

The Development of a Quantitative Index
of the Fear of Crime.

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A QUANTITATIVE MEASURE OF THE FEAR OF CRIME.

Introduction.

There have been widespread campaigns in recent times to secure recognition of the obligation of each community to achieve "the good life" for all of its members.

Most governments seem now to have accepted a responsibility to improve the national level of well-being. This responsibility includes the provision of adequate protection for each member against criminal attack.

Official statistical systems already provide a good deal of information on national life styles, such as the level of wages and the cost of living, but this material is regarded as insufficient for monitoring the quality of life. What is needed are data that are comparable, systematic, and periodically gathered on a range of social concerns. (Bauer 1967:341)

As a consequence, countries belonging to the Organization for Economic Co-operation and Development, of which Australia is one, began a social indicators programme in 1970. This programme is intended not only to create a more informed public opinion and to describe social conditions, but to measure the level of each major social concern, and to monitor any changes in these levels over time. (U.N.1975:9)

The O.E.C.D. search for suitable indicators of "the good life" may take time, for, as Bunge points out, "While we have some knowledge about some of the components of well-being, and they are mainly the physical and biological ones, very little is known about most of them. As a consequence of our very imperfect knowledge of all the various facets of well-being, we have only a few inklings as to what their reliable indicators may be." (Bunge 1975:77)

Eysenck is optimistic. "No realistic view of the situation could ever have encouraged the belief that some day we would emerge miraculously with a single all purpose test of emotion, easy to administer and easy to interpret-analogous perhaps to the measurement of temperature. If we are willing to give up this chimera and buckle down to the hard task of experimental investigation of specific, definite problems, then the position is far from unpromising." (Eysenck 1975:465)

Bauer has a more positive approach. "The mere fact that we cannot order all of a people's values to a common yardstick is no reason for not measuring them as well as we can, and comparing them as best we can." (Bauer 1967:347)

Yet there are some scholars who stress the need for caution. "The very 'quality-of-life' concept itself is an undefined notion, and researchers in this field are forced to use their treacherous commonsense to an extent that is uncommon in science...There is a need for more theoretical work, and until there is adequate framework, discussion is guided only occasionally by expert knowledge but most of the time only by fallible intuition and wishful thinking." (Bunge 1975:76)

Despite these difficulties many countries have realized the advantages which flow from the capacity of social indicators to portray in quantitative terms the levels of basic social concerns. These countries include Canada, France, Spain, Japan, Norway, Sweden, USA, UK, West Germany, and the USSR, all of whom have such programmes.

Within Australia, despite Vinson's observation that "the development of social indicators in Australia, no less than elsewhere, has been hampered by the lack of adequate social theory," more information is becoming available for analysis and discussion.

However there continues to be only limited availability of data on the effects of crime as a detractor from general

well-being. What detail is assembled mainly concerns offenders, and there is little material about victims which is systematically recorded. There is even less collected and analysed about the fear of crime in a community.

The last two decades have seen a belated recognition of the significance of victims in criminal incidents. And accompanying this awareness has been a growing appreciation of the importance of the fear of crime as a barrier to the attainment of the good life.

Both administrators and scholars have criticized the gaps in the existing systems. (Dillman 1975:206). Some deficiencies are now being corrected by the introduction of victimization surveys. The publication in 1979 by Statistics Australia of the results of their Crime Victim Survey of 1975 generated considerable academic and public attention. As an indication of the importance placed on this data over a dozen articles based on the results appeared the following year in professional journals around the world.

Despite circulation of these articles and a large number of other publications in recent years, not a great deal of knowledge has been gained about the process of victimization, and even less about the fear of being victimized. In the latter case progress has been slowed by confusion caused by the use of differing definitions of the concept "fear of crime."

Early results suggest that it is the lifestyles of elderly women in single accommodation which are most affected by this fear. Since this class of person is steadily increasing its proportion of the total population, "fear of crime" will tend more and more to detract from the overall level of well-being.

The impetus for a project to devise a quantitative measure of the fear of crime sprang from discussions with Mr. William Clifford, the Director of the Australian Institute of Criminology in Canberra. He pointed out that the scarcity of earlier efforts could be a reflection of the problems likely to be encountered in a search for such a measure. The dearth of models meant that any solution may have to contain a number

of assumptions - assumptions, which because of their novelty, may not have been fully investigated.

However while Clifford recognized that in these circumstances any endeavour would be largely exploratory, he considered its criminological significance justified the proposal being developed into a more concrete proposition.

In a real sense the proposal is a response to Eysenck's challenge that we should "give up this chimera and buckle down to the hard task of experimental investigation of specific, definite problems..."

The Criminology Research Council in June 1978 approved an application for funding to carry out a two year study. This report describes the work carried out in the search for a quantitative measure of the fear of crime. It begins with a statement of the aims, details the proposed methodology, contains a review of the literature, describes the modifications to the original proposal as they occurred and provides the reasons for them, reports and discusses the results, and makes plans for continued enquiry.

PROJECT AIMS.

1. Produce a quantitative measure of the fear of crime which can be used for comparison over time and space;
2. Identify and measure the contribution to that fear by each of its constituent variables; and
3. If possible, locate any item or items in existing statistical collections which could, because of its relationship to the new measure, serve as an inexpensive indicator of the level of fear of crime in a community.

ORIGINAL METHODOLOGY.

Following the administration of an appropriately worded questionnaire to 500 respondents in Canberra and in Adelaide by telephone, their responses would be analysed by statistical techniques, and a measure developed. Smaller surveys would

be repeated at intervals to ascertain if their trends correlated with data already being recorded for other purposes sufficiently closely for that data to be used as an indicator of the community's fear of crime.

The investigation was designed to follow the standard survey routine, that is, a literature search, consultations with key informants, discussions with colleagues, intensive interviews with a small sample, the formulation of successive draft questionnaires, and the conducting of pilot runs.

LITERATURE SEARCH - GENERAL.

A review of the literature has confirmed Clifford's assessment as to the pioneering nature of the enquiry. Even with the help of CINCH and other retrieval systems no report of a similar investigation has been located. In any case enquiries of a sociological or psychological kind into the social impact of crime, and the measurement of fear of crime in a community have not been numerous in the past.

In the reports that are available, the defining of the two key concepts, "fear" and "crime" has not been done in a consistent manner. Surveys have mostly used a very small range of interview questions, with no great effort being devoted to the establishment of their reliability or validity.

As well a great deal of time on this investigation would have been saved if the Center for Urban Affairs, Northwestern University, had been able to publish their Critical Review of the Literature on Reactions to Crime a year earlier in November 1978 instead of November 1979. In any case the Center's coverage of published and unpublished reports, together with much thoughtful comment, has proved most useful. Their review was the result of four years work involving some twenty-four social scientists and other staff. It is of interest that even with their resources they acknowledge the difficulty in locating articles, and discovering the results of recent research.

Referring to "fear of crime" the Review states that there is a serious lack of both consistency and specificity in the reports, and that when distinctions are made they are sometimes contradictory and vague. (1979:2). It argues that researchers should become more aware of the need to specify the types of crimes being investigated, and points out that much less attention has been given to the fear that others will be the victims of crime. (1979:5.)

The Review asks the interesting question whether people are actually more afraid of crime than other harmful events such as car collisions, or could it be merely an artifact of research orientation.

When commenting on the findings that most of the victimization surveys found that "fear of crime" had no particular relation to direct experiences as a victim, the Review points out that property crimes comprise over 80% of all victimizations and that anecdotal accounts suggest that there would be larger effects from violent and contact crimes. (1979:18) The Review adds that "the absence of stronger association in the survey data for even violent crime victimizations may be due, in part, to the inadequacies of legal definitions of crimes." On the other hand Rifai found that elderly individuals who had been victimized more than once had much higher scores on an anxiety scale than single crime victims or non-victims. (1979:19)

The Review is essentially an examination of completed research in the USA. Out of a total of 448 references, some 435 are from that country. There are 7 references of UK origin, 3 Canadian, and 3 French. Perhaps this restriction was due to the unavailability of English translations of papers in foreign languages. For example, an English translation is not yet available of a 1972 Polish article which appears to be relevant - Marek Kosewski's "The feeling of safety as a criterion of the social effectiveness of the criminal justice system", but an eminent Japanese researcher, Hoshino, of the National Police Agency, has provided one for his paper, "Planning for Police Activity on the Basis of Level of Safety Measures." (1974) Neither of these are mentioned in the Review.

Hoshino, by means of a questionnaire submitted to 1600 inhabitants in 24 communities, asked that they indicate on an eleven point scale (0-10) how much they feared 18 different types of crimes or traffic offences, notwithstanding (regardless?) the possibility of their occurrence. There were 4 variations on each of these items: the degree of harm, the method of committing the harm, the amount stolen, and the method of intimidation.

His survey produced this table:

<u>Offence</u>	<u>Anxiety Score</u>	<u>Offence</u>	<u>Anxiety Score</u>
arson	103	homicide	142
forcible rape	50	robbery	50
larceny	7	vehicle theft	3
shopstealing	1	intimidation	36
extortion	12	injury	27
snatching	8	gambling	3
pickpocket	4	fraud	3
death from negligence	15	injury from negligence	9
speeding	24	drink-driving	25

Hoshino computed the community's level of anxiety by multiplying the number of offences known to the police for the period, by their anxiety score, dividing by the total population and multiplying by 10,000 to establish the average extent of anxiety per 10,000 population.

The main advantage of this method is its ease of computation, and it does enable comparison over time and space. The principal defects are:

1. it makes no allowance for unrecorded crime - perhaps the dark figure is low in Japan;
2. it makes no allowance for fears generated when no offence actually occurs;
3. it does not reflect the frequency and duration of the feelings of fear;
4. it does not separate fear of crime from the subjects' general level of anxiety; and
5. it seems to make no allowance for fear of crime to significant others.

Hoshino lists the variables affecting the level of public safety as: sex, age, occupation, size of family, perception of crime and accidents, perceived level of police forces and police activities. (He treats the subjects' perceptions of police numbers and activities as possible reducers of the amount of fear.)

A U.N. Working Paper (1975) commenting on Hoshino's methodology, says that the development of indicators, particularly of those purporting to determine subjective reactions to crime, calls for the use of batteries of methods rather than any one particular technique. One such method, the U.N. paper goes on to say, is the opinion survey, which however, may not reflect the subtle shadings of the phenomena studied, or the dynamics of the processes involved.

The same Working Paper states that such surveys are often unsatisfactory in that they are restricted to recorded offences, and it draws attention to the introduction of regular victimization surveys in the USA as one way of overcoming this defect.

In the USA the recognized inadequacies of police statistics stimulated the development and use of reliable survey techniques to measure criminal victimization. Since 1970 the American Bureau of the Census has continuously monitored a sample of businesses and households. From this monitoring has come a growing volume of information which has serviced a number of recent research projects.

