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THE RELATIONSHIP BETWEEN

BURGLARY, CRIME RATES

AND "FEAR OF CRIME" MEASURES

A thesis presented in partial fulfilment
of the requirements for the degree
of Master of Arts in Psychology
at Massey University.

Kirsty M. Allan
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ABSTRACT

"Fear of crime" is an area that has attracted considerable research attention in recent decades. The primary aim of the present study was to examine the influence of crime-related predictors on perceptions and behaviours relevant to domestic burglary - a crime traditionally deemed to be of little importance.

The 153 subjects were selected on the basis of victimization status. Subjects were divided into three groups - victims of domestic burglary, indirect victims of domestic burglary and nonvictims. A severity index was developed to investigate the influence of burglaries of different severities. Subjects were also selected from three areas of Palmerston North, representative of high, medium and low burglary risk areas.

"Fear of crime" measures included responses to crime perceptions measures and protective actions engaged in. Crime perceptions measures included an individual's assessment of his/her perceived likelihood of future victimization and assessments of the base rate of burglary.

Results did not support the presence of victimization effects. There were no significant differences on any of the variables between victims, indirect victims and nonvictims, despite estimations tending in the expected directions. The definition of a victim used in the current study (up to one year post-burglary) may have been insensitive to the presence of victimization effects. Future research should address this issue. Despite no significant findings pertaining to the severity index this is also

an area identified as requiring further investigation.

The burglary rate of an area had no influence on one's assessment of personal vulnerability. However, respondents were aware of the relative "safety" (in terms of burglary rates) of their neighbourhoods and generally viewed their own neighbourhood as being "safer" than Palmerston North as a whole. Despite this realistic appraisal of relative burglary rates, estimates of burglary rates were far in excess of the official incidence of burglary. Future research should address why these estimates were so inflated and what are the implications of these findings.

Results about protective actions revealed that on the whole the public was ill-informed about options available to them, and that there was considerable variability in the number of protective actions undertaken. The results of the present study indicate that a neighbourhood level approach to crime prevention and information dissemination would be most appropriate.

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CHAPTER ONE

INTRODUCTION

Recently "fear of crime" has emerged as a significant social issue (Toseland, 1982; Warr, 1990). Some writers suggest it has increased considerably faster than the actual crime rate (Garofalo & Laub, 1978; Liska, Lawrence & Sanchirico, 1982). Anxiety over becoming the victim of a crime is widespread. Estimates of the proportion of the population who experience "fear of crime" or crime related anxiety range from 40-50% both in the United States and in Canada (Gomme, 1988). Thus the consequences of crime go far beyond the physical and economic losses imposed by criminals. Indeed, many believe that fear of becoming the victim of a crime is a social problem as serious as that posed by the crime itself (Box, Hale & Andrews, 1988; Erskine, 1974; Gomme, 1986; Parker, 1988).

Definition of "Fear of Crime"

The whole subject of "fear of crime" is fraught with terminological and methodological inconsistencies, reducing the usefulness of many empirical findings. Much of the research on "fear of crime" is descriptive and distinctly atheoretical. Perhaps most significantly 'fear' is not defined in any consistent manner and has been conceptualised by any of a number of crime related and demographic variables. Warr (1984) has suggested that the term "fear of crime" is so carelessly used today that it ceases to have any clear meaning or use in research.

Research is equivocal as to whether crime related correlates of fear or demographic correlates of fear are more significant. Some studies favour crime related factors (Box et al., 1988; Miethe & Lee, 1984), whilst others have found demographic factors (Toseland, 1982) to be more significant.

When it comes to considering measures of "fear of crime" crime related predictors which have been studied include previous victimization (Block & Long, 1973; Brown & Harris, 1989; Skogan, 1987), indirect victimization (Gomme, 1986; Toseland, 1982), perception of vulnerability (Perloff, 1983; Perloff & Fetzer, 1986), the crime rate of the area (Clemente & Kleiman, 1977; Furstenburg, 1971; Jaycox, 1978; McPherson, 1978), the extent to which an individual takes precautions (Garofalo, 1981; Janoff-Bulman & Frieze, 1983), the ability to recuperate from victimization (Wirtz & Harrell, 1987b) and the degree of worry or concern regarding crime (Giles-Sims, 1984; Miethe & Lee, 1984).

Demographic variables most consistently related to "fear of crime" are gender and age (Clemente & Kleiman, 1977; Yin, 1980). Socio-economic status is related to a lesser degree (Kleiman & David, 1973). Other demographic variables that have received attention both alone and in combination with other factors include race (Parker, 1988; Yin, 1980), educational level and marital status (Kemp, 1987; Parker, 1988), political orientation (Gomme, 1986; Kemp, 1987), health status (Giles-Sims, 1984), and a variety of community based determinants including community size (Skogan, 1987), contacts in the community, number of relatives and church attendance (Kleinman & David, 1973), familiarity with the neighbourhood and

knowledge of criminal activity (Baumer, 1978), neighbourhood cohesion, confidence in the police, levels of local incivility, vandalism and isolation (Box et al., 1988). Additionally alienation, life satisfaction (Giles-Sims, 1984), and perceived loss of control (Cohn, Kidder & Harvey, 1978) have been studied as possible determinants of "fear of crime".

