized to have a negative relationship with restorative justice attitudes and a positive relationship with retributive attitudes towards justice. Therefore, the participant's attitudes towards justice were a dependent variable measured on two levels that were restorative justice attitudes and retributive justice attitudes.

Participants

Participants were recruited through snowball and convenience sampling methods. This resulted in a total number of 144 participants. Of this total number of participants, 119 participants filled out the questionnaire completely and therefore only these were included. From the data set, five participants were excluded as they wished to have their data removed after they were fully informed about the study and its hypotheses. Therefore, the final total amount of participants was 114. Of the total amount of participants 38.7% were female (n=43) and 62.3% were male (n=71). The age ranged from 18 to 34 years with a mean age of 21.4 years (SD=2.8). Of all participants 89.4 % were German (n=102), 7.9% were Dutch (n=9) and 2.7% were from a different country (n=3). The questionnaire was available in English and German. The German version of the questionnaire was used by 76,3% of the participants (n=87) and the remaining 23.7 % of the participants chose the English version (n=27). Most of the participants highest education, of 71.9 % of the participants, was the high school (n=82), 2.4% of the participants had finished an apprenticeship (n=3), 10.8% possess a Bachelor or Master degree (n=12) and 14.9% of the participants had a different highest finished education (n=17).

Variables

The questionnaire was created with the online platform Qualtrics. A URL link was created to assess the questionnaire online and this was mainly distributed via WhatsApp. Additionally,

the website Sona Systems of the BMS faculty of the University of Twente was used to recruit participants where the participants received credit points when they finished the study.

In total, the questionnaire (see Appendix A) consisted of 81 items or statements. All substatements for the different variables were based on already existing scales that showed high reliability and validity. Four questions were asked in the beginning about the demographics of the participants, particularly age, gender, nationality and the highest achieved education. The questionnaire was available in English and German. The German version was the translated version of the English questionnaire. Hereby, the main goal was to get the same meaning from the question rather than having a word by word translation.

Personality.

To measure personality, as described before, the Big Five model was used. A common and widely used questionnaire to assess this is the Big Five Inventory (BFI) which was used in the current study (John & Srivastava, 1999). The questionnaire consisted of 44 items that were rated on a 5-point Likert scale. Hereby, each factor (openness, conscientiousness, extraversion, agreeableness, neuroticism) was measured with several factors that covered almost all facets of each factor (John & Srivastava, 1999). Examples of the statements that assessed extraversion (α =.76) are "I see myself as someone who is talkative" and "I see myself as someone who tends to be quite". Scoring high on this variable indicates being more extraverted and scoring low indicates being more introverted. Statements like "I see myself as someone who is helpful and unselfish with others" measured agreeableness (α =.72). A high score means being more agreeable and easy-going with other people. A low score on agreeableness indicates being more uncooperative and critical of other people. An example statement for measuring conscientiousness (α =.79) is "I see myself as someone who does a thorough job". Here, being organized and hardworking is indicated by a high score and the contrary is indicated by a low score. "I see myself as someone who can be tense" and "I see myself as someone who is relaxed, handles stress well" are examples of statements that assess neuroticism (α =.77). A low score means that people are more even-tempered and calmer, whereas a high score indicates that the person is more neurotic. Lastly, openness (α =.71) was measured by statements like "I see myself as someone who is curious about many different things". Here, a high score indicated that people are more open to new experiences and a low score means a preference for routine.

The threat of victimization.

The statements related to the ToV had to be rated on a 7-point Likert scale. It was chosen because it offers a greater variability and hopefully more detailed insights.

First, the participants received five statements about their fear of crime. Adams and Serpe (2000) already came up with statements to measure fear of crime. These statements were taken and kept as they are, to measure fear of crime in the questionnaire of this study (α =.78). A high score on this variable indicated a higher fear of crime. An example of the statements is "I worry a great deal about my personal safety from crime and criminals".

Perceived risk was measured with four items (α =.71). The items used mainly came from a different study that already validated the items (Reid & Konrad, 2004). The perception of a greater risk of victimization was indicated by a high score. Whereas, a low score indicated the perception of the risk as smaller. An example statement is "I feel unsafe when being alone at night in my car".

Then statements about constrained behaviours followed. These were based on the statements Rader and Haynes (2014) used in their study on fear of crime. In this study, the questions were measured by yes or no answers (Rader & Haynes, 2014)). However, to keep the survey consistent and to give the participants more variability, the original statements were reformulated. This was done in a way that they asked the participants how likely they are to engage in the constrained behaviours (α =.70). Therefore, an example of the statements is "Because I am afraid of crime I avoid specific areas during the night". A higher score indicated that people engage more often in constraining behaviours compared to people scoring low on this variable. In total there were five statements of this type.

Lastly, concerning ToV, this concept was measured individually by five statements. As this is a fairly new concept, there was no existing scale that could be directly used for this questionnaire. However, Pauwels and Svensson (2013) constructed a scale to measure self-reported victimization among adolescents. They asked their participants whether they were victims of certain crimes (Pauwels & Svensson, 2013). These items were used in the current study and reformulated in such a way that they assessed the perceived threat of becoming a victim of these crimes. In the end, there were five statements to measure ToV (α =.80) itself. A high score indicated that the people perceived the ToV as greater. The items were "I perceive a threat that I will become a victim of crime", "I perceive a threat that I will be bullied", "I perceive a threat that I will be a victim of black mailing", "I perceive a threat that I will I will become a victim of any kind of theft", and "I perceive a threat that I will I will experience physical violence".

Attitudes towards justice.

The last part of the questionnaire was about the participant's attitude towards justice. Okimoto et al. (2011) developed items for this already in their study. As these showed good reliability

and validity the items were also used in the current study. In total there were 12 items. Six of them were about retributive (α =.85) and six of them were about restorative attitudes towards justice (α =.70). All were rated again on a 7-point Likert scale. Examples of the statements are "As a matter of fairness an offender should be penalized" or "For justice to be reinstated the affected parties need to achieve agreement about the values violated by an incident".

Procedure

The participants received the link for the study either via WhatsApp from the researcher or other people who were allowed to further distribute the link. Additionally, participants could also sign up to participate in the study via the Sona System of the University of Twente where they got access to the link. When they opened the link, they were first asked whether they would like to receive the whole questionnaire in English or German. Then, the informed consent (see Appendix B) followed. The participants were informed about the general outline of the study. They did not receive any detailed information about the specific variables or hypotheses to avoid any biases or socially desirable answers. The participants were informed that the study takes about 15 to 20 minutes. To proceed with the study, the participants had to sign the informed consent. Then the questionnaire followed. There was no time limit for completing the questionnaire. First, the participants received the questions regarding their demographics. Afterwards, the participants answered questions about personality. Then, the items to measure fear of crime followed. The participants then answered the questions about perceived risk followed. The items about constrained behaviours followed then. The items to measure ToV were then displayed to the participants. Lastly, the items to measure retributive and restorative justice attitudes followed alternately. When the questionnaire was completed the debriefing followed. The participants received more detailed information about the study, the variables and the hypotheses that were investigated. The participants were asked again whether their data can be used for the research. The participants could provide their e-mail address in case they wanted to receive the outcomes of the study. Finally, the participants were thanked for their participation and their contribution to the study. The study was approved by the ethics committee of the BMS faculty of the University of Twente on the 23rd of March 2020.