Garofalo (1977) analysed some of this data to produce knowledge about perceptions of crime trends, the fear of crime, the relationship of attitudes about crime with behaviour and evaluations of local police effectiveness.

Garofalo's section on fear of crime examined respondents' replies to the questions on fear, viz whether there are parts of their area where they have reason to go or would like to go, during the day and during the night but are afraid to do so because of fear of crime.

Furstenberg (1972) earlier had shown that if responses to questions on personal assessments of the risk of becoming

a victim were distinguished from respondents' concern for crime as a public issue, a very different pattern emerged. Furstenberg termed the "risk" dimension the fear of crime.

Wilson and Brown (1973) followed this definition in their Australian survey, but Fowler and Mangione (1974) produced a tighter definition by distinguishing between assessments of risk and emotional reaction to crime.

Fowler and Mangione's approach was that people may have a common assessment of how likely they are to be victimized, but they may still feel frightened in varying degrees. They called this feeling "fear of crime."

The Center for Urban Affairs Review notes that there has been little work on using multiple sets of questions to measure and analyse fear and other perceptual dimensions of crime. Most analyses settle for a single measure or perception of crime or analyse different measures separately.

Biderman et al. (1967) in an early study used an index of anxiety. Although he labelled this index a measure of emotion, he used only indirect measures. No item directly asked respondents to report how they felt about crime, or how afraid, or how anxious they were.

LITERATURE SEARCH - PHYSIOLOGICAL.

In the past researchers have concentrated on behavioural probes such as "Do you avoid using the streets at night? Do you have a burglar alarm?" But as Fowler and Mangione have stressed, fear of crime is an emotional response.

This concentration on behavioural aspects may be due to a legacy from J.B. Watson's (1913) insistence that the only thing psychologists can observe is behaviour, and not the mind, nor sensation, nor emotion.

Thayer (1967) reports that a hypothetical activation continuum ranging from extreme excitement to deep sleep is an integral part of a number of theoretical approaches to problems of motivation and emotion. However there are theoretical and practical problems in the use of physiological

measures, and controlled self-reporting had proved to be a useful alternative.

Spielberger (1972) argues that research on anxiety must begin with a precise definition of the pattern of responses that characterize anxiety states. Subjective feelings of tension and apprehension, in his opinion, constitute the most unique and distinctive features of anxiety as an emotional state.

Andrews and Crandall (1976) conclude that people's feelings are internal subjective states not necessarily linked in a one-to-one relationship with any externally observable behaviour.

LITERATURE SEARCH - PSYCHOLOGICAL.

Eysenck (1975) has pointed out that the measurement of emotion is a very complex and difficult field. He makes two points: Theoretically, introspective statements would be likely to have better validity and possibly even better reliability than measures of either behaviour or physiological activity. Second, response to stress is influenced by individual differences in personality, in particular the dimensions of extraversion and neuroticism.

Gray (1971) says fear is usually listed among the emotions, and can be viewed as one form of emotional reaction to a punishment which members of the species concerned will work to terminate, escape from, or avoid. Man behaves much like the other animals when confronted with such a threat - freeze, flight or fight.

Gray suggests that we may need to go beyond the mere recognition of the state of fear into the much harder task of measuring the intensity of fear, and he reminds us that the problem of measurement is one that has constantly faced the experimentalist in all branches of science.

LITERATURE SEARCH - VALIDITY.

Heise and Bohrnstedt (1970) drew attention to the variance of a measure being divided into three parts: valid variance, i.e., that which reflects what the measure is intended to measure,

correlated error variance, i.e. that which reflects influences other than those the measure was designed to tap, and residual error. They noted that the validity of a measure depends on the proportion of its variance which is valid, while its reliability depends upon the sum of the valid and correlated error proportions.

Bohrstedt and Carter (1971) continue on to claim that except for a few noted exceptions, sociologists seem to be blatantly unconcerned with the problems of measurement error. They plead that sociologists engaged in substantial research should confront the unreliability of their measuring instruments, and take instrumental error into account in their analyses.

Andrews and Crandall (1976) comment that people's feelings and perceptions are internal subjective states, of great importance to the person who holds them, but are not necessarily linked in a one-to-one relationship with any externally observable behaviour or set of life conditions. The absence of suitable validity criteria requires an assessment of construct validity. They point out that any attempt to assess the perceptions of a large number of people is likely to cause some common areas amongst the indicators, and hence their construct validity must be evaluated in the presence of correlated errors.

LITERATURE SEARCH=PROCEDURE.

Sundeen and Mathieu (1976) undertook an exploratory study into the cause of fear of crime among the Californian elderly. They report there is general agreement among researchers that fear of crime is not a consequence of direct experiences as a victim. Randomly selected retired persons were interviewed (30-60 mins.) and shown a thermometer-like scale calibrated by tens from 0-100, with high, low, and medium marked on the side at the appropriate places. The subjects were asked to indicate the strength of his or her feelings by touching the scale at the corresponding level. Three different residential groups were used. They were asked to indicate how much they feared four named crimes: burglary, robbery, car theft, and consumer fraud. Results showed a variation in average scores between the groups.

Sundeen and Mathieu's enquiry did not extend into fear of crime for significant others, nor did they probe for frequency and duration of the feelings of fear.

LITERATURE SEARCH - INDICATORS.

Bauer (1966) warns that social statistics can be misleading because of built-in biases, or because there are no systematically collected historical series. He notes that the National Commission on Technology, Automation and Economic Progress in the USA asked for better measurement of such social ills as crime. He argues that the advantages of sampling - cost, speed, accuracy - make it possible to properly undertake tasks which might require interviews much longer than an hour. He suggests costs could be reduced by having a two-stage survey - the first being undertaken in conjunction with some other programme, and its purpose being solely to locate appropriate subjects for a lengthier interview at a later date.

Christensen and Dillman (1974) in an analysis of predictors of concern for law and order, found that relative exposure to mass media, socio-economic status or identification with one's community made small contribution to the awareness of crime. They speculate that old age, political conservatism, and community awareness of the crime problem are more important variables which lead to fear of crime or a perceived threat to the existing social order.

PROGRESS TOWARDS THE AIMS.

From this review of the literature it seems there are a number of difficulties to be overcome in the devising of a quantitative measure of the fear of crime. The problem of selecting the most appropriate definition of "fear" has been emphasized in the reports, but there are references to other possible obstacles such as the obtaining of frank responses.

This latter task presents some difficulty because replies are being sought to questions that may well disturb

the subject. The point is well taken by Lawton (1976) who has argued that it is unlikely that surveys will provide reliable data on fear of crime because people tend to deny unpleasant feelings. This is supported by Rifai (1979:5) who claims that many people will deny the possibility of their becoming a victim. Their reaction is to block thoughts about potential unpleasant happenings and to believe such events can only happen to other individuals.

To help in simplifying matters in this project the definition of "crime" has been confined to those criminal actions which have a component of personal violence. These range from murder, rape, and robbery, to the less serious forms of assault and larceny from the person, i.e. bagsnatching but not pocketpicking. They are the crimes which seem to generate most fear in people. (President's Commission 1967).

As well the definition of "fear" has been confined to that frightening feeling which is experienced when a person suspects or believes it is likely that he/she is about to be attacked physically, and as a result suffer pain, injury, mutilation or death. The feeling is usually accompanied by increased pulse rate, perspiration, feelings of sickness and other physiological changes.

Traditionally there are three ways of trying to measure this type of "fear". These are by physiological measures such as the galvanic skin response, by behavioural reaction such as alteration in routine, and by subjective reports.

Physiological methods may be suitable for use in laboratories but present problems in field application. In any case, as Levitt has noted, the use of physiological reactions as operational indicators of situational or state anxiety, has produced disappointing results. (Levitt 1971:79)

The use of behavioural reactions as a measure of fear has been the most popular method of researchers, but there is a less than one-to-one relationship (Tittle 1970:163), and Eysenck has argued strongly for the advantages of self-reporting of emotions. He has been supported by Thayer, Spielberger, and Andrews and Crandall. Psychologists

seeking to measure anxiety have found the administration of a questionnaire provides greater reliability in responses than the use of physiological measures or projective tests. (Levitt 1971:81)

The first anxiety inventory was developed by Taylor in 1951 by using 50 items from the Minnesota Multiphasic Personality Inventory. Taylor's Manifest Anxiety Scale is reported to distinguish nicely between normal groups and samples of psychiatric patients, but it measures a predisposition to anxiety, not an immediate state. "None of the items requires an estimate of the respondent's emotional state at the moment of responding." (Levitt 1971:84)

A further development was Endler's S-R (stimulus-response) Inventory in 1962 which provides brief descriptions of eleven different situations that are likely to generate anxiety in most individuals. There are fourteen response tendencies, of which seven are physiological, set out, and the subject answers by marking on a five-point scale the intensity with which he experiences each of the response tendencies, in the different situations.

Endler's eleven situations are slanted towards the lifestyles of a student population, or are, in some instances, experiences that many subjects are not likely to face. According to Levitt, "To the unimaginative person, such situations may have little significance, and his attempt to evaluate his responses to them would have questionable meaning." (Levitt 1971:89)

Another form of inventory appeared in 1960 for measuring anxiety. This is known as the Affect Adjective Check List and respondents mark a series of items consisting of self-evaluatory statements in which only the predicate adjective is changed, such as "I am upset", "I am frightened". The AACL is one of the few instruments that measure state anxiety.

Levitt comments that the major disadvantage of the check list approach is that responding to the items involves vocabulary level and verbal fluency. He adds that this would make little difference when it was used on an

intellectually homogeneous sample, but that it could be a serious deficiency in an unselected sample. (Levitt 1971:92).

Levitt's criticism is supported by early experience on this project which demonstrated that elderly subjects and some other respondents seemed to have difficulty in conveying their conception of the intensity of their fearfulness simply by the selection of appropriate adjectives. Perhaps the same difficulty may have been encountered if the range of subjects had included aboriginals and non-native English speakers.

This obstacle prompted a search for a modified method of measurement. It was discovered that medical practitioners in Adelaide working in pain clinics use a "linear analogue chart" to obtain from their patients an indication of the intensity of pain being experienced by them. A "linear analogue chart" is essentially a vertical scale on hardboard resembling in outline the familiar household temperature thermometer. Patients apparently have no difficulty in using it.

The earlier literature search had produced a report by Sundeen and Mathieu of their study of the social and physical environments that invoke or reduce the fear of criminal victimization among the elderly. They had adopted a similar device which they called a "fear thermometer" which was calibrated by tens from 0 to 100, with "high", "medium" and "low" marked along the side of the scale. The interviewer asked the subject to indicate the strength of any feelings of fear by simply touching the corresponding level on the thermometer. (Sundeen 1977:23). As a consequence it was decided to substitute a "fear thermometer" for the scale used in the earlier interviews.

Also arising from the literature search was a decision to re-examine an initial assumption that Australian and North American telephone distributions were sufficiently alike to justify replication of the US technique of random digit dialling to obtain an inexpensive representative sampling of the population.