Personal and Property Crimes

A considerable body of literature has focused on the effects of personal crime, particularly sexual and violent offenses (Becker, Abel & Skinner, 1979; Burgess & Holmstrom, 1979; Ellis, 1983; Koss, Woodruff & Koss, 1990; Sparks & Ogles, 1990; Riger, Gordon & LeBailly, 1978; Sales, Baum & Shore, 1984; Wirtz & Harrell, 1987a). Personal victimizations may indeed represent the types of imagined experiences that the general public fear most, but conceptualising crime as 'personal' fails to take account of the types of criminal victimization experiences that predominate by a factor as high as ten to one, that is, property crimes (Brown & Harris, 1989; Newhart-Smith & Hill, 1991).

Victims of property crime have received little attention (Garofalo, 1981a; Van der Wurff & Stringer, 1989), although researchers have indicated that such offences, as in particular, residential burglary, can have a serious psychological impact on the householder resulting in a great deal of "pain and suffering" for the victim (Clarke & Hope, 1984; Janoff-Bulman, 1985; Maguire, 1980). Newhart-Smith and Hill (1991) found that "fear of crime" at an individual level was related to property crime, not

personal crime - property victimizations may have been more salient owing to greater frequency.

Furthermore, research has not differentiated between different types of crime victims. Often all crimes have been simply included together (for example see Gomme, 1988) or crimes have been specifically labelled, such as "rape" or "sexual assault".

Generalisations about the totality of crimes clearly have little value (Forgas, 1980; Hough, 1985). Between the victims of rape and the victims of attempted or petty offences are numbers of victims of moderately serious crimes, who may be greatly affected by what they perceive as criminal violation. These forgotten victims have received little attention by both researchers and survey providers (Lurigio, 1987).

Treating crime as a unitary phenomenon has no doubt contributed to the inconsistencies in "fear of crime" research. There are most certainly similarities in the effects of all criminal violations, but there are also differences. Attempts have been made to separately analyse personal and property crime (Lagrange & Ferraro, 1989), but overall few attempts have been made to perform a comparative analysis of the different types of crime. For the reasons detailed above the present researcher has looked at the effects of a property crime, more specifically the effects of residential burglary, upon peoples "fear of crime".

CHAPTER TWO

LITERATURE REVIEW

The main aim of the present study was to investigate the influence of the following crime related predictors on "fear of crime"; previous victimization, indirect victimization, perceptions of risk, crime rate of an area and the extent to which an individual takes precautions. The relevant research and the rationale behind the inclusion of these variables are discussed in the following sections.

Victimization

It has been estimated by the Bureau of Justice statistics that there are some 40 million instances of criminal victimization yearly in the United States (Janoff-Bulman, 1985). In the 1970's interest was first aroused in the area of criminal victimology. It was recognised that abstract fear was not the only factor which contributed to expressed fears of crime - actual experiences also made a contribution (Lindquist & Duke, 1982). However, like fear of crime, no general theory of victimization exists.

Obviously people gain some knowledge of crime from their victimization experiences but the correlation of victimization experiences with "fear of crime" is far from perfect and research to date is inconclusive as to the impact of criminal victimization on perceptions of "fear of crime". Some studies have suggested that victimization

experiences are associated with altered perceptions and increased fear (Balkin, 1979; Giles-Sims, 1984; Liska, Sanchirico & Reed, 1988; Skogan, 1987; Toseland, 1982; Tyler, 1980), whilst others have found only a weak relationship - the impact of victimization is relatively harmless or short lived (Akers, Le Greca, Sellers & Cochran, 1987; Garofalo, 1979; Smith & Huff, 1982; Sparks, 1981).

In contrast to this there is evidence to suggest that there are no differences in fear between victims and nonvictims (Block & Long, 1973; Hill, Howell & Driver, 1985; Reiss, 1982). Furthermore Box et al. (1988) found that victimization experiences were negatively related to "fear of crime" ie. those who had been victimised were least fearful. Explanations for this latter effect are two fold. Firstly victims may take more precautions than nonvictims and may believe they have learned effective ways of avoiding further victimization and are thus less fearful. Secondly the victimization experience may lead victims to the realisation that the incident was survivable or not as distressing or fear provoking as they had envisioned (Sparks, Glenn & Dodd, 1977, cited in Lurigio, 1987).

As previously mentioned these effects will be mediated by the definition of "fear of crime" - be it perception of likelihood, perception of vulnerability, degree of worry or concern and so on, and indeed upon the definition of victimization and the types of victimization experiences included in these studies. Many studies to date have not clearly differentiated between these conceptualisations.

Additionally much research has omitted to study nonvictims (Brown & Harris, 1989; Skogan, 1987), has failed to distinguish between the types of victimization experiences - for example direct versus indirect, the nature and severity of crime (Van der Wurff & Stringer, 1989) and have not taken into account the recency of the victimization experience (Wirtz & Harrell, 1987). In the present study the researcher has attempted to consider all of these variables whilst examining the influence of burglary upon respondent's "fear of crime".

Indirect Victimization

Beliefs held about the environment are acquired through the integration of direct experience and socially transmitted information. Evidence to support this viewpoint exists in three areas of social psychology - the study of the social comparison process, the study of rumours and the study of the attribution process (Tyler, 1984).

It has traditionally been assumed that first hand or direct experiences are more significant, an assumption based on the known effects of trauma (Tyler, 1980), which has lead to the dominant focus of past research on the influence of direct personal experience. This focus on personal experience is not limited solely to "fear of crime" research, but also into other research into hazards such as floods, earthquakes, fires, traffic accidents and severe injuries (Tyler, 1984).