Data Analysis

For every variable the mean score was computed as well as Cronbach's alpha to test the reliability of the items, qs it can be seen above, in the variables section. First, descriptive statistics like the mean score, standard deviation and the correlations between the variables

were computed. Additionally, the distribution of the scores among female and male participants, as well as among German and non-German participants were computed. To test the first hypothesis a factor analysis with varimax rotation was done, including the items to assess fear of crime, perceived risk, constrained behaviours and ToV. The Eigenvalue criterion (Eigenvalues>1) and the Elbow criterion were considered to examine whether ToV can be regarded as an umbrella construct for fear of crime, constrained behaviours and perceived risk. If ToV was an umbrella construct the mean score for ToV was computed from the individual variables. Otherwise, all individual variables, meaning fear of crime, perceived risk, constrained behaviours and ToV were used separately for the analysis. To test the second and third hypothesis a multiple regression analysis was done. Beforehand, the assumptions of normality, equal variance and straight enough conditions were tested to see possible flaws in the data that can be important for the interpretation of the results. To test the fourth and fifth hypothesis, the model used depended on whether ToV was an umbrella construct or not. In case, ToV is an umbrella construct a simple linear regression model was used. Again, the assumptions of the model were checked before the analysis. If ToV is not an umbrella construct a multiple regression model was used with the assumptions being checked in the beginning. In both cases, retributive justice attitudes and restorative justice attitudes were used as dependent variables individually.

Results

General overview

In general, it can be noted that all means and standard deviations are relatively similar and no variable scored on the extreme ends of the scales used.

Overall, the participants scored relatively low on neuroticism (M=2.78, SD=.66) compared to the other personal characteristics, extraversion (M=3.64, SD=.59), agreeableness (M=3.73, SD=.53), conscientiousness (M=3.54, SD=.59) and openness (M=3.4, SD=.54). This means that in general, the participants scored rather neutral on all five personality traits as the items were measured with a 5-point Likert scale. Therefore, the participants scored rather low on neuroticism compared to the other personality traits. Next to that, the participants scored rather low on the variables that belong to the concept of ToV. All scores for fear of crime, perceived risk, constrained behaviour and ToV are between 2.29 and 2.89 (see Table 1). As the statements were all rated on a 7-point Likert scale, this shows a rather low scoring on the named variables. The participants, in general, seem to score neutral on the variables of retributive and restorative justice attitudes (see Table 1). Additionally, the scores on both are very much the

same and there does not seem to be a big difference when looking at the attitudes towards justice.

In general, no gender differences could be observed in the scoring on any of the variables. When comparing the boxplots of the variables, by looking at the gender, no major differences could be observed. The means for all variables were nearly the same when separating them by gender. Also, the range did not differ much. When the means were compared by age this was a bit different. The older the participants were the less they seemed to experience fear of crime. Additionally, the participants perceived a smaller ToV the older the participants were. Both relationships were tested by a simple linear regression model to see whether the relationship is significant. However, this was not the case and age, fear of crime and ToV are not significantly related. Next to that, no irregularities due to age were observed and the distribution of the means was very even. Lastly, no great differences in the mean scores were observed when the means were compared by the language the participants choose to answer the questionnaire.

Also, in Table 1, the correlations between the variables can be seen. Firstly, the strong positive correlations between the constructs of ToV, specifically fear of crime, perceived risk and constrained behaviours, stand out (see Table 1). What is noticeable is the significant correlation between neuroticism and all variables of the concept of ToV, specifically fear of crime (r=.61, p<.01), perceived risk (r=.58, p<.01), and constrained behaviours (r=.48, p<.01). The more neurotic people seem to also score higher concerning ToV. This is also in accordance with the second hypothesis. What is not in line with the hypothesis is the positive correlation between openness and constrained behaviour (r=.22, p<.05). Next to that, according to the correlation table a negative relationship between ToV and retributive justice attitudes exists (r=-.20, p<.05). Again, this is not in line with the hypotheses before. Additionally, the hypothesis that there is a negative relationship between ToV and restorative justice attitudes cannot be supported when looking at the correlations (r=.14, p>.05). Although the relationship between personality and justice attitudes is not the main topic of the study, it seems that certain personality characteristics correlate with the justice attitudes people hold. More specifically, significant correlation could be observed between extraversion and retributive justice attitudes (r=.22, p<.05), between openness and retributive justice attitudes (r=-.32, p<.01), and between openness and restorative justice attitudes (r=.19, p<.01).

Table 1

Descriptives of and correlations between the main variables

	M	SD	1	2	3	4	5	6	7	8	9	10	11
1 Extraversion	3.73	0.53	-	,17	,23*	-,09	-,04	-,06	-,1	-,02	-,16	,22*	,12
2 Agreeableness	3.54	0.59		-	,12	-,16	,07	-,03	,02	,11	,02	,03	,1
3 Conscientiousness	2.79	0.66			-	-,01	-,01	,06	,03	,02	-,1	,15	,01
4 Neuroticism	3.40	0.54				-	-,02	,51**	,56**	,25**	,43**	-,16	,17
5 Openness	3.64	0.59					-	-,04	,01	,22*	,05	-,32**	,19*
6 Fear of crime	2.77	1.17						-	,65**	,5**	,61**	-,04	,1
7 Perceived risk	2.29	1.08							-	,53**	,58**	-,16	,06
8 Constrained Behaviours	2.40	1.00								-	,48**	-,07	,08
9 ToV	2.89	1.14									-	-,2*	,14
10 Retribution	4.67	1.16										-	-,14
11 Restoration	4.60	0.96											-

Note. *p<.05; **p<.01. The personality variables were measured on a 5-point Likert scale. All other variables were measured on a 7-point Likert scale.

Testing hypotheses

To test the first hypothesis a factor analysis was executed and two different conditions were looked at. Bartlett's Test of Sphericity ($\chi_2(6)=169.94$, p=.00) and the Kaiser-Meyer-Olkin criterion (.81) showed that a factor analysis is appropriate and the data is suited for this type of analysis. First, the Eigenvalue criterion (Eigenvalues<1) was looked at. Only one factor had an Eigenvalue bigger than one (2.68). This factor explained 66.97% of the overall variance among the variables. The remaining factors all explained less than 15% of the variance. Therefore, these factors have less explanatory power. Next to that, the scree plot was looked at (see Figure 3). With the elbow criterion at hand, this plot also indicates that there is only one underlying factor. Therefore, hypothesis one, that ToV is an umbrella construct for fear of crime, perceived risk and constrained behaviours is supported. It seems that they all together measure the broader construct ToV. Therefore, an overall score for ToV was computed from the four individual scores of the variables.

