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Dimensions of Fear: A Preliminary Investigation

REACTIONS TO CRIME PROJECT

CENTER FOR URBAN AFFAIRS

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INTRODUCTION

While during the past decade much has been made of the issue of crime by social scientists and politicians alike, little empirical work has been devoted to the clarification of the corollary concept of "Fear of Crime". Until now this concept has been measured in nearly as many different ways as there have been studies of the problem. While there is every reason to believe that fear is a multidimensional concept, the question remains as to what these dimensions are and which have been tapped by the previous approaches to the problem. In this paper I will attempt to identify the dimensions of fear as measured by three of these strategies, using data collected in Hartford, Connecticut in 1973 and again in 1975.[1] Since items for all of the previous attempts to measure fear were not available in these data sets, we must consider this paper as a preliminary investigation. It is our hope that the results of this paper can be expanded by data to be collected at Northwestern in the Fall of 1977.

The first major surveys which attempted to measure the extent of fear amongst the citizenry were conducted over a decade ago for President Johnson's Commission on Law Enforcement and Administration of Justice. The commission sponsored three surveys of citizen victimization and attitudes about the problem of crime. The first was a pilot study of Washington, D.C. conducted by the Bureau of Social Science Research under the direction of Albert Biderman (1967). Although the primary task of this survey was to measure victimization ". . . with a view toward providing bases for estimating the nature and incidence of unreported crimes . . ." (1967:1), it also attempted to measure the

the effects of fear of crime on the respondents. This was measured by what the author termed an "Index of Anxiety" and a measure of "Fear of Personal Attack". The former was composed of five items:

1) What was it about the neighborhood that was most important? (This was asked only of those residents who indicated the neighborhood was more important than the house in selecting their present residence) - Safety or moral reasons vs. convenience, etc.

2) When you think about the chances of getting beaten up would you say this neighborhood is very safe, about average, less safe than most, one of the worst?

3) Is there so much trouble that you would move if you could? (Again, a screen question ask only of those who did not say their neighborhood was very safe).

4) Are most of your neighbors quiet or are there some who create disturbances? (All quiet, few disturbances, many disturbances).

5) Do you think that crime has been getting better or worse here in Washington during the past year? (Better, worse, same) (Biderman, et. al., 1967: 121).

No rationale is given for the construction of this scale, beyond the fact that these items documented the serious and significant impact which crime was having on the residents of Washington at that time (1967:119). In addition, no information was given about the construction of the scale, the intercorrelations of the five items, or how the screened questions were utilized without losing a large number of respondents who were not asked these questions.

Fear of Personal Attack was measured by one item.

> Would you say there has been an increase in violent crime here in Washington? I mean attacks on people - like shootings, stabbings and rapes? Would you say that there's now very much more of this sort of thing, just a little bit more, not much difference, or that there is no more than five years ago? (1967:132; see also Appendix D, p.11).

This item which apparently taps the citizens' perceptions of the changing crime problem, seems to require some rather large inferential leaps to get to the concept of "fear of attack", which the authors claimed it measured.

In addition, the item does not give respondents much freedom to be "unafraid of attack".

The second survey sponsored by the President's Commission was conducted by the Survey Research Center of the University of Michigan under the direction of Albert Reiss, jr. For this study residents were interviewed in both Boston and Chicago, during the summer of 1966. Reiss circumvented the problems encountered by Biderman in measuring fear by not discussing the topic at all. Rather, he presented several items designed to measure "citizen perceptions about crime in their area" and discussed each separately (1967:23-35). The most relevant of these to this paper were:

1) When you think about your chances of getting robbed, threatened, beaten up, or anything of that sort, would you say your neighborhood is (compared to other neighborhoods in town): very safe, above average, less safe, or one of the worst? (1967:33-34)

2) Have you changed your habits because of fear of crime? (stay off streets, use taxis or cars, avoid being out, don't talk to strangers). (1967:102-110).

Other items questioned the residents about things they thought gave the neighborhood a bad name, whether they thought outsiders or local residents committed most crimes in the neighborhood, and whether they thought violent crime was on the increase. Reiss thus presented us with a composite picture of how residents perceive the crime problem in their neighborhood and thereby avoided many of the pitfalls which other authors would encounter by addressing the problem more directly.

The final commission survey was national in scope and conducted by the National Opinion Research Center (NORC). This study distinguished between "Fear of Crime" and "Perception of Risk" (Ennis, 1967:74). The former was measured by several <u>separate</u> items. These were:

1) How safe do you feel walking alone in your neighborhood during the day?

continued ...