An enquiry from Telecom Australia had elicited a reply that they were unaware of the social distribution of their telephones. However because of the decision to re-examine the original assumption of sufficient similarity, enquiries were made at the Bureau of Statistics. Eventually when the results of the 1976 Household Surveys were checked for this data it was learnt that in that year only 65.6% of Australian households were connected by telephone. In comparison, according to Tuchfarber et al (1976), over 90% of USA households were reachable by telephone.

This meant that unless there had been an unprecedented expansion in the intervening period a random digit dialling survey in Australia would miss a large proportion of the population and would therefore not be acceptable. When this situation was presented to Telecom they stated that there was an aggressive sales campaign under way, and hopefully within a few years the Australian distribution of telephones would approximate that of the United States. However they would not be able to supply a social breakdown of subscribers, but hopefully this information may become available from some other source.

In the light of this advice it was decided to temporarily abandon the telephone survey plan and to concentrate on the intensive interviewing of selected subjects. By this means it was hoped that knowledge arising from greater insight might offset the loss of data from a reduced number of respondents. Eventually advantage could be taken of Telecom's greater distribution.

Perhaps it is only to be expected that in any new field of study initially there are likely to be confusing, even conflicting, results from different investigations. Early information tends to come from the two extremes: aggregate statistics which at best only enable broad generalizations to be drawn, and single incident or anecdotal material which provides greater detail but allows little scope for developing generalized findings.

In the case of fear of crime, some aggregate data have become available mainly from victimization surveys. On this material a number of observations have been made. These

include the claim that direct experience of being a victim was unrelated to the fear of crime (Ennis 1967, McIntyre 1971, Boggs 1971, Conklin 1971), or that only a minor relationship existed. (Skogan 1976, Hindelang, et al., 1978, Garofalo 1979, Rifai 1976, Rifai 1979).

Both of these conclusions may appear odd to police and other members of the criminal justice system who have had opportunities to observe victims of personal violence for any length of time. "Treacherous commonsense" suggests that these findings may have arisen because of the wideness of the definitions of "fear" and "crime", or because of the swamping effect of property offences which seem to generate little fear, or because the measuring instrument was too imprecise to enable valid comparisons to be made.

Unfortunately while there has been this commendable growth in aggregate statistics, at the other end of the scale, anecdotal and clinical reports remain scarce. This lack of published accounts of any observations in depth means the absence of an adequate base against which to test the validity of the "commonsense" explanations.

The most comprehensive text in the anecdotal/clinical style is the outstanding work by Bard and Sangrey, The Crime Victim's Book, (1979), but the joint authors have not addressed themselves directly to the question of the quantitative measurement of the fear of crime.

In the other category, that is the utilization of aggregate data, Hindelang et al. in their Victims of Personal Crime, (1978) have presented the results of their intensive and systematic analysis of the results of the 1972 LEAA-Census victimization surveys in the USA. Unfortunately there were only two items with immediate reference to the fear of crime, in the questionnaires and of these they only used one:

"11a. How safe do you feel or would feel being out alone in your neighbourhood at Night."

Very safe, Reasonably safe, somewhat unsafe, very unsafe."

The authors thought that it was reasonable to assume that the responses were referring primarily to the fear of being victimized/ (Hindelang 1978:176).

On this limited base of feelings of safety at night in the neighbourhood, Hindelang et al. calculated the relationship between fear of crime and a large number of independent variables which included sex, age, race, household tenancy, family income, education, employment status, marital status, total personal victimizations, total seriousness, total robberies, rapes, assaults and larcenies from the person.

Two points in their discussion of the results are of special relevance to the search for a quantitative measure of the fear of crime. First, they suggest it is possible that the inverse relationship which exists between fear of crime and rate of victimization across age and sex groups can be explained by the high levels of fear among older people and females causing their low victimization rates (1978:200).

The second point is their emphasis on the necessity, if adequate testing of models is to be undertaken, for data to be gathered about attitudes, behavioural limitations, and victimization experiences by a panel study over a fairly long period of time. In a footnote they draw attention to the use of a panel by the national component of the National Crime Survey, which, however does not collect information about attitudes. (1978:202).

A final caution from Hindelang et al. is their informative account of the difficulty they encountered in locating a suitable statistical strategy to explore the data they had assembled. They describe how they experimented with a variety of accepted techniques, such as the traditional tabular procedures, multiple regression, discriminate function, path, log-linear and predictive attribute analyses, as methods for analyzing the results. (1978:233)

Each of these techniques, however, proved to have weaknesses when used to exploit their data. Eventually they settled for predictive attribute and traditional tabular analyses but they stress that these two approaches were not without serious shortcomings. (1978:234). Their criticisms are that the use of PAA generates solutions that are too unwieldy and are difficult to discuss, and that interpretability would have been improved if theory construction had been more advanced. (1978:234)

The choice of the most appropriate statistical technique to use in exploring the data collected in this project has also presented difficulties.

When it was decided to defer the commencement of the random digit dialling survey because of the present inadequate telephone distribution, an extensive questionnaire was drafted for use in personal interviews with selected subjects.

Because the aims of the project, i.e. to devise a quantitative measure of the fear of crime, to identify and measure the contribution to that fear by each of its constituent variables, and to locate an existing statistical item which could be utilized as an indicator of that level of fear in the community, the questionnaire was designed to act as a net to pick up the significance of any potential variables.

As a consequence it became somewhat lengthy, containing over 80 items, plus a personality inventory and a health stress form. Interviews with subjects averaged 100 minutes to administer the questionnaire, plus introductory explanations of the purpose of the project.

The 82 items sought responses to the usual demographic probes but included questions about type of workplace, type of home accommodation and access to telephones at both. Other queries related to the subject's perception of the effectiveness of the criminal justice system, the perception of risk, the degree of local support, the extent of visible precautions in the locality, the degree of exposure of the subject and significant others, method of acquiring information about criminal events, and previous experience as a victim.

It contained 20 direct questions on the feeling of danger of attack by an offender in a number of different situations, rated from 0 No danger to 4 Extreme danger, and subjects were asked to tick the appropriate place.

The remainder of the long questionnaire was taken up by including all known previously used queries about behavioural response, and these included three traditional items: changing door locks, keeping dogs, and altering routines.

Because all of the interviews were being conducted by the same researcher, progress was slow, and unfortunately some time after the process began, some Government decisions came into force which compromised the subjects' answers.

In June 1980 the Commonwealth Government introduced the Home Handyman Scheme which enabled local councils to make available free of charge to low income earners, the services of tradesmen to carry out household maintenance jobs. It was discovered that in some instances they were being used to make doors and windows more secure in homes where this action probably would not have taken place otherwise. Without this explanation it could have been inferred that the action took place solely as the result of an increase in the fear of crime.

Similarly amendments to the South Australian Dog Act in July 1979 increased annual registrations steeply from the traditional 50c to \$5. As a result, it was learned, some low income earners were forced to dispose of their dog. This solution seemed to apply more especially to those householders who kept an animal more for protection against intruders than those who looked upon the dogs as pets. Again this reduction of dogs would normally suggest a reduction in fear.

Thirdly it was discovered that since a number of respondents were, by selection, elderly and living alone, they tended to be grandmothers who kept in touch with their families by correspondence. They reported that their favourite posting time was just prior to the 9 pm. closure of suburban letter boxes. However this routine apparently created some opportunities for fear-provoking situations if a stranger was noticed loitering near the boxes, especially in the winter darkness. (These interviews were then being conducted) However in June 1979 Australia Post without much publicity, shifted the 9 pm. clearance time forward to 6 p.m. and as grandparents became aware of the new time, they reported fewer incidents of fear arousal.

These three events demonstrate the difficulty of excluding extraneous factors when seeking to obtain measures of a subjective emotion by noting behavioural responses, and of the possible confusion caused by uncontrolled interventions during the progress of a survey.

In late 1979 Rifai published her paper on methods of measuring the impact of victimization. In it she presented strong criticism of the practice of using survey questions which had not been precisely formulated or given adequate testing. She stressed that "fear is an emotional response which is difficult to translate into quantifiable components" (1979:2) and that as a result nearly all of the measurements of fear of crime reflected this difficulty.

She went on to explain that survey questions usually fell into three categories. The first of these can be described as "the generalized concern" approach which asks, "Do you think crime is on the increase in this community?" or something similar. She criticized the question on two grounds: it tends to equate concern about crime with fear of crime, and answers may be more a reflection of media publicity than of individual fear.

The second type of question is directed at discovering the subject's perception about changes in his locality, such as, "Are there any specific places in this area where you would be afraid to walk because of fear of crime." Rifai identified a number of weaknesses in this approach.

The third class of questions are those which seek to assess the subject's fear of crime based on his perception of the chances of becoming victimized. Rifai described the problems with this type of probe: the effort at self-denial by the subject of the possibility, the self-regulating response to the threat which has already provided increased protection or avoidance of it, and that the subject's response to the threat may not have been fear but of feelings of helplessness and/or anger.

A further difficulty with survey questions which Rifai pointed out was that responses could be wrongly interpreted as fear of crime when in fact they merely signified a general fear of the dark and of the unknown. As well, while Rifai considered that the method of measuring fear of crime by obtaining responses to a fictionalized incident offered a potential method of ascertaining the components of an emotional response, she could not understand how the subjects' replies could be specifically related to fear. (1979:6)

Overall Rifai's paper consists of 17 pages of well reasoned argument describing the range of defects and deficiencies in the various attempts to measure the impact of victimization through survey methods, and presents some insightful suggestions for adoption in any future research.

She points out "It would be extremely helpful if research efforts were oriented at the definition of fear of crime and its sources prior to the development of general policies aimed at directly reducing crime. It is only with such definition and some more rigorous measurement of such defined fear that useful policies can be implemented. There has already been some indication that the implementation of crime prevention programs under some circumstances can do more to exacerbate community tensions than to relieve them due to an increase in caution and suspicion throughout the area." (1979:11)

Garofalo and Laub make the same observation. "We view our contribution as suggesting that the fear of actual criminal victimization is inseparable from the unease generated by other more minor forms of public deviance, and that the sum of these anxieties is the basis for the concern with the community...Thus, the policy solutions put forward as answers to the question "How do we reduce the fear of crime" may be misdirected...It is not unrealistic to imagine that anti-crime programmes -introduced with much publicity and fanfare - may actually heighten the suspicions..." (1978:252)

Garofalo and Laub also share Rifai's criticism of previous research into the measurement of the fear of crime. "All of the factors discussed above--the ambiguous relationship between victimization and the fear of crime, the indications that crime is not generally perceived as an immediate threat, and the mixing of fear of crime with fear of strangers--point to the conclusion that what has been measured in research as the "fear of crime" is not simply fear of crime." (1978:246)

But unlike Rifai who suggests that past confusion about the definition of the fear of crime can be clarified by a more rigorous examination of its constituent parts, and that it is probably a mistake to identify the concern about a pursesnatch as being the equivalent to a specific fear of crime (1979:11), Garofalo and Laub believe that it may help to restate the problem by using a broader conceptual framework. The framework they choose is the quality of life concept.