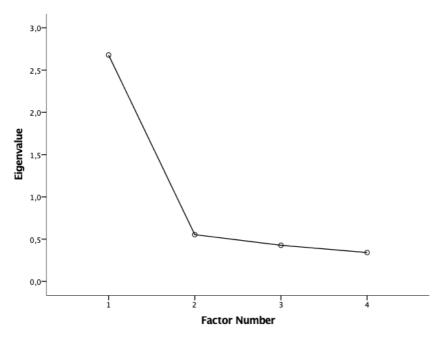


Figure 3. Scree plot of the factor analysis

To analyse the second and the third hypothesis, that different personality traits, specifically openness, extraversion, conscientiousness, agreeableness and neuroticism, have different influences on the ToV a person experience, a multiple regression model was used. Before this model was applied the assumptions of straight enough condition, equal variance assumption and normality assumption were checked. A scatter plot of the predicted values against the residuals showed no clustering and also the residuals were nearly normally distributed. Therefore, the multiple regression model seemed to fit. However, the scatterplots (see Appendix C) of extraversion, agreeableness, conscientiousness and openness against ToV did not show any pattern. Only the scatterplot of neuroticism with ToV showed a positive linear result. This is in line with what was already observed in the correlation table. A multiple regression model was then applied (see Table 2). The results indicate that a significant model can be observed [F(5,108)=9.83, p<.01] with an adjusted R-squared of .31. Only neuroticism has a significant positive influence on ToV (B=.75, SE=.11, p<.01). All other relationships are not significant, specifically between openness, conscientiousness, extraversion, agreeableness and ToV (see Table 2). Therefore, only the hypothesis that neuroticism has a positive influence on ToV can be supported. The other hypotheses, that extraversion, agreeableness, conscientiousness and openness have no influence on ToV cannot be rejected.

Table 2

Regression coefficients for predicting overall ToV

Dependent Variable: Threat of Victimization

					95% Confidence Interval		
Parameter	В	Std. Error	t	Sig.	Lower Bound	Upper Bound	
Intercept	-,300	,917	-,327	,744	-2,117	1,518	
Extraversion	-,117	,126	-,927	,356	-,367	,133	
Agreeableness	,213	,140	1,524	,130	-,064	,490	
Conscientiousness	,014	,127	,113	,910	-,237	,265	
Neuroticism	,749	,110	6,806	,000	,531	,968	
Openness	,112	,132	,848	,398	-,150	,374	

Lastly, to test the fourth and fifth hypothesis a simple linear regression model was used. For both variables, restorative and retributive justice attitudes, the residuals were nearly normally distributed. Therefore, a regression model seemed to be appropriate. For retributive justice attitudes, a non-significant model was observed [F(1, 112)=2.28, p=.14] with an adjusted R-squared of .03. The overall ToV does not significantly predict people's retributive justice attitudes (B=-.18, SE=.12 p=.14). Similar results were found for the influence of ToV on restorative justice attitudes. Again, a non-significant model was observed [F(1,112)=1.55, p=.22] with an adjusted R-squared of .01. Therefore, ToV has no significant influence on restorative justice attitudes people hold (B=.12, SE=.10 p=.22). In conclusion, the fourth and fifth hypothesis cannot be supported. It cannot be rejected that ToV does not have an influence on people's restorative and retributive justice attitudes.

Additional findings

In the correlation table, it was observed the variable to measure ToV itself had a significant correlation with retributive justice attitudes. Therefore, a regression analysis was made. The results showed that a significant model can be observed [F(1,112)=4.43, p=.04]. The concept of ToV, as it was individually measured in the questionnaire, seems to have a negative influence on the formation of retributive justice attitudes (B=-.20, SE=.10, p=.04). In contrast to the fourth hypothesis, there seems to be a negative relationship, although this relationship might be rather weak.

Next to that, fear of crime, perceived risk, constrained behaviours and ToV all correlate with each other. As can be seen in Table 1 and as it is highlighted in Table 3, all variables seem to correlate medium to strongly with each other and one variable seems to positively predict the other ones. These relationships are also significant (p<.01).

Table 3 *Correlation between the categories of ToV*

	1	2	3	4
1 Fear of crime	-	,651**	,498**	,611**
2 Perceived risk		-	,532**	,576**
3 Constrained behaviours			-	,480**
4 ToV				-

Note. **p< 0.01 level.

Although there seems to be no relationship between openness and the overall concept of ToV, Table 1 indicates that there is a significant, positive relationship between openness and constrained behaviours. Therefore, a simple linear regression model is used to investigate the relationship. The results show that the model is significant [F(1,112)=5.73, p=.02] with an adjusted R-squared of .04. The openness of a person seems to predict the extent they engage in constrained behaviours (B=.40, SE=.17, p=.02). A positive relationship can be observed.

Another interesting relationship, discovered in Table 1, is between extraversion, openness and people's attitudes towards justice. Again, the regression model is used to have a closer look at the relationships. For the correlation between extraversion and retributive justice attitudes, a significant model could be observed [F(1,112)=5.64, p=.02] with an adjusted R-squared of .04. Scoring high on extraversion positively predicts people's formation of retributive justice attitudes (B=.43, SE=.18, p=.02) There seems to be a significant, positive relationship between the two variables. Next to that, a significant model is observed for the correlation between openness and retributive justice attitudes [F(1,112)=13.01, p<.01] with an adjusted R-squared of .10. Possessing an open character negatively predicts the formation of retributive justice attitudes (B=.69, SE=.19, p<.01). Finally, a significant model was also observed for the relationship between openness and restorative justice attitudes [F(1,112)=4.27, p=.04]. A positive relationship is found between being open and possessing restorative justice attitudes (B=.33, SE=.16, p=.04).

Summary of the results

Concluding from the analysis, hypothesis one is supported. ToV seems to be an umbrella construct for the variables fear of crime, perceived risk and constrained behaviours. The second hypothesis can only be partially supported. Neuroticism seems to have a positive influence on ToV. However, the possibility that there is no relationship between conscientiousness and ToV cannot be rejected as the results indicate an insignificant relationship. Also, hypothesis three

cannot be supported by the current analysis. Extraversion, openness and agreeableness possibly have no influence on ToV. Lastly, also the fourth and fifth hypothesis cannot be supported by the current analysis. The hypothesis that ToV influences people's justice attitudes cannot be supported.

