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ARTICLE

# On People's Worries about Becoming a Victim of Events or Conditions Often Blamed on Those up There

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#### ABSTRACT

The authors study people's worries about becoming victimized by events and conditions often blamed on "those up there". Excessive worries are bad for people's performance because they lead to risk avoidance and lower self-confidence. In two representative surveys conducted in Germany, it is found that victimization concerns are positively correlated with people's gender, previous victimization, their estimated likelihood of being victimized, their fear of crime, their crime-avoidance behavior, their striving for tradition and security, and their negative attitudes toward crimes. Negative correlations are found for people's education, their striving for universalism, and their social capital. When considering all predictors combined, people's expected likelihood to become victimized is found to be the optimal predictor of victimization concerns. It is recommended that management concentrates on setting realistic levels of such risk estimates to avoid negative effects on people's performance.

Keywords: Worries; Concerns; Fear of crime; Performance management; Personal values

## 1. Introduction

People are worried about many things. Examples are worries about one's health, about climate change, about hunger in the world, or about things not working out in one's job. A worry is a particular type of anxiety, conceptualized by Schwartz et al. <sup>[1]</sup> as "an emotionally disturbing cognition that a state of an object ... in some domain of life ... will become (or become more, or remain) discrepant from its desired state" (p. 311). A person who feels worried about something keeps on thinking about it, over and over

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again, in "preservative cognition"<sup>[2]</sup>.

Worries are often focusing on things the person cannot control. If the person also cares and feels an urge to do something about it, one sometimes speaks of concerns rather than worries. However, the difference between worries and concerns remains gradual, and the concepts are not consistently used in the literature. According to Merriam-Webster, they are even synonymous. We will, therefore, use the terms interchangeably.

We here concentrate on one class of concerns, i.e., those where public institutions or persons are often blamed to be at least partially responsible. Two examples are worries about burglaries in people's neighborhoods or concerns that the economy will go down—both cases where people tend to argue that "*They* should do something about it!" or "*Those up there* are to blame!". Thus, public agents are pressed to respond properly by reducing the problems and/ or their probability, if possible, or by convincing the public that the likelihood of the negative circumstances is overestimated, or by helping people to realistically evaluate the problems and making clear what they can do themselves to reduce the risks.

When worries become excessive, people tend to overestimate future dangers and become more likely to see the perceived situation as hopeless with no solution. Worries are also damaging a person's confidence in his/her problem-solving ability. And they lead to perceiving problems as threats rather than as opportunities <sup>[3]</sup>.

An important hypothesis is that victimization worries focusing on different causes are all positively related to each other. That is, the higher a person is concerned about becoming a victim of burglary, for example, the more he/she tends to worry about becoming victimized by political crises. Expressed more formally and in testable terms: All items asking about persons' victimization concerns are non-negatively inter-correlated. This implies that all victimization concerns have a "common object" <sup>[4]</sup>. This object could be interpreted as "the person's felt security not to be victimized" <sup>[5]</sup> or simply "the perceived security situation in general" <sup>[6]</sup>. If all topic-specific victimization concerns are positively related to each other, one may also assume that reducing a person's concerns about topic X would spill over to other concerns so that concerns tend to be reduced across the board. Changes in concerns about some topic X would therefore have a general effect on the performance of persons.

An important class of victimization concerns are those where others are violating legal norms or committing crimes that harm the individual. Such concerns can be seen as a component of the construct "fear of crime" that has received considerable attention in research <sup>[7-9]</sup>. Researchers in this field "agree that fear of crime involves feelings, thoughts, and behaviors, all of which are focused on the subjectively conceived threat of criminal victimization"<sup>[10]</sup>. Fear of crime, thus, is multi-faceted: It comes with certain cognitions (such as ideas about the likelihood of the crime), emotions (generated by the thought of becoming a victim of the crime), and possible actions to prevent or avoid crimes. Only if all three of these components are activated and consistent, fear of crime is given <sup>[11]</sup>. The three components of fear of crime are, however, not clearly separable. Assuming, for example, that fear-of-crime cognitions lead to negative emotions, and these emotions in turn to avoidance actions, makes sense only within a narrow time span. Actions, for example, if successful, can reduce negative emotions and lower the person's risk assessments <sup>[12]</sup>.