From this position they go on to explain that subjective states must be incorporated into the definition and measurement of the quality of life (1978:248). In their view "concern for community is one of the most critical dimensions in the subjective experience of the quality of life, and that the fear of being victimized in some specific criminal act is subsumed within the concern for the community." (1978:250)

This approach, they suggest, clarifies some of the more puzzling findings in the fear of crime research. "This is especially true with the mixed findings about the relationships between responses to "fear of crime" attitude items and measures of experiences with the risks of actual victimization. Our contention is that the "fear of crime" items--which basically ask respondents about how secure they feel on their neighbourhood streets--tap all the dimensions of the concern for the community...the fear of actual criminal acts as well as the feeling that one's social situation is unstable, anxiety about strangers, the belief that one's moral beliefs are being offender, and so forth." (1978:250).

While Garofalo and Laub do not give any references to empirical investigations in support of their contentions, in fact interviews conducted during the early part of this project did produce similar responses.

Unfortunately it was the responses to a question of the type strongly criticized by both Rifai, and Garofalo and Laub, i.e. "If you are walking out alone in your neighbourhood at night would you feel very safe, reasonably safe, somewhat unsafe, or very unsafe?" in the 1975 National Crime Victims Survey which provided the most direct information about fear of crime in Australia.

It is not therefore surprising that the Australian researchers came to somewhat similar conclusions as their American counterparts who used a comparable basis. Among their findings was the discovery that the National Crime Victims Survey gave little support for the view that persons who had been victimized had a greater fear of crime, and indeed, for some types of crime it was the case that people who had been victims expressed a greater feeling of safety than those who had not. (Braithwaite, Biles and Whitrod).

In fairness to the Australian authors it ought to be noted that it was not until their paper was being presented at the Third International Symposium at Muenster in September, 1979 that the papers of Rifai, and Garofalo and Laub became available. The composition of items for the 1975 National Crime Victims Survey was finalized quite some time before that date, and since then it has not been possible to arrange for a similar survey with items modified to obtain more specific responses to be undertaken by the Australian authorities.

Opportunity was taken at Muenster to discuss her paper with Dr. Marlene Young Rifai, and other American researchers, and to propose a new strategy which seemed to avoid the criticisms which had been raised.

On return to Australia a Work-in-Progress Seminar was given to the staff of the Sociology Department at the Australian National University, which included Dr. Stephen Mugford. In a subsequent paper Mugford noted that "fear of crime is a rather elusive concept despite its apparent simplicity" and drew attention to the criticisms of Garofalo and Laub. He went on to add even more critical comment, and then to suggest that "what would seem to be necessary are items that tap fear of crime in a direct fashion, such as 'In the last week have there been any occasions when you have been walking

near your home and felt threatened by strangers?" His closing paragraph cautions that "if one desires to study the direct impact of crime upon the quality of life in the neighbourhood it is necessary to develop much superior methods for measuring fear of crime." (Mugford 1980:20)

Mugford also questioned the advisability of developing a large edifice of relationships based on an ambiguous concept of fear of crime, a point raised earlier by Rifai.

In a progress report to the Australian Criminology Research Council in May 1979 I had stated that it had become clear that in order to produce a valid quantitative measure of the fear of crime a new survey instrument would have to be designed.

I reported that none so far produced the information which was needed for such a measure, namely the frequency, duration, and intensity of any feelings of fear actually experienced by the subject in a given time period.

This information should include any feelings of fear experienced because of a threat of harm to some other person emotionally significant to the subject, e.g., spouse, child, parent, sibling.

As well, other weaknesses in the original methodology were coming to light. The intensive interview schedule was producing an even larger matrix of data than that assembled by Hindelang et al. A similar difficulty was being experienced in discovering an appropriate statistical technique for analysis of the information. Included in this data were responses to probes about behavioural reactions which were of limited validity, such as the three examples already described -dog ownership, night letter posting, and home security.

MODIFIED METHODOLOGY.

So, arising from the experience gained in the early stages of this investigation, and from recent advice from other researchers, it became necessary to amend the original schedule.

The new programme took this form:

1. Reduce the concept of "fear of crime" to its most elemental- ("Fear, from its mildest to its most extreme form, that of terror, is to be considered to be the felt aspect of tension arising from danger to the existence or biological integrity of the organism"(Sullivan 1953)).
2. Devise a method of measuring this fear in terms of quantifying the intensity, duration and frequency, with acceptable levels of validity and reliability.
3. Because of the absence of any other comparative measure by which to assess its validity, to rely upon consistency of results and rational judgment of the circumstances, to provide this information.
4. This implied a system of intensive interviews with fully co-operative subjects at regular intervals to obtain all the information required to make assessments of reasonableness and consistency.
5. Initially at least there would be advantages in utilizing the same interviewer for all of the sessions to develop rapport and reduce interviewer bias. For this reason the number of subjects would have to be restricted to those who could be fitted into a time cycle of, say, a fortnight.
6. Devise an appropriate weighting formula so that the three components, intensity, frequency, and duration, could be combined into a single index.
7. If, by this time, Telecom's sales programme had been sufficiently successful to make random digit dialling an acceptable method of random sampling of the population, to run a pilot test with a verbal form of the new instrument.
8. If the pilot test proved satisfactory, then to conduct a wider sample by RDD in Adelaide and Canberra. This would provide the first major result.

9. Then to re-run the original intensive interviews but to have them based on the new measure of the fear of crime, to discover if there are any correlations with items in existing collections which might serve as a national indicator of the level of the fear in this country.

PRESENTATION OF THE MODIFIED METHODOLOGY.

As already mentioned, an outline of the new programme was developed in discussion with Marlene Young Rifai after the presentation of her paper which was so critical of the attempts made so far to measure fear of crime.

Subsequently an expanded form of this modified approach was included in the Work-in-Progress Seminar at the Australian National University. Afterwards Mugford noted that the new programme promised to break the methodological impasse which had proved to be such an obstacle. (Mugford 1980:21)

Opportunities were also taken to describe the purposes and development of the project to an international training course and to a gathering of researchers at the Australian Institute of Criminology. Both groups demonstrated their interest by lengthy discussions on various aspects.

By invitation a similar address was given to the senior staff engaged on the Reactions to Crime Project at the Centre for Urban Affairs at Northwestern University, at Evanston, Ill., who are generally accepted as being in the forefront of research in this field.

Subsequently again by invitation a paper on this project was given at the First World Congress of Victimology at Washington in August 1980 which was attended by many scholars interested in this area of work. Delivery of the paper was followed by a request from research staff at the Police Foundation to be allowed to incorporate the measurement principle into their own design of a survey to assess the degree of fear in certain high rise apartments for the US Department of Health, Education and Welfare.

PROGRESS WITH THE NEW PROCEDURE.

1, Fear Thermometer: Apparently the "fear thermometer" used by Sundeen and Mathieu (Sundeen 1977) presented no difficulties to the elderly subjects of the three retirement villages in enabling them to register their estimate of fearfulness. Hospitals who use a similar device to register feelings of pain by their patients regard it as a satisfactory instrument.

Accordingly a "fear thermometer" became part of the new interview procedure which asked respondents to indicate on the thermometer the intensity of any feelings of fear they may have experienced in the past two weeks brought about by the thought that they might be attacked or harmed in some other way by being assaulted, or robbed, or raped, or while they were in fact being assaulted, or robbed, or raped:

- (1) while they were inside their own home,
- (2) while they were inside some other premises,
- (3) while they were away from their home and not yet in any other premises, i.e. travelling, working or on recreation, and
- (4) any fear they may have experienced for the same reason for some other person emotionally significant, such as spouse, child, or sibling.

2. Reference Period.

As Skogan points out "The technical issues involved in victim research are numerous. They include the problems of forgetfulness, telescoping...Lying between the event and the report are numerous human processes." (Skogan 1976:194).

Early victim surveys asked their subjects to recall crimes which had occurred to them "in the past year" but it was soon discovered that more accuracy was achieved by repeating the interviews at six monthly intervals and asking the subjects to recall events which had occurred "since the last interview." (Skogan 1976:196)

For the purposes of this project subjects are required not only to remember that they had experienced a feeling of fear, but how intense it was, and for how long it lasted.

Answering this query seemed to require a short delay as subjects tried to recall the circumstances and their emotional response to the threat. Their explanation of the delay, in those cases where it did occur, was that they had not made these judgments at the time, and they were doing their best to make post hoc estimates.

Post hoc judgments are required of both intensity of the fear and of its duration. Not a great deal of work appears to have been completed on either subject.

It seems judgment of the lapse of time presents difficulties when the customary cues are removed, and when subjects are under abnormal stress. Physiologists report there is no sense receptor for time. "Time is an attribute of a perceptual configuration, not an elementary sensory perception. (Krech and Crutchfield 1959:128).

Apparently there are large individual differences in experiencing the passage of time. Age and sickness are two factors which seem to influence judgment.

If judgment of time duration is affected by events in the external environment, and events within the person himself, then incidents involving threats of physical harm by another person are most likely to be influenced by both factors.

Elsie Harwood has noted that when dealing with elderly subjects it needs to be borne in mind that while long term memory usually holds up, short term memory tends to weaken with age. (Harwood 1980)

The problem of accurate recall has been studied by a number of researchers who have been examining the validity of victimization surveys. For example Skogan has shown the sharp fall in accuracy recall in the first month (33%), and a memory fade of about 10% in the same period. (Skogan 1975:26)

But overall there still seems to be a deal of ignorance in this area. Una Gault of the Memory Training Clinic at

Macquarie University points out that there is already a voluminous research literature in existence which contains reports of many experiments, "but these experiments usually require lengthy and repetitive testing with material divorced from the person's everyday life, in a highly artificial laboratory situation. To cover the whole scope of memory function, an intolerably lengthy programme of laboratory testing would have to be compiled."

She goes on to add, "On the other hand, current clinical batteries and special scales for memory testing have been poorly conceived and bear little relation to the models of memory emerging from empirical research... What is required of clinicians and test constructors is a determined effort to develop a new battery of tests... such tests and the screening device should be...meaningful to the person in terms of his/her memory performance in normal everyday life. Very few people on either side of this endeavour-clinical work or pure research-have confronted this need." (Una Gault 1980:4)

Obviously the most accurate assessment of both intensity and duration of a subject's feelings of fear is likely to be given in an interview or in a written report prepared as soon as possible after the event, but such an arrangement requires the availability of the subject when he/she is likely to be confused and when the authorities are demanding priority of attention.

Long ago Hunter described the three forgetting factors: retroactive interference, altered conditions during remembering, and repression. (Hunter 1957:63). A moment's reflection on the nature of criminal events that are sufficiently threatening to produce feelings of fear should show how all three factors could apply, especially if there is an active involvement with police and courts in sexual offences.

