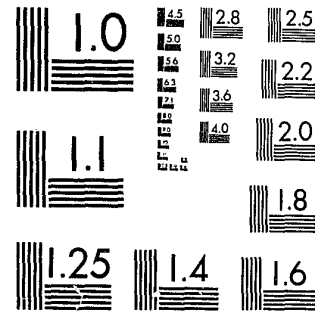National Criminal Justice Reference Service

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PERCEIVED STREET TRAFFIC, SOCIAL INTEGRATION AND FEAR OF CRIME

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ABSTRACT

Drawing on the work of Jacobs, Newman and Gardiner, among others, this paper investigates fear of crime by urban residents as a consequence of two interrelated characteristics of neighborhoods: 1) the perceived volume of street usage and 2) the degree of residents' social integration into the neighborhood. Secondary analysis of a 1975 survey shows that, counter to previous hypotheses, perception of increased street traffic leads to greater fear. However, when controlling for social integration, we find that for those who are socially integrated perceived volume of street traffic has no relationship to fear, while for those not socially integrated the greater the perceived street usage the greater the fear. Three mechanisms by which social integration may reduce fear of people on the streets are considered: 1) reducing the proportion of strangers versus acquaintances on the street; 2) providing networks of potential assistance; and 3) reducing the strangeness of the streets' daily rhythms and routines. We conclude that both physical design and social factors must be interrelated in attempts to understand fear of crime and in designing ameliorative programs.

This paper is concerned with fear of crime in urban neighborhoods. Much of the survey research on this topic has isolated important individual level characteristics that are significant in explaining variations in fear. For example, it is fairly clear that women are more fearful than men, blacks more fearful than whites, and the elderly more fearful than other age groups (DuBow, 1978; Baumer, 1978). These and similar findings are important in their own right, and as well inform policy recommendations and aid the design of specific programs. However, a different set of causal characteristics have also received the attention of researchers and policy makers—namely, the social and physical characteristics of urban neighborhoods themselves.

Stemming in large part from the early work of the Chicago School of urban sociology researchers have continued to explore the link between fear, crime, delinquency and other aspects of urban disorder to the social and physical characteristics of the specific urban neighborhoods in which they occur (Shaw et al., 1929; Tannenbaum, 1938; Wirth, 1938). Concern with the neighborhood context as a significant causal variable has in part remained a focus of attention in that, compared to many of the ascriptive individual level correlates, it more readily lends itself to programmatic intervention. We will focus upon two such characteristics in this paper—residents' perceptions of the degree of use of local city streets, and the degree of social integration of neighborhood residents, These two concerns—perceived street usage and social integration—tend to emphasize respectively a physical design versus a more social orientation in dealing with fear and crime in urban settings,

One of the earliest and certainly most influential statements of these concerns is Jane Jacobs' Death and Life of Great American Cities

(1961). In her well known discussion of the use of city sidewalks to promote safety Jacobs is quick to single out a central characteristic of cities which earlier (Wirth, 1938) and later (Lofland, 1973) writers have emphasized--namely, that cities are populated by strangers.

> Great cities are not like towns, only larger. They are not like suburbs, only denser. They differ from towns and suburbs in basic ways, and one of these is that that cities are, by definition full of strangers....

(And she adds)

> The bedrock attribute of a successful city district is that a person must feel safe and secure on the street among all these strangers (1961:30).

Throughout her subsequent discussion Jacobs highlights the design and social characteristics that are needed to ensure a lively and varied street usage that will increase such safety.

> A city street equipped to handle strangers, and to make a safety asset, in itself, out of the presence of strangers, as the streets of successful city neighborhoods always do, must have three main qualities:
>
> First, there must be a clear demarcation between what is public space and what is private space. Public and private spaces cannot ooze into each other as they do typically in suburban settings or in projects.
>
> Second, there must be eyes upon the street, eyes belonging to those we might call the natural proprietors of the street. The buildings on a street equipped to handle strangers and to insure the safety of both residents and strangers, must be oriented to the street.
>
> And third, the sidewalk must have users on it fairly continuously, both to add to the number of effective eyes on the street and to induce the people in the buildings along the street to watch the sidewalks in sufficient numbers. Nobody enjoys sitting on a stoop or looking out a window at an empty street. (1961:35).