Less is known of the effects of indirect criminal victimization i.e., victimization of friends, family members, neighbours or what is heard, read about or seen in the mass

media. Interestingly Bishop and Klecka (1978, cited in Yin, 1980) reported that indirect criminal victimization for the elderly, namely victimization of close friends, was an even stronger predictor of fear than was the respondent's own experience. Note however that "fear" was not clearly defined in this study.

It is unclear whether direct victimization experience and indirect victimization experience result in similar 'fear outcomes' for the victims. Some studies have indicated similar 'fear outcomes' for direct and indirect victims - with differences in degree rather than in kind (Gomme, 1986; Jaycox, 1978). However, Tyler (1980) found that direct victims of burglary and forceful crimes felt more vulnerable to future victimization. Whereas those who knew others who had been victimized estimated the crime rate to be higher, but did not see themselves as so vulnerable as those who had direct experience. Thus first hand experience affected personal judgments of vulnerability to crime whilst indirect experience was more related to general level judgments ie. base rate estimates of crime.

To investigate Tyler's (1980) hypotheses further the present study hypothesised that direct victims would exhibit higher estimates of personal vulnerability and indirect victims would exhibit higher estimates of the base rate of crime.

The mass media have been studied for a number of years as a possible source of "fear of crime" among the general population. It is widely accepted that the amount of crime depicted in the mass media bears little relationship to the amount of crime which is actually occurring. Further, the frequency of violent crimes has been over

misrepresented in the media (Antunes & Hurley, 1977; Fishman, 1978; Garofalo, 1981; Jones, 1976; Reiss, 1982; Warr, 1982). Graber (1980, cited in Garofalo, 1981) found that murder accounted for 26% of crime news, whilst property crimes accounted for less than 6% and that people did not generally rely on the mass media for evaluations of risks, crime rates and so on. In fact Garofalo (1981) found that individual perceptions of crime rates more closely approximated police data than media sources.

Hence, research to date generally suggests that indirect experience as portrayed through the mass media does not influence risk estimates and prevention behaviours (Doob & MacDonald, 1979; Gomme, 1986; Tyler, 1980, 1984). Perhaps most importantly burglary is not typically portrayed in the mass media. It is therefore not included in the definition of indirect victimization in the present study.

This failure by the general population to be influenced by the media is in line with other research on risk judgments that has suggested mass media experiences are often ignored eg. altering health related behaviours (Warner, 1977), seat belt use (Robertson, 1976) and contraceptive use (Udry, Clark, Chase & Levy, 1972).

In the present research indirect victimization was defined as the victimization of friends, neighbours or close family members.

Perceptions of Risk

Although "fear of crime" is never explicitly defined in many studies, the measurements of these researchers suggest that "fear of crime" is implied where the perception of risk of being victimized is given as the criterion (Yin, 1980).

It has been suggested that perceived likelihood or perceived risk of victimization may actually be more important in explaining fear than is actual victimization (Block & Long, 1973; Miethe & Lee, 1984). The objective risks of victimization will influence fear of victimization only to the extent that such risks are transformed into a subjective appraisal of personal risk of victimization. Liska, Lawrence and Sanchirico (1982) quite aptly stated "situations people perceive as real are real in their consequences" (p761).

Perceptual factors expected to influence the fear of crime include perceived likelihood or perceived risk of victimization and perceived vulnerability to crime, sometimes operationalised as the same thing (Beck & Lund, 1982; Lurigio, 1987; Weinstein, 1980). However to add further confusion to the existing data perceived vulnerability to crime has also been defined as an individual's perception of safety in his or her neighbourhood, or the ability to protect him or herself from others (Box et al., 1988; Garofalo, 1981a; Miethe & Lee, 1984), obviously related to, but distinct from, perceived likelihood of victimization.

Whereas perceptions of risk are commonly generalised to mean "fear of crime"

correlations between fear and risk are actually only moderate at best. Studies report correlations between perceived risk and fear which range from 0.03 (Warr & Stafford, 1983) to between 0.32 and 0.48 (Lee, 1982). However, despite these relatively low correlations studies have found perceived risk measures to be among the most powerful predictors of "fear of crime" (Box et al., 1988; Ortega & Myles, 1987), no doubt indicative of the complex nature of "fear of crime".

Some authors suggest that fear of victimization and probability estimates of victimization or perceived risk are conceptually different also - a high perceived risk does not necessarily infer high fear (Giles-Sims, 1984; Sparks & Ogles, 1990). Some researchers argue that perception of risk measures do not assess "fear" at all - rarely is the respondent asked how afraid they are of becoming a victim. These researchers suggest that perceptions of likelihood are different from fear (LaGrange & Ferraro, 1989; Sparks & Ogles, 1990) and therefore such measures should best be called "crime perceptions measures". Nevertheless there is research to suggest that fear and estimates of risk are not distinct in the mind of respondents (Tyler, 1980, 1984) and rather estimates of the risk of criminal victimization are a component of "fear of crime" (Warr, 1987). This relates to the whole area of what constitutes fear - be it concern or worry compared to perceived likelihood or perceived risk in this case.