Investigations into the accuracy of eye-witness testimony have shown that accuracy is poorer when the event took place under violent conditions, and females performed poorer than males. (Clifford and Scott 1978:352-9).

On the other hand Skogan states that forgetting is a major factor in the measurement of crime through interviews with subjects, because most victimizations are not notable events. As a result memory of the details, then the very fact of the event fades quickly from the mind. This comes about because the majority are property offences in which the offender is never caught, the amount involved is small, and the costs of calling the police outweigh the benefits. (Skogan 1976:194)

The fading of detail due to memory loss for one reason or other could be largely overcome by the keeping of daily diaries. Commercial surveyors of public consumption of goods and services have long utilized the technique for resolving the comparative popularity of different television or radio stations.

The Dairy Herd Health Service of the University of Melbourne's Veterinary School is exploiting the advantages of maintaining daily diaries to record events. Dairy farmers from as far away as the West Coast of S.A. each week send carbon copies of their daily diary entries to a regional veterinary officer and another to the University. The entries relate to the health of each cow, their production of milk, and any other relevant data. This information is fed into a computer, and a copy of a resultant printout is returned. The printout contains suggestions as to the best course of action to maintain the cows in good health.

It is a very large step to move from what is possible in the monitoring of animal behaviour to the introduction of similar procedures for human beings. Certainly there would be advantages if human subjects were prepared to maintain diaries in a longitudinal study of fearful events in their daily living. On the other hand that very requirement could influence both the character of the incident and their recording of it. As a result it was decided not to ask subjects to keep diaries.

In discussions with elderly persons it became apparent that for many of them "pension-day" served as their main reference point when they were asked to remember where they had been and what they had been doing in the immediate past. Since pensions are paid fortnightly, and it also seemed that aged individuals generally could recall events with reasonable accuracy for that length of time, a reference period of a fortnight was chosen for all subjects in this project.

VALIDITY.

The search for a quantitative measure of the fear of crime was stimulated not so much by the need to augment the meagre theoretical knowledge of the fear of crime, as to discover a practical way of helping to improve the quality of life for all members of the community.

To meet this aim the measure must in fact achieve what it sets out to do, that is, measure fear of crime. To the degree it succeeds in doing this, it is a valid measure. Traditionally there are a number of types of this validity, with different methods of assessing them.

Assessing the validity of a measure designed to be used with human emotions presents a difficulty because of the subjective nature of the task. Sometimes it is possible to compare findings with the results of other studies as one way of establishing its validity, or by correlating the results with a well-accepted body of theoretical understanding, but neither course is available in this instance.

According to Oppenheim "the problem of validity remains one of the most difficult in social research and one to which an adequate solution is not yet in sight." (Oppenheim 1966:78)

Customarily the best safeguard is supposed to be the establishment of good rapport with the subjects so that they are willing and eager to supply accurate information.

In this project the aim was to achieve this level of rapport, and then, in informal discussion obtain sufficient details surrounding each incident of fearfulness to make a value judgment whether the subject's response was consistent with a perceived threat of a specific nature. It was hoped that these details could be obtained by asking the subject who had indicated an incident of fear, three questions: Why did you feel frightened? What did you do? Who did you tell?

The validity of a measure refers to more than its capacity to identify a variable. If it is to fulfill its purpose as a measure it requires also the ability to discriminate in varying degrees of graduation.

The Thermometer concept is designed to meet this requirement by enabling a subject to visually indicate on a range from calm to terrified the degree of fearfulness experienced.

At this stage it is not known how significant, if at all, the effect is on a subject's present judgment of an experience of fear, of a prior experience in a fear-provoking situation. Does a subject who has survived an attempted murder, for example, experience less fear in an armed hold-up than one who has not.

Experience on this project with a pharmaceutical chemist who has been subjected to three armed robberies, suggests that through repetition and familiarity the intensity of the fear lessens.

However since the procedure sets out to measure the actual amount of fear experienced by quantity and not by comparison, prior victimizations of individual subjects seem not to have any effect. But when individual scores are totalled or averaged to obtain some indication of the community's level of fear of crime, does this mean that as crime increases and more members become ^{repeat} victims, then the overall level of fear of crime will diminish?

Interviews with subjects have shown that they will readily indicate on the Thermometer the degree of fear which they felt and give their best estimate of how long that feeling persisted. Afterwards, in informal discussion, most subjects explained that while there was an almost instantaneous rise to that level, reduction of the feeling of fear to a state of calmness was more drawn out. In estimating the duration most subjects seemed to have confined themselves to the high "plateau" and not included any "run-down." To an unknown extent therefore, the results are inaccurate.

WEIGHTING.

If the three elements of the measure, i.e. intensity, duration, and frequency are to be combined to produce one overall statistic, then the problem of deciding an appropriate system of weighting arises. "An unweighted index is not an index at all." (Riechmann 1964:169)

How best to determine this weighting requires further study. Sellin and Wolfgang's pioneering work with the measurement of delinquency obviously offers one possible method. Their solution requires judgments from "purposively selected groups". (Sellin and Wolfgang 1964:237).

Sellin and Wolfgang settled for university students, police officers, and juvenile court judges, although they would have preferred a wider selection, it seems, including some individuals who had been the victims of delinquents. (Sellin and Wolfgang 1964:249)

First thoughts are that persons who could best offer judgments about the relative importance of intensity, duration, and frequency are those who have had actual experience of a variety of fearful situations. Whether the fearfulness needs to be based exclusively on a threat of crime, or whether it could be extended to what is probably the underlying theme anyway, that is, threat of pain, needs consideration.

If that extension is acceptable then opportunities for field experimentation are greatly increased, e.g. it should not be difficult to obtain the co-operation of medical and dental practitioners and their patients to participate in some such investigation.

Not having the benefit of any knowledge of this kind, the choice for this particular enquiry has been an arbitrary one - 0 to 100 to cover the range of fear, 1 for each second of time of the feeling of fear, and frequency of occurrence given its usual arithmetical value.

SUBJECTS.

Selection of subjects was based upon the following:

1. Interviews were required at fortnightly intervals,
2. To maximise rapport and minimize interviewer bias, initially interviewing would be confined to one person, so that the number of subjects was kept to twenty-one.
3. These twenty-one individuals were selected on the basis of their preparedness to co-operate and the likelihood that they would provide some testing of the new measuring instrument.
4. Regrettably it was not possible to include representatives of ethnic communities, the disabled, nor from a sufficiently wide range of occupational groups, nor those geographically distant.
5. While the more intensive interviewing only occupied twelve weeks, June, July, August 1981, most of the subjects had been subjected to the early procedures so that their background was already recorded and rapport successfully established before June 1981.
6. They consisted of:
 - (1) Suburban housewife, 35 old, victim of a rape attempt in own home 1978, offender found not guilty but sentenced to 5 years gaol for 4 other counts of rape, has escaped once from custody;
 - (2) Male pharmaceutical chemist, 42 old, conducts own suburban business, victim three armed holdups past four years;
 - (3) Suburban housewife, 34 old, whose mother, father and sister were murdered by her brother-in-law now serving life, sentenced 4 years ago;
 - (4) Husband of above, a buyer, aged 45 years;
 - (5) Salesgirl, aged 18 years, present at armed holdup;
 - (6) Suburban housewife, victim of rape one year ago, jury disagreed twice, Crown unlikely to proceed again;
 - (7) War widow, aged 70+, living alone in unit in retirement cluster, victim of assault by night intruder;
 - (8) War widow, similar to above;
 - (9) Housewife/teacher, 45 old, mother of 15 year old daughter murdered four years ago and found buried at Truro 1980;
 - (10) University lecturer, husband of above and father of daughter;
 - (11) Female florist aged 28, rape victim in suburban flat,

- (12) Suburban engineer, 45 old, shot in stomach by crazed Finnish migrant, 8 weeks in intensive care, now recovered and returned to work, May 1981;
- (13) Wife of above;
- (14) Retired shopkeeper, aged 75 years, living with wife in suburban detached house,
- (15) Wife of above, about same age;
- (16) Retired Cable & Wireless employee, aged 70 years, living with wife in suburban detached house,
- (17) Wife of above, about same age;
- (18) Widow, former schoolteacher, living alone in suburban detached house, aged 71 years;
- (19) Widow, former schoolteacher, aged 70 years, living alone in suburban detached house;
- (20) Widow, former schoolteacher, aged 72 years, living alone in suburban detached house;
- (21) Widow, formerly wife of deceased police officer, living alone in suburban detached house.

As well as these twenty-one, spasmodic interviews took place with:

- (1) Divorced housewife, mother of twin girls aged 4 years, victim of attempted murder, offender now serving five years gaol,
- (2) Waitress, aged 18 years, abducted and pack raped for four hours by gang of middle-aged bikies before police rescued her. First seen 30/5/81 three days later, but then went to Darwin to stay with relatives for safety while waiting for court hearings.
- (3) Suburban housewife who originally reported being scared about her husband while he was bringing home shoptakings during day.
- (4) Schoolgirl aged 15 years raped by father. First seen 28/6/81 alone, difficulty experienced afterwards in obtaining interviews without presence of mother. Father sentenced 5 years gaol in July 1981.

There were no refusals to participate at any time. The difficulty in maintaining a regular fortnightly schedule for the twentyfive persons above arose from a number of reasons: one lives some considerable distance from the interviewer, some of the younger subjects would be delayed unexpectedly by work commitments or some other reason, another distant subject is not on the telephone, petrol rationing curtailed some visiting.

Acceptability of the interviewer seemed to be achieved within a short time. Many of the subjects had been victims of a violent crime, some quite recently, others were elderly folk living alone, and most seemed to be in need of some support. Because of the interviewer's background they looked to him for advice and assistance. It soon became obvious that the interviewer was not able on his own to provide help to meet all of their needs, yet he wished to retain their co-operation for a series of fortnightly meetings.

When a suitable opportunity occurred he sponsored the formation of a voluntary community organization to serve the victims of crime. This developed rapidly so that by June 1981 it had a membership of 1200 families in South Australia, and sister groups had been formed in the neighbouring States of Victoria and Tasmania.

Prompted by the campaigning activities of this organization the Government of South Australia set up an official enquiry into the plight of the victims of crime, and the interviewer was invited to serve on it as representing victims. As a result of this involvement which lasted for seven months completion of this project was delayed. Off-setting the inconvenience of the delay, however, was an even improved access to personal information, and a degree of rapport between subject and interviewer unlikely to be forthcoming in the normal interview procedure.