Studies that attempt to explain people's fear of crime identified various variables such as the appearance of their physical environment <sup>[13]</sup>, gender <sup>[14]</sup>, the quality of their social embedding <sup>[15]</sup>, their history of being victimized by crimes <sup>[16,17]</sup>, the degree with which they value security and tradition <sup>[17,18]</sup>, or their acceptance of legal norms <sup>[19]</sup>. The results are, however, often ambiguous. Some studies report, for example, that fear of crime gets stronger when people get older, while other studies find the exact opposite, or a curvilinear relation, or no significant correlation at all <sup>[20,21]</sup>. The possible reasons for such results are manifold. Often, the samples are small and not representative, the types of crimes are limited, or only

one predictor is studied in isolation. In this paper, we study large samples that are representative and focus on multiple predictors ranging from demographics to personality constructs. Thus, we can see how the various predictors are interrelated.

Fear of crime is typically measured with some form of a single item ("Is there any area near where you live where you would be afraid to walk alone at night?"). This "standard item" has been criticized mainly because it asks about hypothetical behavior and because it does not specify the reason for being afraid <sup>[14,22-25]</sup>. Yet, it has been shown that the standard item is at least quite reliable <sup>[26]</sup>, even though it may camouflage the relation between crime-specific fear and age, for example <sup>[27,28]</sup>. We therefore follow the suggestion to also measure the crime-specific cognitive component (risk assessment) for each crime separately <sup>[29]</sup>.

Extending the scope from fear of crimes to victimization concerns in general, one can predict that psychological variables (such as people's personal values or their attitudes toward delinquent behaviors) should affect all victimization concerns similarly. As to personal values, various authors have found that some of the ten basic values of the Schwartz value theory <sup>[30,31]</sup> are positively correlated with fear of crime. Persons with a relatively strong emphasis on security, conformity, and tradition-combined into the higher-order value "conservation"-tend to exhibit higher levels of fear of crime, while the opposite is true for persons prioritizing universalism. The reason may be that more is at stake for security-minded persons because the possibility that they may become victimized threatens what they value most, i.e. security. Universalism-oriented persons, on the other hand, have a strong belief in man's inherent goodness and should, therefore, find it less likely to be victimized<sup>[1]</sup>.

Attitudes toward delinquent behaviors are similarly related to fear of crime: Persons who have relatively harsh attitudes should also be more concerned because the negativity of their attitudes indicates the anticipated size of the damages in case the negative events or conditions become real. This leads us to the following hypotheses:

1) The inter-correlations of victimization concerns that focus on issues where "those up there" can be blamed are all positive. That is, higher concerns about topic *X* imply higher concerns about topic *Y*.

2) Women exhibit higher levels of concern than men. This hypothesis builds on many previous findings in the fear-of-crime domain <sup>[19,32,33]</sup>. The gender difference is expected to be particularly strong for sex crimes. It is also expected that the difference becomes smaller with increasing age.

3) The structure of different concerns shows that crime-related concerns form a particular neighborhood, separating them from other concerns. We expect concerns about crime issues, political and economic issues, and other issues to lead to separable correlation clusters.

4) Victimization concerns are positively related to gender, people's striving for security and conservation, their general attitudes toward crimes, previous victimization, and all components of fear of crime.

5) Concerns are negatively related to age, education, social capital (trust in police, courts, etc.), and people's universalistic value strength.

6) People's subjective likelihood of becoming victimized is the best predictor of victimization concerns.

## 2. Methods

### 2.1 Data

The data of this study come from two representative surveys conducted in two German cities. Both surveys used comprehensive questionnaires with some 300 items focusing on crime, crime prevention, and the Corona pandemic. They also contained numerous demographic and psychological questions. They were conducted in 2019 and 2020 in the cities of Mannheim (MA) and Pforzheim (PF), respectively. The samples were representative random samples of juveniles (aged at least 14 years) and adults, all citizens of these cities, drawn from the resident registers of the respective cities. The surveys were run as a mail survey in PF<sup>[34]</sup> and as a combination of a mail and an online survey in MA<sup>[19]</sup>.

