Assessing Conflict Tactics in Close Relationships: A reanalysis of a research instrument
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1. Introduction

Detailed information about the occurrence and the structure of violent and nonviolent conflicts within society is important in many ways. Political and social planning, legal decision making, and therapeutic intervention, for example, depend heavily on this kind of knowledge. However, while the relevance of public conflicts or conflicts of public interest like street crime, environmental crime and white collar crime is normally taken for granted, there is still another type that does not pertain to the public but to the private sphere. Many innerfamilial conflicts, or rather, conflicts in close relationships (cf. Wetzels, 1993), have quite a number of features in common with criminal ones, especially when including violent interactions. Consequently, Straus and Gelles (1988, p.15) define violence in such a way that it is synonymous with the legal concept of assault (see Bilsky & Wetzels, 1994b, for a further discussion of interrelations between lay and normative views of injury and injustice). Nevertheless, most people shy away from assuming close connections or even common roots between extra- and innerfamilial conflicts. According to the prevailing interest in protecting privacy and intimacy, at least in the Western culture, people are mostly reluctant to report about private conflicts in criminological research - or even to the police. This holds for both, victims and offenders. Consequently, it is all but amazing that official crime statistics are not particularly enlightening with respect to this problem area, and normal crime and victim surveys were not very successful in investigating this type of conflict either.

However, criminologists are not the only researchers that have been interested in analyzing private conflicts. Rather, a special branch of family violence research has developed during the

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past two decades. While also using survey instruments in their studies, family violence researchers have been much more successful than criminologists in exploring innerfamiliar conflicts. This is at least partly attributable to their mostly avoiding connotations that come close to the lay concept of crime, and putting special emphasis on the family context. Unfortunately, family violence research has developed quite separately from criminology in general and from victim survey research in particular (Hotaling, Straus & Lincoln, 1990; Smith, 1994).

The present paper springs from a nationwide representative victim survey on fear of crime and criminal victimization that aimed at integrating the advantages and experiences of both, research on criminal victimization and family violence (cf. Bilsky, Pfeiffer & Wetzels, 1993). This was accomplished by (a) using instruments from these two branches of research, (b) choosing a design that induced a shift of attention, so that crime as well as conflicts in close relationships were deliberately focused upon, and (c) applying a 'sealed-envelope technique' (modified drop-off technique) that guaranteed a maximum of anonymity to the interviewees (see Wetzels & Bilsky, 1994, for more information). One core instrument used in this study was an adaptation of the Conflict Tactics Scales (CTS) of Straus (Straus & Brown, 1978; Straus, 1979) that has frequently been applied in investigations into family conflicts (Straus & Gelles, 1988). In spite of its widespread use, however, analysis of this instrument has not been without its problems and complications, some of them being in the focus of this paper. Giving a sketch of the CTS first, we will next outline our conceptual approach which pays special attention to the methodological problems associated with this instrument. In a third step, the central results of our analysis are summarized. Finally, a brief outlook is given on how to apply this approach to similar research problems.

2. The Conflict Tactics Scales (CTS)

Conflict Tactics, as used by Straus, designate "overt actions used by persons in response to a conflict of interest" (1979, p.76). The Conflict Tactics Scales (CTS) are an instrument for assessing the means employed to resolve such conflicts. These scales concentrate on the measurement of three modes of dealing with conflict that are particularly important for testing the "catharsis theory" of violence control as outlined by Straus (1974; cf. Straus, 1979). These modes are labelled reasoning, verbal aggression, and violence (physical aggression), respectively. While reasoning means the use of rational discussion to settle conflicts, verbal aggression comprises verbal and nonverbal acts as well as threats which symbolically hurt the other. Finally, violence stands for "physical force against another person as a means of resolving the conflict" (Straus, 1979, p.77).
The CTS consists of a list of items that sketch out "actions which a family member might take in relation to a conflict with another member" (Straus & Brown, 1978, p.417). Items are ordered in such a way as to progress from low to high in coerciveness and aggressiveness. The response categories ask for the frequency with which each action occurred during the past year, ranging from never to more than 20 times. The original version (Form A) of the CTS comprised 14 items; it was employed as a self-administered questionnaire, presenting pairs of response categories for each item in order to assess so-called family role relationships, e.g., husband-wife, parent-child, and sibling-sibling relationships (Straus & Brown, 1978). The revised version (Form N; Straus, 1979), in contrast, was designed for use in face-to-face interviews. It consists of 18 items. One additional item (g) was included because pre-test interviews showed it to be a frequent response and interviewees felt uneasy without it; however, this item is omitted for scoring. Responses range from zero to six (originally: 0 to 5), marking the following response alternatives: never, once, twice, 3 to 5 times, 6 to 10 times, 11 to 20 times, more than 20 times in the past year (Straus, 1979).