These recommendations reflect Jacobs' specific planning orientation in her volume; however they have tended to lead to a relative research

and policy neglect of the effects which variations in social integration may have upon safety and fear. This neglect is clearly at odds with Jacobs' own insights, and the numerous examples which she provides indicate the degree to which personal knowledge of others and social integration in the local street life are significant in promoting safety and security. For example, in describing an incident where an adult male was struggling to get a young girl to go with him Jacobs observes:

> As I watched from our second-floor window, making up my mind how to intervene if it seemed advisable, I saw it was not going to be necessary. From the butcher shop beneath the tenement had emerged the woman who, with her husband, runs the shop; she was standing within earshot of the man, her arms folded and a look of determination on her face. Joe Cornacchia, who with his sons-in-law keeps the delicatessen, emerged about the same moment and stood solidly to the other side (1961:38-39).

This example suggests that street usage is important, but usage which clearly involves personal knowledge of other residents and some degree of local social integration.

A critical issue for safe and secure city streets therefore appears to be the degree to which a high volume of strangers on the street will or will not reduce crime. More specific to our concerns, feelings of safety and security by local residents appears to be dependent on the degree to which they perceive a high volume of strangers on the street. This issue is bound up not only in physical usage and design questions, but also appears to include as well certain characteristics about the social relationships existing among neighborhood residents. Jacobs herself ultimately is aware of this interlinkage when she says: "Once a street is well equipped to handle strangers (social relationships)...the more strangers the merrier" (1961:40). In sum, strangers--who are both a defining characteristic of cities and a source of fear--are neutralized and possibly made benign once the social and

physical fabric of a neighborhood's streets are adequately knit together.

Subsequent works such as Oscar Newman's Defensible Space (1973), and Richard A. Gardiner's Design for Safe Neighborhoods (1978) have tended to echo this early statement. A central concept in both is that of territoriality. For example Newman concludes that...

> Our acute, and apparently increasing, inability to control crime in urban areas is due in large measure to the erosion of territorially defined space as an ally in the struggle to achieve a productive social order (1973:xv).

And Gardiner says that....

> To respond to these complex problems (urban crime) requires a range of reinforcing solutions, both physical and social...

(and he adds)

> The decision-makers must take the necessary actions to create the physical framework which will reinforce and support the citizenry (1978:3).

We are suggesting that the use of territoriality has tended to overemphasize an individual, spatial sense of responsibility, and that its socially collective nature geared not simply to physical space but a commitment to others who share the space should be more fully explored (see Suttles, 1972).

Most discussions of the relationship between physical design characteristics and criminal activity makes some reference (often left implicit) for the simultaneous need of socially integrated community residents to provide an informal social fabric that will enforce local social control of urban streets. This qualification has also been noted by Conklin:

> One difficulty with the ideas of Newman, Rainwater, and Jacobs about informal social control is that surveillance of public areas presupposes some degree of solidarity and some active support for law (1975:148).

Specifically, the design emphasis posits that increased use of city streets reduces crime because of two interrelated aspects of social control—increased surveillance, and increased intervention and assistance provided by others being present. In addition, it is argued that greater street traffic not only reduces crime, per se, but also reduces people's fears about journeying through public places (McIntyre, 1967).

We are emphasizing the second of these relationships in this research. Namely, that while crime itself may be linked to actual street usage, fear of crime by local residents is more appropriately linked to their perceptions of street usage. To invoke W.I. Thomas, "If people believe a situation is real, then it is real in its consequences."

In short, we are suggesting that the relationship between social and physical design characteristics is often a question of relative emphasis. The current attractiveness of the design emphasis as a panacea of possible intervention lies perhaps in the fact that "things" and the physical environment are more amenable to direct manipulation than people and the social environment. However, this policy attractiveness may err in underestimating the degree to which social variables are critical qualifier of the degree to which design factors will directly impact upon fear and crime in urban areas. Little research to date has explicitly addressed the interplay of both social and design factors. Therefore, the purpose of this brief analysis is to test a limited set of propositions that will attempt to clarify these interrelationships, and more specifically, we will asses the relative significance and interaction between perceived street traffic and local social integration upon residents' fear of criminal victimization.