Both surveys were anonymous. No incentives were given. Participation was voluntary, based on appeals by the city administration asking the potential respondents in a personal letter to help the city in preventing crime by providing relevant information for effective actions.

The return rates in the MA sample were about 15% in the online survey, and 30% in the mail survey, resulting in 5,198 respondents in the realized sample. The return rate of the PF sample was 33% or 2,230 persons. The demographics of the participants closely matched the demographics in the respective populations, with two minor exceptions. Females are slightly over-represented in both surveys by about 5%. Older persons (aged 40 years or older) are over-represented by about 6%.

#### 2.2 Instruments

For the issues addressed in this paper, we used twelve concern variables in the MA sample and eleven concern variables in the PF sample. As possible predictor variables, we used 94 (MA sample) and 92 (PF sample) variables grouped into nine groups.

Concerns: Both surveys contained various items on people's concerns about becoming victimized by events or conditions that can be seen as caused or at least influenced by public-political agents. They were introduced as follows: "There are many reasons that can cause feelings of insecurity. Please check the following list of items and rate to what extent you feel worried about each of them." The items were: "by political crises", "by economic crises", "to get injured in a traffic accident", "to be harassed by somebody", "to be hit and injured by somebody", "to become victimized by burglary (apartment/house)", "to get mugged and robbed (violent theft)", "to have something stolen (theft, no violence)", "to get raped or sexually attacked", "to become sexually molested", and "to become a victim on social media" [only in the MA sample]. Each issue had to be rated on a 4-point scale ranging from (1) "not worried" to (4) "very worried".

*Demographics*: Gender (1 = men, 2 = women),

age (scored as 1 to 8 for age cohorts "16-19, 20- $29, \ldots, 80+$ ), education (1 = lowest to 4 = highest).

*History*: Victimization of the respondent him-/ herself or a member of his/her family within the last twelve months by various crimes. The PF survey presented a list of twelve crimes such as car theft, mugging, sexual harassment, and burglary. The respondent was asked for each crime in turn whether he/she had been victimized by the crime. The MA survey contained a similar list of twelve crimes where the victim was asked whether he/she him-/ herself or a family member had been victimized, and eight more crimes that focused on the respondent only. All victimization variables are coded here into one overall variable as "1 = yes" in case *any* of the crimes was checked, and as "0 = no" otherwise.

*Likelihood*: The crimes addressed by the concerns items were also rated in terms of the probability with which the respondents felt that they would be hit by each respective crime "within the next twelve months in their neighborhood" on a 4-point answer scale ranging from "0 = not likely at all" to "3 = very likely". The topics "political crises", "economic crises", and "social media" were not rated on their likelihood. A person's generalized likelihood score was also computed as his/her mean likelihood rating across the various crimes.

*Fear of Crime (emotional)*: The emotional component of fear of crime was assessed with two items. Item #1 (PF survey): "How often do you think about becoming a victim of crime?" Item #2 (PF survey): "How often are you scared to become a victim of crime when at night outside in your neighborhood?" The answer scale was a 4-point scale from "never" to "very often (almost daily)". The MA survey used two items that were variants of the PF-item #2, asking "at night" and "during daytime", respectively.

*Fear of Crime (conative)*: Two items measured the respondent's behavior aiming at preventing becoming a victim of crime. In the PF survey, it was asked "Have you generally reduced your leisure-time activities in the last twelve months because you were scared to become a victim of crime (e.g., by avoiding certain neighborhoods or by not going out alone at night)?" (1 = yes, 0 = no). In the MA survey, an additional item was used: "Please try to remember the last time you were out in your neighborhood at night for whatever reason. Did you then avoid certain streets and regions to prevent that something might happen to you?" (1 = if at least one item was supported, 0 = otherwise).

*Personality*: Both surveys used the IRVS scale <sup>[35-37]</sup>. The scale asks the respondent to rate the importance of 37 values such as "to respect law and order," "to strive for security," or "to have a high standard of living" from "1 = that is completely unimportant to me" to "7 = that is very important to me". Based on these items, scores for the ten basic items of the Schwartz value theory <sup>[31]</sup> can be computed, and based on these ten scores, scores for higher-order values (HOV) are derived that aggregate the ten basic values to two dimensions [37]. We here follow Schwartz in computing the score for the HOV "Conservation" by aggregating the observed importance scores of each person for the items "adhering to traditions", "conformity", and "security". For security, we used the single item "striving for security" rather than a composite score of various security-related goals, because this single item leaves it to the respondent how he/she wants to understand the notion of "security" rather than assuming a particular meaning of "security" that consists of components selected by the researcher<sup>[19]</sup>.