Details of one example of this relationship may illustrate the last point. Subject (6), the suburban housewife, raped in her own home twelve months prior, facing the possibility of a third jury trial of the person accused of the rape, had reported in an earlier interview, considerable anxiety about living in the house where the attack occurred and the possibility of further assaults. When a door slammed in another part of the house a few days earlier she had become fearful (Score 50 x 10ms). At this interview, however, she stated that she had not thought about the rape, or any repeated assaults, nor did the lounge room cause her any apprehension, so that her fear of crime score was nil. In an informal discussion later in the interview she disclosed that she was to enter hospital in two days time for an exploratory operation for a suspected malignancy. She was anxious about this - she has a husband and small daughter.

RESULTS.

A more detailed account of the scoring is provided in Appendix C. Herewith a summary:

Subject (1)	1,332,000	Housewife, sexual assault victim.
(2)	153,000		Chemist, previous victim holdups.
(3)	525,800		Housewife, nearest family murdered.
(4)	0		Husband of above.
(5)	0		Salesgirl present at armed hodup.
(6)	45,000		Housewife, rape victim.
(7)	0		Elderly widow assaulted by intruder.
(8)	4,052,000		Elderly widow hospitalized as above.
(9)	0		Mother of Truro victim.
(10)	0		Father of girl buried at Truro.
(11)	0		Florist, rape victim.
(12)	0		Engineer shot by migrant.
(13)	0		Wife of above.
(14)	6,000		Retired shopkeeper.
(15)	0		Wife of above.
(16)	12,000		Retired Cable & Wireless officer.
(17)	0		Wife of above.
(18)	0		Widow, retired schoolteacher.
(19)	0		Widow, retired schoolteacher.
(20)	0		Widow, retired schoolteacher.
(21)	0		Widow, husband police officer.

Within the second group:

(2)	4,102,000	Waitress abducted and pack raped.
(4)	24,000	Schoolgirl raped by father.

DISCUSSION OF RESULTS.

It is not possible, obviously, to make any generalized statements merely on the basis of the results from a short term study of a small group of selected subjects.

Nevertheless, in this list of what may at first appear as somewhat less than exciting results, there are important, if not significant, data. In the list all of the scores, including even the zeros, are conveying information which suggests refinements to earlier conclusions drawn from national victimization surveys.

The zeros, for example, are specifying the complete absence of any experience of the fear of crime by individuals who, by earlier results, should be registering as having a high fear of crime.

In particular, elderly females living alone, have been consistently classified as being in the high fear category, and had the customary probes been applied to the subjects in the list who fit this description, their responses would still place them in that category.

From informal discussions with them it was learnt that they rarely go out at night on their own, there are areas which they regard as unsafe to walk through, their homes are made secure, and generally they are concerned at the state of crime in the community. However, because of the precautions they take, and the modifications they have made to their behaviour patterns, they do not encounter fear-provoking incidents.

The exception is a widow, who, living in a small community of war widows occupying their own units, some months ago resisted the entry of a young male intruder at 5 a.m. with the result that she was injured to the extent of requiring a short stay in hospital. There has been a long remand by the court, with the offender, who is thought to live nearby, being free on bail. Fear of a repetition of the attack prevented the widow from sleeping and so disturbed her stability that she eventually required psychiatric attention.

It may be noted that another war widow who was involved in

the same incident but not to the extent of requiring hospital treatment, registered a nil score.

In the case of the female florist, aged 29 years, a rape victim a few months earlier, who registered a nil score, her father had greatly improved the security of her house by an efficient system of external and internal door and window locks, and she had arranged for another woman to share the home. She had been awakened in the early hours of the morning by a knife at her throat, and she had not been able to identify the offender. His identity was established by a fingerprint at the scene. She did not think he would attack her again because of any part she played in his conviction.

Quite the opposite situation applies in the case of subject (1) who believes it is likely that her attacker will seek revenge because of the five women it is known he attacked, she was the only one to put up strong resistance, and was the one who noted and informed the police of his motor vehicle registration numbers. In court he had pleaded guilty to four charges of rape, but not guilty in respect to her assault. He has already escaped from custody once, and every time an escape from prison is reported on the media, she becomes fearful of another attack.

Fear of an attack by another prisoner when he gets out is the principal reason for the large score for subject (3), a suburban housewife whose mother, father and sister were murdered by the sister's husband because the parents refused to give him a large share of their life savings. Since the offender has been in gaol further friction has developed between the subject and him over the custody of the prisoner's son. She and her husband have considered shifting residence so as to make it more difficult for the prisoner to locate them, but this has not been possible.

Shifting residence to two different locations has been the response of another victim (not included in the list mainly because of the interviewer's difficulty in finding time to travel to the latest home). She scored high on fear solely because of threats to her safety by a prisoner serving five years for her attempted murder. The prisoner has a long

record of previous convictions for violent assault in several States, and local detectives are concerned for her safety. They are well aware that they cannot guarantee her security when the prisoner secures his freedom, legally or otherwise.

Publication in the Adelaide Advertiser newspaper (13/6/80) of evidence given at the trial of a man charged with the attempted murder of his former defacto wife, and her husband, on the day he was discharged from prison, caused two women to complain to an Adelaide crime victims service. Their complaint was that they had received assurances at different times from the voluntary organization that offenders very rarely carried out threats of vengeance after their discharge from gaol but this incident proved that the advice was wrong.

It seems that their dilemma, and the dilemma of other victims in the same circumstances, is that they have nowhere to run to. While other fearful persons can fortify their homes against casual burglars and rapists, in the case of individuals who fear attack from one specific person who is usually in gaol, their homes only serve to locate their whereabouts on his release or escape.

If the role of the victim in the criminal justice system had been overlooked for far too long, and this seems now to be generally accepted, then within the victim's role, the important part played by fear of reprisal still continues to receive the same sort of neglect.

Victim surveys were introduced because it was belatedly realized that police and court statistics were providing an incomplete picture of the crime situation. Some study is now being given to the answers supplied by subjects in these surveys as to why they did not report the offence to the police.

From data gathered during the 1975 Crime Victims Survey on reasons why offences were not reported to the police, "Afraid of reprisal" as an explanation was given so infrequently that it was lumped together with a number of others, such as "Too confused or upset," "Police discovered the incident," etc. to form a class titled "Other reasons". There were seven other

reasons listed ahead of the general category. (Commonwealth Year book 1980:247).

The Australian Bureau of Statistics was responsible for the collection of material in their 1975 Survey and they used their usual staff of part time but trained interviewers. On the other hand, "advanced undergraduate students" conducted household interviews for a study by the University of Haifa which revealed that the second most common reason for not notifying the police in the case of crime against the person (13.8 per cent.) was fear of revenge. (Fishman 1979:152)

Just what proportion of the unreported crime is uncovered through victim surveys can be at this stage only a matter of surmise. Perhaps it is because this is so obvious a fact that it does not receive much, if any, recognition in articles analysing the results of victim surveys.

Because some victims are prepared to acknowledge to a representative of the government, certainly with the assurance that their statement will be given anonymity, that they have not reported certain offences to the police, this does not mean that their action can be interpreted as meaning that they, or any other subject, have not been the victim of other crimes.

Experienced police detectives will all be personally aware of many incidents in which victims have suffered, and which are never formally reported. Even when such incidents are restricted to only two areas of crime, such as the supply of illegal drugs, or incest/rape, police officers estimate only a small proportion are brought to official attention.

Addicts who fail to meet payments on time for drugs previously supplied and consumed, are painfully assaulted, not only to hasten their money-collecting activities, but to deter others from being tardy. When such addicts are questioned by police in hospital they deny allegations by the detectives as to how they were injured, and manufacture an alibi. They remained frightened people until in some way they are able to settle their debt.

Although some father-daughter incestuous relationship

apparently contain some elements of affection, others are created and maintained in an environment of fear, judging by sworn court evidence. Police will know of other instances which never reach the court because of the unpreparedness of family members to provide evidence of the acts of the father. This lack of co-operation may spring from a number of causes, but fear of retaliation by the father occurs frequently, if experienced police judgments are correct.

These are but two types of victimization which, it seems, are unlikely to be mentioned to the stranger seeking details for an official survey. Other classes of victim come quickly to mind who would probably be equally reticent: night club managers and massage parlour operators paying "protection" money to avoid arson or assaults on staff, young offenders in juvenile or adult custodial institutions who participate in homosexual practices under threat of serious harm, junior members in criminal gangs who must continue to operate under threat of physical violence, and in some countries, kidnap victims and their families.

Just how widespread are these practices is not known. Rarely do police have sufficient manpower to spend time trying to unearth these types of offences, and experience has shown that even when they do, victims usually will not provide essential evidence, for fear of reprisal or some other cause.

Two other aspects of the results are worthy of a short note. Although every subject was asked at every interview whether any fear had been experienced in the period because of the threat of harm or injury to another person emotionally significant to them, they all replied, "No."

The other aspect is that the two elderly men living with their wives both reported instances of being frightened, but neither of their wives did. One man went to answer an unexpected door knock late at night and encountered a belligerent stranger; the other attended a night meeting in the city and was forced to pass through a troublesome group of halfdrunks. Neither subject registered a high score, but the two incidents do tend to confirm the impression that males have a greater exposure rate than females. In consequence their scores of fearfulness (using "fear" as defined earlier) are likely to be

higher than females, an opposite finding to that reached with the use of the more traditional definition of fear of crime - "Are there places in your neighbourhood where you are unable to go because of fear of crime?"

WHAT HAS BEEN ACHIEVED.

The primary aim was to devise a quantitative measure of the fear of crime. Such a measure has been devised. It is capable of presenting a three-dimension description of the amount of fear experienced by an individual over a set period of time. Each of the dimensions at the moment may be a little fuzzy and lack the preciseness of the physical sciences, but so do all social indicators.

The least inaccurate of the three is the frequency variable since the two-week reference period makes recall comparatively easy. Duration of feeling has some uncertainty because of the lack of knowledge of how accurate are people's judgment of the passage of time under stress. The remaining dimension, that is the scale of intensity, may offer opportunities for distortion at its top end which is marked "100"- "Terrified".

Presumably there are degrees of being terrified, possibly culminating in death through vasovagal inhibition. In practice, however, subjects do not seem to make fine distinctions in the upper ranges. Those who scored 100 in interviews when asked to indicate on the thermometer the degree of their fright, usually said as well, "I was terrified", or "I thought I was going to be murdered."

By deciding to use only the reactions of a subject's autonomic nervous system, that is, the feeling of fear which arises when an animal is faced with an immediate threat of pain or death, rather than one or more behavioural responses to the same threat, it has been possible to overcome the vagueness and ambiguity that commentators have criticized in other studies.

The use of the three-dimension measuring instrument which provides information on degree of intensity and duration as well as the usual numerical dispersion, has demonstrated that

subjects can be experiencing a high level of fear while an offence is occurring. Rape victims have stated that they believed that eventually they were to be killed, and while they were being raped, were terrified by the thought they were about to be murdered. Perhaps this fear is most common in South Australia where the much publicized fates of the seven young ladies who were murdered and buried in shallow graves a few years ago is frequently mentioned during informal interviews with rape victims.