The present study measured perceived likelihood of future victimization as based on Lewis and Maxfield's (1980) measure. For the purposes of this research this measure has been called a crime perceptions measure, not a direct measure of "fear of crime", although it may be a component of "fear of crime". Other studies which

have utilised perceived risk measures to indicate fear of crime are as follows: Box et al. (1988), Brown and Harris (1989), Furstenberg (1971), Giles-Sims (1984), Gordon and Riger (1979), LaGrange and Ferraro (1989), Lurigio (1987), Smith and Patterson (1984), Toseland (1982), Tyler and Rasinski (1984) and Wiltz (1982, cited in Ferraro & LaGrange, 1987).

General and Personal Level Judgments

When assessing crime perceptions it should be recognised that two levels of judgment exist - estimates of the base rate of crime and individual judgments of personal risk. They are different variables and should be considered as such, although both should be examined in the same analysis (Janson & Ryder, 1983).

No consistent conclusions have been reached about general level and personal level judgments. As many theorists have noted individuals tend to underestimate the likelihood or frequency of negative life events and overestimate the frequency of positive life events (Perloff, 1983; Perloff & Fetzer, 1986). Perhaps more importantly they tend to underestimate their own personal vulnerability relative to other peoples vulnerability - hence they have an illusion of unique invulnerability, seeing themselves as less likely to be victimised than most other people (McPherson, 1978; Perloff, 1983; Snyder, 1978; Wirtz & Harrell, 1987).

This self serving bias also extends to areas other than crime and has been found to be true for events such as the occurrence of cancer, heart attacks, pneumonia,

alcoholism, venereal disease (Harris & Guten, 1979; Kirscht, Haefner, Kegeles & Rosenstock, 1966; Perloff & Fetzner, 1986), and automobile accidents (Robertson, 1977; Weinstein, 1980).

In line with these findings both research which considers attribution theory and research which considers the impact of population base rate information on individual judgments, has found that judgments about the self may be particularly unresponsive to base rate information (Hansen & Donoghue, 1977; Tyler, 1980). Respondents do not necessarily draw implications from knowledge of the high incidence of an event. There is a tendency to distinguish between the importance of a problem and their estimates of personal risk. In other words although people generally recognise that bad things happen to people, and even happen relatively often, they simultaneously maintain a belief that 'it can't happen to me'.

Victimization and Judgments

When an individual is victimized, the experience is associated with a shattering of assumptions regarding a sense of security and predictability. The resulting perception of vulnerability manifests itself, in part, with a preoccupation with the fear of recurrence (Janoff-Bulman & Frieze, 1983; Weinstein, 1989; Wirtz & Harrell, 1987b).

Not surprisingly victims often find themselves thinking about becoming the victim of their 'own' type of crime more often than people who have not had the experience

personally. This has been found to be true of many crimes, including burglary (Hough, 1985; Maguire, 1980; Weinstein, 1989). Additionally place invulnerability is disrupted in the case of a residential burglary - the house is no longer a place of unquestioned security. However, in contrast to this, Van der Wurff and Stringer (1989) in a random survey of 440 respondents found no significant connection between being burgled and thinking about its possibility.

In recent years there has been increasing interest in how people perceive the frequency of crimes, particularly how victims assess their personal risk of becoming a victim (Warr, 1980, 1982). One must remember that there are two levels of judgment here - the general level and the individual level. Research is equivocal as to the accuracy of public beliefs about personal risk. Historically people's estimation of the frequency of specific crimes has not corresponded with official statistics. "Fear of crime" can be identified as a problem relatively independent of crime rates - fear being greatly out of proportion to the objective probability of being victimized (Erskine, 1974). Note that in this case fear is operationalised as one's perception of the crime rate, thus a general level judgment. However, McPherson (1978) found that citizens perceive rather accurately the crime rate and probability of victimization in their neighbourhood.

There is ample reason to expect that the perceived and objective risks of victimization are not perfectly related (Clemente & Kleiman, 1977). For example, Giles-Sims (1984) found that for older people the perceived likelihood of becoming a victim was approximately five times the reported rate of victimization. Fear of crime

has been attributed to faulty information regarding the objective risks of victimization - information that may be obtained from media, friends, neighbours and personal victimization experiences among other variables.

As part of the consequences of victimization it has been suggested that victims will estimate the crime rate to be higher and will estimate their own chances of future victimization to be higher also (Kahneman & Tversky, 1973; Osberg & Shrauger, 1986).

Once again results are equivocal. Some studies suggest this is so, with varying strength of effects (Giles-Sims, 1984; Kidd & Chayet, 1984; Skogan, 1987; Toseland, 1982). Weinstein (1989) found that direct victims, and indirect victims to a lesser degree, estimated the base rate of their "hazard" and their personal risk of victimization to be higher than did nonvictims (hazards = burglary, illness, flooding and earthquakes). However Miransky and Langer (1978) found no difference between victims and nonvictims on estimates of future victimization and concluded that people may perceive burglary as a chance event, in which case victims may be adhering to the gamblers fallacy or the notion that crime is cyclical. Victims may incorrectly assume that they have had *their* burglary and therefore will not be due for another one for 'x' number of years.

Interestingly, some research has suggested people see close friends and loved ones as being as invulnerable as themselves and thus when these other individuals are victimized they may exhibit the same shattering of perceptions of invulnerability as if

had been themselves (Perloff & Fetzner, 1986) - this is equivalent to indirect victimization effects.

In the present study all respondents were asked to estimate risk on a general and personal level eg. they were asked to assess percentages of burglaries and to estimate their perceived likelihood of future victimization. Note that these measures are crime perceptions measures and may or may not be a measure of fear of crime.