Attitudes (social capital): Three components of the respondent's social capital were measured with altogether five items asking about his/her trust (on the 7-point scale 1 = "do not trust at all", ..., 7 ="completely trust") to (1) the police, (2) the courts, (3) the city administration, (4) the State, and (5) "your fellow citizens in your neighborhood". The trust variables are looked at individually, summated to yield three types of trust (police/courts, administration/ State, fellow citizens), and aggregated over all categories to an overall trust measure.

*Attitudes on crimes*: Hermann's badness-ofcrimes scale <sup>[35]</sup> was used to measure the respondents' attitudes toward 14 offenses that vary in type and severity of violating legal norms. Examples are "using cocaine", "fare evasion on public transport", "indecent touching of another person", and "ripping off someone's handbag". (Items on very serious crimes such as murder or rape are not part of this scale, because they do not lead to much variance in typical surveys using rating scales.) The item battery was introduced by the following preamble: "Various forms of behaviors can be assessed differently. Please indicate whether you consider the following behaviors "bad" or "not bad". A "1" would mean that you consider the behavior not bad at all, and "7" that you consider it very bad" <sup>[38]</sup>. Based on the score of this item battery, an overall score for the respondent's attitude toward crimes was computed.

#### 2.3 Statistical methods

All data analyses were carried out within the R environment. The structure of the inter-correlations of the various concerns, and the inter-correlations of the concern items with the predictor variables, was analyzed using multidimensional scaling (MDS). All MDS analyses were run by the R-package smacof <sup>[39,40]</sup>. We used *Stress-1* to assess the fit of the MDS model and the MDS permutation test <sup>[41]</sup> to check the solutions' statistical significance. The similarity of MDS solutions was assessed using Procrustean transformations and computing the correlation of the *XY* coordinate values of corresponding points <sup>[42]</sup>. These values were checked for statistical significance by simulations fitting 500 random point configurations to each other <sup>[43]</sup>.

Step-wise linear regression analyses were used to study how well the dependent variable "overall concern" could be predicted, beginning with the demographic variables, then adding the history-of-victimization variable, then the person's overall estimate of becoming victimized by crimes, etc. For each additional set of variables in the linear model, we report the regression weights (not normalized, because some predictors are simple dichotomies), their significance, plus the explained variance (*R* squared).

## 3. Results

# **3.1** Signs of the inter-correlations of the concern items

To test the positive manifold hypothesis, the concern items in both samples were inter-correlated. As predicted, all correlations are positive. In the MA sample, min(r) = 0.16, mean(r) = 0.53, and sd(r) =0.24. In the PF sample, min(r) = 0.18, mean(r) = 0.56, sd(r) = 0.25. All correlation coefficients are highly significant. This confirms hypothesis #1, indicating that the various concerns have a common object of concern in both samples.

#### 3.2 Concerns and demographics

In both samples, women exhibit a higher level of concern than men, as predicted. This is true for both generalized concerns and for each specific concern. The average concern scores for men and women on the 4-point scale are 2.17 vs. 2.39 in the MA sample and 2.42 vs. 2.72 in the PF sample. The largest gender differences in both samples were found for concerns about harassment and about the two sex crimes (rape/sexual attacks, getting molested). In the MA sample, these differences are 0.28, 0.72, and 0.72. In the PF sample, the corresponding differences are 0.32, 0.73, and 0.79. In both samples, the smallest differences were found for concerns about economic crises (0.07 and 0.10). Every difference in both samples is highly significant (Welsh *t*-tests).