2) How safe do you feel walking alone in your neighborhood after dark?

3) How often do you walk in your neighborhood after dark?

4) Have you wanted to go somewhere recently but stayed home because it was unsafe?

5) How concerned are you about having your house broken into? (Ennis, 1967:72-75).

Like Reiss, Ennis discussed these items as if it had been established that they were aspects of the concept of fear, but did not provide any documentation of their intercorrelations. It may be that they are not as highly related as he would have us believe. At one point, he does construct a scale to measure the combined effect of fear of robbery and burglary (1967:76). While no documentation of the items or procedures used to construct the scales was provided, logically it seems that items 2 and 5 listed above would be likely candidates.

The second concept which he investigated, Perception of Risk, was measured by two items:

1) How likely is it a person walking around here at night might be held up or attacked - very likely, somewhat likely, somewhat unlikely, or very unlikely?

2) Compared to other parts of the city, is a home or apartment around here much less likely to be broken into, somewhat less likely, somewhat more likely, or much more likely to be broken into? (Ennis, 1967:75-76).

These were combined to form a scale of perceived risk by dichotomizing each in some fashion and then cross classifying them. Again, no indication as to the extent of the relationship between the two was provided. He did indicate, however, that the "Fear" and "Perceived Risk" scales are moderately correlated (1967:76).

Since the Crime Commission's studies, several authors have investigated the problem of fear of crime, including Rosenthal (1969), Block (1971),

Skogan (1976), Lalli and Savitz (1976), Furstenberg (1971, 1972), Conklin (1971, 1975), and Fowler and Mangione (1975). Here I will discuss only the measures employed by the last three.

In his 1971 article, Frank Furstenberg distinguished between what he termed "fear" and "concern" in order to clarify what he saw as a major paradox emerging from studies of the Commission and the Rosenthal article. As he operationalized it, Fear was the perception of one's risk of victimization (1972:9). This was measured by an additive scale composed of items which measured the respondents' perceived risk for eight types of crimes. These crimes were selected from a larger group of fourteen on the basis of their applicability to all respondents and high observed intercorrelations (gamma $\geq$ 0.6) (1971:604). The major problem for the researcher wanting to utilize this scale is that Furstenberg failed to list the final eight items retained for the scale. The second dimension, Concern about crime as a social issue, was based upon an item asking respondents to rank ten social problems according to their seriousness. The responses were then dichotomized into those respondents who listed crime as "most serious" and those who did not. Paralleling the first measure he again fails to indicate what the ten domestic issues were.

The significance of this article lies in Furstenberg's analysis of the correlates of these two measures of fear. Briefly, he found the two dimensions to be unrelated. Concern was related to such political and social sentiments as commitment to the existing social order and attitudes about racial change. Fear, on the other hand was related not to these variables but to the crime rate and the perceived safety of the neighborhood. Thus, the former measure appeared to have political content while the latter was crime-specific.

Building upon Furstenberg's analysis, John Conklin examined three measures of fear: Concern about crime, Perception of Crime, and Feelings of Safety (1975:76-85). He measured the first of these in approximately the same manner as Furstenberg. Each respondent was asked to "choose the social problem of greatest importance to themselves from a list of seven problems: poverty, rising prices, the Vietnam war, education, crime, race relations, and unemployment" (1975:77). Like Furstenberg, Conklin collected his data in two communities: one with a low crime rate and the other a high rate.[2] However, in Conklin's study the residents of the high crime area were also the most concerned about crime - the opposite of Furstenberg's findings.

"Perception of Crime" was measured by an additive scale composed of three items. The first asked the residents to describe the local crime rate as high, average, or low. The second asked them to compare the crime rate in their own community to that of the Boston area. The third was similar to the second but utilized the national crime rate as a standard of comparison (1975:79). Conklin interprets this scale as an indicator of the criminal environment of the two communities, largely because intercommunity differences persisted regardless of the control variable. However, he failed to demonstrate that any of the control variables were related to this scale - a prerequisite for affecting the existing relationship.

Finally, Conklin constructed a "Perception of Personal Safety" scale, apparently as a proxy for Furstenberg's scale of fear, which itself was strongly related to perceptions of neighborhood safety (Furstenberg, 1971:607; Conklin, 1975:81-83). This index was composed of six items:

1. Have there been any times recently when you wanted to go out somewhere in your neighborhood but stayed home instead because you thought it would be unsafe to go there?