Nonvictims and Victimization Research

The exclusion of nonvictims from much of the research on fear of crime has not allowed comparisons of how victims differ from nonvictim populations as a result of their victimization experience. For examples of studies omitting nonvictim control groups see Brown and Harris (1989), Maguire (1980) and Tyler (1984). Without a comparable control group of nonvictims the research on victimization may have little meaning (Skogan, 1987). The present study has addressed this by including a control group of nonvictims.

Victimization and Time

The recency of the victimization experience is another variable recognized as being important. Not surprisingly, victimization effects wear off over time. However there is some question as to what length of time is important. No consistent time period has been established and studies utilise a variety of time periods, depending on the

type of crime researched.

Wirtz and Harrell (1987) employed a 4-6 month victimization period for rape victims, Gomme (1986) used a twelve month period to determine victimization of all crime types, whilst others have researched much longer periods (Burgess & Holmstrom, 1979). With regards to burglary, direct victims have been defined as individuals who have been burgled anywhere from "recently" (Block & Long, 1973), to 10 weeks ago (Maguire, 1980), to one year ago (Hough, 1985), to 23 months ago (Brown & Harris, 1989) to 5 years ago (Tyler, 1980; Tyler & Rasinski, 1984).

In the present study a twelve month period has been arbitrarily assigned and used consistently throughout the questionnaire. Therefore respondents have used a twelve month period when assessing their group status (victim, nonvictim or indirect victim), and estimating burglary rates and their perceived likelihood of future victimization.

Burglary

Traditionally victims of burglary have not be seen as deserving either services or sympathy following their ordeal. Some research has suggested that there may be no consequences of burglary victimization (Van der Wurff & Stringer, 1989), while other research has suggested that the consequences of victimization may be as significant for burglary as for personal offences (Clarke & Hope, 1984; Miethe & Lee, 1984; Tyler, 1980).

Some studies report a wide variety of reactions following burglary including fear, anger, shock, insecurity, fear of lack of control, worry about recurrence, a feeling of vulnerability, suspiciousness towards strangers, anxiety, nervousness and extreme distress (Clarke & Hope, 1984; Conklin, 1975; Hough, 1985; Lurigio, 1987; Wirtz & Harrell, 1987b). A victim in one study likened the feeling to being in a road accident - first denial that it had happened and then a "sense of unreality" followed about a minute later by "sheer panic" when the truth became clear (Maguire, 1980, p262).

Miethe and Lee (1984) found that fear of property loss was more explicable in terms of crime related variables than was violent victimization. Similarly Toseland (1982) actually found the psychological sequelae for burglary to be stronger than for other offenses, citing the violation of a person's security as the reason. Residential burglary represents more than just a property crime because it includes an intrusion by an offender into otherwise safe territory and indicates to the victim that absolute security cannot be guaranteed. Maguire (1980) found that 41% of burglary victims reported invasion of privacy as the worst thing about the burglary. British Crime Survey data indicates that burglary is *the* crime that worries people most (Clarke & Hope, 1984).

The Incidence of Burglary

Burglary is one of the more common crimes reported to the police and is the most frequent property crime (Miransky & Langer, 1978). Clarke and Hope (1984)

reported that in 1981 3.4% of English households, 7-8% of United States households and 5.1% of Canadian households reported instances of burglary or attempted burglary. These figures are typical of percentages reported in other studies (Bartol, 1980; Reiss, 1981; Smith & Jarjoura, 1989; Toseland, 1982). In New Zealand the comparable figure is 4.3% (The Daily News, 1993).

However some of the data are difficult to interpret as burglary has been calculated on the basis of population size rather than number of households (Lewis & Maxfield, 1980; Reiss, 1982). Assessing burglary rates on the number of households (as was done in the current study) allows tabulation of data such that it becomes indicative of risk, similar to assessing rape on the basis of the population of women, not the total population (Gottfredson, 1981).

Additionally it is not clear whether a distinction is made between residential and commercial burglaries or between attempted and successful burglaries in many cases - both of which are the case in the New Zealand data. Comparing results across countries is also subject to cultural and methodological problems (Skogan, 1984). One country's definition of burglary may not necessarily be equivalent to another's.

There has been some suggestion that the incidence of burglary is on the rise. English and Welsh data shows increases of 60% in the numbers of reported burglaries in the 1970s, and similarly in the United States the burglary rate has increased rapidly in recent decades (Clarke & Hope, 1984). A New Zealand study (Kemp, 1987) reported that the rate of increase in reported burglaries was faster than the rate of increase in other crimes - such as murder and assault.

As with all official data there is some doubt as to the accuracy of the above figures. It is generally accepted that official records are more conservative than real crime rates. Police statistics do not account for the substantial proportion of all criminal victimizations that are not reported to the police (Reiss, 1982).

The use of official statistics ignores the possibility that the public estimation of the frequency of crime may be more accurate than the official data. Furthermore, official rates are not reliable indicators of "risks" owing to the differential exposure of various population groups and the non-random nature of crimes such as burglary.

However, Lewis and Maxfield (1980) found that people's estimation of crime frequency was more related to official figures than to the real rate of crime as identified through victim surveys. Additionally underreporting in official data may not necessarily pose a problem in assessing trends if the proportion of such inaccuracies remains consistent over the years.