The CTS was employed in quite a number of studies to assess violence between spouses, against children and by children (Straus & Gelles, 1988). Although dealing with an extremely delicate domain of human interaction, experience with the CTS indicates low refusal and antagonism rates (Straus, 1979, p.79). According to Straus (1979; Straus & Gelles, 1988), several studies employing factor analysis support the three factors proposed conceptually. However, Straus admits that the CTS violence indices (with the exception of the child-to-child violence scores) produce extremely skewed distributions with the consequence that "even 'robust' statistics such as correlation often produce incorrect results" (Straus, 1979, p.80). Nevertheless, analyses of the CTS are mainly based on this kind of statistic. Apart from standard factorial procedures, however, Straus (1979, p.80) suggests that Guttman scaling is an appropriate technique to apply to the CTS. Since items were selected to represent acts of increasing degrees of coerciveness, this form of scaling is supposed as "a means of determining the extent to which the items form a single hierarchical order" (Straus, 1979, p.80).

3. Method

3.1 KFN victim survey

Our analyses of the CTS were realized in the context of the KFN victim survey conducted in spring 1992 (Bilsky, Pfeiffer & Wetzels, 1993; Bilsky & Wetzels, 1994a,b,c, in press; Wetzels & Bilsky, 1994). This survey was designed to investigate into general feelings of safety, fear of
crime, and criminal victimization. In order to improve conventional interviewing in victim surveys, we employed an additional research kit for especially investigating into victimization in close relationships. Following a face-to-face interview similar to those performed in other victim surveys and aiming at assessing criminal victimizations, both, outside and inside close relationships, interviewees received a drop-off questionnaire together with an unmarked envelope and a seal. This questionnaire, containing an adapted version of the CTS (cf. Straus, 1990) as one central part (see appendix), was introduced as a set of questions on family conflicts and problems with closely related persons. Having filled in this questionnaire in the absence of the interviewer, the respondents put it into the envelope, sealed it and handed it over to him or her when returning after about forty minutes in order to collect the material.

3.2 Sample

On the whole, 15,771 inhabitants of the old and new federal states of Germany, including an oversampling of persons aged 60 years or more, participated in this study. A subsample of 5,851 participants of the face-to-face interview was given the drop-off questionnaire. Only few of them refused to fill in this self-report instrument, resulting in a response rate of 97.6% (i.e., 5,711 respondents).

The analyses reported here are based on a subset of this subsample, made up of 3,796 persons representative of German citizens aged 20 years or more and living together in one common household with at least one other person. Considering only those persons that live together with someone else is necessary in order not to underestimate victimization rates. Restricting analyses to only those aged 20 years or more seemed reasonable with respect to the five years period of retrospective questioning used in our study; thus, subjects reporting their first victimization were at least 16 years old.