The stronger concerns of women relative to men on sex crimes become smaller with increasing age. In the MA sample, women's concerns about getting raped or sexually attacked correlate with age with  $-0.24^{***}$ , and with  $-0.30^{***}$  for getting sexually molested. In the PF sample, these correlations were  $-0.29^{***}$  and  $-0.31^{***}$ . For men, the corresponding correlations were -0.03 and -0.02;  $-0.09^{**}$  and  $-0.10^{***}$ . For the other types of concerns, age shows only small correlations with victimization concerns and no interactions with other predictor variables.

In contrast to age, education is almost unrelated to concerns (see **Table 1**). Persons with higher education tend to be slightly less concerned. The correlations are significant but small.

#### 3.3 The structure of concerns

Because all concerns are positively inter-correlated, they possess a dominant principal component that reflects the general degree of concerns. Additional structure is related to the content of the concerns. Both features can be visualized using multidimensional scaling. **Figure 1** shows the 2-dimensional representations of the issue-specific concerns and the generalized concern in the MA sample (left plot) and the PF sample (right plot). Both plots represent the data well, with significant *Stress* values of 0.14 and 0.11, respectively. The configurations are also highly similar. Measured objectively, one finds that, after Procrustean transformations, the corresponding *X*and *Y*-coordinates of the points are correlated with 0.979\*\*\*.

The dashed lines in the MDS plots optimally represent the *level* of the various concerns. They show that points located more towards the North sides of the plots represent more serious concerns. The correlation of the projection scores onto the regression lines and the mean level of concern is  $r = 0.85^{***}$  for the MA sample and 0.62\* for the PF sample. Hence, the *Y*-axes can be interpreted as "level of concern." The *X*-axis separates the causes of concern into different *types*: On the right-hand side one finds concerns about crimes and legal delinquencies, on the left-hand side there are "political-economic concerns" (top) and "other causes" (traffic accident and victim on social media, if assessed).

# **3.4 Predictors of concerns: Predictor by pre-dictor**

The first column of **Table 1** shows the mean concern values of the MA and the PF samples. The following columns exhibit the correlations of the various predictor variables with concerns of victimization. The cells of the table are marked in red if a coefficient correlates positively with a concern, i.e. if higher values of the predictor tend to go with higher



Figure 1. MDS representations of the inter-correlations of the various concern types; size of the points represents the level of concern; the projections of the points onto the dashed line optimally represent the level of concern (high concerns towards the top).

concerns. The cells are marked in green if the predictor is negatively correlated with the concern. The saturation of the colors corresponds to the size of the correlations.

**Table 1** shows that there are two sets of predictors: Those that "promote" concerns, and those that "alleviate" concerns. The relation of each predictor to the various concerns has the same sign for all concerns, general or specific—except for age, which is both negatively and positively correlated with concerns. For example, older people are less concerned about becoming harassed and less concerned about burglary.

One notes that the coefficients in **Table 1** are highly similar for both samples, not only regarding their signs but also in their size. Almost all coefficients are significant (non-significant coefficients are shown in italics).

The different relations of age to concerns are due to its interaction with gender. **Table 1** shows that gender correlates positively with sex crimes. Age is negatively correlated with sex-crime concerns for both genders but much more so for women than for men, as discussed above. So, the negative correlation of age with concerns in **Table 1** is mainly generated by women, not by men. Table 1 shows that persons' emotional and cognitive components of fear of crime are the best single predictors of concerns, even if the concern is not focused on crime but, for example, on traffic accidents. Table 1 also exhibits that the persons' personality correlates with their level of concerns: Their prioritizing of conservation, particularly their striving for security as a guiding principle in their life, is correlated with higher concern levels, while persons with an universalistic value orientation are relatively less concerned, as predicted. Moreover, persons who have a harsher attitude toward crimes tend to be more concerned in general and in every specific concern type.

Previous victimization is also a fair predictor of people's victimization concerns, with positive correlations even to variables such as concerns about political or economic crises. This shows, once more, that all concerns have a common component.

The social capital variables have a similarly strong correlation with victimization concerns but with opposite signs. The higher people's trust in the police and the State, for example, the lower their concerns.

Personality variables are also significantly related to people's general and specific concerns. **Table**  Table 1. Mean general and specific concern values in MA and PF samples; correlations of predictors (likelihood, gender, etc.) with concerns. Non-significant correlations in italics. Cells marked in green/red = negatively/positively correlated with concerns.