Victim surveys have increasingly been used as more accurate generators of crime information, with the goal of understanding more fully the incidence and distribution of unreported crime. Most studies show burglary reporting rates of between 45% and 68% (Clarke & Hope, 1984; Skogan, 1984; United States Department of Justice, 1981, cited in Kidd & Chayet, 1984). The reasons cited for this low reporting rate are many, although the most commonly given reasons for not reporting are that the victim sustained no loss or the inability of the police to do anything about it anyway.

Similarly, being insured was a powerful determinant of crime reporting as was the level of seriousness of the burglary.

Despite the advantages of victim surveys to assess "true" burglary rates the present researcher has compared respondents' estimated burglary rates with the official incidence of burglary. It was not practical to perform a survey within a survey in this case and respondents were made aware they were to estimate the number of burglaries *reported to the police*. Interpretation of the results may require taking into consideration the conservative nature of the official figures.

Destruction of Property

Many people when thinking about burglary bring to mind images of vandalism and gross destruction of their property. Fortunately such instances are rare. In England in 1981 only 1 per 1000 burglaries was violent (not defined) and burglars themselves indicated they rarely committed malicious damage or deliberately soiled furniture/carpets (Clarke & Hope, 1984). Hough (1985) reported that in 1% of burglaries defecation occurred and 50% involved property damage of *any* kind. Maguire (1980) found 12% of burgled households in his study had been ransacked (drawers dumped and a mess created).

Similarly most burglaries involve a relatively low monetary loss. The 1984 British Crime Survey revealed that in 58% of cases less than 100 pounds worth of goods were stolen (Hough, 1985). Unfortunately no New Zealand data is available

pertaining to the severity of burglaries.

Not surprisingly severe forms of territorial invasion such as pervasive intrusion, ransacking or the loss of highly valuable goods (both monetary or sentimental) are thought to be associated with greater victim trauma and a reduced long term sense of security. Ransacking adds territorial contamination to theft whilst the theft of sentimental items heightens the victims sense of violation (Brown & Harris, 1989). However, there is very little research to support or negate such assumptions. Occasionally one or two of these aspects have been looked at (Burt & Katz, 1985; Hough, 1985) but on the whole burglary is viewed in a simplistic manner with no examination by researchers of the difference in the severity of burglaries.

Recognising this weakness in the research the current researcher has attempted to examine the effects of burglaries that are more or less severe. A severity index has been calculated as a composite of three factors - monetary value, the loss of sentimental items and instances of vandalism or physical destruction. The severity index has been used to ascertain whether victims who experienced the more severe burglaries estimated their likelihood of future victimization to be higher and engaged in more protective actions than did those victims who experienced less severe burglaries.

Neighbourhood Crime

Research suggests that the actual crime rate of different cities has been found to be a determinant of "fear of crime" (Giles-Sims, 1984; Janson & Ryder, 1983; Liska et al., 1982). On a smaller level, such as neighbourhood crime rates and differences within cities, this relationship also seems to hold (Jaycox, 1978; Kleinman & David, 1973; Lewis & Maxfield, 1980).

Burglary accounts for 60% of crime individuals are aware of in their neighbourhood (Akers et al., 1987) and is thus important in an individuals assessment of crime (Garofalo & Laub, 1978). It has been suggested that "fear of crime" among certain groups, pertaining to race, income and educational status, may be more a result of the area in which they live rather than the demographic characteristics per se ie. Blacks in the United States live in high crime areas and therefore they are fearful (Baumer, 1978; Smith & Jarjoura, 1989). Obviously cause-effect relationships are difficult to determine.

However in line with the illusion of invulnerability we would expect people to believe that crime in their neighbourhoods is less serious and prevalent than in other neighbourhoods, regardless of the actual crime rates. This finding has been supported in a number of studies (Garofalo & Laub, 1978; Heath, 1984; Perloff, 1983; Warr, 1990; Weinstein, 1980). This illusion also extends to a national versus own neighbourhood assessment (McPherson, 1978). Furthermore familiarity with an environment increases one's assessment of its safety (Ferraro & LaGrange, 1987).

Thus we once again have what appear to be contrasting findings. On one hand the crime rate of an area has been found to be a significant indicator of "fear of crime" and on the other hand individuals consistently perceive their own neighbourhood to be safer than others irrespective of the crime rate.

In the present study individuals have been selected from three areas of Palmerston North (with differing burglary rates) and have been asked to estimate the burglary rate (over a twelve month period) in each of these areas (one of which they reside in). They have also been asked to estimate the burglary rate in Palmerston North as a whole, thus allowing comparisons between groups.

Precautions against Victimization

Victimization experiences are widely believed to have a powerful impact on the recognition of risk and the willingness to take precautions. As with the aftermath of disasters there is often a surge in interest in prevention (Weinstein, 1989).

To an extent fear is functional in that it leads people to take reasonable precautions in life. Many criminal justice researchers have noted that, although crime is widespread and increasingly feared, people consistently underestimate the risks and take inadequate preventive measures (Perloff & Fetzer, 1986; Tyler, 1984) or believe that crime prevention, such as burglary prevention, is the responsibility of others (Miransky & Langer, 1978). Therefore one undesired effect of a reduction in fear may be an increase in simple carelessness among citizens. Additionally, elimination

of fear will not eliminate the risk of being victimized.

Once again controversy exists as to whether victimization experiences affect preventive or avoidance behaviours and the direction of the effect is unclear (Bankston, Thompson, Jenkins & Forsyth, 1990; Hartnagel, 1979; Van der Wurff & Stringer, 1989; Yin, 1980).