METHODOLOGY

## Data

The data were originally collected as part of a planning and evalua-tion project being conducted in Hartford, Connecticut.[1] In the Spring of 1975, 556 interviews were obtained as baseline data from three sampling areas: the experimental area, census tracts immediately adjacent to the experimental area, and the remainder of the city. Within each of these areas a clustered area probability sample was drawn from existing households. In order to meet data requirements within the relatively small experimental area and adjacent census tracts, sampling rates were considerably higher in these areas then for the rest of the city. Res-pondents were randomly selected from eligible adults in each household included in the sample. In order to be eligible as a respondent, house-hold members had to be 18 years old (or married, regardless of age) and a resident at the specified address for at least six months. This latter requirement was added to screen out newcomers to a given neighborhood who had not had time to form attitudes and opinions about the area.

The sampling plan, while necessitated by the program design, produced a sample which did not allow generalizations to the population of eligible adults. The probability of selection depended upon both the individual's place of residence within Hartford and the number of adults residing in the household at the time of the survey. The present analysis is based upon the data weighted to adjust for these factors. An area weight, derived from the sampling rate, was first assigned to make the number of households in each sampling area similar to their known distribution within the city. Each case was also weighted by the number of adults in the household. This procedure resulted in a final weighted sample of 14,442 respondents.

## Variables

Density of street traffic, as an indicator of public surveillance, was measured by two items asking the respondents to estimate the amount of pedestrian traffic in front of their homes. Because pedestrian traffic tends to be higher during daylight hours, two questions were asked, one about usage during the day and one about the evening hours. The verbatim questions were:

> How many people, both adults and children, would you say are usually on the street in front of your house during the day? (a lot, some, a few, almost none.)

> How about after dark how many people would you say are usually on the street in front of your house? (a lot, some, a few, almost none.)

Subjective indicators of pedestrian traffic were utilized, because more objective data were not available. Although the amount of crime may be affected by the actual number of people on the street, individual attitudinal and emotional states are more likely affected by subjective estimates of the number of people on the street.

Two measures of individual integration were utilized. The first, and most pertinent to Jacobs' argument, involves integration into the social fabric of the local environment. Respondents were questioned about their ability to recognize a stranger to the area and whether they felt a part of the neighborhood. The exact wording of these items was:

> In general is it pretty easy for you to tell a stranger from someone who lives in this area, or is it pretty hard to know a stranger when you see one?

> Would you say you really feel a part of the neighborhood here or do you think of it more as just a place to live?

Both items were significantly related to one another and therefore combined to form an index of social integration. For purposes of this study, the index was then dichotomized to differentiate the highly inte-grated respondents (can recognize strangers and feel part of the neigh-borhood) from the remainder of the sample.

The second indicator of integration was more indirect and indicative of residential stability. Two items, length of residence and home ownership were combined to form this index. Respondents who owned their homes and had lived there two or more years were classified as being stable; all others were classified as more transient.

Fear of crime was measured by an additive index composed of five items. Three items involved estimates of the risk of being the victim of a street crime (robbery, assault, and theft) in one's neighborhood, while the remaining two asked how worried the respondent was about being the victim of this type of crime both at night and during the day. All five items were found to be significantly correlated. An additive index was constructed from these items using standardized variates to adjust for differences in scale. This index was then collapsed into quartiles. Although this procedure entailed some loss of information, the resulting classification was better suited to the following tabular analysis.

## RESULTS

The relationships among all the major variables are reported in Table 1. Because the sample was so heavily weighted, no significance tests are reported. Of special note are the positive relationships between the fear index and the two indicators of street traffic. The busier respondents perceive their street, the greater their fear of crime. Subjective street traffic is related to fear of crime but in a direction opposite that suggested by Jacobs and others emphasizing components of physical design.

- - - - - - - - - - - - - -

Table 1 about here

- - - - - - - - - - - - - -

The second notable observation concerns the effects of social integration and stability. Those respondents most integrated into the social fabric of their neighborhood are less fearful of crime than those less integrated. As Jacobs' would predict, feeling a part of the neighborhood and being able to recognize a stranger does decrease fear. However, stable residents are no less fearful than their more transient counterparts. It would appear that familiarity with the social fabric of the neighborhood, not stability, is the more important consideration.