Concern to be victimized	Level of concerns	Gender	Age	Educati on	Victimized: Family	Victimized: Self	Estimated likelihood	General fear of crime: Emotional	Defensive behavior	Higher order value: Conservation	Basic value: Security	Basic value: Universalism	Trust: Police, courts	Trust: Admin, / State	Trust: Fellow citizens	Badness of crimes
Sample MA																
General	2.29	0.16	-0.04	-0.12	0.16	0.20	0.62	0.53	0.44	0.21	0.23	-0.12	-0.12	-0.21	-0.20	0.15
Political crises	2.25	0.06	0.05	-0.06	0.06	0.07	NA	0.19	0.17	0.05	0.08	0.01	-0.12	-0.14	-0.06	0.03
Econom. crises	2.54	0.04	0.07	-0.08	0.07	0.03	NA	0.19	0.19	0.13	0.14	-0.07	-0.10	-0.16	-0.07	0.09
Traffic accid.	2.17	0.06	-0.06	-0.05	0.05	0.06	0.44	0.25	0.19	0.10	0.11	-0.02	-0.04	-0.07	-0.11	0.08
Harassment	2.47	0.15	-0.16	-0.05	0.16	0.28	0.46	0.53	0.43	0.16	0.21	-0.13	-0.12	-0.20	-0.23	0.06
Assault/Batt'y	2.34	0.01	-0.07	-0.11	0.16	0.21	0.48	0.49	0.40	0.19	0.20	-0.14	-0.12	-0.20	-0.19	0.10
Burglary	2.47	0.02	0.12	-0.11	0.15	0.10	0.57	0.39	0.33	0.22	0.21	-0.13	-0.06	-0.16	-0.12	0.19
Robbery	2.48	0.04	0.01	-0.13	0.16	0.17	0.53	0.49	0.41	0.22	0.22	-0.15	-0.10	-0.20	-0.18	0.16
Theft	2.44	0.06	0.01	-0.10	0.18	0.19	0.53	0.46	0.37	0.21	0.20	-0.14	-0.10	-0.19	-0.17	0.15
Rape/Sex.hrm.	2.08	0.35	-0.15	-0.08	0.11	0.20	0.59	0.46	0.37	0.12	0.16	-0.04	-0.08	-0.12	-0.15	0.09
Sex. harassmt.	2.11	0.37	-0.18	-0.06	0.12	0.23	0.64	0.46	0.37	0.10	0.16	-0.03	-0.09	-0.12	-0.16	0.06
Social media	1.84	0.01	0.03	-0.13	0.09	0.06	NA	0.23	0.20	0.16	0.10	-0.06	-0.07	-0.11	-0.07	0.13
Sample PF																
General	2.60	0.19	-0.08	-0.06	0.19	0.18	0.58	0.51	0.44	0.26	0.25	-0.15	-0.19	-0.26	-0.19	0.15
Political crises	2.46	0.11	0.13	-0.01	0.04	0.03	NA	0.18	0.16	0.12	0.11	0.00	-0.12	-0.12	-0.04	0.07
Econom. crises	2.59	0.06	0.10	-0.02	0.06	0.05	NA	0.20	0.18	0.20	0.16	-0.07	-0.16	-0.19	-0.09	0.11
Traffic accid.	2.27	0.08	-0.03	-0.04	0.05	0.06	0.42	0.23	0.18	0.15	0.11	-0.11	-0.06	-0.04	-0.13	0.10
Harassment	2.72	0.17	-0.20	-0.04	0.19	0.19	0.43	0.48	0.42	0.19	0.23	-0.16	-0.20	-0.26	-0.19	0.08
Assault/Batt'y	2.68	0.08	-0.15	-0.06	0.18	0.19	0.45	0.48	0.40	0.21	0.21	-0.16	-0.19	-0.25	-0.19	0.10
Burglary	2.80	0.10	0.06	0.00	0.19	0.14	0.56	0.37	0.33	0.21	0.20	-0.11	-0.12	-0.20	-0.10	0.15
Robbery	2.83	0.08	-0.02	-0.07	0.19	0.19	0.50	0.46	0.41	0.23	0.22	-0.14	-0.17	-0.25	-0.16	0.15
Theft	2.64	0.10	-0.02	-0.06	0.19	0.18	0.49	0.44	0.38	0.25	0.22	-0.14	-0.16	-0.23	-0.16	0.18
Rape/Sex.hrm.	2.45	0.31	-0.19	-0.07	0.17	0.15	0.55	0.45	0.38	0.17	0.18	-0.11	-0.13	-0.21	-0.17	0.09
Sex. harassmt.	2.46	0.34	-0.21	-0.07	0.17	0.16	0.57	0.47	0.40	0.18	0.20	-0.11	-0.14	-0.22	-0.18	0.09