In a United States National Crime Survey 45% of the respondents had limited or changed their activities in response to crime (Reiss, 1981). Some evidence has suggested that burglary victims are more likely to engage in a variety of preventive measures (Burt & Katz, 1985; Cohn et al., 1978; Lurigio, 1987; Repetto, 1974, cited in Weinstein, 1989). In Maguire's (1980) study 50% of victims improved the physical security of their property and 80% reported being more security conscious. Janoff-Bulman & Frieze (1983) even suggested some victims became obsessed with preventive behaviours.

In hazards research there is some suggestion that the more severe the hazard the greater the relative number of precautions engaged in (Baumann & Sims, 1978; Weinstein, 1989). There appears to be no available information pertaining to this in the research on burglary. The researcher has attempted to address this issue by the inclusion of a severity index in the present study.

However precautionary effects may be short lived. Studies have suggested that despite early attempts to improve security there was a tendency for victims to report

less security months after the burglary (Akers et al., 1987; Brown & Harris, 1989; Hough, 1985). The effects of experience will show up more clearly for precautions that entail action on a single occasion, for example more locks, rather than repeated actions, such as door locking (Baumann & Sims, 1978).

Other studies have found no initial difference between victims and nonvictims (Miransky & Langer, 1978; Skogan, 1987; Van der Wurff & Stringer, 1989).

However, interpretation of the data is further hampered by temporal characteristics - at what point in time does a victim become a nonvictim? We cannot reasonably expect differences in preventive behaviours to exist between an individual burgled 11 months ago (say up to 1 year is defined as a victim) and another burgled 13 months ago (defined as a nonvictim).

The 1984 British Crime Survey (Hough, 1985) showed gradual erosion of burglary effects so that at one year post burglary no differences existed between victims and nonvictims. Furthermore, some of the once only precautions, such as installing new locks or an alarm, would still be a preventive behaviour even if they had been installed some ten years previously.

Another potential confound in looking at the effects of victimization experiences on precautionary behaviour is whether there was a difference between victims and nonvictims prior to the incident. Some research suggests there are no differences between the two groups prior to victimization (Clarke & Hope, 1984), whilst in another study it was found that burglary victims engaged in fewer protective actions

prior to the incident than did nonvictims (Brown & Harris, 1989).

One needs to keep in mind the correspondence between the victimization experience and the precautionary behaviours measured. Often studies have combined all victims together, independent of their particular victimization experience. Research to date suggests that victims do not adopt a wide range of new precautions following their victimization experience (Weinstein, 1989). People take precautions that they believe are appropriate for a specific hazard encountered in the past. For example it would hardly be appropriate to assess a burglary victim on avoidance behaviours such as fear of walking in the streets at night or avoiding dark alleyways.

Not surprisingly fear of criminal victimization (not necessarily actual victimization) has also been found to influence avoidance or preventive actions (Gordon & Riger, 1979; Hartnagel, 1979).

Insurance is not a preventive measure as such but more of a protective measure. Maguire (1980) reported that of 322 burglary victims 43% who were uninsured insured their property following the burglary and 42% who were underinsured increased their insurance - thus we would expect victims to have more insurance than nonvictims.

Participation in neighbourhood watch schemes as a result of burglary has also been investigated in recent years. Once again the research is equivocal. Information from the British Crime Survey (Hope, 1988, cited in Bennett, 1989) suggested that

neighbourhood watch participation was related to perceived high probability of victimization (not necessarily as a result of past victimization). Other studies have shown no relationship between prior victimization and consequent participation in neighbourhood watch schemes (DuBow & Podolefsky, 1982; Lavraskas & Herz, 1982). Interestingly Bennett (1989) discovered a nonlinear effect. As fear (operationalised as perceived risk) increased so did neighbourhood watch participation but then participation dropped as fear increased beyond a certain level of fear. Once again we are not able to establish a cause-effect relationship ie. whether fear of crime causes participation in neighbourhood watch schemes or vice versa.

It needs to be pointed out that fear and protective actions are not perfectly related. Those who fear the most are not necessarily the most protective (DeFronzo, 1979; Gordon & Riger, 1979; Lizotte & Bordua, 1980; Skogan, 1981). There are so many interacting variables that we can only hope to be looking at a small portion of all that is involved.

Engaging in preventive actions does not necessarily mean that burglary will be prevented and the public is well aware of this. Interestingly conventional security measures have actually been deemed by burglars to be of little value. More important is occupation of the house, the presence of dogs, poor back access, visibility to others and poor escape routes (Clarke & Hope, 1984). This stresses to us that many of the security measures we engage in are purely for comfort's sake, absolute security can never be guaranteed.

In the present study ten protective and one "other" measure were specified and the respondent indicated which of these they engaged in. Respondents were assessed on this measure according to victimization status, area of residence and perceived likelihood of future victimization. It was not possible to control for differences that may have existed between the groups prior to assessment or to establish cause-effect relationships - despite the advantages of doing so.

Non Random Nature of Burglary

As previously mentioned victimization is not a random event - certain individuals are disproportionately over-victimized (Gottfredson, 1981). Furthermore, there is a tendency for victims to be revictimized at a rate greater than chance would predict (Kidd & Chayet, 1984; Skogan, 1987; Sparks, 1981).

Variables correlated with greater than average odds of being burgled include being central city residents, young, nonwhite, an individual with an income higher or lower than average, having a home that is unoccupied relatively often (Cohen & Cantor, 1981), occupation of the house by a single adult or parent (Smith & Jarjoura, 1989), living in a house with easy access to the rear, or one that is not easily visible from the street (Clarke & Hope, 1984) and living in an area with more multiple family housing (Smith & Jarjoura, 1989).