Next to the tested hypothesis, other significant correlations were observed. Highly significant correlations between all subcategories of ToV could be found which further support the inclusion of fear of crime, perceived risk and constrained behaviours in the broader concept ToV as suggested by the initial analysis. Also, when looking at ToV without the three subcategories it seems to positively predict people's retributive justice attitudes. A positive relationship was also found between openness and fear of crime. Lastly, some personality traits seem to predict people's justice attitudes. Extraversion and openness seem to have a positive influence on people's retributive justice attitudes. On the other side, openness possibly has a negative influence on people's restorative justice attitudes.

Discussion

Due to a high degree of different definitions existing for the concept of fear of crime, past research showed a certain extent of disagreements in the results of the studies (Rader, 2004). Accordingly, ToV is suggested as a reconceptualization of fear of crime and the study investigated whether this reconceptualization can be validated. Additionally, the study examined whether relationships observed between fear of crime and other concepts are also existing between ToV and these concepts. The relationships between personality and ToV and between ToV and public's attitudes towards justice were closer looked at. The current study supports the hypothesis ToV is an umbrella construct for fear of crime, perceived risk and constrained behaviours. Next to that, only neuroticism seems to have a significant influence on ToV. No other relationship between personality traits and ToV was supported by the results. Lastly, the study does not support the hypothesis that retributive and restorative justice attitudes are influenced by ToV.

In addition to these findings with regards to the hypotheses, other significant correlations were found in the correlation table and therefore analysed in more detail. First of all, every subcategory of ToV correlates significantly, positively with all of the other subcategories. Next to ToV as an umbrella construct, ToV was also assessed itself with individual items in the questionnaire. What is noticeable is that the umbrella construct has no significant relationship with people's retributive justice attitudes while ToV measured individually has a significant influence on these justice attitudes. This might suggest that the

subconstruct should not be disregarded and are also important individually. Additionally, the personality trait openness seems to have a significant positive influence on people's constrained behaviours. Lastly, significant relationships have been found between some of the personality traits and people's justice attitudes. The more extroverted people are the more they favour retributive justice. In addition, the greater the openness of people the more they hold retributive justice attitudes and the less they hold restorative justice attitudes.

Discussion of findings

The threat of victimization as an umbrella construct.

In accordance with the first hypothesis, ToV was found to be an umbrella construct for perceived risk, constrained behaviours and fear of crime. Similar results were found in several other studies (see Rader et al., 2007; Wortman, 2010). They concluded as well, that fear of crime, perceived risk and constrained behaviours contribute to the bigger concept ToV and therefore the reconceptualization of fear of crime can be supported. With perceived risk and constrained behaviours, a more holistic picture of fear of crime can be given (Rader et al., 2007; Wortmann, 2010). However, in their study, Rader et al. (2007) take it a step further and also examine the relationships between the three different subcategories and find, except between perceived risk and constrained behaviours, reciprocal relationships between all subcategories. Also, the findings of the current study indicate that relationships like this exist between the variables. In addition to determining whether ToV is an umbrella concept for fear of crime, perceived risk and constrained behaviours, a correlation analysis suggests that all variables strongly correlate with each other. Each variable seems to positively influence the other variables. This suggests that the concept of ToV might be more complex than initially assumed (Rader et al., 2007). It seems that ToV cannot be described as simple as it is done so far.

Personality and threat of victimization.

Only neuroticism was found to have a positive influence on ToV. This is in line with the results of previous studies regarding neuroticism and fear of crime (see Klama & Egan, 2011; Mueller & Roeder, 2014; Ellis & Renouf, 2018). Klama and Egan (2011) found a significant positive correlation between neuroticism and fear of crime. They concluded that high levels of neuroticism predict high levels of fear of crime (Klama & Egan, 2011). Being more neurotic is often associated with being more anxious and having a high degree of worries. The people are more prone to experiencing distress, fear and have low self-esteem. Therefore, neurotic people react more sensitively to fear eliciting situations and hence generally experience a greater fear of crime (Guedes, Domingos, & Cardoso, 2018). This might also explain the correlation

between the new concept of ToV and neuroticism. Due to their generally higher sensitivity to fear-related situations, neurotic people perceive generally higher ToV.

In contrast, not in line with the results of the study of Klama and Egan (2011), was the finding that no other personality traits had a significant influence on ToV. In their study, Klama & Egan (2011) found that openness to experience and conscientiousness are correlated with fear of crime. The study showed that people who are more open to making new experiences, experience lower levels of fear of crime. In contrast, people scoring high on conscientiousness score also higher on fear of crime (Klama & Egan, 2011). Additionally, also extraversion and agreeableness were found to be negatively related to fear of crime (Mueller & Roeder, 2014). However, the current study did not find that the same relationships exist between these personality traits and ToV. No significant correlations were found between openness, conscientiousness, agreeableness, extraversion and ToV. In the study of Ellis and Renouf (2018) similar findings were made. They also observed no correlation between openness, conscientiousness, agreeableness, extraversion and fear of crime. However, in this study, they also used the HEXACO personality model instead of a five-factor model. The model is recently known to capture more key aspects that might explain variability in personality. Therefore, the study also identifies partly different personality traits that influence fear of crime (Ellis & Renouf, 2018). The additional variable might capture personality facets that are incorporated by other personality facets in the Big Five model and therefore offers a broader explanation.

The threat of victimization influencing justice attitudes.

In the current study, no significant relationship was found between ToV and restorative and retributive justice attitudes. This is not in line with the findings of the studies of Dowler (2003) and Klama and Egan (2011). In the former study, the results showed that fear of crime and punitive justice attitudes were positively correlated (Dowler, 2011). Similarly, in the latter study, participants who were more afraid of crime were also found to possess a pro-punishment attitude (Klama & Egan, 2011). This relationship might be explained by the study of Huang et al. (2012) who found a highly significant and positive relationship between fear of crime and the idea that punishments prevent future crimes. People who are highly afraid of crime feel the need that future crime is prevented and think that this is mostly done by punishment, for example by retributive justice. Additionally, the authors found a strong preference for punishing justice due to the conservative appeal. When introducing restorative justice and slowly building it up people become more open to this form of justice. However, they hold onto conservative methods in pro-punishment justice especially when they are in favour of traditional values and not used to new justice practices like restorative justice (Huang et al., 2011). This might explain

the non-significant relationship between ToV and restorative justice attitudes in this study. Although it is not in line with the insignificant relationship between ToV and retributive justice attitudes which is explained later on. In most European countries, restorative justice faces many barriers. The implementation is often hindered by different instances possibly including the government (Gavrielides, 2016). In most European countries, restorative justice practices are not widely known by society. People did not have the chance to make experience within these practices and to see the advantages. Therefore, they might hold onto traditional justice practices that can be described as retributive justice. As Huang et al. (2011) argued people are not yet broadly introduced to the idea of restorative justice and therefore stick with their conservative justice attitudes. However, this would also suggest that the participants would be more in favour of retributive justice attitudes but this is not that case in the current study. Overall, the participants do not preferer any justice and generally score rather neutral on both from of justice punishments. This is inconsistent with the findings of Huang et al. (2011) who argue that people who are not used to new forms of justice practices tend to favour traditional, possibly retributive justice. As the findings of the current study are rather inconsistent with this finding but no plausible explanation seems to exists, these effects should be investigated more closely in future research.