3.3 Defining conflict experience

Before analyzing the CTS data, we rephrased conflict experience in terms of a mapping sentence (cf. Borg, 1993; Levy, 1985) in order to arrive at testable hypotheses about the structure of items. On the whole, three facets could be conceptually distinguished, namely direction of conflict tactics, modality of confrontation and negative impact. Facets A and C are ordered facets, highlighting different aspects of conflict experience. Figure 1 gives our conceptual definition of this experience. The classification of items according to these facets is reproduced in the appendix in terms of structuples (Levy, 1985).
During the past five years, person (x) has been faced with

A: direction
(a1 constructive )
(a2 undirected ) conflict tactics in close relationships that belong to the
(a3 destructive )

B: modality
(b1 cognitive/reasoning )
(b2 affective ) type and imply
(b3 physical )

C: negative impact
(c1 no aggression )
(c2 displeasure )
(c3 minor threat/aggression )
(c4 severe threat/aggression )

R: experience
(r1 not experienced )
(r2 experienced ) conflict tactics

3.4 Data

Even if darkfigures of undetected and unreported violence are high, and our sealed envelope approach to detecting victimization in close relationships should be effective, victimizations will nevertheless remain rare events in terms of statistics, resulting in extremely skewed distributions. Consequently, standard data analysis techniques presupposing special distributions should not be applied. Taking these preconditions into account, nonmetric techniques for data analysis were selected for studying structural aspects of the CTS. It should be noted that, other than Straus, we included the one mock item (g) in all of our analyses. We did so because, to our understanding, it does fit into the remaining set of CTS items quite well (see the mapping sentence, above, and the structuples in the appendix). Furthermore, we used dichotomous instead of ordinal data indicating whether or not the respective victimization occurred within the past five years.
4. Hypotheses

For the CTS items, it seems natural to first venture a Guttman scale prediction, similar to Straus (1979). The items, no doubt, exhibit a cumulative character in the sense that the conflict behaviors range from not aggressive (items a, b, c) to very aggressive indeed (e.g., items u, v, w). The response scale, on the other hand, does not assess this same dimension, but rather asks for a rating in terms of frequency of occurrence. On that scale, it is an obvious hypothesis -- at least for the extreme behavior forms -- that these behaviors are partially incompatible within the same family. That is, one should not expect many, if any, co-occurrences of behaviors that attempt to resolve a conflict constructively by "reasoning" and behaviors where violent aggression is involved within the same family. Rather, we hypothesize the items form a scale in terms of overlapping distributions of co-occurrences, and that the order of the behaviors on this scale can be partially predicted from a three-facetted content analysis of the items described above.

5. Data Analysis and Results

The data reveal, as predicted, that reporting a severe form of victimization does not imply reporting of less severe victimizations: Cross-tabulating adjacent items (i.e., items that are similar with respect to difficulty) demonstrated that agreeing to the less 'difficult' item is not a necessary condition for agreeing to the more 'difficult' one. In fact, CTS items showed much more the characteristics of 'point items'.

An analysis of the pattern of all contingencies between items is done as follows. Contingencies between pairs of items are first assessed by Jaccard's similarity measure s3 (Gower, 1985). This measure reflects the proportion of events where both X and Y occur, given at least one of them occurs. Table 1 gives the respective matrix of similarity coefficients. As can be seen, a very clear picture of contingencies shows up: coefficients close to the main diagonal of the matrix are considerably higher than those farther away from it indicating that neighbouring items show the greatest similarity. Thus, the matrix exhibits the typical characteristics of a simplex-pattern. This pattern implies that items should be (nearly) perfectly scalable on only one dimension, if analyzed by a distance model.
Table 1: Matrix of CTS-similarity coefficients (Jaccard's dichotomy coefficient s3)\(^1\)

