

Much Ado About Crime

Chapters on Psychology and Law

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Fear of Crime, Personal Safety and Well-being: a Common Frame of Reference

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I | INTRODUCTION

Interest in fear of crime has been manifold in the past. Politicians, representatives of the media as well as scientists from different disciplines like criminology, political sciences, or sociology have been concerned with this topic. In spite of the multitude of empirical studies conducted during the past decades, research in this domain has not been without problems (for a critical review of the literature, see Greve, 1998; Hale, 1996). Thus, Sessar (1992) stated with reference to social upheaval and to criminological research: “The terrific speed of development in Germany (and in Eastern Europe) produced the splendid saying: Words have already become obsolete when leaving our lips. The same may happen to criminological research, if ... the nature of the relation between radical change and criminality as a process were neglected” (p.138; translation by the author). This reservation applies still today, both to criminological research in general, and to research on fear of crime in particular. Additionally, two further caveats have to be added: namely, the definition of the variables under investigation in an adequate and unambiguous way and the interpretation of the data in the context of scientific theory. These caveats are in the focus of the present paper.

Psychologists, too, have become involved in research on fear of crime - often, if not mostly, because of their methodological know-how. However, there are good reasons for them to deal with this research domain from a theoretical perspective as well: Psychologists can rely on decades of research on fear and anxiety, on stress and coping, or on critical life events - to name but a few fields that may be reasonably linked to the subject matter under consideration. In the following, I

will approach fear of crime from a slightly different, however related, perspective, that is, from Facet Theory (FT) and its application to the definition of well-being (Levy, 1990; Levy & Guttman, 1989). While there is a considerable amount of theoretical and empirical literature on well-being and related topics in general (e.g., Abele & Becker, 1991; Andrews, 1986; Andrews & Robinson, 1991; Schalock, 1990; Strack, Argyle & Schwarz, 1991), choosing the FT-approach as a frame of reference seems particularly promising, because there exists considerable evidence on how to merge both, theoretical concepts and methodological considerations in conceptualising fear of crime.

To demonstrate this, I start from a broad, empirically based taxonomy of well-being. Next, some basic ideas of Facet Theory (FT) are sketched out, as applied by Levy and Guttman (1989) to the analysis of well-being, coping and related topics. Finally, the FT-approach to well-being is adapted to the analysis of personal safety and fear of crime. Data from a national survey conducted by the Criminological Research Institute of Lower Saxony (KFN) are used for illustrative purposes (Bilsky, Pfeiffer & Wetzels, 1993; Wetzels, Greve, Mecklenburg, Bilsky & Pfeiffer, 1995; Bilsky, 1996; Greve, 1998).

2 | PERSONAL SAFETY AND WELL-BEING

At least at first glance, the fact that studies on fear of crime abound seems to underscore their relevance. From media research we know, however, that *agenda setting* has considerable impact on the salience of a particular problem like crime. The discussion of such a topic, whether in the public or in science, often develops a momentum of its own and can only partly be explained by the actual relevance of the underlying problem. Furthermore, social change or political transformations like those in Germany today are likely to give rise to (existential) fear and anxiety, concerning housing, unemployment, health care, etc. - at least for some part of the population. Such problems may undoubtedly challenge personal safety and eclipse other problems like (fear of) crime. It seems reasonable and necessary, therefore, to check whether the attention devoted to crime in the public debate and in science matches the importance attributed to it by *the individual*, that is, by *the possible victim*. What is needed, then, is a *common frame of reference*, which makes it possible to evaluate the supposed impact of crime *relative to other problems* from the individual's perspective.

Following this line of reasoning, crime can be conceived of as one out of a multitude of potential *stressors* that threaten *personal safety*. These stressors are supposed to cause *strain* in the individual because of the perceived *discrepancy* between the desired and the real state of personal safety. In addition to this discrepancy, the amount of strain is also dependent on whether and to what extent the individual feels competent to *cope* efficiently with the respective situation.

From *psychological* research we know that the *absence of strain* and the *availability of coping resources* are central and defining features of *subjective well-being*. Mayring (1991), for instance, contends that at least four components of well-being should be differentiated. As shown in figure 1, *lack of strain* is one of them. This interpretation is in line with *victimological* reasoning. Bayley (1991) states that people are victims if and only if “they have suffered a loss or some significant decrease in *well-being* unfairly or undeservedly and in such a manner that they were *helpless to prevent* the loss ...” (p. 53; italics by the author).

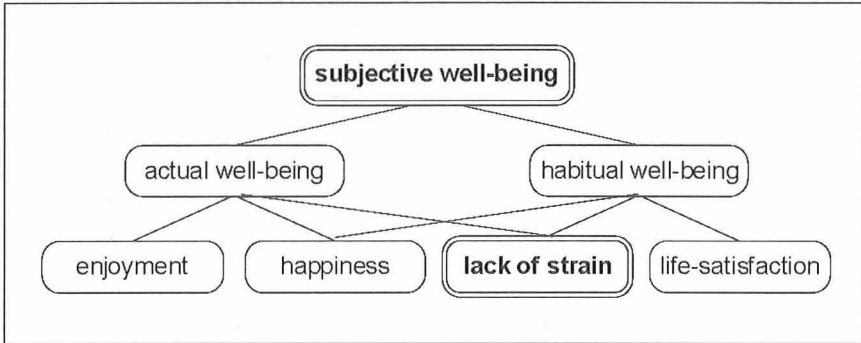


Figure 1: Aspects of well-being (cf. Mayring, 1991, p. 53).