The non-significant relationship found between ToV and retributive justice attitudes might be explained by findings of Dowler (2003). In his study, he found that people who followed a higher education mostly also hold non-punitive justice attitudes. He explains that those people who are more educated often are more aware of possible inequalities that might be at the hand of the justice system (Dowler, 2003). Looking at the current sample it can be seen that most of the participants are highly educated, with most of the people having finished high-school and possessing A-levels. So, according to Dowler (2003), there is a high chance that the participants, in general, do not favour retributive justice and therefore no variability might be found within the variable. Again, this would suggest that the participants would hold more restorative justice attitudes. This is not confirmed by the data of the current study. Overall, it can be said that the formation of justice attitudes with regard to ToV needs more attention of future research.

Although fear of crime, perceived risk and constrained behaviours can be described in the broader construct ToV, the variables should not only be examined summarised in the broader construct but also individually (Wortman, 2010). This might explain the significant negative relationship between ToV individually measured and retributive justice attitudes. In the questionnaire, ToV was also measured individually by its own items. During the analysis,

it was found that ToV individually, without considering the subconstructs had a negative influence on retributive justice attitudes. This relationship is rather weak but significant. The found relationship is not in line with the found literature on fear of crime. The higher the fear of crime a person possess the stronger the person is in favour of punishing justice (Dowler, 2003; Klama & Egan, 2011). However, this relationship cannot be supported for ToV and retributive justice attitudes. Again, this might be due to the low variability of the educational background of the participants and therefore a general rejection of retributive justice (Dowler, 2003). Contrary, due to the higher education of the participants, people high in ToV might even feel that retributive justice might not even help the offender overcome negative behaviour and that initial imprisonment does not prevent future harm doing by the offender. As described before, highly educated people are often more aware of what is going on in justice processes and are aware of the inequalities that can be found in the justice system (Dowler, 2003). Accordingly, the participants of the current study may think that punishing offenders is a working method to prevent them from engaging in crime and offending. Therefore, the participants evaluate the threat of victimization as lower and they feel safer in general. Accordingly, a negative relationship exists. However, until now no literature can be found on this topic and the data of the current study cannot provide any insights into this topic. Therefore, future research might look into the relationship between ToV individually and justice attitudes to find possible explanations for the found relationship.

The influence of personality on constrained behaviours and justice attitudes.

In an additional analysis, a significant positive relationship between openness and constrained behaviours was found. This might be explained by the finding that openness positively correlates with social conformity. In the meta-analysis of McCrae (1996) several articles were identified describing that the more open people are the more they conform with social norms as social conformity can be seen as one aspect of openness. With a high degree media around nowadays, this might be facilitated. It was observed that the more people are exposed to media and news of crime the more restrict their behaviour and constrained behavioural patterns can be observed (Cashmore, 2014). This would mean, by the possibility of generally observing more constrained behaviours, open people may conform to this social norm more and also engage more in constrained behaviours. Because in the current times people are highly exposed to media and news messages, society generally more often constrains its behaviours and therefore, open people also engage in these processes.

Next to this relationship, extraversion and openness were found to have a significant influence on the formation of justice attitudes. The results show that a positive relationship

exists between extraversion and retributive justice attitudes. This finding is in line with already existing research (see Robbers, 2006). It was found that extrovert people favour punishments and show pro-death-penalty attitudes. A possible explanation for this is that extroverted people are often more tough-minded in contrast to introverted people who often take mitigating circumstances into account (Robbers, 2006). Because of the decision-making based on facts extroverted people seem to be in favour of punishments, especially death-penalties.

Additionally, a negative relationship was observed between openness and retributive justice attitudes which was also found in other studies (Robbers, 2006; Klama & Egan, 2011). A negative attitude towards death penalties was found to be influenced by the openness of people (Robbers, 2006). More generally, in earlier research, open people are found to be less in favour of punishments as penalties for crime (Klama & Egan, 2011). On the contrary, in the current study, openness was found to be positively related to restorative justice attitudes. Similar results were found in previous studies. Robbers (2006) found that open people possess anti-death penalty attitudes. Often, these people are more open to alternative punishments and debate the pros and cons of the basis of the punishments and possible related philosophical foundations (Robbers, 2006). Because of their alternative thinking, open-minded people are not necessarily in favour of what is conservative or tradition but rather evaluate options available by themselves.

Limitations

Like every study, also the current study has some limitations. First of all, the current sample of participants was rather homogenous. Especially, when looking at the educational background of the participants a rather small variability can be seen. This is possibly due to the sampling method as the sample is a convenience sample. With a truly random sample the variability, especially with regards to educational background, might have been greater which could have influenced the results. As stated before, people that are better educated often hold non-punitive attitudes. This is because they might better understand the justice system and its inequalities (Dowler, 2003). Therefore, if more variability with regard to education would have been in the sample, probably different results would have been found when looking at the formation of retributive justice attitudes.

Another limitation might be the way the items to measure fear of crime, perceived risk, constrained behaviours and ToV were formulated. As Forshaw (2013) argued, a questionnaire with many items formulated similarly and seemingly entail the same content, incline the participants to respond in the same way to all questions, without evaluating each question

individually. In the current questionnaire, some items can have sounded very similar to the participants and all were formulated in a very similar style. The participants might have become bored. It could be that the participants had the feeling that the items are all kind of the same and do not measure different things although they do. Therefore, they then have indicated a similar agreement or disagreement with all statements without reading each statement carefully. Concluding, they initially stuck with some pattern to answer the statements. Instead of answering each item individually with high focus, they clicked their way through the items and answered all items similarly. This would then have influenced the results in the way that the variety is low compared to when they would have been formulated more distinctively. If the items are reformulated to be more distinct, maybe the variance in the different variables might be greater and significant relationships would have been observed that are now not observed.

Next to that, a limitation of the study is that the questionnaire was available in two different languages. The participants were able to choose whether they would like to answer the questions in English or German. First, the questionnaire was created in English and then the items were translated into German. In this process, it can never be excluded that some meaning of the items is lost or changed. Therefore, the possibility exists that some items might be differently understood by people who answered the questionnaire in German compared to people who answered the questionnaire in English. It was tried to keep the meaning the same in the German version as in the English. This was done by reading many times over the statements and always comparing the two versions in the different language. Additionally, the sentences were not translated word by word but rather as a whole to capture the meaning as closely as possible. In this way, it was tried to keep the meaning as close to the original as possible. However, it cannot be ruled out that some meaning might have changed due to the translation, although this effect is tried to be kept as small as possible.