1 shows their striving for security predicts higher concerns, while universalism as a guiding value is related to lower concerns, as predicted. Finally, the harshness of people's attitudes toward crimes is also significantly correlated with their concerns, i.e., the harsher a person's attitude toward crimes, the more he/she tends to be concerned about becoming a victim, as expected.

#### 3.5 Predictors of concerns combined

**Figure 2** shows the structure of the inter-correlations of the various predictors together with generalized concerns for the MA and the PF samples. The *Stress* values of the MDS plots are 0.096 and 0.087 which indicates a good and significant fit. The MA and the PF configurations are highly similar: The correlation of corresponding point coordinates is r =0.985\*\*\*.

Based on the coefficients in **Table 1**, the dashed vertical lines partition the MDS configurations into a region (on the left) that contains a point representing general concern (red points) and otherwise only predictors that are positively correlated with general concern. On the right-hand side of the partitioning line are all predictors that are negatively correlated with general concern. The partitioning lines can also be interpreted as discriminant functions: The greater a point's distance from this line, the higher its correlation with general concern.

The plots show that fear of crime and its three components are the best predictors of general concern, followed by the person's history of victimization. Points that are close to the partition lines (e.g., age or education) are significant but poor predictors.

The plots visualize not just the correlations of the predictors with general concern, but also their inter-correlations. For example, age is relatively close to the higher-order value (HOV) conservation in both configurations. This distance reflects that these two variables are positively correlated with each other (0.34\*\*\* and 0.30\*\*\* in the MA and PF samples, respectively).

### **3.6 Explaining general concern: Stepwise regression**

Table 2 exhibits the results of fitting a set of increasingly complex regression models predicting general concern by various sets of predictors. The choice of the predictors is based on the results in Figure 2 and on theoretical considerations. First, we look at what cannot be changed (demographics, history of victimization). Then, the likelihood estimates



Figure 2. MDS representations of the general concerns variable (red point) and various predictors; dashed lines partition the plane into regions where all predictors are either positively (left sides) or negatively (right sides) correlated with general concerns.

and emotional fear of crime are added, because these variables represent most directly the individual's worries focusing on a set of important risks. Then, we add three additional psychological variables that influence a person's view on things in his/her environment of risks (personal values: security, conformity), his/her general trust in institutions and people (social capital), and his/her general attitude toward crimes.

The regression weights in the table are very similar for the MA and the PF samples. In both samples, the *R*-squared values demonstrate that the demographics by themselves (Model 1) explain only 5% of the variance of general concern. This value doubles when adding the person's victimization history in the last year, but the explained variance remains at a modest 10% value (Model 2). Adding the person's expected likelihood of becoming victimized by crimes leads to a big improvement of the model's accuracy (Model 3): The explained variance is more than tripled to 36%. At the same time, the regression weight of victimization becomes essentially irrelevant. Adding the emotional component of fear of crime (Model 4) adds another 5%. The remaining variables (Models 5-7) are essentially irrelevant, explaining almost no additional variance.