2. Is there any area around here - that is, within a mile - where you would be afraid to walk alone at night?

3. Do you make sure that all of the doors in your home are locked when you leave for even a few minutes?

4. Some people worry a great deal about having their house broken into, and other people are not as concerned. Are you very concerned, somewhat concerned, or not at all concerned about this?

5. How safe do you feel walking alone in your neighborhood when it's dark?

6. How likely is it that a person walking around here at night will be held up or attacked? (1975:82-83).

Conklin's rational for combining responses to the six questions appears to be based only upon their face validity and "moderate but statistically significant correlations . . . " between them (1975:83). Since in a sample as large as Conklin's, very small correlations are statistically significant (e.g., a Pearson r of only .138 is significant at the .05 level for a sample of 200), it is unfortunate that he did not report these values in the text.

The last paper to be discussed here -- and in many ways the most thoughtful of the set -- was written in 1974 by Floyd Fowler and Thomas Mangione. In an attempt to clarify the concept, they argued that Fear of Crime has been measured in four conceptually distinct ways:

1. How safe do you feel on the streets?
2. How likely are you to be a victim?
3. How worried are you about being a victim?
4. How big a problem is crime? (1974:2)

They contended that a distinction should be made between these four approaches, especially ". . . between the perceived threat and the amount of anxiety that the crime situation in an area [produces] in people (1) or (2) vs. (3)" (1974: 3). As a result of this argument they chose to focus their analysis on two variables which asked the residents to indicate how worried they were about

being robbed or burglarized at night. Using multiple regression analysis, they found the best predictor of "worry about robbery" to be the estimated risk of being robbed. Similarly, the best predictor of "worry about burglary" was the item which measured the perceived risk of burglary. In thus differentiating between perceived risk and worry about victimization they appear to have made a very useful distinction.

However, if in reading the Fowler and Mangione paper one moves away from the explanatory perspective which they utilize and views the data from a descriptive mode, some very interesting questions arise about their conceptualization of Fear and more generally about the dimensions of this concept. As part of their analysis they present the intercorrelations among the 11 items which they thought most directly measured "fear of crime" as defined by the categories mentioned above. What is particularly striking about this data is that <u>every one</u> of the correlations between these eleven variables (55 in all) is significant well beyond the .001 level (1974: Table 3). When approached from this descriptive perspective the major question becomes not one of which variables will predict "worry about victimization" but rather one of "How can we account for this pattern of consistently high correlations?" Or phrased another way, are there identifiable and theoretically meaningful dimensions of fear to be derived from this data? This is the question to which we will address ourselves in the remainder of this paper.

Having access to the Fowler and Mangione data collected in 1973 and a 1975 update of the same data, we decided to answer the above question in a straightforward manner by factor analyzing a somewhat expanded set of these items. While it would be desireable to answer this question in a more definitive manner using variables which represent all of the various approaches utilized to date, at this time we are limited by data sets collected for other

purposes. However, we can investigate the dimensions running through three of the four approaches outlined by Fowler and Mangione: Worry About Crime, Perception of Risk, and Crime as a Neighborhood Problem. We can ask whether these categories are the most parsimonious way of describing a set of items which might be categorized by them.

While the available data offered many more variables which could be thought to measure Fear, the analysis presented here will be limited to 19 such variables. These were selected on the basis of two criteria: did they correspond to one of the four approaches cited above, and were they measured at two points in time? The second criterion was utilized in order to maximize the advantages of factor analysis. Because of its extreme flexibility this analytic technique is held in considerable suspicion in many circles. However, it is harder to dispute a final factor solution which can be replicated across two samples gathered at two points in time. We therefore, selected only those relevant items which were included in both of these data sets.

Thus, even though research on the topic of Fear of Crime has been in progress for a decade, few advances have been made in either the measurement or clarification of this concept. While the original studies (Biderman, 1967; Reiss, 1967; Ennis, 1967) acknowledged the multidimensionality of the concept, they utilized what might be termed an "intuitive" approach to scale construction; the criteria used for selection of items was either their face validity or whatever seemed to make sense at the time. In either case this procedure hardly makes for a good start in a new area of research.

The second group of studies addressed the problem of conceptual clarification in a more systematic and cumulative manner. Furstenberg (1971) demonstrated that a useful distriction could be made between Fear (perceived risk

of victimization) and Concern (ranking of crime as a social problem); Conklin (1975) built upon Furstemberg's work by looking at concern, fear (using a scale of personal safety as a proxy), and a third "perception of crime" scale which was designed to measure the perceived amount of crime in the neighborhood. Finally, Fowler and Mangione (1974) suggested that fear of crime can be measured in four conceptually distinct ways. They argued that a distinction must be made between perceived threat of crime in a neighborhood and the amount of anxiety or worry produced by crime. It was the latter which they selected as the most relevant measure of fear (1974:2).