In an attempt to explain the unanticipated positive relationship between perceived street traffic and fear, we pursued the implications of the design perspective more fully. As indicated earlier, the hypothesized negative relationship between fear of crime and perceived street usage is said to be dependent on a socially integrated neighborhood. This would suggest that social integration may condition the relationship between these two variables. Specifically, the expected negative relationship between perceived street traffic and fear of crime might be observed only for those residents well integrated into the neighborhood. However, for those not integrated, the relationship may be even more positive. This perspective would suggest that the ability to differentiate between friend and foe, i.e., territoriality, is a necessary condition for increased street usage to decrease fear of crime.

- - - - - - - - - - - - -

Table 2 about here

- - - - - - - - - - - - -

Table 2 presents the conditional relationships between fear of crime and subjective street traffic controlling for the two indicators of integration. In each case the condtional coefficient increased for the low integration groups, while it decreased for the highly integrated

groups. In three of the four cases the coefficients for the integrated or stable respondents reduce to near zero but none change sign as anticipated. The effect of perceived pedestrian traffic on fear of crime is mediated by a familiarity and identification with one's neighbors, but not in the direction suggested by Jacobs. For unintegrated residents, perceiving increased pedestrian traffic increases fear. It appears that each additional person represents another potential offender. By contrast, for those residents integrated into the social fabric of the neighborhood, perceptions of pedestrian traffic simply has no effect on fear. Integration is an important factor in understanding the relationship between these variables but under no condition identified here does greater perceived usage of the streets decrease fear of crime.

## DISCUSSION

In direct contrast to the prevailing emphasis of the current design perspective our major finding is that the greater the perceived use and density of people on city streets, the greater the fear of criminal victimization. However, two important qualifications should be noted with respect to this finding. First, fear of victimization is not a measure of actual crime or even the probability of being victimized. In fact, the findings from numerous studies show no consistent relationship between levels of victimization and levels of fear (DuBow, 1978; Baumer, 1978).

Second, the positive relationship between fear and perceived volume of street usage does not approach the strength of the relationship found between fear and other individual and community level characteristics.

For example, fear varies much more by the individual characteristics of age and sex, and by the community characteristics of race and class (DuBow, 1978).

Our second major finding is that this positive relationship between perceived street traffic and fear is vitiated if residents are socially integrated into their local community. For those socially integrated, the perceived volume of street traffic does not appear to affect their levels of fear, while for those not socially integrated the greater the perceived street traffic the greater the fear. It would be premature to conclude from this finding that the various design recommendations geared toward generating increased usage of city streets should be abandoned because they appear to have no affect for those socially integrated and actually might increase fear for those less socially integrated. However, this finding does demand that we rethink more closely the relationship between "social" and "design" considerations as to their mutual impact upon the problem of fear of crime in urban areas.

Rethinking these issues requires no major revision but merely a closer reading and integration of the existing research literature. An early conclusion of the President's Commission on Law Enforcement and the Administration of Justice was that "fear of crime is the fear of strangers" (Biderman, 1967). Additional support for this contention can be found in the works of McIntyre (1967), John Conklin (1971; 1975), and more recently Hindelang et al. (1978). As stated by Ennis (1967):

> It is not the seriousness of the crime, but rather the unpredictability and the sense of invasion by unknown strangers that engenders mistrust and hostility.

These observations are to be found even in the works of those emphasizing a more physical design orientation. For example Richard A. Gardiner states:

... if residential streets in the interior of a neigh-
borhood carry a great deal of heavy traffic then the
semi-private residential character of the neighborhood
is undermined. The residents can no longer exercise
effective control over their environment and assure their
own security primarily because they cannot differentiate
between neighbor and stranger (1978:10).

Our research would suggest that especially for those less integrated, increased street traffic would increase the number of strangers on the street, thereby heightening levels of fear. Common sense would argue that the threat of robbery or attack on the street should come from strangers and not people we are familiar with in our neighborhood. Indeed, one of the items composing our index of social integration asked the respondents about their ability to recognize strangers. While this is not a measure of the number of people recognized, it does measure the ability to differentiate between insiders and outsiders. All of the above suggests that we should more clearly address the social category of "stranger" (Simmel, 1950) and its meaning in the light of our findings.