## 4. Discussion

A valuable take-home message from the above studies and findings is that people's concerns about becoming victimized contain a general component that can be interpreted as their worries about security in general. A person's concerns about the damages caused by some particular event X would, therefore, always consist of the person's general level of worrying and his/her specific X-related worry. One may assume that the various general and specific worries are

**Table 2.** Unstandardized regression weights and R-squared values of step-wise regression analyses; seven models predicting generalized victimization concerns.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
MA sample							
Gender	0.21***	0.21***	0.11***	0.08***	0.08***	0.09***	0.09***
Age	-0.02***	0.00	-0.01**	-0.01**	-0.01**	-0.01*	-0.02**
Education	-0.11***	-0.12***	-0.07***	-0.07***	-0.06***	-0.06***	-0.05***
Recent victimization		0.22***	0.02*	-0.02	-0.02	-0.02*	-0.02*
Likelihood			0.75***	0.55***	0.53***	0.52***	0.51***
Fear of crime: Emotion				0.39***	0.37***	0.37***	0.36***
Personal values					0.06***	0.07***	0.06***
Trust (social capital)						-0.04***	-0.05***
Attitude toward crime							0.06***
R squared	0.05***	0.10***	0.39***	0.44***	0.46***	0.46***	0.46***
PF sample							
Gender	0.28***	0.28***	0.15***	0.12***	0.12***	0.13***	0.12***
Age	-0.03***	-0.02*	-0.02*	-0.02*	-0.03***	-0.03***	-0.04***
Education	-0.05**	-0.06**	-0.03	-0.03	-0.02	-0.02	-0.02
Recent victimization		0.24***	0.03	-0.01	-0.01	-0.02	-0.02
Likelihood			0.65***	0.47***	0.47***	0.46***	0.44***
Fear of crime: Emotion				0.36***	0.35***	0.32***	0.31***
Personal values					0.09***	0.10***	0.07***
Trust (social capital)						-0.06***	-0.07***
Attitude toward crime							0.12***
R squared	0.05***	0.10***	0.36***	0.41***	0.42***	0.43***	0.44***

influencing each other so that increasing or alleviating one would lead to a similar effect on the other.

Victimization concerns are correlated with numerous variables ranging from demographics, the people's history of being victimized, their personal values, their trust in public institutions (social capital), and some of their attitudes such as their attitude toward crimes in general. The best predictors of a person's victimization worries are his/her general emotional fear of crime and his/her defensive behavior aiming at avoiding risky situations. Good predictors of general and more focused worries are also the person's beliefs of the likelihood of crimes in general or of the likelihood of a particular problem to materialize. Indeed, when statistically explaining people's general levels of worries by what the persons expect to possibly happen, the emotional and actional components of worries do not account for much additional variance. From a management's point of view, this is good to know because likelihood beliefs are cognitions that should be more accessible to rational arguments than emotions.

People's concerns are problems that can be relevant to macro management and that require actions. Excessive concerns are negatively impacting people's performance. They are also impeding effective actions that may reduce, eliminate, or avoid circumstances that generate concerns in the first place. Moreover, the types of concerns that we have studied here are those where people expect actions by management or public change agents to reduce the underlying problems. The findings presented here suggest various approaches that should help managers to plan and implement effective actions. In principle, reducing the risk of becoming victimized by a particular circumstance that people perceive as dangerous should also help to alleviate excessive concerns in general. Of course, a necessary side condition is that people truly believe that the risks have been reduced. A more general approach for management is to make clear that excessive concerns are almost always exaggerated because experience shows that of all the negative events a person is concerned about, almost none ever becomes real.

The data studied in this paper led to remarkably similar—indeed: almost identical—results, even though the data were collected in different cities and years. However, both cities (MA and PF) are similar in having relatively high crime rates and large proportions of blue-collar workers and citizens with migration backgrounds. Hence, to what extent the results reported in this paper can be generalized across all of Germany or other European or non-European populations, remains to be studied in future research.

Finally, we would also point out that in the surveys discussed in this paper, we measured comparatively many concerns about crimes. The universe of victimization worries is, however, much larger, with many more types of concerns. It comprises concerns about rising costs of living, excessive regulations, overly constraining laws, technological changes, epidemics, war, terrorism, or the physical and social living environment of the respondent-to name just a few such categories. Based on facet theory [44,45], one can hypothesize that the structure of these concern types leads to a radex, with the concern types as radial regions, and items that address the person's primary environment more to the radex's center in an MDS plot (as in Figure 1) than items focusing on the secondary environment <sup>[46]</sup>.

## **Author Contributions**

1. Ingwer Borg: Conceptualization, statistics, writing.

2. Dieter Hermann: Surveys and data.

## **Conflict of Interest**

There is no conflict of interest.

## **Data Availability Statement**

For data access, contact the second author.

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