Similar situations no doubt can arise when other forms of crime are being committed: armed holdups, robberies, and child molestations fit this category.

The significance of this phenomena is that it is not usually included in investigations seeking to establish how much fear of crime there is in a community. Yet if its contribution is measured by the three-dimension instrument it will be seen as making a substantial input to the total.

Up till now the concept of "fear of crime" has been confined to the worrying thought of some future possibility of being harmed. Researchers have gradually refined their methodology by first moving from a more or less formless type of fear to a more concrete one, and then by reducing the wide-ranging concept of crime to those offences involving violence or the threat of violence.

What this investigation suggests is that the greatest amount of fear is generated when the concept of the offender can be reduced from criminals in general who might seize an opportunity presented to them, to one specific attacker or group of attackers who are concentrating for some reason on one particular victim. An abducted woman who fears death at the hands of those who are detaining her, and a victim whose evidence was responsible for the conviction of an offender who is making threats of reprisal are examples.

How widespread this is nobody seems to know for it appears not to have been studied. Perhaps its omission from earlier studies can be excused on the grounds that it does not readily fit into the popular understanding of what is "fear of crime."

Yet since the underlying theme of this enquiry was to devise a measure which would assist in determining the overall quality of life of a community, and fear of crime, especially violent crime, no matter what origin it had, will affect that level, then it seems it should be included.

So far discussion has been on individual fear, but if the measure is to serve the purpose of assisting in ascertaining community levels, then there must be some technique whereby individual scores are amalgamated. This requirement emphasizes the need for a system of appropriate weighting. Since there seems to be no suitable model available for adaptation, it will have to wait for further study.

Development of what appears to be a valid and reliable instrument for measuring the fear of crime may not immediately appear as a noteworthy result of study carried on for more than three years. This is particularly so since its rather crude form obviously requires further refinement before it can be introduced as an operational tool to help social planners and research scholars.

On the other hand it deserves recognition for what some criminologists consider is a big advance on present methods of measurement by offering a three-dimensional quantified description of a subjective variable. This paper began by listing the opinions of world authorities on how important this area of study is, and the difficulties facing those who seek to achieve a solution. The paper continued by quoting devastating criticisms by other scholars of existing procedures. Hopefully the new measure has avoided using any of the techniques which produced those criticisms. Whether it has succeeded in doing this will not be known until it has undergone a similar scrutiny.

SOCIAL POLICY IMPLICATIONS.

Even at this quite early stage there are some aspects beginning to emerge which, later on, may justify a change of perspective in the criminal justice system. If follow-up enquiries do confirm that fear of reprisals generate a great deal of fear in the community by their intensity if not by

number, then perhaps greater support should be forthcoming for fixed minimum terms of imprisonment so that victims will be able to adjust their lifestyles accordingly. Parole boards might make enquiries about the welfare of victims before deciding on release dates. Police officers could be given the power to temporarily detain suspects for questioning. If fear of reprisal does turn out to be a substantial reason for not reporting crimes to the police, then perhaps there should be a campaign by the police to induce that sort of report, or maybe an unofficial civilian body might serve as a kind of halfway house to advise victims. The old concept that prison could "reform" might be revived, and agencies which have demonstrated an ability to achieve this, possibly encouraged to extend their activities.

WHAT NEXT.

Two strategies presented themselves as possible choices of methodology for this project. Either to thoroughly investigate and satisfactorily prove each step before moving on to the next, or to temporarily accept a less rigorous scrutiny of the intervening steps in order to more quickly reach a completion level. From this vantage viewpoint it should be possible to make an overall assessment whether the results likely to be obtained justified the resource investment needed to confirm the validity of all the intervening steps.

Devising a quantitative measure of the fear of crime requires penetrating a large area of barely known territory, with no certainty that a worthwhile result could be achieved. For this reason it was decided to adopt the second strategy.

Having established that it is possible to attain a useful result, it is now necessary to return to further study of some of the steps involved. There are three already noted: to investigate judgments under stress of time elapse, to produce an appropriate system of weighting of the three elements of frequency, duration, and intensity, and to locate a suitable statistical technique to analyse the data from intensive questionnaires.

This paper is literally a first draft of the report. First drafts are usually submitted to the scrutiny of colleagues before they are offered for formal reading. This has not yet been done because of the necessity of meeting a deadline for the submission of reports for the September gathering of the Criminology Research Council.

Views of colleagues however will be sought before preparing a more succinct account of the enquiry for possible publication which may prompt comment from a wider readership. In this way it is hoped that any weaknesses in the methodology will be pointed out so that they can be corrected before any further work is under way.

Perhaps it is a little ambitious at this stage to consider continuance before any opportunity has been given for serious criticism, for the examination might reveal defects which cannot be remedied. Hopefully this will not eventuate.

In the meantime preliminary arrangements are under way to secure the co-operation of nursing sisters on night shift at a large hospital to undertake a twelve weeks longitudinal study, designed not only to measure the frequency, duration and intensity of any feelings of fear of crime in that period, but to extend the probes to provide a quantitative measure of how their life styles were changed, day by day, from optimum choice to second best, because of a fear of crime.

Measurement of behavioural responses to fear of crime may seem unnecessary since there is already a deal of published literature on this subject. However much of it is based on quasi-hypothetical questions, little of it is quantitative, and having the two sets of data about each subject should prove valuable in extending the understanding of the phenomena of fear.

As well first steps have been taken to obtain similar co-operation from a leading dental practitioner so that some enquiry can be undertaken into the ability of persons under stress to accurately estimate the lapse of time. The problems of weighting and statistical analysis must await assistance from specialist colleagues.

- Andrews, Frank M. and Rick Crandall
1976 "The validity of measures of self-reported well-being." Social Indicators Research 3: 1-19.
- Bard, Morton, and Dawn Sangrey
1979 "The Crime Victim's Book." New York: Basic Books.
- Bauer, Raymond A.
1966 "Social Indicators and Sample Surveys." The Public Opinion Quarterly, 30:3.
- Biderman, Albert D., Louise A. Johnson, Jennie McIntyre and Adrienne W. Weir
1967 Report on a Pilot Study in the District of Columbia on Victimization and Attitudes towards Law Enforcement. Field Surveys 1 conducted for the President's Commission on Law Enforcement and Administration of Justice. Washington: U.S. Government Printer.
- Boggs, Sarah L.
1971 "Formal and Informal Crime Control: An Exploratory Study of Urban, Suburban and Rural Orientations." Sociological Quarterly 12: 319-327.
- Braithwaite, John, and David Biles
1980 "Overview of Findings from the First Australian National Crime Victims Survey". Australian and New Zealand Journal of Criminology 13:41-51.
- Braithwaite, John, David Biles and Ray Whitrod
1979 "Fear of Crime in Australia." Paper presented to the Third International Symposium on Victimology. Muenster, Germany.
- Bunze, Mario
1975 "What is a Quality of Life Indicator." Social Indicators Research 2: 65-79.
- Christenson, James A., and Don A. Dillman
1974 "An Exploratory Analysis of Select Predictors of Concern for Law and Order." Social Indicators Research 1: 217-228.
- Clifford, Brian R. and Jane Scott
1978 "Eye witness testimony." Journal of Applied Psychology 63 (3): 352-359.
- Conklin, John E.
1971 "Dimensions of community response to the crime problem." Social Problems 18 (3): 373-385.
1975 The Impact of Crime. New York: MacMillan.

- Dillman, Don A. and James A. Christenson
1974 "Towards the Assessment of Public Values."
Public Opinion Quarterly 38: 206-221.
- DuBow, Fred, Edward McCabe and Gail Kaplan
1979 Reactions to Crime. National Institute of Law
Enforcement and Criminal Justice, Law Enforcement
Assistance Administration, U.S. Dept. of Justice.
- Ennis, Philip H.
1967 Victimization in the United States: A Report of
a National Survey. Washington D.C: U.S.
Government Printing Office.
- Eysenck, Han J.
1975 "The Measurement of Emotion: Psychological
Parameters and Methods" in L. Levi (ed.)
Emotions. Their Parameters and Measurement.
New York: Raven Press.
- Fishman, Gideon
1979 "Patterns of Victimization and Notification"
British Journal of Criminology 19 (2).
- Fowler, Floyd J. and Thomas M. Mangione
1974 "The Nature of Fear". Survey Research Program
University of Massachusetts and the Joint Centre
for Urban Studies of M.I.T. and Harvard University.
- Furstenberg, Frank F.
1972 "Public Reaction to Crime in the Streets."
American Scholar 40:601-610.
- Garofalo, James
1977 Public Opinion about Crime. Criminal Justice
Research Centre New York U.S. Department of Justice.
- Garofalo, James and John Laub
1978 "The Fear of Crime: Broadening our Perspectives."
Victimology: An International Journal 3: 241-252.
- Gault, Una
1980 Probing the Stereotype: New Ways of investigating
and improving memory in old people. Paper presented
at Grey Power Seminar, Australian National University.
17 April 1980.
- Gray, Jeffrey
1971 The Psychology of Fear and Stress. New York.
McGraw-Hill.
- Hindelang, Michael J., Michael R. Gottfredson, and James Garofalo
1978 Victims of Personal Crime. Cambridge. Ballinger.

- Hoshino, Kanehiro
1975 A Measurement of Public Safety from Crime.
Reports of the National Research Institute of
Police Science, Tokyo.16(1):59-61.
- Hunter, Ian
1958 Memory: Facts and Fallacies. Mitcham. Penguin.
- Krech, David and Richard S. Grutchfield
1959 Elements of Psychology. New York. Knopf.
- Levitt, Eugene E.
1971 The Psychology of Anxiety. Paladin.
- McIntyre, Jennie
1971 "Public Attitudes toward Crime and Law Enforcement."
The Annals 374:34-36.
- Mugford, Stephen
1980 Fear of Crime - The Role of the Mass Media.
Paper presented ANZAAS Conference Adelaide.
- Oppenheim, A.N.
1966 Questionnaire Design and Attitude Measurement.
London: Heinemann.
- Rifai, Marlene A. Young
1979 Methods of Measuring the Impact of Criminal
Victimization through Victimization Surveys.
Paper prepared for presentation Third International
Symposium on Victimology. Muenster. September.
- Sellin, Thorsten and Marvin E. Wolfgang
1964 The Measurement of Delinquency. New York. Wiley.
- Skogan, Wesley G.
1975 "Measurement Problems in Official and Survey
Crime Rates." Journal of Criminal Justice 3:17-32.
- Skogan, Wesley G.
1976 "Victimization Surveys and Criminal Justice Plan-
ning." University of Cincinnati Law Review
45 (2):167-206.
- Spielberger, Charles D.
1972 Anxiety 11. Academic Press.
- Sundeen, Richard A. and James T. Mathieu
1976 "The Urban Elderly: Environments of Fear,"in
Jack and Sharon S. Goldsmith (eds.) Crime and
the Elderly. Lexington MA, Lexington Books.51-66.