There is a second mechanism by which social integration could reduce fear even if those on the streets are "strangers"; and that is a sense that were one to be victimized one would have a greater sense of being able to rely upon proximate neighbors for assistance. In such a situation, regardless of the amount of street traffic and the number of strangers, if one were socially integrated one would have less fear. However, being socially unintegrated would mean that there are fewer people to rely upon in times of need. Research by Hackler (1974) and Bickman et al. (1975) indicate that even a passing familiarity increases the probability of assistance in such a situation. Recent research by Wellman and Leighton (1979) suggests that this "assistance role" is in fact one of the significant persisting functions performed by local neighborhood networks.

There is a third mechanism by which social integration might reduce fear in spite of the volume of street traffic. If individuals are socially integrated into their community they are more likely to be aware of what Jacobs would refer to as the daily rhythms and routines of the street. Those less integrated into the community are likely to be less knowledgeable, not only of specific people on the street, but of the "types" of people that "belong" on the street at "typical" times of the day (Hunter, 1974). Fear of strangers might more accurately be defined as fear of strange types of people in strange settings at strange times of the day. This "strangeness" is of course related to the degree of knowledge which residents possess about their local setting, the clarity of their definition of the situation, and the predictability of people's behaviors within that setting. One would expect that the relationship between perceived volume of street usage and fear might vary depending upon whether one is talking about a familiar local residential street, or a less familiar public place such as a central business district, or a nightlife and entertainment district. In short, social integration may be significant in heightening cognitive awareness, thereby reducing not the number of strangers on the street, but the strangeness of the street. The meaning of "stranger," unless more fully defined in this contextual or situational manner, may in fact hide more than it reveals.

## SUMMARY

In summary, our findings show that the greater the perceived volume of street usage the greater the fear of criminal victimization. However, the degree of social integration in the local community is seen to be more significant in its impact upon fear, with those more integrated being less fearful. Furthermore, the degree of social integration is an important intervening variable that specifies or qualifies the nature of the relationship between perceived street traffic and fear. For those who are not socially integrated into the local community, the greater the perceived street traffic the greater the fear; however, for residents who are socially integrated the perceived volume of street traffic has no impact upon their levels of fear. We have offered three possible interpretations of the mechanism by which social integration may reduce this relationship between perceived street usage and fear. The first is the often stated finding that "fear of crime is the fear of strangers," and those socially integrated are more likely to know the people on the street which implies fewer strangers and less fear. Second, even if those on the street are unknown, socially integrated residents may have a greater sense of being able to draw upon their local neighborhood networks for assistance in time of need, thereby making the local setting seem less fearful. Third, we suggest that social integration in the local community is significant, not in reducing the number of "strangers" (non-acquaintances) on the street; but rather, in reducing the "strangeness" of the street by providing heightened cognitive awareness of the local neighborhood's daily rhythms and routines. Above all, this research has demonstrated that for both research and policy considerations, it is imperative to consider the interplay between physical design and social factors for sound analysis and sound action in attempts to deal with neighborhood residents' fear of criminal victimization.

TABLE 1

RELATIONSHIPS BETWEEN FEAR OF CRIME, SUBJECTIVE
STREET TRAFFIC, AND INTEGRATION[*]

| Variable | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| Fear Index (1) | .127 | .249 | -.135 | .027 |
| Street Traffic During Day (2) | | .389 | .035 | -.086 |
| Street Traffic at Night (3) | | | -.005 | .012 |
| Social Integration (4) | | | | .160 |
| Stability (5) | | | | |

[*]Reported coefficients are Kendall's Tau. Based on weighted N of 14,442.

TABLE 2

CONDITIONAL RELATIONSHIPS BETWEEN FEAR OF CRIME

AND SUBJECTIVE STREET TRAFFIC *

| Control | Street Traffic During the Day | Street Traffic at Night |
|---|---|---|
| Social Integration | | |
| Low | .162 | .310 |
| High | .068 | .085 |
| Stability | | |
| Low | .167 | .290 |
| High | .048 | .155 |

*Kendall's Tau.  Based on weighted N of 14,442.

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