These considerations form the basis for sketching out a framework within which to localize and evaluate (fear of) crime. Starting from some general information about FT, a conceptual system is presented which shows similarities and differences among well-being, coping and related concepts.

3 | A FACET APPROACH TO WELL-BEING

Facet theory (FT) is a (meta-) theoretical approach developed by Louis Guttman, which can be characterized by three features: *Facet design*, a companion set of *multivariate statistical procedures* and *hypotheses of correspondence* between design and data analysis (Borg, 1993; Borg & Shye, 1995; Shye, Elizur & Hoffman, 1994). *Theory*, as understood in this context, means “an hypothesis of a correspondence between a definitional system for a universe of observations and an aspect of the empirical structure of those observations, together with a rationale for such an hypothesis” (Levy & Guttman, 1989, p. 469).

Facet design enables the researcher to define his research interests formally in such a way that systematic data collection and data analysis are facilitated. In this context, a *facet* may be any way of categorising observations as long as the elements of the respective category are mutually exclusive. However, identifying facets supposed to be relevant with regard to analysing the current research pro-

blem, is but a first step. As a second step, the relations among the facets as well as among their elements must be specified. This is accomplished by means of a *mapping sentence*. Such a sentence can be read from top to bottom like a sentence in ordinary language by combining the appropriate elements (1...n) of the different facets (A...Z) in order to identify a special case of the phenomenon under study. Whether or not the facets chosen are 'useful' for answering a particular research question has to be answered by data.

Multivariate statistical procedures usually applied in FT data analysis comprise a set of 'soft' methods that work "with few restrictions and assumptions, so that the substantive findings do not become loaded with mathematical structures and constraints that are irrelevant to the studied domain" (Borg & Shye, 1995, p. xi). Nevertheless, traditional (e.g., linear) procedures for analysing empirical data may be used as well. In the present context, ordinal Multidimensional Scaling (MDS) is of particular interest. MDS represents similarities, e.g., correlations between items, in low-dimensional space in such a way that higher similarities of any two variables correspond to smaller distances of their representations in space.

Hypotheses of correspondence, finally, refer to the relation between the definitional system (i.e., the facets and their mutual relation) and the empirical observations (data) as represented in multidimensional space. In analysing these relations, facets play specific roles (Levy, 1985): Depending on the type of contingencies supposed to exist between psychological variables, different partitions of data, i.e., regions, are expected to emerge in space representing these contingencies (e.g., wedge-like partitions, ordered bands, concentric regions, or combinations of these splits). It should be noted that regional hypotheses, as used in FT, usually refer to space that, in principle, has data points everywhere. This is so because they do not refer to a sample of concrete items but to the *universe*, i.e. the population of items under consideration (Borg & Shye, 1995; Levy, 1985).

Levy and Guttman (1989) used the FT-approach in order to bring two concepts together within one common framework - *well-being* and *coping*. According to these authors, well-being items assess satisfaction concerning the situation or the treatment of an individual or a social group in some life areas. Coping items, on the other hand, relate to (cognitive, affective, or instrumental) behaviour directed against a possible negative state of a life area of an individual or a social group. In terms of their definitional system, expressing satisfaction and coping can be regarded as two varieties of *adjustive behaviour* towards a situation. To provide a common framework for well-being and coping, Levy and Guttman proposed two major facets for defining the domain of adjustive behaviour items, the *mode* and the *directive* of behaviour. Figure 2 shows the respective mapping sentence for observations on adjustive behaviour.

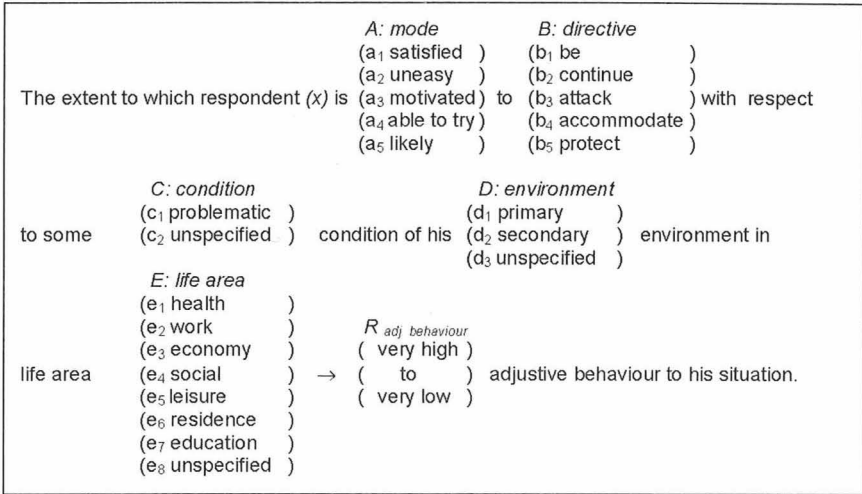


Figure 2: Mapping sentence for observations on adjustive behaviour (cf. Levy & Guttman, 1989, p. 463).

By combining the elements of the two major facets A and B, different forms of adjustive behaviour can be distinguished. The following forms are of particular interest in the present context (Levy & Guttman, 1989; Borg, 1993): *satisfied to be*, i.e., well-being {a₁, b₁}, *uneasiness to accommodate*, i.e., strain {a₂, b₄}, and *ability to try to attack*, i.e., coping {a₄, b₃}.