METHODOLOGY

The Data

The data for this study was collected by the Survey Research Program, a facility of the University of Massachusetts - Boston and the Joint Center for Urban Studies of M.I.T. and Harvard University, for the Hartford Institute of Criminal and Social Justice as part of a planning and evaluation project funded by the National Institute of Law Enforcement and Criminal Justice. The first set of baseline data was obtained in a survey conducted in the fall of 1973. This is the same data analyzed earlier by Fowler and Mangione. Update information was also collected in the late spring of 1975, prior to implementation of the program. In both years multistage random samples were selected from three areas of the city: the target of the program, an area immediately adjacent to the target, and the remainder of the city. In order to be eligible for inclusion in the sample, at least one member of the selected households had to have resided in that unit for at least six months prior to the survey.

In both years the target area was over-sampled in order to provide an

adequate data base for the victimization questions. In the 1973 sample, 20.8% of the 891 interviews were from this area, while in 1975, 31.7% of the 556 respondents were residents of the target area. Thus, in its unweighted form the sample is not representative of the city of Hartford. Because the analyses reported here use unweighted data it is possible that the results might be affected by peculiarities of the target neighborhood. This possibility is reduced somewhat by utilizing data from two points in time. For a more detailed discussion of the population, program, and sampling frame see Mangione and Noble (1975).

The Variables

For the analysis of the 1973 data, twenty variables were selected, 19 of which were shared by the two instruments. These included nine of the eleven items investigated by Fowler and Mangione (1974) plus two additional "perception of risk" items and nine additional "crime as a neighborhood problem" items. Although it violated the guidelines which we initially set up, a question asking residents to estimate the likelihood of having their home burglarized while they were at home was included in the 1973 analysis because it appeared to measure not only fear of burglary but also the household invader or "Manson" effect. The final pool of items was thus:

A. Perception of Risk

Think of a scale from 0 - 10. Zero stands for no possibility at all and ten stands for extremely likely. During the course of a year how likely is it that ...

1. someone would break into your (home/apartment) when no one is home?
*2. someone would break into your home when someone is home?
3. your purse/wallet would be snatched in your neighborhood?
4. someone would take something from you on the street by force or threat in your neighborhood?
5. someone would beat you up or hurt you on the street in your neighborhood?

continued ...

B. Worry

6. In the daytime, how worried are you about being held up on the street, threatened, beaten up or anything of that sort in your neighborhood? Would you say you are: very worried, somewhat, just a little, not at all worried?
7. And how about at night, how worried are you about that sort of thing in your neighborhood ...?
8. And, how worried are you about your home being broken into or entered illegally in the daytime when no one is home? Would you say you are ...?
9. And how about at night, how worried are you about your home being broken into when you're not at home ...?

C. Neighborhood Crime

I am going to read you a list of crime related problems that exist in some areas. For each I want you to tell me whether it is a big problem some problem, or almost no problem in your neighborhood.

10. People selling illegal drugs
11. People using illegal drugs
12. Groups of teenagers hanging around in the street or parks
13. Groups of men in the streets or parks
14. Drunken men
15. Prostitution

How about _____? Is that a big problem, some problem, or almost no problem?

16. Stealing cars
17. Burglary - breaking into people's homes
18. Robbing people on the street
19. Holding up and robbing small stores or business
20. People being beaten up or hurt on the street

Analysis of the Data

The analysis of the data was performed using the "Factor" routine of SPSS. For each set of data both an orthogonal (uncorrelated factors) and an oblique (correlated factors) solution was obtained. Since it would be extremely difficult to justify the assumption that Fear of Crime factors should be unrelated, only the oblique solutions will be discussed in the following section. The orthogonal solutions are to be found in an appendix. For both years the pattern of factor loadings was very similar for each solution. The oblique

* Included in the 1973 survey only.

solution simply clarified the structure and thus more closely approximated Thurstone's criteria for simple structure (Thurstone, 1947: 334-336).

The number of factors to be extracted was based upon Kaiser's criteria that only factors with an eigenvalue greater than one be selected. Another way of stating this guideline is that the final retained factors should contribute no less than 1/n of the total variance where n is the number of items included in the analysis (Kaiser, 1960).[3] For both sets of data this resulted in a final rotated solution containing 4 factors.