|   | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V |
| B | 94 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| C | 33 | 33 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| D | 45 | 46 | 35 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| E | 36 | 36 | 32 | 56 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| F | 31 | 31 | 30 | 47 | 56 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| G | 28 | 28 | 25 | 42 | 48 | 50 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| H | 05 | 05 | 08 | 10 | 13 | 15 | 17 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| J | 06 | 06 | 08 | 11 | 15 | 16 | 18 | 35 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| K | 05 | 05 | 06 | 09 | 12 | 12 | 15 | 33 | 41 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| L | 06 | 06 | 08 | 11 | 15 | 16 | 20 | 37 | 34 | 31 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| M | 07 | 07 | 08 | 10 | 14 | 15 | 18 | 36 | 27 | 28 | 45 |   |   |   |   |   |   |   |   |   |   |   |   |
| P | 02 | 02 | 02 | 04 | 05 | 05 | 06 | 26 | 23 | 22 | 25 | 25 |   |   |   |   |   |   |   |   |   |   |   |
| R | 02 | 02 | 02 | 04 | 05 | 05 | 06 | 27 | 26 | 27 | 24 | 21 | 51 |   |   |   |   |   |   |   |   |   |   |
| S | 01 | 01 | 02 | 03 | 04 | 04 | 05 | 21 | 19 | 19 | 21 | 21 | 52 | 47 |   |   |   |   |   |   |   |   |   |
| T | 01 | 01 | 01 | 02 | 03 | 03 | 03 | 17 | 16 | 17 | 14 | 14 | 44 | 39 | 47 |   |   |   |   |   |   |   |   |
| U | 01 | 01 | 01 | 01 | 02 | 02 | 02 | 10 | 09 | 11 | 08 | 08 | 28 | 29 | 31 | 42 |   |   |   |   |   |   |   |
| V | 01 | 01 | 01 | 01 | 02 | 02 | 02 | 12 | 12 | 13 | 11 | 10 | 34 | 35 | 38 | 58 | 61 |   |   |   |   |   |   |
| W | 01 | 01 | 01 | 01 | 02 | 02 | 02 | 09 | 10 | 12 | 09 | 08 | 31 | 30 | 37 | 52 | 61 | 66 |   |   |   |   |

\(^1\) main diagonal and decimal points omitted

Using SYSTAT's MDS module to do a similarity structure analysis (SSA; cf. Borg & Lingoes, 1987), we find that a one-dimensional representation is possible with a low stress value of 5.3 %. Figure 2 shows the scaling solution graphically. One notes that the scale (Y-axis) exhibits three groups of items: the first gap or step is evident when moving from cognitive-affective behaviors to physical tactics; the second transition corresponds to moving from minor to severe (dangerous) physical tactics.

The SSA scale perfectly represents the order of the items on all three facets. Moreover, although not explicited in terms of the facets, the order of the items within their categories clearly reflects gradients of increasing 'seriousness' of consequences for the victim of the conflict behaviors. This should stimulate efforts for a more fine-grained facetization of these behaviors.
6. Discussion

All in all, our analyses revealed a clear structure of the CTS that is compatible with Straus' (1979) conceptual distinction of different modes of conflict tactics and former dimensional analyses (Straus & Gelles, 1988). However, these mostly factorial analyses were built on shaky ground since their methodological prerequisites are questionable (see above). The nonmetric MDS-approach presented here avoids unnecessary methodological assumptions and arrives at a parsimonious one-dimensional solution that, nevertheless, reflects all core aspects of the CTS-conceptualization.

In addition, our tentative facetization of items poses some questions that might be worth pursuing. Thus, the facets used in our mapping sentence are not completely crossed in the CTS items. But are
they correlated in the sense that some combinations are impos-sible? That does not seem to be the case. For example, it is conceivable to have a behavior that, at least in the eye of the behaving person, can be constructive (a1) and imply physical pain (b3/c3), e.g.,spanking a child. Similarly, a constructive-affective (a1/b2) behavior could be clearly showing one's displeasure (c2) with the intent to communicate one's feeling. Hence, it may be premature to conclude that conflict tactics are one-dimensional before one has not explicated the complete universe of behaviors. To put it differently, instead of confining oneself to a mere methodological (i.e., theoretically blind) analysis, it might be worth investigating further into the interrelation of potentially relevant facets to arrive at a conceptual precisition of conflict tactics. The facet approach offers sufficient advice how to proceed from reproductive to heuristic, concept-oriented research.