To test the validity of their theoretical approach, Levy and Guttman specified the *correspondence* hypothesized between the elements of these *facets* and the *regions of the MDS space* that represent the correlations between adjustment-items. In other words, they formulated *regional hypotheses* that link the classes of their definitional system to regions of a representation space for the data (Borg, 1993, p. 117). This was accomplished by referring to the *roles*, facets usually play in partitioning multidimensional space (see Levy, 1985, for a comprehensive overview).

Without going into methodological detail (cf. Levy & Guttman, 1989; Borg, 1993), findings from ordinal MDS of survey data corroborate the hypothesized data structure: *Areas of life* (Facet E) plaid a *polarizing* role, cutting space into wedge-like regions that emanate from a common origin; *primacy of environment* (Facet D) plaid a *modulating* role, partitioning space in concentric bands around a common origin. Both facets appeared on the same two-dimensional projection in space, so that the resulting structure looked like a dartboard, i.e., a *radex*. Finally, the items of the *directive* facet (Facet B) came out ordered on an axis perpendicular to this radex. Figure 3 is a schematic representation of the partitioning of the MDS space according to these three facets of adjustive behaviour. This partitioning resembles more a cone than a cylinder. This is due to the fact that there is more spread at the well-being level than at the coping level. Or, in terms of the

data, “well-being items have, on the average, lower intercorrelations than ‘attack’ (coping) items, with ‘continue’ items in between” (Borg, 1993, p. 126).

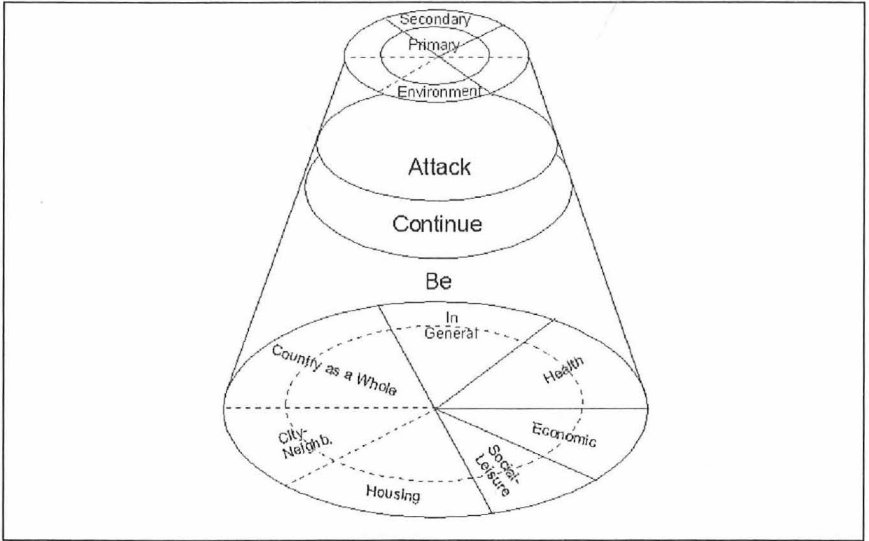


Figure 3: Schematic representation of the partitionings of the MDS space corresponding to three facets of adjustive behaviour (cf. Levy & Guttman, 1989, p. 471).

At least at first glance, notations in terms of Facet Theory look somehow cryptic and require getting used to. Nevertheless, FT proves extremely useful with respect to both, designing research in a transparent way, and analysing data efficiently. This is demonstrated next by applying FT to the analysis of personal safety and strain.

4 | PERSONAL SAFETY AND STRAIN

Findings from preparatory studies conducted as part of our own research on fear of crime (Bilsky & Wetzels, 1994) support the view that the absence of stimuli, supposed to be a challenge to a balanced state of well-being, is characteristic of the lay concept of *personal safety*. Furthermore, incidents mentioned to threaten personal safety were related to *life areas* like those distinguished in the previously cited studies on well-being (Levy & Guttman, 1989; Levy, 1990).

Because of the similarity of connotations of well-being and of personal safety, we expected that empirical analyses that relate to the latter concept would reflect this similarity, too. Stated differently, *strain* caused by threatening stimuli is supposed to be but a special form of *adjustive behaviour*, namely *uneasiness to accommo-*

date {a2, b4} in terms of the above mapping sentence (figure 2). Therefore, asking people to *what extent their feelings of personal safety are threatened by different stressful events*, and submitting their answers to multidimensional scaling, was assumed to yield structures similar to those known from research on well-being.

As we were especially interested in *problematic* conditions of life, the respective element of facet C in the mapping sentence of Levy and Guttman was expanded. According to Young (1991, p.30), three primary *injuries* can be identified as causing major distress to victims: financial injury or loss, physical injury or loss, and emotional trauma. Correspondingly, injury was included as a separate facet in our own mapping sentence, comprising *material*, *physical*, and *psychological* injuries as its elements.

Two other facets were directly adopted from Levy and Guttman's work, the *environment* and the *life areas* facet. As regards *environment*, primary (social) environment is usually defined by close and intimate face-to-face interaction with other social agents, e.g., family members, peer groups, etc., as well as personal (emotional) involvement. Secondary environment, in contrast, is mostly used as a complementary (rest) category, referring to less frequent or less direct social contacts and experiences. The *life areas* facet distinguishes between different categories of concern, like health, work, economy, etc. Figure 4 displays the modified mapping sentence of adjustive behaviour, which focuses on *strain* as a defining characteristic of subjective well-being.