While more precise mathematical formulations have been developed to determine the standard error of a factor coefficient (Harman, 1967: 433-435; Child, 1974: 45-46; Kerlinger, 1973: 662), I elected here to use the conservative value of 0.30 as the minimum value to be considered as significant

RESULTS

Table 1 presents the factor matrix obtained from the 1973 data. The first factor is clearly defined by five of the "neighborhood problem" items. These are the five more serious crimes listed for the respondents: car theft, burglary, robbery, holdups at small stores, and assaults or beatings as a neighborhood problem. In view of these loadings, we might tentatively call this factor "Perceptions of serious crime as a neighborhood problem."

Six items loaded significantly on the second factor. These included four of the five "perception of risk" items: estimated risk of being burglarized while at home, having one's purse or wallet stolen, being robbed on the street, and being beaten up. The reamining two items were "worry about being beaten up or robbed during the day" and worry about the same two crimes at night. All of these crimes involve at least a confrontation with the assailant. In addition each of them involve violence or the potential for it. We have

chosen to call this factor "fear of personal attack" or "fear of crimes against the person". At first glance the apparent exception to this interpretation would seem to be the second item listed "risk of burglary while at home". As we hypothesized earlier, this variable seems to possess a dual component. On the one hand it is asking about burglary, while on the other it seems to be measuring what might aptly be termed the "Manson effect". That is, burglary while at home is thought to involve more than just the threat of losing property. It promises the potential for personal violence.

TABLE 1 ABOUT HERE

The third factor is defined by four variables. The highest loading here are for the two "worry about burglary" questions (during the day, at night). These are followed by the item which asked the respondents to estimate their risk of having their home burglarized while they were <u>not</u> at home. The fourth item to load significantly on this factor is "worry about assault or robbery at night". It will be noted that this variable also loaded significantly on the second factor. In addition it is the only item in the analysis which is significant on more than one factor. In view of these loadings I have chosen to call this factor "fear of burglary" or "fear of loss of property". The last variable mentioned above is somewhat problematic in this respect in that it does not seem to fit this characterization. Some consolation can be found in the fact that it is the weakest of the four. However, this is also the strongest loading for that item.

TABLE 1

OBLIQUE FACTOR PATTERN MATRIX, 1973

Variable	Factor I	Factor II	Factor III	Factor IV
Perceived Risk of:				
Burglary while gone	-.054	.293	.429	.215
Burglary while at home	.065	.370	.277	-.032
Purse/Wallet Snatch	-.025	.839	.000	.067
Robbery	.009	.930	-.091	.067
Assault/Beating	.100	.795	-.043	-.013
Neighborhood Problems:				
Selling Drugs	-.061	.069	.011	.859
Using Drugs	-.112	.001	.028	.961
Groups of Teenagers	.189	.008	.091	.522
Groups of Men	.246	-.012	.006	.564
Drunks	.269	-.040	.039	.466
Prostitution	.245	.052	-.103	.470
Car Theft	.550	-.005	.031	.109
Burglary	.528	-.038	.224	.209
Robbery	.729	.188	-.037	.049
Holdups at Stores	.731	.003	.035	-.006
Assault/Beatings	.856	.040	-.041	-.015
Worry About:				
Assault/Robbery in Day	.137	.375	.281	-.032
Assault/Robbery at Night	.052	.342	.387	-.085
Burglary in the Day	.073	-.036	.829	.033
Burglary at Night	-.015	-.069	.897	.026

Five "neighborhood problem" items loaded significantly on the fourth and final factor: the sale of drugs, the use of drugs, groups of teenagers hanging out, groups of men hang out, drunks, and prostitution as a neighborhood problem. While the highest loadings are for the two drug variables, all of these items seem to share a common "morality" or "social order" component. Tentatively, I have chosen to term this factor "perceptions of the moral order of the community".

The matrix of correlations among the four factors is presented in Table 2. The ranking of magnitude for these coefficients is of particular interest here. First we should note that the highest correlation is between factors 1 and 4. That is, the respondents' perceptions of serious crime in the community appear to be closely related to their perceptions of the moral order of the community. If the respondents perceive vice as a serious neighborhood problem we might surmise that they would also think there to be a more serious crime problem in the community. The second highest coefficient is between the "fear of personal attack" and "fear of burglary" factors. This too would appear to make sense in that while the residents distinguished between personal and property crimes it would seem that fearing personal violence is closely related to feeling anxious about other crimes. These two correlations seem also to lend themselves to the further interpretation that the respondents were clearly distinguishing between community and personal problems. This does not mean that the two are unrelated - indeed the correlation between factors 1 and 2 would argue the contrary - but simply that they are clearly thought of as separate issues.

TABLE 2 ABOUT HERE

TABLE 2.

MATRIX OF FACTOR CORRELATIONS, 1973

Factor	Factor			
	1	2	3	4
1	1.00	.440	.323	.668
2		1.00	.447	.252
3			1.00	.253
4				1.00

I next attempted to replicate the above findings with the data collected two years later in the same areas of Hartford. The results of this analysis are presented in Table 3. While there are differences between the two years, which we will note below, the 1975 data exhibit the same basic pattern of results as was reported above.

Again the highest loadings for the first factor are from the items which measure perceptions of serious crime problems in the neighborhood: auto theft, robbery, holdups at small stores, and assaults or beatings. The reader will note that burglary as a neighborhood problem has dropped out of this factor. Four measures have also been added to this cluster of variables: groups of men hanging out, drunkards, and prostitution as neighborhood problems, along with worry about assault or robbery during the day. While these are departures from the earlier results, the highest loadings for this factor are still from three of the "serious crime as a neighborhood problem" items. Each of the remaining three neighborhood problem questions also load onto the fourth factor as they did in the earlier analysis. While this factor does not reproduce the earlier findings exactly, the defining variables do seem to be the same with the exception of the burglary item moving to another factor.

The pattern of loadings for the second factor are with one exception the same as for the preceding analysis. The five items which clustered together earlier did so here. These are: the estimated risk of having your purse or wallet taken, being robbed, or assaulted, and the two worry about assault or robbery on the street questions. The exception is the addition of the perceived risk of burglary item, which also loads onto factor three. Again the highest loadings are for the three crimes which involve a personal confrontation with the assailant and the potential for harm.

Table 3 about here

TABLE 3.

OBLIQUE FACTOR PATTERN MATRIX, 1975.

Variable	Factor I	Factor II	Factor III	Factor IV[1]
Perceived Risk of:				
Burglary while gone	-.180	.388	.390	.200
Purse/Wallet Snatch	.065	.809	.018	.006
Robbery	.022	.910	-.038	.058
Assault/Beating	-.000	.834	.006	.103
Neighborhood Problems:				
Selling Drugs	.043	.105	.007	.819
Using Drugs	-.019	.093	-.015	.893
Groups of Teenagers	.212	-.001	.210	.449
Groups of Men	.317	-.014	.162	.467
Drunks	.422	-.076	.104	.385
Prostitution	.320	.026	-.013	.443
Car Theft	.462	-.045	.139	.112
Burglary	.267	-.002	.302	.245
Robbery	.766	.181	-.082	.051
Holdups at Stores	.667	.017	.061	.083
Assault/Beatings	.638	.190	-.102	.159
Worry About:				
Assault/Robbery in Day	.361	.329	.232	-.175
Assault/Robbery at Night	.269	.369	.219	-.177
Burglary in the Day	.042	-.006	.890	-.023
Burglary at Night	-.048	.043	.858	.029

[1]Signs for all coefficients have been changed on this factor.

Factor three is again defined by the two worry about burglary questions and the perceived risk of having one's home burglarized. When compared to the previous results there are two changes here. First, the worry about assault or robbery item has dropped from the factor. Second, burglary as a neighborhood problem now loads significantly on this factor. Unlike the earlier changes, both of these serve to clarify the substantive interpretation of this cluster. It is now clearly a burglary factor.

The final factor is identical to that identified earlier. Each of the "social order" variables loads significantly onto this factor. The reader will note that three of the six items also loaded onto the first factor. If we couple this with the fact that the two drug items are clearly dominant both here and in the 1973 data, we might be tempted to call this a "drug problem" factor. However, in view of the consistent pattern of these two variables loading with the other four public order items it is probably more accurate to continue to identify this as a "moral order" factor.

Table 4 about here

Table 4 presents the intercorrelations of the four factors obtained from the 1975 data. While the magnitude of the coefficients varies somewhat from those presented in Table 2, if we can overlook a tie, the rank-ordering is exactly the same. Again the highest correlation is between the two factors defined predominately by the neighborhood problem items. This status is shared with the correlation between the "fear of attack" and "fear of burglary" factors. This would tend to substantiate our preliminary interpretation that the respondents were largely differentiating between what they saw as personal chances

TABLE 4.

MATRIX OF FACTOR CORRELATIONS, 1975

Factor	Factor			
	1	2	3	4
1	1.000	.447	.421	.543
2		1.000	.543	.250
3			1.000	.344
4				1.000

of victimization and the crime problem of the neighborhood. Within these two broad categories are further subdivisions based largely upon types of crime. For the personal estimates of risk the differentiation is between personal and property crimes, while the nieghborhood category breaks down into what might be termed more and less serious crimes.

Summary

Both the 1973 and the 1975 data exhibited the same basic pattern of factor loadings. While there were a few differences in this pattern, the variables with the highest loadings on each of the four factors were the same in both years. In addition, the rank-order of the correlations between the factors was the same for both analyses. The final solutions demonstrated a basic differentiation between what were perceived as neighborhood problems and the respondents' own perceived chances of victimization. These categories were then further subdivided. The neighborhood problems split into two categories labelled here as "serious crime" and the "moral order" of the community. The respondents differentiated those items which involved crimes of violence or personal confrontation with the assailant from those which asked about their chances of being burglarized. Being well aware of the pitfalls of naming factors I labelled these four as: (1) Perceptions of serious crimes as a neighborhood problem, (2) perceptions of the moral order of the community, (3) fear of crimes against the person, and (4) fear of burglary.

CONCLUSIONS

The reader will remember that the set of items analyzed above was initially selected because of their close correspondence to three of the four approaches to measuring fear suggested by Fowler and Mangione (1974). These were: (1) estimates of crime as a community problem, (2) perceived risk of victimization, and (3) worry about becoming a victim. Our intention was to determine whether

these were empirically identifiable dimensions of fear, or simply an arbitrary set of categories which cut across empirical dimensions in some fashion or another. As is usually the case, we came up with a mixed answer to our question. The data support part of the classification but contradict the rest.

The first category, crime as a community problem, was clearly defined as a distinct factor in both years, but was separated into two components. The respondents did identify problems of the community as a distinct issue, but this distinction was more detailed than anticipated by Fowler and Mangione. Community problems were divided into a cluster of serious crime issues and a further cluster of what might be termed as moral or social order problems. As one would expect, these two components of the community crime problem demonstrated substantial positive correlations ($r = .54; .67$). It might be hypothesized from this that residents of urban areas use the more visible signs of moral order -- groups of teenagers, drunks, groups of men, obvious drug use -- as clues to the extent of serious crime in a community. This, in turn, may be a direct link to the extent of perceived fear of residents of an area. Thus, since the extent of serious crime in a neighborhood is not easily determined by the residents, given equivalent victimization rates we would expect residents of a neighborhood with the problems of order mentioned above to report both more fear of victimization and more serious crime than those residing in an area without these problems.

Additionally, these two "neighborhood problem" factors might serve as excellent proxies for Conklin's concept of the "criminal environment" of a neighborhood. This criminal enviornment consists "of the myths, legends,

ideas, and views about crime in a given social setting" (1975: 20-21). In other words an urban area will develope a distinct criminal character; whether it is positive or negative, Conklin suggests, is determined by sources of information, first-hand observations of crime, and actual victimization (1975: 20). These suppositions might well be tested using the two derived factors of community problems as measures of this criminal environment.

The items designed to measure the second and third categories defined by Fowler and Mangione - perceived risk of victimization and worry about victimization -- did not obtain as distinct factors. Rather they combined to form new groupings which divided according to the type of crime mentioned in the question. These two new factors were labelled as "fear of crimes against the person" and "fear of burglary." While it may make good conceptual sense to distinguish between risk and worry, this analysis has indicated that these are not major empirical divisions. Rather people think in terms of the type of crime. If they see their risk of victimization for a particular crime as high, then they are likely to say that they are worried about this possibility.

Each of these "personal fear" factors can be further seen as containing both a risk or estimate of the objective probability of victimization component and an emotive or worry component. Thus, by utilizing the four worry items it appears that we could measure the emotive component of fear. Similarly we could measure the estimate of risk component by asking the group of risk questions. It is in this sense that Fowler and Mangione were on the right track by conceptually separating the two. However, we must keep in mind that the overriding empirical distinction is between types of crime rather than between risk and worry.

It could be argued that the final solution might be interpreted as the result of a response set. The evidence to support this conclusion can be found in the order in which the questions were asked. Referring back to the listing of the questions on pages 11 and 12, the reader will note that there were four basic sets of items administered to the respondents. While they were not asked in this exact order, each set was asked together. The argument for a response bias would rest on the fact that factors one and four were originally two contigious sets of questions, asked in approximately the same manner. A response set for each of these groups would produce the obtained factor pattern. In addition, the fact that these sets were contiguous might be used to account for the overlap of significant loadings between the two factors in the 1975 data (Table 3). However, several other aspects of the results would counter such an interpretation. First, this separation of the sections into distinct factors occured for only two of the four sets of items. The fact that questions asked as a set loaded onto the same factor is not, in itself, evidence of a response bias. Indeed it might just as well be argued that the questions which were asked together for some conceptual reason were confirmed to be highly interrelated. In other words, at this point we have to live with the fact that similar question content and questionnaire location were confounded in this data. Second, the burglary items which loaded onto the third factor were located in three distinct sets of questions in 1975 and two in 1973. Similarly, the items which defined the second factor were from two distinct sets of questions. Thus, if the results were indicative of a response bias, we would expect a somewhat different pattern of factor loadings than the ones observed here. Of course, a more conclusive answer to this question must await future data collection which would separate these conceptual sets of questions and remove the possibility of a response bias.

Finally, it is hoped that this analysis has contributed to the clarification of the concept of "fear of crime." By demonstrating the existence of a consistent factor pattern in data sets collected two years apart, we have provided a beginning for future refinements of this concept. These refinements should include an expansion of the number of items to be analyzed and data collected to be representative of a more general population.

FOOTNOTES

1. These data were from a planning and evaluation study in Hartford, funded by NILECJ and made available to us by the Hartford Institute of Criminal and Social Justice. The data were designed and collected by the Survey Research Program, a facility of the University of Massachusetts - Boston and the Joint Center for Urban Studies of M.I.T. and Harvard University.

2. Actually, as Conklin acknowledges in a footnote on page 6 , describing the urban neighborhood as having a high crime rate is a little misleading. Nevertheless I will follow his lead here and refer to the two areas as "high" and "low crime."

3. Since the eigenvalue (latent root, characteristic root) of a factor is the sum of the squared factor loadings for that factor, a little thought will tell us that these are simply alternate ways of conceptualizing the same criterion. A factor with an eigenvalue of 1.00 contributes 1/n of the total variance (see Child, 1970: 42-43).

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APPENDIX A

Additional Factor Solutions

TABLE 1

Four Factor

Orthogonal Solution - 1973

Variable	Factor I	II	III	IV
Perceived Risk of:				
Burglary while gone	.260	.396	.090	.489
Burglary while at home	.068	.436	.133	.352
Purse/Wallet Snatch	.142	.804	.128	.186
Robbery	.158	.875	.163	.123
Assault/Beating	.113	.772	.205	.144
Neighborhood Problems:				
Selling Drugs	.808	.135	.155	.109
Using Drugs	.878	.072	.126	.115
Groups of Teenagers	.600	.125	.289	.172
Groups of Men	.655	.101	.335	.098
Drunks	.571	.079	.331	.117
Prostitutes	.559	.125	.313	-.001
Car Theft	.358	.142	.493	.118
Burglary	.462	.164	.510	.304
Robbery	.395	.347	.655	.113
Holdups at Stores	.331	.183	.621	.137
Assault/Beatings	.375	.228	.725	.089
Worry About:				
Assault/Robbery in Day	.102	.459	.195	.366
Assault/Robbery at Night	.020	.429	.115	.442
Burglary in the Day	.151	.196	.141	.799
Burglary at Night	.109	.160	.065	.844

TABLE 2

Four Factor
Orthogonal Solution - 1975

Variable	Factor I	II	III	IV
Perceived Risk of:				
Burglary while gone	.261	.467	.005	.431
Purse/Wallet Snatch	.147	.791	.203	.190
Robbery	.181	.865	.181	.161
Assault/Beating	.215	.804	.161	.186
Neighborhood Problems:				
Selling Drugs	.839	.175	.168	.111
Using Drugs	.880	.149	.118	.088
Groups of Teenagers	.572	.146	.283	.260
Groups of Men	.619	.144	.368	.228
Drunks	.560	.083	.428	.167
Prostitution	.565	.126	.344	.075
Car Theft	.319	.112	.438	.185
Burglary	.413	.171	.320	.330
Robbery	.364	.321	.698	.062
Holdups at Stores	.365	.190	.612	.149
Assaults/Beatings	.417	.304	.599	.041
Worry About:				
Assault/Robbery in Day	.067	.453	.392	.306
Assault/Robbery at Night	.031	.467	.316	.292
Burglary in the Day	.184	.279	.187	.811
Burglary at Night	.198	.300	.118	.785