However, a strong point of the study was the strong reliability measures of the different items to measure the variables. Every variable had at least an acceptable (>.7) reliability with some being even good (>.8). Although all items were derived from already existing studies, most of them were adjusted to fit the layout of the current research. In general, no item had to be removed to improve Cronbach's alpha. Regardless of the adjustments, the items measuring one variable showed good internal consistency.

Implications

The current study makes the next step when looking at fear of crime. By the reconceptualization of fear of crime into a sub-concept of ToV, conceptualization issues might be erased and a

broader perspective is taken. Based on the findings of the current study, it might be advisable to use the more encompassing concept of ToV instead of fear of crime separately. As the concept gives a clearer definition of fear of crime, fewer contradicting findings might be made. By taking the perceived risk and constrained behaviours into account, while looking at fear of crime, a bigger picture of the concept is created. In general, the development and functioning of fear of crime seem to become easier to explain and better to understand. Additionally, as already noted before, from the current research and earlier findings it seems that ToV might not as easily explained as assumed so far. Since the subconstruct also individually seem to be important to predict certain outcomes like justice attitudes, these should also be considered individually. However, this is beyond the scope of the current research and suitable data for those analyses are not collected. Future research should take a look at these relationships. Generally speaking, future research is advised to use the model of ToV but also control for the individual effects of the subconstructs as these can have unique effects on certain variables. Lastly, with regards to the limitations of the current study, future research should take a closer look to what extent the relationships found between fear of crime and other variables can be projected to ToV. Furthermore, research should examine possible influences on ToV and possible consequences of ToV.

For people working within the field of fear of crime, the current research offers possible new insights into dealing with it. When assessing and dealing with a person's fear of crime, it becomes important to not only see it as an outcome of certain influences but that fear of crime can also have a big influence a person's life, especially with regards to behaviour and perceived exposure to crime. Working on a person's fear of crime might become very important for that person to act more freely and to feel less threatened. Additionally, for understanding a person perception of the threat of crime, personality, especially neurotic personality traits, seems to be important and predispose a person to feel a great threat of becoming a victim. The insight of the current study might help to more sensitively deal with people's assessment of crime and to better understand the influences and how they work.

Concluding, the current research has taken the next step following conceptualization issues by looking at fear of crime from a different and rather new angle and by validating the concept of ToV. The current research offers a basic ground for future research to look at fear of crime more broadly.

References

- Adams, R. E., & Serpe, R. T. (2000). Social integration, fear of crime, and life satisfaction. *Sociological Perspectives*, 43(4), 605–629. https://doi.org/10.2307/1389550
- Allais, L. (2011). Restorative justice, retributive justice, and the South African truth and reconciliation commission. *Philosophy and Public Affairs*, *39*(4), 331–363. https://doi.org/10.1111/j.1088-4963.2012.01211.x
- Barni, D., Vieno, A., Roccato, M., & Russo, S. (2016). Basic personal values, the country's crime rate and the fear of crime. *Social Indicators Research*, *129*(3), 1057–1074. https://doi.org/10.1007/s11205-015-1161-9
- Cashmore, B. J. (2014). The "Fear of crime-media feedback" cycle. *Internet Journal of Criminology*, 1–19. Retrieved from https://www.semanticscholar.org/paper/An-Evaluation-of-a-Community-Oriented-Policing-in-Kuo-Shih/aa117910c504c5cccb364186b30cd675e776ffac#references
- Chon, D. S., & Wilson, M. (2016). Perceived risk of burglary and fear of crime: Individual and country-level mixed modeling. *International Journal of Offender Therapy and Comparative Criminology*, 60(3), 308–325. https://doi.org/10.1177/0306624X14551257
- Ciccarelli, S. K., & White, J. N. (2017). Theories of Personality. In Ghoshal, S., Luiz, D., &Arora, R. (Eds.), *Psychology* (544-581). Harlow, England: Pearson Education.
- Collins, R. E. (2016). Addressing the inconsistencies in fear of crime research: A meta-analytic review. *Journal of Criminal Justice*, 47, 21–31. https://doi.org/10.1016/j.jcrimjus.2016.06.004
- Darley, J. M., & Pittman, T. S. (2003). The Psychology of Compensatory and Retributive Justice. *Personality and Social Psychology Review*, 7(4), 324–336. https://doi.org/10.1207/S15327957PSPR0704_05
- Dowler, K. (2003). Media consumption and publics attitudes towrad crime and justice: The relationship between fear of crime, punitive attitudes and perceived police effectiveness. *Journal Of Criminal Justice And Popular Culture*, 10(2), 109–126. Retrieved from https://pdfs.semanticscholar.org/28d5/d91a795685ff8e939a7a8b7c8c065f8467a4.pdf
- Ellis, D. A., & Renouf, K. J. (2018). Predicting fear of crime: personality outperforms prior victimisation. *Journal of Forensic Psychiatry and Psychology*, 29(3), 403–418. https://doi.org/10.1080/14789949.2017.1410562
- Ferguson, K. M., & Mindel, C. H. (2007). Modeling fear of crime in dallas neighborhoods: A test of social capital theory. *Crime and Delinquency*, 53(2), 322–349.

- https://doi.org/10.1177/0011128705285039
- Forshaw, M. (2013). *Your undergraduate psychology project: A student guide*. Chichester, UK: BPA Blackwell.
- Foster, S., & Giles-Corti, B. (2008). The built environment, neighborhood crime and constrained physical activity: An exploration of inconsistent findings. *Preventive Medicine*, 47(3), 241–251. https://doi.org/10.1016/j.ypmed.2008.03.017
- Gabriel, U., & Greve, W. (2003). The psychology of fear of crime: Conceptual and methodological perspectives. *British Journal of Criminology*, *43*(3), 600–614. https://doi.org/10.1093/bjc/azg600
- Garofalo, J. (1981). The fear of crime: Causes and consequences. *Journal of Criminal Law and Criminology*, 72(2), 839–857. https://doi.org/10.2307/1143018
- Gavrielides, T. (2016). Repositioning restorative justice in europe. *Victims and Offenders*, 11(1), 71–86. https://doi.org/10.1080/15564886.2015.1105342
- Guedes, I. M. E. S., Domingos, S. P. A., & Cardoso, C. S. (2018). Fear of crime, personality and trait emotions: An empirical study. *European Journal of Criminology*, *15*(6), 658–679. https://doi.org/10.1177/1477370817749500
- Henson, B., & Reyns, B. W. (2015). The only thing we have to fear is fear itself... and crime: The current state of the fear of crime literature and where it should go next. *Sociology Compass*, 9(2), 91–103. https://doi.org/10.1111/soc4.12240
- Huang, H., Braithwaite, V., Tsutomi, H., Hosoi, Y., & Braithwaite, J. (2012). Social Capital, Rehabilitation, Tradition: Support for Restorative Justice in Japan and Australia. *Asian Journal of Criminology*, 7, 295–308. https://doi.org/10.1007/s11417-011-9111-1
- John, O. P., & Srivastava, S. (1999). The Big-Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp. 102–138). New York: Guilford Press.
- Klama, E. K., & Egan, V. (2011). The Big-Five, sense of control, mental health and fear of crime as contributory factors to attitudes towards punishment. *Personality and Individual Differences*, 51(5), 613–617. https://doi.org/10.1016/j.paid.2011.05.028
- Kort-Butler, L. A., & Hartshorn, K. J. S. (2011). Watching the detectives: Crime programming, fear of crime, and attitudes about the criminal justice system. *Sociological Quarterly*, 52(1), 36–55. https://doi.org/10.1111/j.1533-8525.2010.01191.x
- Liska, A. E., Sanchirico, A., & Reed, M. D. (1988). Fear of crime and constrained behavior specifying and estimating a reciprocal effects mSodel. *Social Forces*, 66(3), 827–837.

 Retrieved from

- https://www.jstor.org/stable/pdf/2579577.pdf?refreqid=excelsior%3A3d58585fd4cde7794e47b00241ae7dd8
- McCrae, R. R. (1996). Social consequences of experiential openness. *Psychological Bulletin*, 120(3), 323–337. https://doi.org/10.1037/0033-2909.120.3.323
- Mueller, A. R., & Roeder, M. (2014). Perception of security and protective strategies:

 Differences between personality prototypes. *European Scientific Journal*, 10(30), 22–30.

 Retrieved from https://eujournal.org/index.php/esj/article/view/3816/3632
- Okimoto, T. G., Wenzel, M., & Feather, N. T. (2011). Retribution and restoration as general orientations towards justice. *European Journal of Personality*, 26(1), 255–275. https://doi.org/10.1002/per831
- Pauwels, L. J. R., & Svensson, R. (2013). Violent Youth Group Involvement, Self-reported Offending and Victimisation: An Empirical Assessment of an Integrated Informal Control/Lifestyle Model. *European Journal on Criminal Policy and Research*, 19(4), 369–386. https://doi.org/10.1007/s10610-013-9205-7
- Rader, N. (2017). Fear of Crime. In *Oxford Research Encyclopedia of Criminology and Criminal Justice* (pp. 1–20). https://doi.org/10.1093/acrefore/9780190264079.013.10
- Rader, N. E. (2004). The threat of victimization: A theoretical reconceptualization of fear of crime. *Sociological Spectrum*, 24(6), 689–704. https://doi.org/10.1080/02732170490467936
- Rader, N. E., & Haynes, S. H. (2014). Avoidance, protective, and weapons behaviors: An examination of constrained behaviors and their impact on concerns about crime. *Journal of Crime and Justice*, *37*(2), 197–213. https://doi.org/10.1080/0735648X.2012.723358
- Rader, N. E., May, D. C., & Goodrum, S. (2007). An empirical assessment of the "threat of victimization:" Considering fear of crime, perceived risk, avoidance, and defensive behaviors. *Sociological Spectrum*, 27(5), 475–505. https://doi.org/10.1080/02732170701434591
- Reid, L. W., & Konrad, M. (2004). The gender gap in fear: Assessing the interactive effects of gender and perceived risk on fear of crime. *Sociological Spectrum*, 24(4), 399–425. https://doi.org/10.1080/02732170490431331
- Roach, K. (2000). Changing punishment at the turn of the century: Restorative justice on the rise. *Canadian Journal of Criminology*, 42(3), 249–280. https://doi.org/10.3138/cjcrim.42.3.249
- Robbers, M. (2006). Tough-mindedness and fair play: Personality traits as predictors of attitudes toward the death penalty An exploratory gendered study. *Punishment and*

Society, 8(2), 203-222. https://doi.org/10.1177/1462474506062104

Wortman, S. (2010). Empirically assessing the threat of victimization: How victimization and gender mediate the relationship between perceived risk, fear of victimization and constrained behaviour (Master's thesis, University of Manitoba, Winnipeg, Canada).

Retrieved from https://mspace.lib.umanitoba.ca/handle/1993/3878

Appendix ASurvey of the Study

Wha	is your age in years	•
Wha	is your gender?	
O	Male	
O	Female	
O	Diverse	
Wha	is your Nationality?	?

What is your highest finished education?

First I would like to ask some questions about you as a person.

Please try to answer the questions as honestly as possible. There is no right or wrong. It is about your perception of the described situation.

Could you please indicate to what extent you see yourself as someone who ...

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Is talkative	О	O	O	O	O
Tends to find fault with others	О	O	O	О	O
Does a thorough job	О	O	O	O	O
Is depressed	О	O	O	O	O
Is original, comes up with new ideas	О	O	O	O	O
Is reserved	О	O	O	О	O
Is helpful and unselfish with others	O	O	O	O	О
Can be somewhat careless	О	O	O	O	O
Is relaxed, handles stress well	О	O	O	O	O
Is curious about many different things	О	O	O	O	О
Is full of energy	О	O	O	O	О

Starts argument with others	О	O	O	O	O
Is a reliable worker	О	O	O	O	O
Can be tense	О	O	O	O	O
Is ingenious, a deep thinker	О	O	O	O	O
Generates a lot of enthusiasm	О	O	O	O	O
Has a forgiving nature	0	O	O	O	O
Tends to be disorganized	0	O	O	O	O
Worries a lot	0	O	O	O	O
Has an active imagination	0	O	O	O	O
Tends to be quiet	0	O	O	O	O
Is generally trusting	0	O	O	O	О
	I				

Again, could you please indicate to what extent you see yourself as someone who...

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Tends to be lazy	О	O	O	O	O
Is emotionally stable, not easily upset	О	O	O	O	O
Is inventive	О	O	O	O	O
Has an assertive personality	О	O	O	O	O
Can be cold and aloof	О	O	O	О	O
Perseveres until the task is finished	О	O	O	O	O
Can be moody	О	O	O	O	O
Values artistic, aesthetic experiences	О	O	O	O	O
Is sometimes shy, inhibited	О	O	O	O	O
Is considerate and kind to almost everyone	О	O	O	O	O

Does things efficiently	О	O	O	O	O
Remains calm in tense situations	O	O	O	O	O
Prefers work that is routine	О	O	O	O	O
Is outgoing, sociable	О	O	O	O	О
Is sometimes rude to others	О	O	O	O	О
Makes plans and follows through with them	O	O	O	O	0
Gets nervous easily	О	О	O	O	О
Likes to reflect, play with ideas	О	О	O	O	O
Has few artistic interests	О	O	O	O	О
Likes to cooperate with others	О	O	O	O	О
Is easily distracted	О	O	O	O	О
Is sophisticated in art, music or literature	O	O	O	O	O

The following questions ask you about how you feel in specific situations.

Please indicate to what extent you agree with the following statements:

	Fully Disagree	Disagree	Disagree a little	Neither disagree nor agree	Agree a little	Agree	Fully Agree
When I am away from home, I worry about the safety of my property.	0	O	0	0	0	0	0
I worry a great deal about my personal safety from crime and criminals.	O	O	O	O	O	O	O
I worry a great deal about the safety of my loved ones from crime and criminals.	О	O	O	O	O	O	O

Even in my own home, I'm not safe from people who want to take what I have.	0	O	O	O	O	O	0
There is a reason to be afraid of becoming a victim of crime in my community.	O	O	O	O	O	O	O

The following questions ask you about how you feel in specific situations.

Please indicate to what extent you agree with the following statements:

I feel unsafe when...

	Fully Disagree	Disagree	Disagree a little	Neither disagree nor agree	Agree a little	Agree	Fully Agree
Walking the dog in the neighbourhood	О	O	O	О	O	O	O
Being alone at night in my home	О	O	O	O	O	O	O
Driving alone at night in my car	O	O	O	O	O	O	O
Walking with someone else at night in their neighbourhood	О	O	O	O	O	O	O

The next questions ask you how you behave in specific situations.

Please try to answer the questions as honestly as possible. There is no right or wrong.

Please indicate to what extent you agree with the following statements:

Because I am afraid of crime ...

	Fully Disagree	Disagree	Disagree a little	Neither disagree nor agree	Agree a little	Agree	Fully Agree
I avoid specific areas during the day.	О	O	O	0	O	O	O
I avoid specific areas during the night.	О	O	O	O	O	O	O
I limit or change my daily activities.	О	O	O	0	O	O	О
I carry pepper spray.	О	O	O	O	O	O	O
I take a self-defense course.	0	0	0	0	O	O	O

In this next part, you will encounter questions about your perception of the danger of becoming a victim.

Please try to answer the questions as honestly as possible. There is no right or wrong. It is about your perception of the described situation.

I perceive a threat that...

	Fully Disagree	Disagree	Disagree a little	Neither disagree nor agree	Agree a little	Agree	Fully Agree
I will become a victim of a crime.	О	O	О	О	O	O	O
I will be bullied.	О	O	O	O	O	O	O
I will be a victim of black mailing.	О	O	O	O	O	O	O
I will become a victim of any kind of theft.	О	O	O	O	O	O	O
I will experience physical violence.	О	O	O	O	0	0	O

The last part of the questionnaire is about your attitude towards justice.

In some questions, you are asked to imagine being in the situation of being the victim of a crime. Please try to imagine how you would feel and act in such a situation.

Please try to answer the questions as honestly as possible. There is no right or wrong. It is about your perception of the described situation.

	Fully Disagree	Disagree	Disagree a little	Neither disagree or agree	Agree a little	Agree	Fully Agree
As a matter of fairness an offender should be penalized.	О	O	O	0	O	O	O
For justice to be reinstated, the affected parties need to achieve agreement about the values violated by an incident.	О	O	O	O	Ο	0	O
The only way to restore justice is to punish an offender.	О	О	О	О	O	O	O
If you would be a victim of crime: to restore justice, the offender and I need to reaffirm consensus on out values and rules.	О	O	O	O	O	0	0
Justice is served when an offender is penalized.	O	O	0	O	O	O	O
Without an offender's sincere acknowledgement of having acted inappropriately, the injustice is not completely restored.	О	O	O	O	O	0	0
Only a punishment restores the justice	0	0	0	0	О	0	O

disrupted by an incident.							
If you would be a victim of crime: a sense of justice requires that the offender and I develop a shared understanding of the harm done by an incident.	O	O	O	0	Ο	0	0
For the safe of justice, some degree of suffering has to be inflicted on an offender.	O	O	O	O	O	O	О
Justice is restored when an offender has learnt to endorse the values violated by the incident.	O	O	O	0	0	0	0
An offender deserves to be penalized.	O	О	O	0	O	O	O
If you would be a victim of crime: for a sense of justice, we all, including the offender and I, need to reaffirm our belief in shared values.	O	O	O	0	O	0	0

Thank you for participating in this study! Your participation is highly valued!

In the introduction not all information were given in order to avoid biasing you. Therefore, more detailed information will follow.

This study is concerned with the influence of personality on the perceived threat of victimisation. When looking at the literature it seems that a positive relationship exists between personality and the perceived threat of victimisation. Furthermore, it is looked at whether this threat of victimisation has an influence on the attitudes people hold towards justice. People scoring high on the threat of victimisation might have a more traditional

attitude towards justice, favouring prison and similar punishments. During the survey, you filled out a number of questions that are concerned with these topics.

If you have any further questions, feel free to contact me by email: t.hofker@student.utwente.nl

Your participation is highly valued! You help me further to finishing my Bachelor Thesis. You are an important part of this. Thank you for your contribution!

After having received more detailed information about the research, do you still consent that your data will be used for research purposes?

- O Yes, I consent.
- O No, I do not consent.

Would you like to receive the outcomes of the study? If so, please enter you email address below.

Appendix B

Informed consent form

You are being invited to participate in a research study titled investigating public's attitudes towards justice. This study is being done by Theresa Höfker from the Faculty of Behavioural, Management and Social Sciences at the University of Twente.

The purpose of this research study is to investigate how people perceive their risk of

study will take you approximately 15-20 minutes to complete. The data will be used for research purposes.

Your participation in this study is entirely voluntary and you can withdraw at any time. You are free to omit any question. There are no right or wrong answers to the questions. Try to go along with the first thoughts you have.

I believe there are no known risks associated with this research study; however, as with any online related activity, the risk of a breach is always possible. To the best of my ability, your answers in this study will remain confidential. I will minimize any risks by anonymising any data obtained, that it cannot be traced back to you as a person.

If you have any further questions related to the research you can contact the researcher at any time by email:

t.hofker@student.utwente.nl

Thank you for your participation!

I understand and consent that:

- 1. I am 18 years old or older.
- 2. The procedure will approximately take 15-20 minutes.
- 3. I understood the content and agree to contribute my data for the use of this research.
- 4. I can withdraw from this research at any time by informing the researchers and all my data will be deleted
- 5. My personal information will be anonymised to protect my privacy.

- 6. With my permission, I agree that all my data can be evaluated and used for the research.
- 7. I have been given the guarantee that this research project has been reviewed and approved by the BMS Ethics Committee. For research problems or any other questions regarding the research project, the Secretary of the Ethics Commission of the faculty Behavioural, Management and Social Sciences at University Twente may be contacted through ethicscommittee-bms@utwente.nl.

In the case of questions or ambiguities, the researcher Theresa Höfker (t.hofker@student.utwente.nl) will be available in order to help.

O Yes, I consent.

O No, I do not consent.

Appendix C

 $Scatterplots \ of \ the \ personality \ variables \ with \ ToV \ to \ check \ the \ assumption \ of \ linearity.$