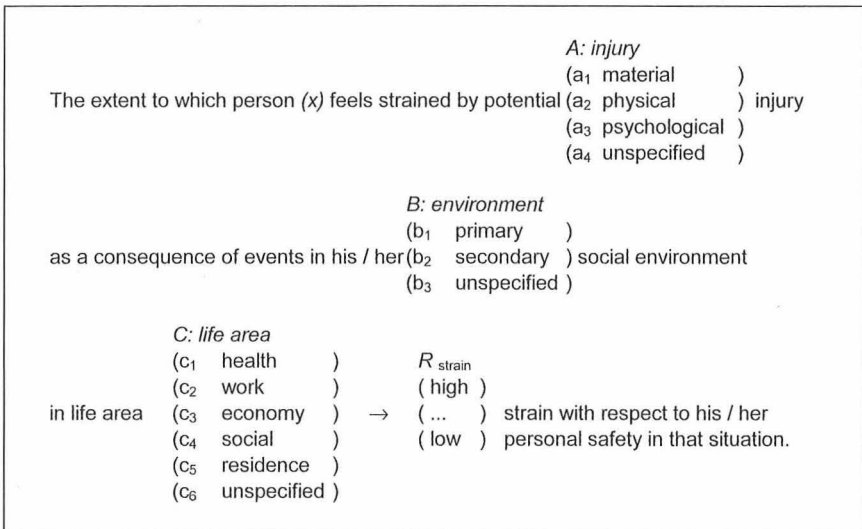


Figure 4: Mapping sentence of strain and personal safety.

The usefulness of this approach for localising crime relative to other stressors of personal safety was tested in two studies, a pilot study (N=213) and a national survey (N=11,116). Stressors were taken from literature on victimization and from our preparatory studies. Each of them was classified *a priori* to empirical analysis according to the three facets of our mapping sentence, as shown in table 1. The pilot study and the national survey differed only insofar, as the *crime-related* stressor remained unspecified in the first ('crime') as opposed to the second study ('assault'; 'theft, robbery, fraud').

Table 1: Stressors of personal safety, investigated in a pilot study (N=213) and a German national survey (N=11, 116).

Question: To what extent do you feel your personal safety to be threatened by the following events and dangers? (not strained - a little - considerably - very much)		
Item (abbreviation)	Structure	
Non-criminal stressors		
loss of job	a1 b2 c2	
inflation and economic crisis	a1 b2 c3	
uncertainty of life annuity (pension)	a1 b2 c3	
severe illness	a2 b1 c1	
war	a2 b2 c1	
natural disaster	a2 b2 c1	
crisis in the health service	a2 b2 c1	
separation or loss of someone close	a3 b1 c4	
environmental damage	a2 b2 c1	
to become dependent on others	a3 b1 c4	
accident	a2 b1 c1	
loss of apartment	a1 b1 c5	
chance	a4 b3 c6	
family fights and anger	a3 b1 c4	
Criminal stressors		
crime (pilot study)	a4 b3 c6	
assault (national survey)	a4 b3 c6	
theft, robbery, or fraud (national survey)	a4 b3 c6	
Facets and elements		
<i>A: injury</i>	<i>B: environment</i>	<i>C: life area</i>
a1 = material	b1 = primary	c1 = health
a2 = physical	b2 = secondary	c2 = work
a3 = psychological	b3 = unspecified	c3 = economy
a4 = unspecified		c4 = social
		c5 = residence
		c6 = unspecified

The matrices of item-intercorrelations from both studies were submitted to ordinal MDS. The results are displayed in figures 5 and 6, respectively. As can be seen, the three facets specified in our mapping sentence (figure 4) could be identified in the pilot study and in the national survey. Both, *injury* and *life areas* play polarizing roles. They are superimposed on one another, splitting the bi-dimensional space into wedge-like regions. *Environment*, on the other hand, pops up as a modulating facet, separating stressors to the primary environment (inner circle) from those to the secondary (in the periphery; see Bilsky, 1996, 1999, Bilsky & Wetzels, 1994, 1995, for more details). All in all, our findings correspond to the structure suggested by Levy and Guttman's model of adjustive behaviour (see figure 3).

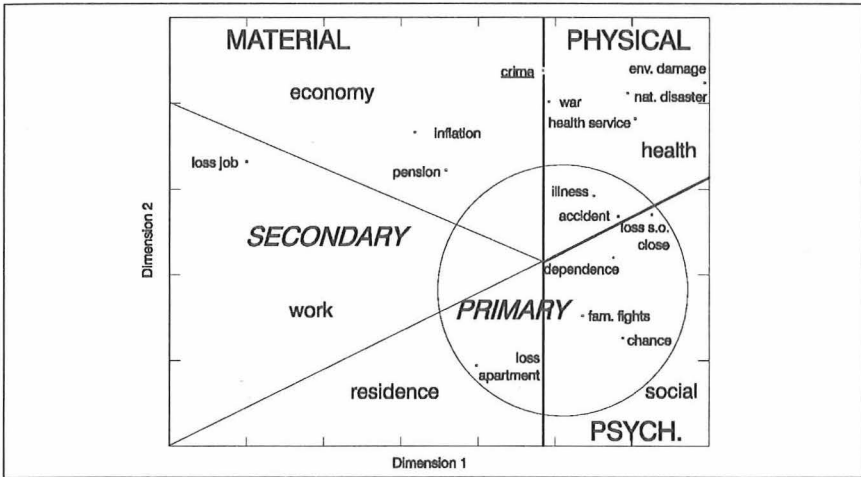


Figure 5: Stressors of personal safety: 2-dimensional ordinal MDS (pilot study; Germany 1992; N = 213).