Taylor, Janet

1953 A Personality Scale of Manifest Anxiety. Journal
of Abnormal and Social Psychology 285-290.

Thayer, Robert E.

1967 "Measurement of Activation through Self-Reports."
Psychological Reports 20: 663-678.

Tittle, Charles R. and Richard J Hill

1970 "Attitude Measurement and Prediction of Behaviour."
Sociometry 30: 199-213.

Tuchfarber, Alfred J., William R. Klecka, Barbara A. Barnes and
Robert W. Oldendick,

1976 "Reducing the Cost of Victim Surveys" in Wesley
Skogan, Sample Surveys of the Victims of Crime,
Cambridge Ballinger.

Wilson, Paul R. and J. W. Brown

1973 Crime and the Community. St. Lucia University of
Queensland Press.

LIST OF VARIABLES FOR INTENSIVE INTERVIEWSDemographic

Age, sex, occupation, marital status and family, income, education, type of accommodation: unit, shared, isolated, telephone access, type of workplace: bank, chemist, taxidriver etc.

Exposure

Extent of self exposure and significant others, degree of helplessness and vulnerability.

Personality

Level of neuroticism
Chronic complainers

Health and Stresses

Life experiences - bereavement, divorce, unemployment, transfer, promotion. Under medication.
Biologically handicapped

Neighbourhood

Hi or Lo crime area, degree of integration and local support, well lit and well used streets, degree of visible precautions.

Objective Measurement

Official police recorded offences, victimization surveys.

Subjective Perception of Risk

Estimate of degree of risk and severity of attack by strangers, non-strangers at home or elsewhere.

Belief in Criminal Justice System

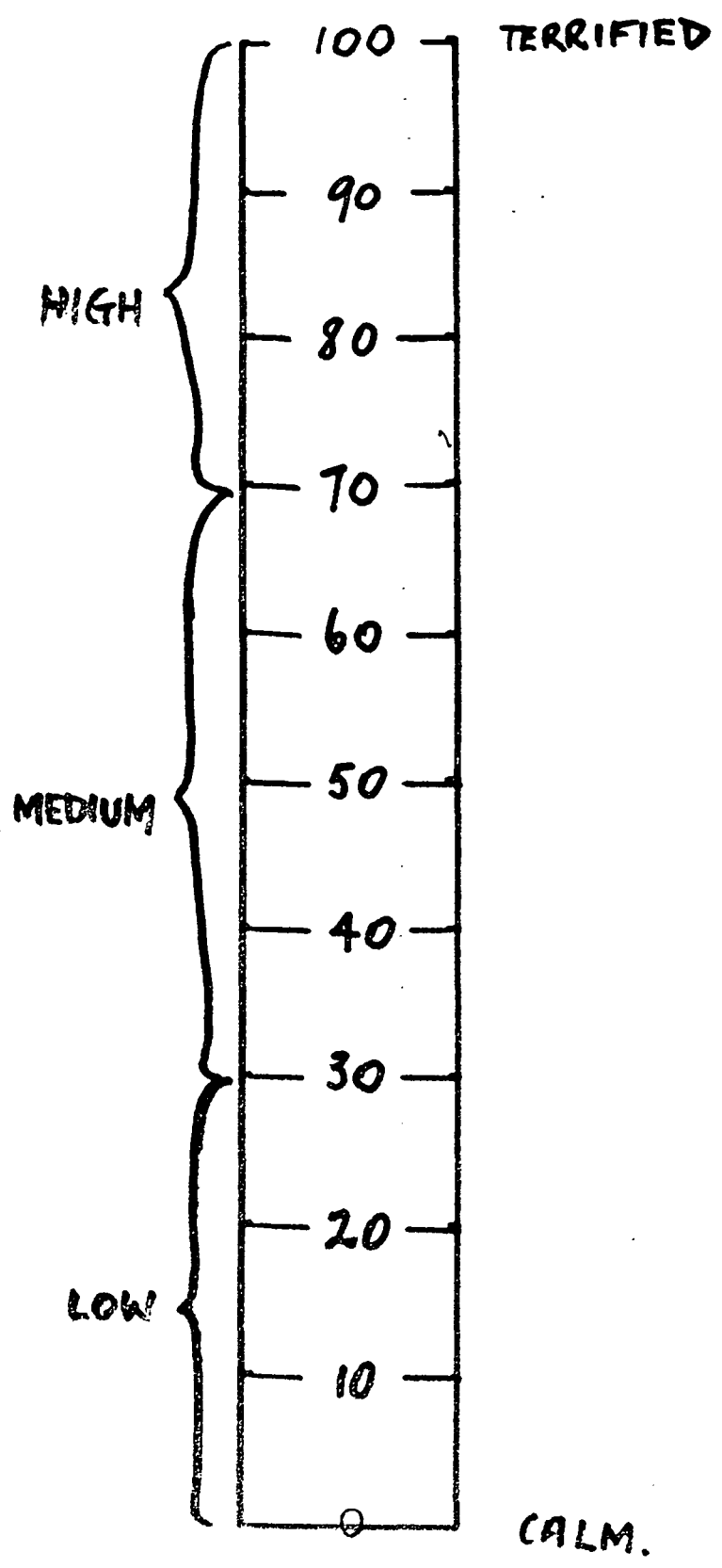
Degree of confidence in police and courts' effectiveness.

Communication

From parents, significant others, official statements, media, (TV, radio, press films), books, crime prevention campaigns.

Previous Experience with Crime

As victim or significant others.
As witness.



We are concerned about the effect of crime on people's lives. In particular we are trying to find out just how much fear of crime people have.

But the word "crime" covers a wide variety of unlawful behaviour, which makes our task more difficult. We are trying to simplify the task by asking people to think only about those crimes that make them fearful about their personal safety, or the safety of someone very dear to them.

By "becoming fearful" we mean the feeling of nervous fright that comes to people when they think they might be attacked, or beaten up, or robbed, or raped, or physically harmed in some way. Because of this danger their pulse beats more quickly, they become perspiry, their hands clammy, they may get a sick feeling in their stomach, and in extreme cases, they become terrified.

Some people may never have this feeling. For others it may always be present at the back of their mind. Sometimes this feeling only comes when some thing serves to trigger it off, like the sound of an unexpected knock at the door late at night.

These feelings could occur when you are at home, or in someone else's home, or at work, while you are out enjoying yourself, while you are moving from place to place, while you are on your own, or when you are with companions.

I would now like to ask you some questions about your own feelings. Your answers are important and we will appreciate your co-operation. You have our assurance that whatever you say will not be made public, except with your permission.

The questions asked will relate to four aspects of your life: (1) When you are at home, (2) When you are moving from place to place, (3) When you are at some place other than your home, and finally (4) about someone whose wellbeing matters a great deal to you, like child, parent, spouse or very close friend.

Because people have difficulty in remembering things which have happened to them we are asking questions only about how you felt in the past fortnight. It might help if we paused at this moment while you try to remember where you were and what you did in the past fourteen days.

Some people find it helps if they first jot down roughly on paper where they went each of the days. (offer pad and pen). Was this fortnight unusual in any way? Public holiday, transport strikes.....? Did you go to work, go shopping as usual, visiting, go to the bank, come home late any nights, have very young children going off to school, did the telephone ring without a caller, did any strangers accost you, were you worried about someone else's safety from attack? Did you have to pay any large accounts?

I should now like to go on to the actual questions. You will find them not difficult to answer for they are quite straight forward with no tricks in them.

QUESTIONNAIRE.

Item One.

Were there any times during the past ^{two} weeks when you were inside your own home when you did not feel completely safe from the danger of being assaulted, or robbed, or raped, or harmed in some way. Yes.....No.....

If no, proceed to Item Two.

If yes, -

Please do your best to say how many times in the past two weeks you were aware of this feeling. No. times

On the FIRST occasion, for how long did this feeling persist? Can you estimate in time.....Secs.....
Mins.....
Hours.....

This Scale which I have drawn up, runs from 0 at the bottom meaning Unaffected or Calm, to 100 at the top which means Completely Terrified. Would you point to a place on the scale which shows just how fearful you were.

Can you remember what caused you to have this feeling.....

.....

What were ^{you} actually frightened of?.....

.....

How did you feel at the time?.....

.....

What did you do at the time?.....

.....

Did you do anything else after the incident?.....

.....

Had you thought this could happen to you?.....

Why?.....

Notes:

Item Two.

Were there any times during the past two weeks when you were moving from place to place, that is, going somewhere or coming home, in a motor car, or walking, or riding a bicycle, or in a train or a bus, or in an aeroplane, or boat, when you did not feel safe from the danger of being assaulted, or robbed, or raped, or harmed in some way by ~~any~~ some other person.

If no, proceed to Item Three.

If yes:

Please do your best to say how many times in the past two weeks you were aware of this feeling. No. times

On the FIRST occasion, for how long did this feeling persist? Can you estimate that in time? Secs.....
Mins.....
Hours.....

Would you please point to a place on the scale which shows just how fearful you were on that occasion.

Can you remember what caused you to have this feeling.....
.....

What were you actually frightened of?.....
.....

How did you feel at the time....Prompt-flustered, angry, sick, perspiry.....

What did you do at the time?.....
.....

Did you do anything else after the incident?.....
.....

Had you thought this could happen to you.....
.....

Why?.....
.....

Notes:

Item Three.

Again please think back over your activities for the past two weeks. Were there any times when you were at some place other than your home, ^{such as} work, school, church, University, shops, bank, friend's home, when you did not feel safe from the danger of being assaulted, or robbed, or raped, or harmed physically by some other person?

If no proceed to Item 4.

If yes:

How many times in the past two weeks were you aware of this feeling? No. times.....

On the FIRST occasion for how long did this feeling persist?

Can you estimate that in time? Secs.....

Mins.....

Hours.....

Would you please point to a place on the scale which shows just how fearful you were on that occasion.

Can you remember what caused you to have this feeling.....

What were you actually frightened of?.....

How did you feel at the time?.....

(prompt-flustered, angry, sick, perspiry).....

What did you do at the time?.....

Did you do anything else after the incident?.....

Had you thought this could happen to you?.....

Why?.....

Notes:

Item Four.

Finally would you think back once again to the past two weeks. Were there any times during that period when you became fearful because of the possibility of someone very dear to you becoming the victim of an attack by another person. Yes.....No.....

If yes

Please do your best to say how many times in the past two weeks you were aware of this feeling. No. times.....

On the FIRST occasion, for how long did this feeling persist? Can you estimate that in time? Secs.....
Mins.....
Hours.....

Would you please point to a place on the scale which shows just how fearful you were on that occasion.

What were you actually frightened of?.....
.....

Can you remember what caused you to have this feeling?.....
.....

How did you feel at the time? (prompt-flustered, sick, perspiry)
.....

What did you do at the time?.....
.....

Did you do anything else after the incident?.....
.....

Had you thought this could happen to you?.....
Why.....
.....

Notes: