

# THE INFLUENCE OF THE TYPE OF DATA COLLECTION METHOD ON THE RESULTS OF THE VICTIM SURVEYS A German Research Project

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## Introduction

The introduction of opinion polls and the gradual development of differentiated methods of survey-based research in the first half of this century had a fundamental impact on the subject matter and methodology of empirical social research. Understandably, the rapid advances in survey-based research also influenced the field of criminology and particularly the continuously expanding field of victimology. Since the seventies several large-scale victim studies have been conducted in the Federal Republic of Germany which were based primarily on oral interviews, survey questionnaires distributed by mail, and, more recently, telephone interviews. The first nationwide victimisation study (covering the old federal Länder) which dates back to 1990 was performed by the telephone interview technique<sup>2</sup>. This telephone-based victim survey was part of the first International Crime Survey<sup>3</sup>. The first national victim survey covering the old as well as the new federal Länder, however, was based on personal interviews<sup>4</sup>. Thus far, no general agreement has been reached as to the respective advantages and drawbacks of the three data collection methods applied in victim studies.

On the basis of available research results which were obtained in the USA there is reason to assume that the data collection procedure has an influence on the derived results. Especially the factor of "social desirability" can be assumed to differ in the three data collection methods. In the following, several studies that have investigated the influence of the data collection procedure on the survey results shall be presented. Subsequently, an empirical study aimed at assessing the influence of the data collection procedure on the results of a survey which was carried out by the present author (oral interview versus mail survey) will be introduced in detail.

## Comparative studies of the influence of the data collection method on survey results

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  - 3 van Dijk, J.J.M., P. Mayhew and M. Killias (1990) *Experiences of crime across the world: key findings of the 1989 International Crime Survey*, Kluwer, Deventer, Boston.
  - 4 Kury, H., U. Dormann, H. Richter and M. Würger (1992) "Opfererfahrungen und Meinungen zur Inneren Sicherheit in Deutschland", *BKA-Forschungsreihe*, Vol. 25, BKA, Wiesbaden.

The choice of the survey method implemented in a social-scientific empirical investigation is generally influenced by the following four factors: 1) the costs invested in data collection; 2) the time required for answering questions and conducting the survey; 3) the expected response rate; and 4) the expected biases. Wiseman correctly points out that: "Typically, more weight is placed on the first three factors and, as a result, adequate attention has not been given to the latter consideration"<sup>5</sup>. In the last few years an increasing number of studies were conducted particularly in the Anglo-American parts of the world, which investigated the influence of the data collection method on the results of an investigation. According to Dillman and Tarnai, however, such studies primarily compared face-to-face interview techniques with telephone survey methods<sup>6</sup>. As far as the comparison between telephone and face-to-face interviews is concerned, the reporting authors found differences in quite a number of studies, which on the whole, however, remained fairly insignificant. More substantial discrepancies, on the other hand, can be expected to emerge between the two types of oral data collection procedures (personal interviews and telephone interviews) and written surveys (in particular mail surveys).

The greater part of comparative studies on written and oral data collection procedures found significant - though in some respects relatively minor - differences indicating that mail surveys are less affected by the factor of social desirability. Thus, in a written survey Ellis found a greater number of self-accusing statements than in personal interviews<sup>7</sup>. Nederhof reported that a greater number of altruistic replies are given in personal interviews than in mail surveys<sup>8</sup>. Hochstim who conducted one of the first comparative studies on the three essential data collection methods found pronounced divergencies in the answers given depending on the method of data collection<sup>9</sup>. It became apparent that sensitive questions are answered more openly in the case of written data surveys. Siematycki reports the findings of a comparable study which was also based on all three data collection methods<sup>10</sup>. Health affairs were the object of investigation of a representative sample. In the latter case there were also clear indications that the data which were compiled orally (particularly by phone) were falsified in the sense of social desirability. Intimate questions concerning personal health conditions were answered more openly and honestly in written surveys than in telephone interviews.

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<sup>5</sup> Wiseman, F. (1972) "Methodological bias in public opinion surveys" *Public Opinion Quarterly* 36:105.

<sup>6</sup> Dillman, D.A. and J. Tarnai (1988) "Administrative issues in mixed mode surveys" in Groves, R.M., P.P. Biemer, L.E. Lyberg, J.T. Massey, W.L. Nicholls II and J. Waksberg (eds.) *Telephone survey methodology*, p. 520, Wiley, New York.

<sup>7</sup> Ellis, A. (1947) "Questionnaire versus interview methods in the study of human love relationships" *American Sociological Review* 12:541-552.

<sup>8</sup> Nederhof, A.J. (1984) "Visibility of response as a mediating factor in equity research" *Journal of Social Psychology* 122:211-215.

<sup>9</sup> Hochstim, J.R. (1967) "A critical comparison of three strategies of collecting data from households" *American Sociological Review* 12:541-553.

<sup>10</sup> Siematycki, J. (1979) "A comparison of mail, telephone, and home interview strategies for household health surveys" *American Journal of Public Health* 69:238-245.

Leeuw provided an extensive meta-analysis comparing the influence of the data collection method (mail, telephone, personal) on the results obtained and reported the results of one of his own studies<sup>11</sup>. His study was based on an earlier meta-analysis of investigations that had evaluated the quality of the data obtained from telephone and personal interviews<sup>12</sup>. In their meta-analysis Leeuw & Zouwencover cover studies dating from 1952 to 1986. A total number of 28 studies comparing telephone and personal interviews were included in the analysis. Eighty-one per cent of these studies were performed in the USA. As a result the authors found the response rate to be higher for personal interviews (75%) than for telephone interviews (69%). As far as the influence of social desirability is concerned, however, the two data collection methods exhibited only a few differences. Nonetheless, the personal interview rated slightly better.

Leeuw expanded the meta-analysis by incorporating supplementary surveys, including written surveys as well<sup>13</sup>. The following points were to be probed by the analysis: 1) do systematic differences between the various data collection methods exist, and 2) of what magnitude are the determined effects. In all, 52 studies were included in the analysis, 81% of which were conducted in the USA. No studies have been reported in the Federal Republic of Germany. Distinct differences were noted between the three types of interview approaches with respect to the response rate: personal interviews = 75%, telephone interviews = 71%, and written questionnaires = 68%. These differences have a high statistical significance. Only minor differences were found to exist between personal interviews and telephone interviews, when the quality of the acquired data was compared. In the case of personal interviews the number of unanswered items was low, but had a substantially lower statistical significance. If the year of publication of the study was taken into account, the following notable effect was observed: in the nine assessed studies published before 1980 a statistically significant - but nonetheless minor - effect of social desirability was verified; in the five studies published after 1980 this was no longer the case. More pronounced differences were found to exist between written surveys and personal interviews. The written surveys achieved better results regarding the influence of social desirability. When sensitive items were concerned, written surveys showed less susceptibility to social desirability than personal interviews. Written surveys also yielded better results in this respect than telephone surveys. Personal interviews offered better overall results when individual items were left unanswered. Here the proportion of unanswered items remained lower than in written surveys. In the case of written surveys the respondents refused to answer certain items or even the entire questionnaire somewhat more frequently than in the case of personal interviews. "But when the questions are answered in mail surveys, the resulting data are of higher quality, and well-known response effects are less influential"<sup>14</sup>. Furthermore, the author reports on the implementation

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<sup>11</sup> de Leeuw, E.D. (1992) Data quality in mail, telephone and face to face surveys, Amsterdam.

<sup>12</sup> de Leeuw, E.D. and J. van der Zouwen (1988) "Data quality in telephone and face to face surveys: a comparative meta-analysis" in Groves et al., Telephone..., op. cit., pp.283-299.

<sup>13</sup> de Leeuw, Data..., op. cit., p. 21 et seqq.

<sup>14</sup> de Leeuw, Data..., op. cit., p. 32.

and results of her own field experiment in which all three types of data collection methods were applied. The category of telephone interview methods was further subdivided into phone interviews in which answers were either recorded by conventional means, i.e. paper and pencil, or by Computer Assisted Telephone Interviewing (CATI). Statistically significant differences concerning response rates were noted here as well: mail interviews = 68%, personal interviews = 51%, telephone interviews with pencil and paper = 66%, and CATI = 71%. Surprisingly, the personal interviewing method received the lowest rating here. The univariate data analysis procedure essentially confirmed the results of the meta-analysis: in the case of mail surveys more unanswered items were noted, yet a lower degree of social desirability concerning items with a sensitive content. In this domain it was more difficult to persuade those persons interviewed by mail to take part in the projects. On the other hand, once they were willing to participate, they answered more openly, and their replies were more reliable and showed more consistency<sup>15</sup>. But still, the differences are also quite small here. The multivariate data analysis showed, however, that the calculated degrees of correspondence tend to vary depending on the applied data collection method.

In the field of criminology - including victimology - in which a growing number of large-scale surveys are being conducted in the Federal Republic of Germany in particular, hardly any systematic attempts have been made to fathom the influence of the data collection method on the data collected, for example, in victim studies. Within the framework of a study on self-reported delinquency Kreuzer et al. compared whether differences appear in the dark-figure questionnaire, when the new first-term college students screened by the study were interviewed in a group environment or by mail<sup>16</sup>. In the opinion of the authors the interview situation has no noticeable effect on the response behaviour<sup>17</sup>. At the same time, however, the authors report one exception: "The participants in the mail survey admitted - with a significantly higher rate - having been sentenced for the commission of an offence already once before (13.1% as opposed to 4.1%;  $p \leq 0.005$ "). This result again points in the same direction found repeatedly: in written surveys respondents exhibit less social desirability.

A first experimental study aiming to determine the influence of all three data collection procedures (personal interview, mail and telephone surveys) on criminological, viz. victimological, data was carried out by our team as a preliminary investigation precedent to the more extensive comparative study described below<sup>18</sup>. The internationally established findings were exactly reproduced by this preliminary study that comprised interviews with 195 persons.

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<sup>15</sup> de Leeuw, Data..., op. cit., p. 118.

<sup>16</sup> Kreuzer, A., Th. Gorgen, R. Romer-Klees and H. Schneider (1992) "Auswirkungen unterschiedlicher methodischer Vorgehensweisen auf die Ergebnisse selbstberichteter delinquenz" *Monatschrift für Kriminologie und Strafrechtsreform* 75:91-104.

<sup>17</sup> Kreuzer et al., Auswirkungen..., op. cit., p. 92.

<sup>18</sup> Wiebel, N. (1991) *Methodenvergleich dreier Befragungsarten anhand einer Einstellungsuntersuchung zum Thema Kriminalität*, Diplomarbeit, Freiburg.

## Our own study<sup>19</sup>

On account of the above research findings we must proceed on the assumption that the data collection procedure has an influence on the derived research results. Differences are above all to be expected between the written (mail) and the oral (mainly personal and to a lesser degree also telephone) survey method. Thus far, at least in the field of criminology, no systematic research has been conducted in Germany into the influence of the applied data collection method, e.g. on the survey findings. Within the framework of our own large-scale victimological survey, conducted by the Max Planck Institute for Foreign and International Criminal Law in Freiburg in cooperation with the Faculty of Law at the University of Jena as part of a large victimological research project of the MPI, we examined *inter alia* the influence of the data collection procedure on the derived research results. Following the first national victim study, carried out by the MPI in cooperation with the Federal Office of Criminal Investigation (Bundeskriminalamt, BKA) in Wiesbaden, a follow-up victim survey was planned which was conducted merely in the cities of Jena and Freiburg as well as in surrounding rural towns<sup>20</sup>. In order to determine the influence of the data collection method on the findings derived from this investigation, the data were - only in Jena, however, - collected both postally (the respondents received the questionnaire by mail) and via oral interviews. On account of international research findings we based the design of the survey on the following hypotheses regarding the influence of the data collection procedure on the obtained findings:

- H1: In a victim survey, the oral (face-to-face) and written (mailed questionnaire) data collection procedures differ to the effect that the answers given by orally interviewed persons to sensitive items are more in line with social desirability than those gained by way of a mail survey. These differences are statistically significant, though relatively minor.
- H2: With respect to the individual items the two data collection procedures (written and oral) exhibit age- and sex-specific differences.
- H3: The replies given in oral victimological surveys to sensitive items exhibit less age- and sex-specific effects than those recorded in written surveys.
- H4: The values in a standardised personality questionnaire are influenced by the method of data collection. The answers given in a written survey are less in line with social desirability than the statements made in oral interviews.
- H5: More victimisation incidents are reported in mail surveys than in oral interviews due to smaller effects of forgetting.

### Design and implementation of the survey

In the city of Jena, the drawing of the sample was carried out in 1991 by extracting a random sample of  $n = 4,000$  persons aged 14 and above from

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<sup>19</sup> Our thanks in this connection go to Prof. Dr. Kraupl and also Prof. Dr. Ludwig from the Criminological-Criminalistic Institute of the University of Jena.

<sup>20</sup> Kury et al., *Opfererfahrungen...*, op. cit.

community census files. In a second step this sample was divided into two subgroups of  $n = 3,000$  persons who received the survey instrument, i.e. a fully standardised questionnaire, by mail and  $n = 1,000$  persons who were interviewed personally within the same period of time by interviewers who had been trained specially for this purpose. For financial reasons the sample for the personal interviews was kept as small as possible, but was chosen large enough to render possible statistical calculations and reliable statements. The entire survey was conducted between October 1991 and February 1992. The respondents screened by mail received a first reminder after about 3 weeks and a second one after 3 more weeks, if they had not answered in the meantime. If a person who was to be interviewed personally had not been at home the first time, the interviewer tried to get in touch with him or her again twice. The questionnaire essentially monitors the following issues: financial and job situation of the respondent or his/her household, working conditions in case of professional activity, living situation, contacts, problems in city district, significance of goals in life, variables referring to the field of anomy, attitudes towards and experiences gathered in connection with alcohol and drugs, causes of and attitudes towards crime, living habits, fear of crime, victimisation in 11 crime categories (suffered by the respondent or by another member of his or her household), attitudes towards criminal sanctions and criminal prosecution, attitudes towards the police and demographic personal data. In addition, the screened persons were asked to fill in a fully standardised psychological personality questionnaire (Freiburg Personality Inventory FPI-R). The personality inventory makes a survey of 12 personality dimensions, the latter two of which are not independent of the first 10 scales mathematically (see Table 3).

After the completion of our data collection the response rate totalled 48.9% for the written survey and 57.8% for the oral interviews. Our calculations are hence based on  $n = 1,420$  mailed questionnaires and  $n = 542$  questionnaires filled in via oral interviews (see Table 1).

## Results

Before performing the data analysis we selected from the extensive questionnaire, which comprised a total of 81 items (not including FPI-R), those items for our investigation that we considered to be sensitive to the influence of social desirability. The following group of variables are involved here: views on one's fellow-man and morals, anomy, issues concerning foreign residents, neighbourhood affairs, fear of crime, appreciation of police performance, district attorneys and courts, assumed causes of crime, criminal prosecution, restitution, offenders and victims, and the death penalty (see Table 2). In addition, we performed this comparison for the 11 monitored offences which were split up into three categories, though, according to the seriousness of the committed offence: offences without personal contact (theft of, or from an automobile, damage to automobiles, motorbike or bicycle theft and theft of personal property not directly carried or worn by the victim), burglary (including attempted burglary), as well as offences with personal contact (robbery and attempted robbery, theft of personal property carried or worn by the victim, sexual harrasment and sexually motivated assault, and bodily assault or threat)<sup>21</sup>. Finally, the comparison of data collection methods also bore reference to the 12 rating scales of the FPI-R personality questionnaire. The results are presented in Tables 2-4. In each case the mean values and also the standard deviations were calculated separately for written and oral data collection procedures. The significance calculations were performed by multivariate analysis. The variables of family status and educational degree were filtered out in order to exclude any possible influence of these variables on the derived results. Further control of other demographic variables was not required, because a trial run had shown that the two groups (written survey -oral method) did not differ. As a supplement to the respective overall random samples the differences in mean values and significances existing between the data collection methods were calculated for both sexes, and also for the age groups above and below the age of 40. In a final data evaluation step we treated the written and oral investigations as two separate victim studies differing only in the chosen method of data collection. In this light we tested to what extent sex and age differences show up in the variables of written surveys and oral surveys, respectively. Tables 2-4 also show the results of the significance calculations, indicated by asterisks in the columns between the male and female mean values and the two age groups  $\leq$  and  $>$  40.

The results obtained are listed below.

In reference to H1: before evaluating the data we selected from the entire questionnaire 25 items which we considered to be relevant for the influence of social desirability. Accordingly, 25 significance tests concerning mean deviations between mail-based and face-to-face data collection methods were carried out for the overall group of interviewed persons. Out of these 25 significance tests no less than 21 showed a statistically significant deviation of the mean between the written and oral form of data collection. In a total of 12 cases, i.e. in virtually half of the cases, an error probability  $\leq 0.001\%$  was obtained. Four times the error probability was  $\leq 1\%$  and five times  $\leq 5\%$ . Without exception, the significant differences all aimed in

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<sup>21</sup> For comprehensive information see Kury et al., *Opfererfahrungen...*, op. cit.

the expected direction. Hypothesis No. 1 which contends that the respondents of oral interviews give answers which are in line with social desirability more often than respondents of mail surveys can thus be confirmed in this point. Hence, written-survey respondents lean more towards the view that most people do not care about others (item 1), that moral principles are no more valid nowadays (2), they show a greater understanding for people who "beat" foreigners out of the country (3), they are more strongly in favour of curbing the influx of foreigners (4), they are more dissatisfied with their neighbourhood (5) and are of the opinion that the feeling of neighbourly solidarity has deteriorated since the reunification of East and West Germany (6). Moreover, they express a greater fear of crime (7, 8 and 9); in comparison to respondents of oral interviews they rate police performance as being poorer before the turn of events leading to reunification (10); they consider the police to be altogether quite unfriendly at the present time - and also during the period before reunification (11, 12), and they are to a greater degree of the opinion that the courts and district attorneys do not, and did not, adequately fulfil their responsibilities - neither before nor after the political swing towards German reunification (13, 14). Accordingly, a greater proportion of the written-survey respondents consider the leniency of the courts (15) as well as the hesitancy of the police to take a harder line of action (16) to be a major cause of crime. As expected, we were also able to confirm distinct statistical differences concerning views on criminal sanctions: especially respondents of the written survey consider it important that the offender is determined (17) and that the state attends to the needs of the victim (22). At the same time, questionnaire respondents feel it is less important that the offence is discussed with the offender and that he is induced to provide compensation for inflicted damage (23) and further that institutions give assistance to the offender (24). In this context it comes as no surprise that written-survey respondents advocate the death penalty more strongly (25).

The correlation coefficients (Pearson-r) which are also included in Table 2 and the magnitude of the observed differences in mean values indicate that the influence of the data collection method on the obtained results should not be overestimated. Such an influence clearly exists, although in general it is not particularly prominent, especially as far as the differences in mean values and the magnitude of the correlation coefficients are concerned. The correlation coefficients exceed a value of  $r = 0.12$  only in a low number of cases.

In reference to H2: the differences in mean values calculated for the overall group were additionally determined for both sex and age groups. The distinction between sex and age can provide indications as to the sex- and age-specific effect of the type of data collection method on the results of an investigation. Already the varying number of significant mean deviations between the two groups points towards such a sex- and age-dependent effect. Out of the total of 25 performed comparisons, the following rates of significant differences were found at an error probability level of at least  $p \leq 5\%$ : 17 in the case of males, 13 for females, 10 for the younger age group and 17 for the elder age group. These findings indicate that the data collection method on the one hand affects specifically the group of males in particular and on the other hand the age group above 40, i.e. elder respondents. From this one can conclude that males and elder respondents are more inclined to answer surveys in the sense of social desirability and that this tendency largely disappears for these two groups in the case of written surveys.

In reference to H3: we infer that social desirability blurs actually existing sex- or age-related differences. This should reflect in our results in the following manner: statistically significant sex- and age-specific differences should be verifiable to a lesser degree in written surveys than in oral interviews. Distinct divergencies are noted if the determined number of significant mean differences between age and sex is analysed separately for both types of data collection methods: whereas 28 significant differences were found in written surveys (sex: 12 ; age: 16), this number dropped to a mere 17 in the case of oral surveys (sex: 6; age: 9). The number of statistically relevant differences amount to a little over 60% of the values determined for written surveys. If we assume that the data derived from written surveys are more valid - as indicated by the above findings - it can be inferred that actually existing sex- and age-specific differences are not revealed by oral surveys due to the falsifying influence of social desirability. This differing proportion of significant differences in mean values cannot be explained on the basis of the different size of the random samples used in written and oral data collection procedures. Hypothesis No. 3 can thus be considered as validated.

In reference to H4: the empirical US-American investigations have demonstrated that the type of data collection method also influences the results of questionnaires used in standardised psychological personality tests. This implies that the magnitudes of different personality dimensions determined by such questionnaires depend on the method of collecting data. In fact, the influence of the person managing the experiment on the results derived from psychological test studies has been intensely debated, especially within the field of psychodiagnostics<sup>22</sup>. Since personality test forms are being used recurrently in criminological investigations, we additionally tested the dependence of the results produced by such studies on the type of data collection method chosen. The Freiburg Personality Inventory Form (FPI) represents a personality questionnaire developed along the lines of an American prototype which is very commonly applied in criminological practice in the German-speaking parts of Europe. We used the revised version designated as FPI-R<sup>23</sup>. We assumed that written surveys - as opposed to oral data collection methods - would yield higher values in the categories of inhibitions (FPI-R4), excitability (5), aggressiveness (6), openness (10) and emotionality (N) on account of the influence of social desirability. Lower values were expected in written surveys for the following categories: satisfaction with one's life (1), social orientation (2), performance orientation (3), stress (7), physical complaints (8), health problems (9), and extrovertedness (E).

Understandably, the FPI-R10 "openness" rating scale is of particular importance in this context, since it was developed in the direction of the "lie-detection scales" and is thus correspondingly significant. The authors of the test system themselves point out that respondents with low values on the scale are intent on creating a good impression, in order to, for example, "deny patterns of behaviour which are looked upon as being socially unacceptable"<sup>24</sup>.

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<sup>22</sup> Rosenthal, R. and R.L. Rosnow (1969) *Artifact in behavioral research*, Academic Press, New York.

<sup>23</sup> Fahrenberg, J., H. Selg and R. Hampel (1984) *Freiburger Persönlichkeitsinventar (FPI-R)*, Hogrefe, Göttingen.

<sup>24</sup> Fahrenberg et al., *Freiburger...*, op. cit., p. 41.

The results found by our group are listed in Table 4. With the exception of the categories of excitability (5), aggressiveness (6), physical complaints (8) and emotionality (N), the anticipated differences were confirmed to a statistically significant degree. With the exception of the category of aggressiveness (6) the observed differences headed in the expected direction also in the case of the non-significant rating scales. Mail-survey respondents thus gave socially less desirable answers than respondents in oral interviews in the Freiburg Personality Inventory as well. In contrast to the orally interviewed group those persons screened by mail rate themselves as more dissatisfied with their present and past living conditions, their partnership situation and jobs; they express the view more strongly that they are unable to fully develop their personal potential, that they often brood over their lives, that they are fed up with everything; they have a greater inclination to fall into sombre, depressed moods (FPI-R1). They place more emphasis on individual responsibility for one's living circumstances, whereas on the other hand they consider the state to be responsible for social welfare and are, in their own words, less involved in charitable causes (2); according to their own description they are less ambitious and competitive, less achievement-oriented, and rate professional success as less important (3); at the same time they describe themselves as being more inhibited in their social environment and acting more as background figures in social functions. They report themselves as being more easily embarrassed and more timid (4). Furthermore, they depict themselves more frequently as being less stressed and less overworked; they claim to a greater degree that they are capable of handling the tasks and achieving the standards of performance demanded of them (7); they describe themselves as having less worries about their health, being more easy-going and more robust (9), but more reserved and less sociable in their contact with others (E). As far as the most important dimension of this comparative study is concerned, i.e. "openness" (10), the persons interviewed by mail display more self-criticism and admit more minor weaknesses and faults; they also admit deviations from the norm more frankly and with fewer reservations. In comparison, the respondents of oral interviews are more inclined to create a good impression and obviously tend to deny patterns of behaviour that are considered socially undesirable. These findings, and in particular the results pertaining to the openness scale, clearly complement the findings presented above, that is, that falsifications in the sense of socially desirable answers can also be expected in personality questionnaires. Virtually no differences in the overall picture - with regard to the mean differences between the age and sex groups - are found for either of the data collection methods. Hypothesis No. 4 was thus also essentially confirmed.

In reference to H5: in our previous comparisons between written and oral data collection methods our starting point was the assumption that influences on the results of such surveys exist which result from the respondents of written surveys giving answers less strongly according to social desirability, i.e. more openly and honestly. The aspect of social desirability should not significantly affect data on events of victimisation suffered by respondents. However, in victim studies in which victimisation events are screened which lie relatively far back in time it was repeatedly shown that the effect of forgetting can introduce an element of falsification in the description of an experienced victimisation incident. In our victim study victimisation events were screened which occurred during the last year. It can be assumed that a part of the victimisation events were not reported by the victims

because they had been forgotten, even during this - as far as the general time scale of victim studies is concerned - relatively short period of time. Since the respondents have more time to think over their answers and are under less pressure in written surveys, the factor of forgetting should play a less significant role here than in the case of oral data collection techniques. At the same time, more serious cases of victimisation should be remembered more distinctly than minor incidents. One is therefore justified in assuming that more victimisation events of a minor nature are reported in written surveys than in orally conducted interviews. No differences between the data collection methods should be expected in the case of serious victimisation, because such serious events are remembered more vividly and are therefore accessible to oral interview methods. If cases of victimisation involving other members of a household are probed, differences should become observable independent of the seriousness of the victimisation event. Since the respondent was himself not victimised, he should be more prone to forget any serious victimisation incident experienced by another member of his household, and in consequence should specify a lower number of victimisation events in oral interviews than in written surveys.

We have conducted comparisons of the three combined categories of offences described above: offences without victim-offender contact, burglary and offences with victim-offender contact. The results are presented in Table 4. They essentially confirm our hypothesis. Statistically highly significant differences heading in the expected direction were found for the category of (relatively minor) offences without personal contact both in the case of personal victimisation and victimisation of another member of the household. More criminal acts, viz. victimisation incidents, were reported in written surveys than in orally conducted surveys. When the respondents are under less time pressure as in written surveys, they apparently remember a larger number of relevant incidents. Our results also confirmed the assumption that the type of data collection method plays a less significant role in cases of personal victimisation involving serious victimisation events. Statistically significant differences are found neither for burglary nor for offences with personal contact. The only assumption that could not be corroborated by our study was that an effect of the data collection method also results in the case of serious offences, when the respondent is asked to specify situations in which another member of the household was victimised. A difference aiming in the expected direction was observed, however the corresponding value was only slightly above the significance level ( $p = 0.06$ ).

## **Discussion of the results**

Since the seventies, large-scale victim studies have also been conducted in the Federal Republic of Germany. In the field of victimological and dark field research the methodology with respect to data interpretation has been refined and improved under the influence of social scientists. Research is still in its infancy as far as the data validity with respect to distortions occurring in connection with data collection is concerned. No such specific studies have thus far been conducted in the criminological-victimological field. An overview of empirical comparative investigations which have so far been carried out mainly in the USA essentially reveals a clearly significant, though moderate influence of the data collection

procedure on the research findings to the effect that the oral (face-to-face and telephone) procedure is more susceptible to effects of social desirability than the written (particularly postal) method, where no or almost no such influence takes effect.

In order to determine to what extent these findings also apply to the Federal Republic of Germany we conducted an experimental study within the framework of a victimological research project, the data being collected by means of both a written (mail) and an oral (personal interview) survey. The representatively chosen sample consisted of citizens of the city of Jena above the age of 14. The respondents were randomly assigned to the two types of survey groups (written and oral). The results largely confirmed our starting hypotheses. To a high extent, a preliminary data analysis of those items selected for the comparison of the two data collection procedures revealed statistically significant differences between written and oral data collection in the expected direction. Without exception, the answers given in the written survey were less in line with social desirability. The replies were more frank and less in agreement with general (assumed) social expectations than the results derived from the oral interviews. It is to be assumed that the results of the mail survey reflect the unfalsified attitudes of the screened persons to a higher degree and that their replies are hence more honest, open and valid. For example, the respondents screened by mail are slightly more opposed to foreign residents and to a further admission of foreigners, they express a greater fear of crime, they are more critical of the police, the public prosecutor and the courts, they are more in favour of more severe punishment and less in favour of victim-offender-mediation and restitution and speak more in favour of capital punishment.

In addition, we were able to show that the applied data collection procedure clearly influences sex- and age-related differences. Clearly less sex and age effects were noted for the oral than for the written collection method, i.e. they obviously become blurred under the influence of social desirability. The collection procedure not only influences the items which are sensitive in regard to social desirability, but also the findings derived from a standardised personality inventory. Those screened by mail describe themselves as being more dissatisfied with their life-style, as less socially minded and performance-oriented, more self-conscious in social situations, less strained, less worried about their health, and more introverted and reserved. Above all, however, on a given "openness" rating scale ("lie-detection" scale) they rated themselves as more honest and open, painting, on the whole, a picture of themselves which is less oriented by social desirability.

The differences between written and oral data collection noted for the monitored victimisation categories meet our hypothetical expectations to a large extent. The respondents screened by mail reported more incidents of victimisation than those interviewed orally, at least as far as less severe types of victimisation are concerned. This might be explained by the fact that the respondents screened by mail recollect more victimisations, as they are less pressed for time while filling in the questionnaire. This finding also indicates a greater validity of the results derived from a written survey.

On the whole the results yielded by our experimental survey distinctly differ according to data collection procedure in that the data collected by mail can be expected to be more valid and expressive than those compiled in oral interviews, as the statements made in the former are less in line with social desirability and as the

effect of forgetting is lower in the case of questions referring to past personal experience (earlier victimisation incidents). The effects we determined are statistically significant or highly significant to a large extent, though not very large. The latter result marks a further important finding, as the significance of a finding not only depends on whether the difference established is statistically significant, but also on its magnitude.

## Summary

We explained the importance of research into the influence of the data collection method on the research findings and gave a short description of the most important empirical investigations into this issue. On the whole they established an influence of the collection procedure to the effect that a stronger trend towards socially desirable behaviour is to be expected in the case of oral as opposed to written surveys. We outlined our own experimental investigation into this issue, i.e. a victimological survey, where the same questionnaire had been presented to 3,000 postally screened and 1,000 orally interviewed persons in the city of Jena. Both the selection of respondents and their assignment to the two types of survey groups had been carried out randomly. The results largely confirm the starting hypotheses. In the case of postal data collection, as opposed to oral interviews, the answers are less in line with social desirability. This not only applies to the questionnaire developed by us, but also to a standardised personality inventory. With respect to questions monitoring victimisation (incidents of victimisation suffered within the year preceding the survey) the respondents screened by mail report more petty incidents of victimisation than the orally interviewed group. As a rule, the findings we determined are highly significant statistically, though not very large. This indicates a clear, though moderate influence of the data collection procedure (written vs. oral) on the survey findings, including results derived from victimological surveys.

**Table 1: Record of contact**

|                              | Jena mailed |       | Jena interview |       |
|------------------------------|-------------|-------|----------------|-------|
|                              | n           | %     | n              | %     |
| <b>Gross sample</b>          | 3,000       | 100.0 | 1,000          | 100.0 |
| <b>Non-relevant/missing*</b> | 99          | 3.3   | 62             | 6.2   |
| <b>Relevant contacts</b>     | 2,901       | 100.0 | 938            | 100.0 |
| <b>Missing</b>               | 1,481       | 51.1  | 396            | 42.2  |
| <b>Response rate</b>         | 1,420       | 48.9  | 542            | 57.8  |

\* For mailed questionnaire "undeliverable as removed or deceased", for interview "deceased or removed".

**Table 2: Influence of data collection procedure: variables referring to attitudes, anomy, social desirability, fear of crime, performance of police and legal authorities, and criminal sanctions.**

| Variables | n      |        | Mean   |        | Stand.dev. |        | F value <sup>2</sup> | P    | Pearson r |
|-----------|--------|--------|--------|--------|------------|--------|----------------------|------|-----------|
|           | Mailed | Interv | Mailed | Interv | Mailed     | Interv |                      |      |           |
| Total     | 1,399  | 539    | 3.19   | 3.06   | 0.81       | 0.94   | 9.88                 | .002 | -.067**   |

|  |         |       |     |          |         |      |      |       |      |         |
|--|---------|-------|-----|----------|---------|------|------|-------|------|---------|
| 1) Most people don't care about others                               | Male    | 629   | 248 | 3.19     | 3.13    | 0.79 | 0.87 | 1.52  | .218 | -.037   |
|  | Female  | 761   | 290 | 3.19     | 3.01    | 0.83 | 0.99 | 9.70  | .002 | -.091** |
|  | <= 40ys | 695   | 258 | 3.21     | 3.08    | 0.77 | 0.91 | 5.93  | .015 | -.072** |
|  | > 40ys  | 680   | 279 | 3.17     | 3.04    | 0.85 | 0.97 | 4.10  | .043 | -.064*  |
|  | Total   | 1,375 | 537 | 2.86     | 2.67    | 0.93 | 1.03 | 13.37 | .000 | -.086** |
| 2) Moral principles are not valid anymore nowadays                   | Male    | 621   | 248 | 2.89     | 2.75    | 0.91 | 0.99 | 3.59  | .059 | -.066   |
|  | Female  | 745   | 288 | 2.83     | 2.60    | 0.95 | 1.06 | 11.33 | .001 | -.104** |
|  | <= 40ys | 686   | 256 | 2.76***3 | 2.64    | 0.89 | 1.00 | 2.89  | .089 | -.059   |
|  | > 40ys  | 665   | 279 | 2.96***3 | 2.70    | 0.95 | 1.06 | 15.22 | .000 | -.121** |
|  | Total   | 1,392 | 535 | 1.45     | 1.39    | 0.85 | 0.78 | 4.30  | .038 | -.034   |
| 3) Understanding for people who "beat" foreigners out of the country | Male    | 627   | 246 | 1.57***  | 1.52*** | 0.95 | 0.90 | 1.28  | .258 | -.026   |
|  | Female  | 757   | 288 | 1.35***  | 1.28*** | 0.74 | 0.65 | 3.59  | .058 | -.042   |
|  | <= 40ys | 696   | 256 | 1.55***  | 1.46    | 0.92 | 0.82 | 2.99  | .084 | -.046   |
|  | > 40ys  | 673   | 277 | 1.35***  | 1.33    | 0.75 | 0.75 | 0.70  | .403 | -.011   |
|  | Total   | 1,389 | 531 | 2.32     | 2.13    | 1.08 | 1.07 | 15.89 | .000 | -.076** |
| 4) No further admission of foreigners                                | Male    | 627   | 245 | 2.44***  | 2.18    | 1.10 | 1.07 | 13.06 | .000 | -.105** |
|  | Female  | 753   | 285 | 2.21***  | 2.09    | 1.05 | 1.07 | 4.46  | .035 | -.049   |
|  | <= 40ys | 694   | 254 | 2.33     | 2.17    | 1.09 | 1.09 | 5.87  | .016 | -.064*  |
|  | > 40ys  | 671   | 275 | 2.30     | 2.09    | 1.07 | 1.05 | 10.71 | .001 | -.087** |
|  | Total   | 1,389 | 531 | 2.32     | 2.13    | 1.08 | 1.07 | 15.89 | .000 | -.076** |

**Table 2 (Contd.)**

| Variables  | n       |        | Mean   |         | Stand.dev. |        | F value <sup>2</sup> | P     | Pearson r |         |
|--|---------|--------|--------|---------|------------|--------|----------------------|-------|-----------|---------|
|  | Mailed  | Interv | Mailed | Interv  | Mailed     | Interv |                      |       |           |         |
| 5) Satisfaction with neighbourhood   | Total   | 1,407  | 534    | 2.90    | 3.09       | 0.81   | 0.84                 | 20.54 | .000      | .103**  |
|  | Male    | 632    | 247    | 2.88    | 3.02       | 0.78   | 0.83                 | 5.33  | .021      | .080*   |
|  | Female  | 766    | 286    | 2.92    | 3.15       | 0.83   | 0.85                 | 16.14 | .000      | .123**  |
|  | <= 40ys | 698    | 257    | 2.84**  | 3.00**     | 0.79   | 0.83                 | 7.52  | .006      | .088**  |
|  | > 40ys  | 686    | 275    | 2.97**  | 3.19**     | 0.82   | 0.84                 | 11.59 | .001      | .117**  |
| 6) Feeling of solidarity in the neighbourhood since Nov 1989                     | Total   | 1,403  | 526    | 1.80    | 1.86       | .047   | 0.46                 | 6.62  | .010      | .057*   |
|  | Male    | 627    | 247    | 1.76**  | 1.85       | 0.48   | 0.45                 | 7.58  | .006      | .091**  |
|  | Female  | 767    | 278    | 1.83**  | 1.86       | 0.45   | .047                 | 0.92  | .337      | .028    |
|  | <= 40ys | 692    | 250    | 1.78    | 1.83       | 0.48   | 0.50                 | 2.92  | .088      | .050    |
|  | > 40ys  | 688    | 274    | 1.81    | 1.88       | .046   | .043                 | 3.17  | .075      | .064*   |
| 7) Fear of being alone at home at night  | Total   | 1,416  | 540    | 1.62    | 1.54       | 0.76   | 0.81                 | 5.35  | .021      | -.048*  |
|  | Male    | 635    | 249    | 1.30*** | 1.21***    | 0.56   | 0.47                 | 5.63  | .018      | -.077*  |
|  | Female  | 772    | 290    | 1.88*** | 1.82***    | 0.80   | 0.93                 | 1.43  | .233      | -.032   |
|  | <= 40ys | 701    | 258    | 1.62    | 1.58       | .073   | 0.81                 | 0.70  | .402      | -.027   |
|  | > 40ys  | 691    | 280    | 1.62    | 1.50       | 0.80   | 0.82                 | 6.10  | .014      | -.066*  |
| 8) Feeling of safety in the dark in residential areas                            | Total   | 1,410  | 537    | 2.12    | 2.21       | 0.75   | 0.84                 | 5.35  | .021      | .054*   |
|  | Male    | 630    | 249    | 2.41*** | 2.58***    | 0.71   | 0.79                 | 8.69  | .003      | .102**  |
|  | Female  | 771    | 287    | 1.88*** | 1.90***    | 0.70   | 0.76                 | 0.04  | .835      | .009    |
|  | <= 40ys | 697    | 258    | 2.15    | 2.29*      | 0.78   | 0.84                 | 4.75  | .030      | .077*   |
|  | > 40ys  | 689    | 277    | 2.08    | 2.14*      | 0.72   | 0.84                 | 1.90  | .169      | .034    |
| 9) Probability of being victimised   | Total   | 1,309  | 537    | 2.46    | 2.25       | 0.85   | 0.84                 | 17.08 | .000      | -.100** |
|  | Male    | 581    | 247    | 2.30*** | 2.15*      | 0.89   | 0.90                 | 3.96  | .047      | -.074*  |
|  | Female  | 719    | 289    | 2.59*** | 2.33*      | 0.97   | 0.97                 | 14.16 | .000      | -.120** |
|  | <= 40ys | 673    | 257    | 2.51*   | 2.38*      | 0.93   | 0.92                 | 3.10  | .079      | -.066*  |
|  | > 40ys  | 614    | 278    | 2.40*   | 2.14*      | 0.96   | 0.95                 | 13.72 | .000      | -.125** |
| 10) Assessment of police performance before Nov 1989                             | Total   | 1,383  | 521    | 2.44    | 2.64       | 0.93   | 0.96                 | 14.41 | .000      | .091**  |
|  | Male    | 621    | 243    | 2.45    | 2.65       | 0.91   | 0.91                 | 7.24  | .007      | .097**  |
|  | Female  | 753    | 277    | 2.44    | 2.63       | 0.95   | 0.99                 | 7.36  | .007      | .087**  |
|  | <= 40ys | 683    | 249    | 2.38*   | 2.50**     | 0.91   | 0.91                 | 2.63  | .105      | .058    |
|  | > 40ys  | 676    | 270    | 2.50*   | 2.76**     | 0.95   | 0.99                 | 12.18 | .001      | .12**   |
| 11) Police officers are friendly and understanding nowadays                      | Total   | 1,357  | 503    | 2.84    | 2.97       | 0.56   | 0.56                 | 24.72 | .000      | .107**  |
|  | Male    | 599    | 240    | 2.83    | 2.97       | 0.57   | 0.60                 | 9.85  | .002      | .107**  |
|  | Female  | 749    | 262    | 2.84    | 2.98       | 0.56   | 0.53                 | 14.44 | .000      | .107**  |
|  | <= 40ys | 683    | 238    | 2.74*** | 2.84***    | 0.56   | 0.57                 | 6.88  | .009      | .076*   |
|  | > 40ys  | 652    | 263    | 2.94*** | 3.10***    | 0.55   | 0.52                 | 15.32 | .000      | .131**  |
| 12) Before Nov 1989 police were friendly and understanding                       | Total   | 1,387  | 516    | 2.16    | 2.37       | 0.80   | 0.78                 | 25.15 | .000      | .115**  |
|  | Male    | 619    | 244    | 2.14    | 2.23***    | 0.78   | 0.77                 | 2.62  | .106      | .052    |
|  | Female  | 759    | 271    | 2.18    | 2.49***    | 0.81   | 0.77                 | 28.48 | .000      | .171**  |
|  | <= 40ys | 687    | 244    | 2.07*** | 2.26**     | 0.77   | 0.79                 | 9.63  | .002      | .104**  |
|  | > 40ys  | 676    | 270    | 2.26*** | 2.47**     | 0.81   | 0.77                 | 12.65 | .000      | .120**  |
| 13) Police and courts master their tasks adequately nowadays                     | Total   | 1,334  | 496    | 1.84    | 2.04       | 0.78   | 0.91                 | 16.08 | .000      | .112**  |
|  | Male    | 603    | 231    | 1.83    | 1.99       | 0.74   | 0.83                 | 4.76  | .029      | .091**  |
|  | Female  | 723    | 264    | 1.84    | 2.09       | 0.81   | 0.96                 | 12.01 | .001      | .129**  |
|  | <= 40ys | 668    | 244    | 1.90**  | 2.09       | 0.79   | 0.88                 | 5.82  | .016      | .102**  |
|  | > 40ys  | 644    | 250    | 1.77**  | 2.00       | 0.76   | 0.93                 | 12.03 | .001      | .125**  |
| 14) Before Autumn 1989 courts and public prosec. mastered their tasks adequately | Total   | 1,340  | 489    | 2.25    | 2.44       | 0.93   | 0.96                 | 13.16 | .000      | .088**  |
|  | Male    | 606    | 230    | 2.22    | 2.44       | 0.91   | 0.95                 | 9.34  | .002      | .105**  |
|  | Female  | 726    | 258    | 2.28    | 2.44       | 0.94   | 0.97                 | 4.54  | .033      | .074*   |
|  | <= 40ys | 673    | 239    | 2.24    | 2.49       | 0.89   | 0.90                 | 14.01 | .000      | .124**  |
|  | > 40ys  | 644    | 248    | 2.27    | 2.39       | 0.97   | 1.02                 | 2.32  | .128      | .056    |
| 15) Cause of crime: leniency of courts   | Total   | 1,261  | 511    | 2.51    | 2.32       | 1.17   | 1.20                 | 8.05  | .005      | -.073** |
|  | Male    | 584    | 232    | 2.64*** | 2.43       | 1.13   | 1.23                 | 5.34  | .021      | -.084*  |
|  | Female  | 670    | 278    | 2.39*** | 2.23       | 1.19   | 1.17                 | 2.97  | .085      | -.061   |
|  | <= 40ys | 655    | 244    | 2.26*** | 2.11***    | 1.13   | 1.12                 | 2.65  | .104      | -.058   |
|  | > 40ys  | 586    | 265    | 2.78*** | 2.50***    | 1.15   | 1.25                 | 12.23 | .000      | -.110** |
| 16) Cause of crime: hesitancy of police in taking harder line of action          | Total   | 1,379  | 525    | 3.57    | 3.43       | 0.71   | 0.83                 | 9.40  | .002      | -.081** |
|  | Male    | 624    | 239    | 3.61*   | 3.50       | 0.67   | 0.77                 | 3.35  | .068      | -.071*  |
|  | Female  | 746    | 285    | 3.53*   | 3.38       | 0.75   | 0.87                 | 5.81  | .016      | -.085** |
|  | <= 40ys | 690    | 250    | 3.47*** | 3.38       | 0.76   | 0.85                 | 2.14  | .144      | -.055   |
|  | > 40ys  | 665    | 273    | 3.66*** | 3.48       | 0.65   | 0.81                 | 10.24 | .001      | -.122** |
| 17) Importance of offender being determined                                      | Total   | 1,387  | 530    | 3.90    | 3.85       | 0.36   | 0.44                 | 4.76  | .029      | -.051*  |
|  | Male    | 628    | 244    | 3.89    | 3.81*      | 0.37   | 0.49                 | 7.18  | .008      | -.092** |
|  | Female  | 750    | 285    | 3.90    | 3.89*      | 0.34   | 0.39                 | 0.11  | .743      | -.013   |

|         |     |     |      |      |      |      |      |      |        |
|---------|-----|-----|------|------|------|------|------|------|--------|
| <= 40ys | 694 | 252 | 3.89 | 3.83 | 0.37 | 0.45 | 3.60 | .058 | -.067* |
| > 40ys  | 671 | 276 | 3.91 | 3.88 | 0.34 | 0.43 | 2.00 | .158 | -.042  |

**Table 2 (Contd.)**

| Variables  |         | n      |        | Mean    |        | Stand.dev. |        | F value <sup>2</sup> | P    | Pearson r |
|--|---------|--------|--------|---------|--------|------------|--------|----------------------|------|-----------|
|  |         | Mailed | Interv | Mailed  | Interv | Mailed     | Interv |                      |      |           |
| 18) Importance of offender being tried and convicted   | Total   | 1,376  | 528    | 3.81    | 3.80   | 0.47       | 0.53   | 0.13                 | .719 | -.009     |
|  | Male    | 624    | 244    | 3.78    | 3.71** | 0.51       | 0.63   | 3.02                 | .083 | -.058     |
|  | Female  | 743    | 283    | 3.83    | 3.87** | 0.43       | 0.41   | 2.11                 | .147 | .042      |
|  | <= 40ys | 692    | 251    | 3.77**  | 3.74*  | 0.52       | 0.57   | 0.49                 | .486 | -.027     |
|  | > 40ys  | 662    | 275    | 3.84**  | 3.85*  | 0.42       | 0.48   | 0.03                 | .867 | .005      |
| 19) Importance of severe punishment  | Total   | 1,361  | 522    | 3.53    | 3.46   | 0.74       | 0.78   | 3.81                 | .051 | -.042     |
|  | Male    | 618    | 243    | 3.51    | 3.35** | 0.74       | 0.85   | 7.83                 | .005 | -.090**   |
|  | Female  | 734    | 278    | 3.54    | 3.54** | 0.73       | 0.70   | 0.01                 | .922 | .001      |
|  | <= 40ys | 689    | 248    | 3.46**  | 3.38*  | 0.76       | 0.81   | 1.60                 | .207 | -.047     |
|  | > 40ys  | 650    | 272    | 3.60**  | 3.53*  | 0.70       | 0.75   | 4.17                 | .041 | -.048     |
| 20) Importance of payment for damages by offender  | Total   | 1,372  | 527    | 3.77    | 3.75   | 0.52       | 0.52   | 0.54                 | .462 | -.015     |
|  | Male    | 623    | 243    | 3.78    | 3.75   | 0.49       | 0.52   | 1.30                 | .255 | -.027     |
|  | Female  | 740    | 283    | 3.75    | 3.74   | 0.55       | 0.53   | 0.00                 | .996 | -.007     |
|  | <= 40ys | 692    | 251    | 3.71*** | 3.72   | 0.58       | 0.54   | 0.02                 | .889 | .006      |
|  | > 40ys  | 658    | 274    | 3.83*** | 3.77   | 0.45       | 0.51   | 3.86                 | .050 | -.055     |
| 21) Importance of apology on the part of offender  | Total   | 1,347  | 521    | 2.38    | 2.49   | 1.12       | 1.15   | 2.05                 | .152 | .042      |
|  | Male    | 618    | 241    | 2.25*** | 2.41   | 1.10       | 1.13   | 2.67                 | .103 | .062      |
|  | Female  | 721    | 279    | 2.50*** | 2.56   | 1.12       | 1.16   | 0.24                 | .624 | .024      |
|  | <= 40ys | 690    | 249    | 2.40    | 2.42   | 1.10       | 1.10   | 0.00                 | .962 | .009      |
|  | > 40ys  | 636    | 270    | 2.37    | 2.56   | 1.14       | 1.19   | 3.61                 | .058 | .073*     |
| 22) Importance of victim support by govt agencies  | Total   | 1,372  | 528    | 3.57    | 3.50   | 0.71       | 0.77   | 4.02                 | .045 | -.047*    |
|  | Male    | 624    | 243    | 3.60    | 3.50   | 0.68       | 0.75   | 4.36                 | .037 | -.068*    |
|  | Female  | 739    | 284    | 3.54    | 3.49   | 0.75       | 0.80   | 0.71                 | .399 | -.029     |
|  | <= 40ys | 695    | 250    | 3.53*   | 3.45   | 0.73       | 0.80   | 1.94                 | .164 | -.046     |
|  | > 40ys  | 656    | 276    | 3.61    | 3.53   | 0.70       | 0.75   | 2.85                 | .092 | -.052     |
| 23) Imp. of discussing offence with offender and inducing him to provide compensation for damage | Total   | 1,349  | 528    | 2.14    | 2.33   | 1.03       | 1.09   | 11.47                | .001 | .084**    |
|  | Male    | 618    | 244    | 2.08    | 2.45*  | 1.00       | 1.07   | 22.64                | .000 | .162**    |
|  | Female  | 722    | 283    | 2.18    | 2.22*  | 1.05       | 1.10   | 0.08                 | .779 | .019      |
|  | <= 40ys | 692    | 251    | 2.15    | 2.29   | 1.01       | 1.04   | 2.22                 | .137 | .061      |
|  | > 40ys  | 636    | 275    | 2.13    | 2.37   | 1.05       | 1.14   | 10.22                | .001 | .104**    |
| 24) Importance of offender support agencies  | Total   | 1,362  | 528    | 3.08    | 3.26   | 0.95       | 0.93   | 16.53                | .000 | .085**    |
|  | Male    | 618    | 244    | 3.02*   | 3.27   | 0.95       | 0.91   | 13.13                | .000 | .118**    |
|  | Female  | 735    | 283    | 3.13*   | 3.25   | 0.94       | 0.96   | 5.28                 | .022 | .057      |
|  | <= 40ys | 692    | 250    | 3.02*   | 3.21   | 0.95       | 0.91   | 8.26                 | .004 | .088**    |
|  | > 40ys  | 649    | 276    | 3.14*   | 3.30   | 0.94       | 0.95   | 7.21                 | .007 | .074*     |
| 25) Support of capital punishment  | Total   | 1,381  | 536    | 1.39    | 1.51   | 0.49       | 0.50   | 23.02                | .000 | .106**    |
|  | Male    | 618    | 247    | 1.34**  | 1.47   | 0.48       | 0.50   | 11.44                | .001 | .113**    |
|  | Female  | 754    | 288    | 1.43**  | 1.55   | 0.50       | 0.50   | 12.40                | .000 | .105**    |
|  | <= 40ys | 682    | 257    | 1.42*   | 1.52   | 0.50       | 0.50   | 7.98                 | .005 | .093**    |
|  | > 40ys  | 675    | 277    | 1.36*   | 1.49   | 0.48       | 0.50   | 16.19                | .000 | .122**    |

1. Means regarding the following min. and/or max. of the variables:

- 1) - 4) 1 "disagree" ... 4 "agree"
- 5) 1 "very dissatisfied" ... 4 "very satisfied"
- 6) 1 "has decreased" ... 3 "has increased"
- 7) 1 "never" ... 4 "always"
- 8) 1 "very unsafe" ... 4 "very safe"
- 9) 1 "never" ... 4 "very often"
- 10) 1 "poor" ... 4 "good"
- 11) - 14) 1 "don't agree at all" ... 4 "agree completely"
- 15) - 16) 1 "is of no importance" ... 4 "is of importance"
- 17) - 24) 1 "unimportant" ... 4 "important"
- 25) 1 "yes" ... 2 "no".

2. Analysis of variance by filtering out the variables "marital status" and "educational degree".

3. Significant t-test- or Chi<sup>2</sup>-values between sex- and age-specific differences: \*p<.05; \*\*p<.01; \*\*\*p<.001.

**Table 3: Influence of data collect. proc.: Freiburg Personality Inventory (FPI-R)**

| Variables                                |         | n      |        | Mean <sup>1</sup> |         | Stand.dev. |        | F value <sup>2</sup> | P    | Pearson r |
|--|---------|--------|--------|-------------------|---------|------------|--------|----------------------|------|-----------|
|  |         | Mailed | Interv | Mailed            | Interv  | Mailed     | Interv |                      |      |           |
| 26) FPI-R 1 satisfaction with one's life | Total   | 1,186  | 530    | 7.16              | 7.64    | 2.73       | 2.51   | 16.18                | .000 | .083**    |
|  | Male    | 530    | 242    | 7.26              | 7.92*3  | 2.60       | 2.41   | 13.06                | .000 | .120**    |
|  | Female  | 649    | 287    | 7.07              | 7.41*3  | 2.82       | 2.58   | 5.17                 | .023 | 0.58      |
|  | <= 40ys | 585    | 252    | 6.95*             | 7.21*** | 2.73       | 2.57   | 2.63                 | .105 | .045      |
|  | > 40ys  | 581    | 276    | 7.35*             | 8.06*** | 2.72       | 2.38   | 15.88                | .000 | .125**    |
| 27) FPI-R 2 social orientation           | Total   | 1,194  | 529    | 7.22              | 7.84    | 2.50       | 2.31   | 31.52                | .000 | .117**    |
|  | Male    | 531    | 241    | 6.68***           | 7.30*** | 2.57       | 2.44   | 12.86                | .000 | .113**    |
|  | Female  | 657    | 287    | 7.65***           | 8.30*** | 2.35       | 2.10   | 22.53                | .000 | .130**    |
|  | <= 40ys | 589    | 251    | 6.96**            | 7.64    | 2.62       | 2.38   | 15.66                | .000 | .121**    |
|  | > 40ys  | 586    | 276    | 7.46**            | 8.03    | 2.36       | 2.23   | 15.15                | .000 | .114**    |
| 28) FPI-R 3 performance orientation      | Total   | 1,191  | 528    | 7.30              | 7.52    | 2.66       | 2.68   | 4.49                 | .034 | .037      |
|  | Male    | 531    | 243    | 7.48*             | 7.82    | 2.64       | 2.68   | 3.69                 | .055 | .060      |
|  | Female  | 653    | 284    | 7.15*             | 7.26    | 2.65       | 2.66   | 1.22                 | .269 | .018      |
|  | <= 40ys | 590    | 253    | 7.09*             | 7.40    | 2.56       | 2.47   | 3.61                 | .058 | .055      |
|  | > 40ys  | 581    | 273    | 7.49*             | 7.63    | 2.73       | 2.87   | 1.28                 | .259 | .023      |
| 29) FPI-R 4 inhibitions                  | Total   | 1,175  | 520    | 5.83              | 5.56    | 2.78       | 2.61   | 4.76                 | .029 | -.045     |
|  | Male    | 518    | 240    | 5.63*             | 5.16**  | 2.77       | 2.59   | 5.46                 | .020 | -.081*    |
|  | Female  | 650    | 279    | 5.99*             | 5.91**  | 2.78       | 2.59   | 0.46                 | .496 | -.014     |
|  | <= 40ys | 576    | 247    | 5.92              | 5.19**  | 2.81       | 2.55   | 12.48                | .000 | -.120**   |
|  | > 40ys  | 579    | 271    | 5.78              | 5.89**  | 2.74       | 2.64   | 0.01                 | .906 | .019      |
| 30) FPI-R 5 excitability                 | Total   | 1,173  | 517    | 5.92              | 5.70    | 2.90       | 2.81   | 1.62                 | .203 | -.036     |
|  | Male    | 517    | 235    | 5.28***           | 5.22*** | 2.66       | 2.69   | 0.10                 | .753 | -.012     |
|  | Female  | 649    | 281    | 6.43***           | 6.09*** | 3.00       | 2.85   | 1.61                 | .205 | -.053     |
|  | <= 40ys | 575    | 243    | 6.08              | 6.07**  | 2.94       | 2.85   | 0.10                 | .751 | -.000     |
|  | > 40ys  | 579    | 272    | 5.75              | 5.37**  | 2.87       | 2.74   | 3.06                 | .080 | -.062     |
| 31) FPI-R 6 aggressiveness               | Total   | 1,121  | 513    | 4.23              | 4.28    | 2.39       | 2.41   | 0.14                 | .706 | .010      |
|  | Male    | 497    | 236    | 4.46**            | 4.38    | 2.53       | 2.55   | 1.04                 | .308 | -.015     |
|  | Female  | 617    | 276    | 4.05**            | 4.20    | 2.27       | 2.29   | 0.15                 | .701 | .029      |
|  | <= 40ys | 558    | 243    | 4.62***           | 4.74*** | 2.57       | 2.47   | 0.00                 | .953 | .022      |
|  | > 40ys  | 543    | 268    | 3.85***           | 3.87*** | 2.14       | 2.28   | 0.00                 | .955 | .005      |
| 32) FPI-R 7 stress                       | Total   | 1,152  | 504    | 6.02              | 6.34    | 3.15       | 3.02   | 4.75                 | .029 | .047      |
|  | Male    | 509    | 228    | 5.36***           | 5.84*** | 2.91       | 2.88   | 4.54                 | .033 | .076*     |
|  | Female  | 636    | 275    | 6.53***           | 6.75*** | 3.25       | 3.08   | 1.79                 | .181 | .031      |
|  | <= 40ys | 572    | 243    | 6.06              | 6.42    | 3.08       | 2.74   | 3.36                 | .058 | .056      |
|  | > 40ys  | 560    | 259    | 5.99              | 6.26    | 3.24       | 3.24   | 1.48                 | .224 | .039      |
| 33) FPI-R 8 physical complaints          | Total   | 1,077  | 466    | 3.86              | 3.96    | 2.35       | 2.43   | 0.13                 | .719 | .018      |
|  | Male    | 454    | 203    | 3.17***           | 3.20*** | 2.02       | 2.04   | 0.03                 | .865 | .008      |
|  | Female  | 617    | 262    | 4.37***           | 4.55*** | 2.43       | 2.55   | 0.32                 | .575 | .033      |
|  | <= 40ys | 516    | 212    | 3.57***           | 3.52*** | 2.23       | 2.28   | 0.30                 | .585 | -.009     |
|  | > 40ys  | 543    | 252    | 4.13***           | 4.32*** | 2.43       | 2.51   | 0.38                 | .539 | .037      |
| 34) FPI-R 9 health problems              | Total   | 1,187  | 520    | 6.08              | 6.45    | 2.83       | 2.90   | 5.88                 | .015 | .060*     |
|  | Male    | 528    | 233    | 5.70***           | 5.90*** | 2.80       | 2.88   | 0.89                 | .345 | .033      |
|  | Female  | 652    | 286    | 6.41***           | 6.98*** | 2.81       | 2.85   | 5.67                 | .017 | .078*     |
|  | <= 40ys | 585    | 244    | 5.32***           | 5.29*** | 2.55       | 2.59   | 0.00                 | .971 | -.005     |
|  | > 40ys  | 582    | 275    | 6.85***           | 7.49*** | 2.89       | 2.77   | 5.79                 | .016 | .104**    |
| 35) FPI-R 10 openness                    | Total   | 1,174  | 523    | 6.01              | 5.76    | 2.77       | 2.71   | 5.30                 | .021 | -.042     |
|  | Male    | 527    | 241    | 6.38***           | 6.20**  | 2.70       | 2.72   | 2.38                 | .123 | -.031     |
|  | Female  | 640    | 281    | 5.72***           | 5.38**  | 2.78       | 2.65   | 3.46                 | .063 | -.057     |
|  | <= 40ys | 587    | 251    | 6.80***           | 6.65*** | 2.71       | 2.62   | 2.04                 | .153 | -.026     |
|  | > 40ys  | 567    | 270    | 5.20***           | 4.93*** | 2.59       | 2.54   | 1.15                 | .284 | -.049     |
| 36) FPI-R E extrovertedness              | Total   | 1,181  | 522    | 6.25              | 6.88    | 3.07       | 3.01   | 13.06                | .000 | .095**    |
|  | Male    | 526    | 240    | 6.29              | 6.99    | 3.10       | 2.93   | 6.59                 | .010 | .016**    |
|  | Female  | 648    | 281    | 6.21              | 6.78    | 3.06       | 3.08   | 6.30                 | .012 | .085**    |
|  | <= 40ys | 590    | 252    | 6.71***           | 7.64*** | 3.15       | 2.94   | 12.27                | .000 | .137**    |
|  | > 40ys  | 571    | 268    | 5.73***           | 6.19*** | 2.89       | 2.91   | 5.94                 | .015 | .074*     |
| 37) FPI-R N emotionality                 | Total   | 1,153  | 512    | 6.41              | 6.28    | 3.27       | 3.21   | 1.04                 | .308 | -.018     |
|  | Male    | 508    | 230    | 5.64***           | 5.41*** | 3.16       | 2.85   | 1.07                 | .301 | -.035     |
|  | Female  | 638    | 281    | 7.02***           | 7.00*** | 3.24       | 3.32   | 0.09                 | .760 | -.003     |
|  | <= 40ys | 575    | 242    | 6.43              | 6.39    | 3.31       | 3.19   | 0.05                 | .816 | -.006     |
|  | > 40ys  | 558    | 268    | 6.44              | 6.18    | 3.24       | 3.23   | 2.39                 | .122 | -.038     |

1. Means with regard to the following max. and/or min. of variables:

- 26) - 37) 1 minimum performance ... 9 maximum performance.
2. Analysis of variance by filtering out the variables "marital status" and "educational degree".
  3. Significant t-test-values between sex- and age-specific differences \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

**Table 4: Influence of data collection procedure: victimisation experience**

| Variables  | n       |        | Mean <sup>1</sup> |          | Stand.dev. |        | F value <sup>2</sup> | P     | Pearson r |         |
|--|---------|--------|-------------------|----------|------------|--------|----------------------|-------|-----------|---------|
|  | Mailed  | Interv | Mailed            | Interv   | Mailed     | Interv |                      |       |           |         |
| 38) Victim of contact offences (personal victimisation)      | Total   | 1,420  | 542               | 0.35     | 0.26       | 0.48   | 0.44                 | 10.12 | .000      | -.081** |
|  | Male    | 636    | 250               | 0.41***2 | 0.28       | 0.49   | 0.45                 | 11.07 | .001      | -.117** |
|  | Female  | 775    | 291               | 0.30***2 | 0.24       | 0.46   | 0.43                 | 1.76  | .185      | -.055   |
|  | <= 40ys | 701    | 260               | 0.36     | 0.28       | 0.48   | 0.45                 | 3.35  | .067      | -.074*  |
| > 40ys   | 695     | 280    | 0.33              | 0.25     | 0.47       | 0.43   | 4.79                 | .029  | -.079*    |         |
| 39) victim of breaking and entering (personal victimisation) | Total   | 1,420  | 542               | 0.06     | 0.05       | 0.23   | 0.23                 | 0.01  | .926      | -.008   |
|  | Male    | 636    | 250               | 0.07     | 0.06       | 0.25   | 0.23                 | 0.27  | .601      | -.024   |
|  | Female  | 775    | 291               | 0.05     | 0.05       | 0.21   | 0.22                 | 0.20  | .654      | .008    |
|  | <= 40ys | 701    | 260               | 0.04*    | 0.04       | 0.21   | 0.19                 | 0.05  | .823      | -.013   |
| > 40ys   | 695     | 280    | 0.07*             | 0.07     | 0.26       | 0.25   | 0.00                 | .953  | -.007     |         |
| 40) victim of contact offences (personal victimisation)      | Total   | 1,420  | 542               | 0.10     | 0.10       | 0.30   | 0.30                 | 0.00  | .984      | .005    |
|  | Male    | 636    | 250               | 0.09     | 0.09       | 0.28   | 0.29                 | 0.01  | .935      | .006    |
|  | Female  | 775    | 291               | 0.10     | 0.11       | 0.30   | 0.31                 | 0.00  | .947      | .011    |
|  | <= 40ys | 701    | 260               | 0.12**   | 0.14**     | 0.33   | 0.35                 | 0.41  | .521      | .026    |
| > 40ys   | 695     | 280    | 0.07**            | 0.06**   | .025       | 0.23   | 0.70                 | .405  | -.022     |         |
| 41) victim of non-contact offence (household victimisation)  | Total   | 1,420  | 542               | 0.22     | 0.14       | 0.42   | 0.34                 | 16.80 | .000      | -.095** |
|  | Male    | 636    | 250               | 0.20     | 0.09**     | 0.40   | 0.28                 | 17.19 | .000      | -.136** |
|  | Female  | 775    | 291               | 0.23     | 0.18**     | 0.42   | 0.38                 | 3.28  | .070      | -.063*  |
|  | <= 40ys | 701    | 260               | 0.26**   | 0.18**     | 0.44   | 0.39                 | 5.32  | .021      | -.078*  |
| > 40ys   | 695     | 280    | 0.18**            | 0.10**   | 0.39       | 0.30   | 10.42                | .001  | 1.109**   |         |
| 42) victim of contact offences (household victimisation)     | Total   | 1,420  | 542               | 0.08     | 0.06       | 0.28   | 0.23                 | 3.50  | .062      | -.046*  |
|  | Male    | 636    | 250               | 0.09     | 0.06       | 0.28   | 0.25                 | 1.30  | .255      | -.040   |
|  | Female  | 775    | 291               | 0.08     | 0.05       | 0.27   | 0.22                 | 2.05  | .152      | -.049   |
|  | <= 40ys | 701    | 260               | 0.11**   | 0.07       | 0.31   | 0.26                 | 2.22  | .137      | -.049   |
| > 40ys   | 695     | 280    | 0.06**            | 0.04     | 0.24       | 0.20   | 0.66                 | .418  | -.037     |         |

- Means regarding the following max. and/or min. of the variables:  
38) - 42) 0 "non-victim" 1 "victim"
- Analysis of variance by filtering out the variables "marital status" and "educational degree".
- Significant Chi<sup>2</sup> -values between sex- and age-specific differences: \*p<.05; \*\*p<.01; \*\*\*p<.001.