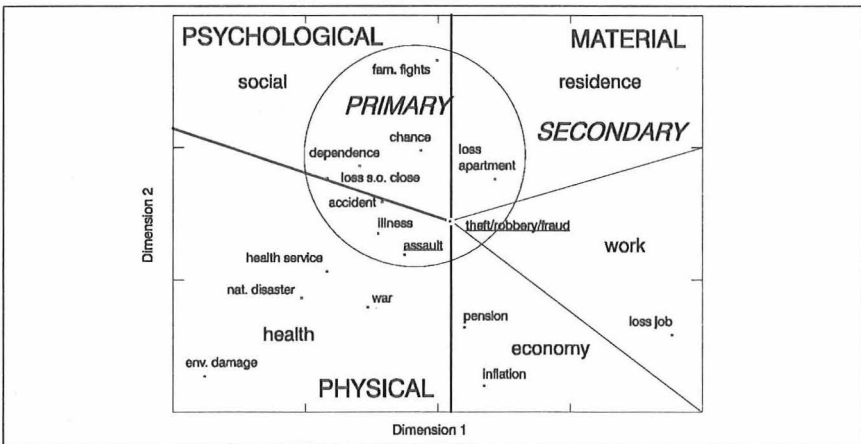


Figure 6: Stressors of personal safety: 2-dimensional ordinal MDS (national survey; Germany 1992; N = 11,116).

What, then, are the advantages of this type of analysis? - From my point of view, at least the following aspects should be mentioned:

First, and most importantly, we were able to specify a *common, theory-based frame of reference for comparing criminal and non-criminal stressors of well-being* with regard to different standards (facets). Systematic comparisons based on such a common frame are necessary for judging the *relative importance* of crime in general, and of concrete criminal acts in particular. They do not only facilitate the identification of social problems, which have been underestimated in the past - whether with respect to the general public or to special groups, e.g. elderly people. They are also helpful in avoiding overreactions to problems that do exist, but are of minor importance.

For illustrative purposes, the amount of strain caused by different stressors, as assessed in our own research (Bilsky, 1996; Greve, 1998; Wetzels et al., 1995), is displayed in figure 7. Data were collected in 1992 from a representative German sample (N=11.116). Items are grouped, displaying stressors to the primary environment first and to the secondary next, with the two crime-related items at the end. Within groups, stressors are arranged according to life areas (cf. figure 6). Strain caused by the different stressors is reproduced as deviation from the overall mean. Of course, it may vary considerably, depending on the subjects under consideration; for our data, this could be shown both for the old and new Federal States (Bilsky, 1996), and for different age groups (Greve, 1998).

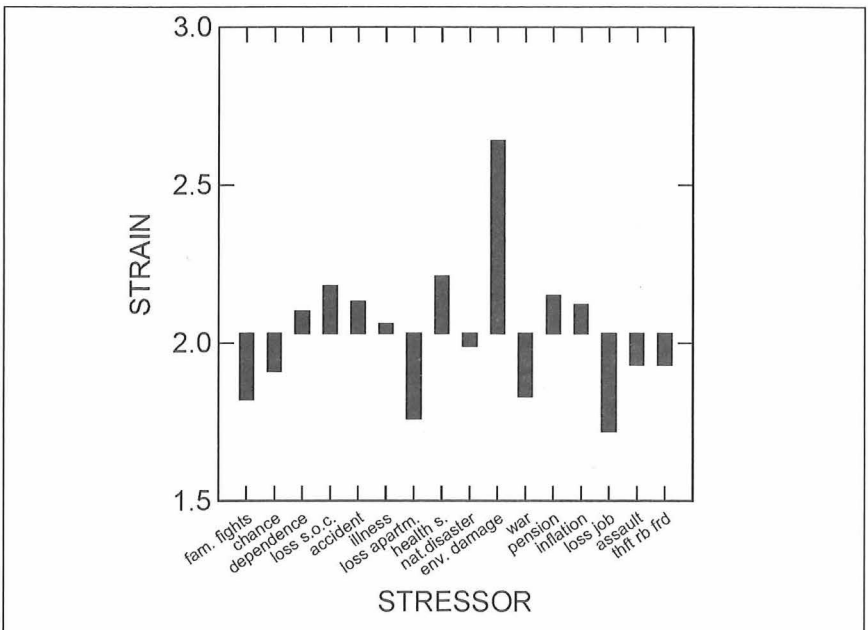


Figure 7: Strain caused by criminal and non-criminal stressors (national survey; Germany 1992; N = 11,116).

One might, of course, ask whether it is not sufficient (and much easier), just to stay with *single* stressors as standards of comparison. This type of comparisons has been practiced repeatedly in past research. The answer is both a conceptual and a methodological one: Comparisons will remain *theoretically vague* as long as there is no clear *rule of how to sample* stressors to be compared. In fact, the FT-approach goes beyond concrete items and formally defines the respective *population* from which they are sampled. This aspect is of considerable importance when comparing findings from studies, which used different operationalizations. As long as there are no valid standards for judging their *conceptual equivalence*, a reasonable transfer of research findings is problematic. However, isolated findings, which do not contribute to a systematic accumulation of knowledge, are scientifically useless.

The necessity to pay close attention to the form of operationalization of a specific concept under study is also evident from our data. It is probably not by chance, that *'crime'*, as analysed in our pilot study, popped up in the *secondary* environment, while the more *concrete criminal acts*, presented in the national survey (assault; theft, robbery, and fraud), showed up in the primary environment (figures 5 and 6). This finding widely parallels the distinction between *'concern about crime'* and *'personal fear of crime'* (Bilsky, Pfeiffer & Wetzels, 1993; Skogan, 1993). *Concern* does not show the defining characteristics of an attitude, i.e., relative stability over time and relevance with respect to the directionality of behaviour. Furthermore, it often refers to an abstract issue that is beyond the scope or personal experience and influence. Thus, it might best be understood as an *opinion* in terms of social psychology (Bergler & Six, 1972), which is based on second-hand information (from the media or other distant sources) and likely to result in stereotypical behaviour, if at all. *Fear*, on the other hand, is usually much more concrete as regards personal experience with and behaviour towards the respective stressors.

Levy and Guttman's (1989) theory of *adjustive behaviour* is a general approach which has the advantage of integrating psychological concepts like well-being, strain and coping, that come into play when investigating fear of crime. Insofar it is suited to serve as a *common frame* within which to compare stressors of *personal safety in general*, including crime. It is true though that, in the present form, it is but a rudimentary system that has to be elaborated by taking more recent findings from stress and coping research into consideration. This applies to both the refinement of facets and their elements. However, this task is beyond the scope of the present paper.

5 | FACETS OF FEAR OF CRIME

In order to study *fear of crime (foc) in more detail*, and to distinguish it from related concepts like concern, it is necessary to modify, extend, and complement the present approach as a second stage. More precisely, it is necessary to elaborate on

the notion of *problematic conditions* of life (figure 2). In addition, the *modality* of a person's reaction whose personal safety is threatened by a crime-related stressor needs specification. I will outline the essential features of this task using *facet design*, as applied in our own research (Bilsky, 1993; Bilsky, Pfeiffer & Wetzels, 1993; Greve, 1998). The following facets resulted from theoretical considerations and from scrutinizing criminological studies. Of course, this is not to say that all of them have to be specified in every particular study. On other occasions, however, it may prove necessary to introduce additional or to modify existing facets, depending on the focus of the respective research. In any case, a *common (meta) theoretical frame* to which to refer when planning research, and when analysing data is helpful in *accumulating and integrating knowledge systematically*, both within and beyond a concrete study. This applies even more when confronted with seemingly contradictory findings. The following comments briefly outline why the different facets are integrated in the overall mapping sentence on fear of crime, as displayed below.

With regard to the *criminal act*, distinguishing property from personal crime is supposed to be basic for elaborating on fear of crime. This distinction is well established in criminological literature (cf., Skogan, 1987); it points to different *targets* of a criminal act as well as to different *costs* incurred by the victim. Imagining a victim of assault (personal), robbery (personal and property), or theft (property crime) conveys an intuitive understanding of this distinction.

The examination of the *costs* incurred by a victim of crime suggests retaining *injury*, already known from our previous analysis, as another facet for specifying fear of crime (Fattah & Sacco, 1989). While theft, for example, is normally associated with the anticipation of material loss, robbery often results in both material loss and physical harm. In addition, psychological impairment of the victim may be observed in the latter case, too. Finally, assault or rape is likely to result in high physical as well as psychological costs. Other examples that are associated with these types of costs could be easily found.

Looking at a person's *reaction* to criminal stressors opens a third perspective on fear of crime. From this perspective, differentiating between an affective, cognitive, and behavioural mode of behaviour is a conceptually useful and promising specification of fear reactions (Bilsky, 1993; Greve, 1998). As in other domains of research (e.g., in attitudinal research; McGuire, 1985), reactions belonging to different *modalities* may either co-vary or differ substantially, depending on the respective situation. Consequently, this conceptual distinction is of considerable importance with respect to the choice of adequate measurement procedures.

Concentrating on the victim and the criminal act without paying attention to the *offender* and the situational *context* would certainly neglect the dynamic character of crime. Although, according to lay concepts of delinquency, crime is likely to be specified as an illegal outdoor activity of a stranger, this is only part of the truth. As known from criminological research, and confirmed by our own findings

(Wetzels et al., 1995; Wetzels & Bilsky, 1997), there are many different forms of intra-family violence, for instance, that clearly conform to legal definitions of crime. Nevertheless, these acts are very often labelled differently, and relatives, close friends, and family members are rarely called criminals in everyday language.

Finally, most investigations in this domain of research relate to *anticipated* or *fictitious victimization*. However, there have been other studies that investigate the impact of *previous victimization* on fear of crime, too. In our own research, for instance, victims older than 60 years of age reported a drastic increase in fear as a consequence of a former victimization (Bilsky & Wetzel, 1997). This finding may best be interpreted in terms of a heightened salience of *vulnerability* and a *lack of coping resources* in the sub-population of elderly victims (Greve, Hosser & Wetzels, 1996). It seems reasonable, therefore, to pay close attention to the effect of *personal experience* when planning a comprehensive study on fear of crime.

These as well as related considerations are summarized in the following *mapping sentence of fear of crime* (figure 8). This sentence formally defines the *population of fear of crime items* as the Cartesian product of the elements of facets A (modality) to G (injury). As a result of this, the range of validity of findings based on this definition, is both outlined and limited in a transparent and controllable way. This definition served as the formal basis for constructing the foc-items of our survey instrument (Bilsky, Pfeiffer & Wetzels, 1993). It clearly deviates from the definition of *concern items*, presented in figure 9 for the purpose of comparison. This type of items has been frequently used in opinion surveys, focusing on whether crime is perceived as *increasing or decreasing*, or whether it is supposed to be *a more serious problem* in one region as compared to another (Skogan, 1993). While concern items have been applied in the KFN-Survey, too, they will not be discussed in the present context.

	<i>A: modality</i>		<i>B: experience</i>		<i>C: criminal act</i>
	(a ₁ cognitively)		(b ₁ anticipated)		(c ₁ personal)
Person (x)	(a ₂ emotionally)	reacts to	(b ₂ experienced)		(c ₂ personal and property)
	(a ₃ behaviourally)		(b ₃ unspecified)		(c ₃ property)
	(a ₄ unspecified)				(c ₄ unspecified)
	<i>D: offender</i>		<i>E: place</i>		<i>F: time</i>
	(d ₁ stranger/s)		(e ₁ at home)		(f ₁ during the day)
crime committed by	(d ₂ acquaintance/s)		(e ₂ at work)		(f ₂ in the evening)
	(d ₃ relative/s)		(e ₃ outside)		(f ₃ at night)
	(d ₄ unspecified)		(e ₄ unspecified)		(f ₄ unspecified)
	<i>G: injury</i>				<i>R_{fear}</i>
	(g ₁ material)				(high)
and likely to result in	(g ₂ physical)	injury to self	→	(...)	fear reaction to crime.
	(g ₃ psychological)				(low)
	(g ₄ unspecified)				

Figure 8: Mapping sentence of fear of crime.

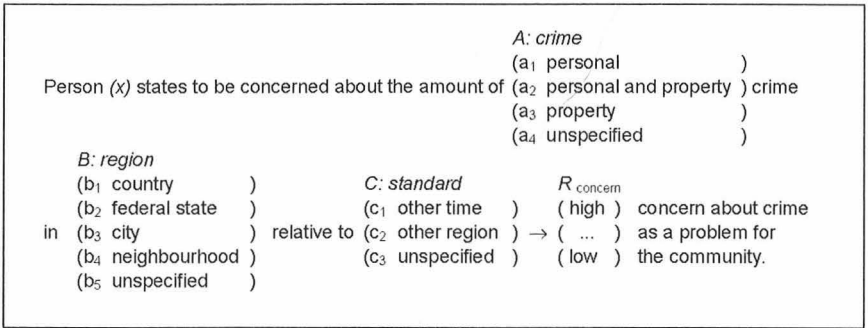


Figure 9: Mapping sentence of concern.

6 | EMPIRICAL SUPPORT FOR A FACETTED APPROACH TO FEAR OF CRIME

The systematic differentiation proposed in the above mapping sentence (figure 8) is certainly helpful when describing the research field under consideration in some detail. But specifying fear of crime in terms of facets clearly goes beyond a mere verbal definition. This can be demonstrated again by means of data from the *KFN-Survey* (Bilsky & Wetzels, 1997; Greve, 1998), as shown in the following two examples.

The *first* one is supposed to illustrate both the *complexity* of the phenomenon under study, and its *systematic decomposition* by means of the facet approach. Two sets of four foc-items each, differing with respect to *modality* (Facet A) and *criminal act* (Facet C), were submitted to *correlational analysis*, together with the so-called *standard item*. This item has frequently been used in criminological research, in spite of considerable critique in the past (Boers, 1991; Fattah, 1993; Skogan, 1993). Among other things, this critique aims at the doubtful validity of the standard item. All nine items refer to *anticipated crime* (Facet B).

With respect to the two item sets, the following additional specifications can be made: Different *offenders*, and different *places* where crime might occur, as specified by Facets D and E, were explicitly mentioned but not varied in these items. *Time of crime* (Facet F) and *injury* (Facet G) remained unconsidered in the present context. The following sample item illustrates the type of assessment applied:

If you think about yourself, how often are you afraid [Facet A], that you could, for example, be burgled, by someone you know or a stranger [Facet D], whether at home or elsewhere [Facet E]. ...

I am afraid ... of being burgled [Facet C]

(very frequently, frequently, sometimes, seldom, never)

The complete facetization of the items (i.e., the structuples) and the results of the correlational analysis, including the standard item, are presented in table 2 in the form of a multi-trait-multi-method (MTMM) matrix.

Table 2: Intercorrelations of fear indicators: national German sample (old Federal States; N = 3,631).

Indicator	(structuple)	a ₂ c ₃	a ₂ c ₁	a ₂ c ₂	a ₂ c ₁	a ₁ c ₃	a ₁ c ₁	a ₁ c ₂	a ₁ c ₁
Afraid (freq.) of being ...									
burgled	(a ₂ b ₁ c ₃ d ₄ e ₄)								
beaten and injured	(a ₂ b ₁ c ₁ d ₄ e ₄)	0.66							
mugged and robbed	(a ₂ b ₁ c ₂ d ₄ e ₄)	0.71	0.75						
sexually abused	(a ₂ b ₁ c ₁ d ₄ e ₄)	0.37	0.50	0.52					
Probability of being ...									
burgled	(a ₁ b ₁ c ₃ d ₄ e ₄)	0.59	0.46	0.53	0.28				
beaten and injured	(a ₁ b ₁ c ₁ d ₄ e ₄)	0.41	0.59	0.51	0.34	0.59			
mugged and robbed	(a ₁ b ₁ c ₂ d ₄ e ₄)	0.49	0.51	0.60	0.35	0.66	0.72		
sexually abused	(a ₁ b ₁ c ₁ d ₄ e ₄)	0.24	0.35	0.36	0.65	0.34	0.45	0.47	
How safe do/would you feel if you were alone, outside, at night in this area? (standard item)		0.43	0.40	0.47	0.44	0.35	0.32	0.37	0.35

As can be seen, correlations vary considerably. They range from $r=.24$ to $r=.75$ between items that relate to the cognitive (risk assessment) and the affective component (frequency of being afraid) of fear of crime. Furthermore, correlations between these indicators and the *standard item* proved to be only moderate ($r=.32$ to $r=.47$). The variability found between the above correlations, thus, underscores the *complexity* of the phenomenon under study.