7. References


## Appendix

<table>
<thead>
<tr>
<th>CTS Id</th>
<th>Item</th>
<th>Facets direction</th>
<th>modality</th>
<th>impact</th>
<th>Experience (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>b</td>
<td>got information to back up my side of things</td>
<td>a1</td>
<td>b1</td>
<td>c1</td>
<td>85.4</td>
</tr>
<tr>
<td>a</td>
<td>discussed the issue calmly</td>
<td>a1</td>
<td>b1</td>
<td>c1</td>
<td>87.4</td>
</tr>
<tr>
<td>c</td>
<td>brought in s.o. else to help settle things</td>
<td>a1</td>
<td>b1</td>
<td>c1</td>
<td>30.8</td>
</tr>
<tr>
<td>d</td>
<td>sulked and/or refused to talk about it</td>
<td>a2</td>
<td>b2</td>
<td>c2</td>
<td>45.7</td>
</tr>
<tr>
<td>e</td>
<td>stomped out of the room or house</td>
<td>a2</td>
<td>b2</td>
<td>c2</td>
<td>36.1</td>
</tr>
<tr>
<td>f</td>
<td>cried</td>
<td>a2</td>
<td>b2</td>
<td>c2</td>
<td>32.1</td>
</tr>
<tr>
<td>g</td>
<td>did or said sth to spite me</td>
<td>a3</td>
<td>b2</td>
<td>c3</td>
<td>29.8</td>
</tr>
<tr>
<td>m</td>
<td>slapped me</td>
<td>a3</td>
<td>b3</td>
<td>c3</td>
<td>7.6</td>
</tr>
<tr>
<td>l</td>
<td>pushed, grabbed, or shoved me</td>
<td>a3</td>
<td>b3</td>
<td>c3</td>
<td>7.2</td>
</tr>
<tr>
<td>j</td>
<td>threw or smashed or hit or kicked sth</td>
<td>a3</td>
<td>b3</td>
<td>c3</td>
<td>6.5</td>
</tr>
<tr>
<td>h</td>
<td>threatened to hit or throw sth at me</td>
<td>a3</td>
<td>b3</td>
<td>c3</td>
<td>6.0</td>
</tr>
<tr>
<td>k</td>
<td>threw sth at me</td>
<td>a3</td>
<td>b3</td>
<td>c3</td>
<td>5.4</td>
</tr>
<tr>
<td>r</td>
<td>hit or tried to hit me with sth</td>
<td>a3</td>
<td>b3</td>
<td>c4</td>
<td>2.3</td>
</tr>
<tr>
<td>p</td>
<td>kicked, bit, or hit me with fist</td>
<td>a3</td>
<td>b3</td>
<td>c4</td>
<td>2.2</td>
</tr>
<tr>
<td>s</td>
<td>beat me up</td>
<td>a3</td>
<td>b3</td>
<td>c4</td>
<td>1.8</td>
</tr>
<tr>
<td>t</td>
<td>choked me</td>
<td>a3</td>
<td>b3</td>
<td>c4</td>
<td>1.2</td>
</tr>
<tr>
<td>v</td>
<td>threatened with a weapon</td>
<td>a3</td>
<td>b3</td>
<td>c4</td>
<td>0.9</td>
</tr>
<tr>
<td>w</td>
<td>used a weapon</td>
<td>a3</td>
<td>b3</td>
<td>c4</td>
<td>0.8</td>
</tr>
<tr>
<td>u</td>
<td>burnt me</td>
<td>a3</td>
<td>b3</td>
<td>c4</td>
<td>0.7</td>
</tr>
</tbody>
</table>

**A:** direction  
- a1 constructive  
- a2 undirected  
- a3 destructive  

**B:** modality  
- b1 cognitive/reasoning  
- b2 affective  
- b3 physical  

**C:** aggressive impact  
- c1 no aggression  
- c2 displeasure  
- c3 minor threat/aggression  
- c4 severe threat/aggression
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