However, this complexity can be disentangled by referring to facets A and C which summarize the distinguishing features of the two item sets in table 2. To prove this, an *ordinal MDS* was applied to the correlations of the faceted items. As suggested by their structuples, the eight items were split by the MDS according to both facets. The resulting two-dimensional solution (coefficient of alienation $K = .04$) took the form of a grid (*duplex*), which separates the affective and the cognitive elements of Facet A on one dimension. Facet C shows up on the other one, with personal, personal and property, and property crime, as *ordered elements*. Given this distinction, the question arises, of whether these differences prove relevant when analysing the *relation between the above fac- indicators and other variables*.

An answer to this question is given by the *second* example that draws on a study of Greve (1998). He recently dealt with a problem that has plagued criminologists for years - the *fear-victimization paradox* (Eve, 1985; Fattah, 1993; Sacco, 1990). According to this paradox, research has repeatedly shown that women and elderly people exhibit higher levels of fear in spite of a supposedly lower risk of victi-

mization as compared with other subpopulations. Greve (1998) analysed this phenomenon in considerable detail, showing convincingly that this 'paradox' can be resolved by differentiating cognitive, affective, and behavioural aspects of fear. I will describe his findings to the extent that they relate to the above facetization of foc-indicators.

Starting from the question of whether older individuals exhibit more fear of crime than younger ones, Greve (1998), using the *standard question* above (table 2), checked as a first stage, whether he was able to replicate the often cited finding that *fear rises with age*. The positive answer found to this question justified his assumption of building on data similar to those cited in the literature in support of the fear-victimization paradox.

Next, he verified whether the same results were obtained when referring to the *affective* fear component for assessment. For this purpose, items measuring the *frequency* of the four criminal experiences outlined in table 2 were aggregated to form an overall indicator of this component. In terms of the above mapping, the distinctive features of this *global indicator of affect* are characterized by $\{a_2, c_4\}$. According to Greve, this measure is closely linked to the *intensity* of fear as measured by the item-format "How *great* is your fear of being ..." ($r = .81$; cf. Greve, 1998, p. 301). All in all, his analyses with this indicator *do not confirm the covariation of foc and age* supposed by the fear-victimization paradox - whether based on mean or individual scores.

As a third stage, a general indicator for the *cognitive* fear component, $\{a_1, c_4\}$, was constructed in a similar way by aggregating the respective items on the subjective *probability* of becoming a victim (table 2, above). Again, *no age-related increase* on this dimension of fear was found. Instead, the subjective probability of victimization even seemed to drop somewhat in the age groups over sixty years.

Finally, Greve computed an indicator of the *conative* fear component, $\{a_3, c_4\}$, by aggregating eight different *precautionary behaviours*. Two typical examples of these items are: 'I only leave the house after nightfall when it is absolutely necessary' and 'I avoid certain streets, squares or parks' (cf. Greve, 1998; Bilsky, Pfeiffer & Wetzels, 1992). Contrary to findings relating to the affective and the cognitive fear component, the age curve of the conative indicator *showed an increase*, indicating that older persons behave more defensively and carefully than younger ones. The author concludes this part of his analysis by stating: "This finding proves illuminating with regard to the discernible increase in fear of crime observed using the standard question. Apparently, this way of assessing fear of crime addresses a situation which is closely related to avoidance behaviours ..., and those aspects obviously gain in significance with age" (Greve, 1998, p.291).

Greve's results are revealing with respect to common shortcomings in criminological research on the fear-victimization paradox in general, and on age and fear of crime in particular. They confirm that the latter is not a monolithic but a multi-faceted construct. This is of special importance, because its components exhibit dif-

ferent associations with age, thus underscoring the necessity of distinguishing sub-concepts of fear of crime, as suggested by the mapping sentence outlined before.

Both examples emphasize the *usefulness of a common frame of reference* for deriving operationalizations from theoretical considerations, for disentangling confusing research results, and for integrating findings systematically. Of course, this is not to say that there is (only) one suitable way of how to define fear of crime, or even only one acceptable (set of) definition(s). Quite to the contrary, *definitions have to be tailored in accordance with the research questions to be answered*. Otherwise methodological artefacts are likely to confound results and to mask effects as has been shown elsewhere (Bilsky & Wetzel, 1997). With this task, however, a common frame of reference like *Facet Theory* is extremely helpful.

7 | EPILOGUE

Fear of crime is an explosive issue that has often been discussed controversially, both in the general public and in politics. Usually, the media and politicians are blamed for willingly accepting research results that match their political interests or fit into the prevailing political climate and ignoring others. However, the exploitation of research that is supposed to serve ones own interests is but one part of the problem. In fact we have to admit that, very often, there is a gap between theoretical and methodological know-how in social sciences and its use in criminological research. As a consequence, the ignorance of this know-how has contributed to the repetition and reiteration of equivocal and misleading research results. Since political initiatives and activities are quite likely to affect the situation of victims of (fear of) crime, it is a matter of scientific responsibility and ethics whether or not scientists stick to well established but obviously poor research practices. The often-indiscriminate use of data and their inadequate analysis that accompanied the spread of computers and the accessibility of complex programs coined the derogatory abbreviation GIGO, garbage in garbage out, more than three decades ago. It is up to us to design better studies, and to brand those that are deficient. To my understanding, better studies are needed - and possible - in this politically delicate and sensitive domain.

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