Such a non-random burglary pattern suggests that households should be defined by their members and at a combined level with the characteristics of social areas.

However, owing to time and monetary constraints this has not been done in the present analysis.

Demographic Variables

As previously mentioned gender and age are the two demographic variables most consistently related to "fear of crime". Controversy exists as to whether gender or age is most important. Gender and age together have both been identified in a number of studies - women and the elderly being those most fearful (Balkin, 1979; Clemente & Kleiman, 1977; Garofalo, 1979; Jaycox, 1978; Warr, 1984; Yin, 1980). However, others have found age alone to be significant (Jaycox, 1978; Parker, 1988) or gender alone (Conklin, 1975; Giles-Sims, 1984).

This leads to the fear-victimization paradox which relates to the finding that those individuals least likely to be victimized, the elderly and women, are the most fearful. This has been supported by a number of studies (Janson & Ryder, 1983; Lindquist & Duke, 1982; Miethe & Lee, 1984). It has traditionally been assumed that such fear is irrational or unjustified. However, a number of researchers have attempted to explain the paradox. Stafford and Galle (1984) related the fear to exposure to risk - once victimization rates are adjusted for the relative exposure to risk of various groups the anomaly disappears. Janson & Ryder (1983) hypothesised that lower victimization rates for the elderly were a function of their changed behaviour as a response to high crime rates, which consequently reduced their exposure to victimization.

Socio-economic status is less consistently related to "fear of crime", with some studies finding that high socio-economic status is correlated with high fear (Baumer, 1978; Kleinman & David, 1973), others finding the opposite effect (Garofalo & Laub, 1978; Gomme, 1988; Toseland, 1982) and still others indicating that socio-economic status is unrelated to levels of crime related fear (Clemente & Kleiman, 1977).

As a secondary aim the present study looked at the influence of those demographic variables most consistently related to "fear of crime" - gender, age and socio-economic status.

CHAPTER THREE

RESEARCH HYPOTHESES

The research was predominantly undertaken to assess the effects of crime-related predictors on crime perceptions and on protective actions undertaken by the respondents.

Victimization status was the main crime-related predictor studied. Subjects were divided into three groups - victims of domestic burglary, indirect victims of domestic burglary and nonvictims. Burglary rate of an area was another crime related predictor studied. Subjects were selected from three areas of Palmerston North - Highbury, Takaro and Milson, representative of high, medium and low burglary rates respectively.

Crime perceptions measures included an individual's assessment of his/her perceived likelihood of future victimization and assessments of the base rate of burglary.

Burglary rate estimates involved the subject estimating the burglary rate in Palmerston North as a whole and in each of the three areas - Highbury, Takaro and Milson. As a further measure respondents were asked to indicate which of a list of eleven protective actions they engaged in.

Victimization Status Hypotheses:

(1). Victims of domestic burglary will perceive their likelihood of future victimization to be greater than will nonvictims.

(2). Direct victims of domestic burglary will perceive their likelihood of future victimization to be greater than will indirect victims.

(3). Victims of domestic burglary will estimate the base rate of burglary to be greater than will nonvictims.

(4). Indirect victims of domestic burglary will estimate the base rate of burglary to be greater than will direct victims.

(5). Victims of domestic burglary will engage in more protective behaviours than will nonvictims.

(6). Direct victims of domestic burglary will engage in more protective behaviours than will indirect victims.

(7). Direct victims who experienced the more severe burglaries will estimate their likelihood of future victimization to be greater and will engage in more protective behaviours than will direct victims who experienced less severe burglaries.

Burglary Rate of an Area Hypotheses:

(8). Estimates of the perceived likelihood of future victimization will vary according to area of residence.

(9). Individuals will estimate their "own" area to have a lower burglary rate than will residents from other areas.

(10). Individuals will estimate their "own" area to have a lower burglary rate than that of Palmerston North as a whole.

(11). Individuals will differ in their estimations of the crime rate in each area depending on the area in which they reside.

(12). Individuals will differ in the number of protective actions they engage in depending on the area in which they reside.

Demographic Hypotheses:

(13). In addition to the crime related predictors age, gender and socio-economic status were also studied to identify any differences among the groups on the crime perceptions measures and on the number of protective actions engaged in.

Additional Hypotheses:

(14). Individuals (irrespective of group status or area of residence) will estimate the base rate of burglary in Palmerston North, Highbury, Takaro and Milson to be higher than the official incidence of burglary in these areas.

(15). Individuals who perceive their likelihood of future victimization to be highest will engage in more protective actions.

CHAPTER FOUR

METHODOLOGY

Subjects.

The subjects were 153 men and women aged 18 years and above, who were residents of three areas of Palmerston North - Milson, Highbury and Takaro. Fifty-four (35%) of the respondents were from Milson, 39 (26%) were from Highbury and 60 (39%) were from Takaro. Subjects were also divided according to group status. Forty-four (29%) were victims, 50 (33%) were indirect victims and 59 (38%) were nonvictims.

The sample included an imbalance in favour of females - 95 (61%) of the respondents were female and 54 (39%) were male. This is not representative of the general population in Palmerston North. However such a distribution was expected because the researcher interviewed respondents predominantly during normal working hours and was therefore more likely to come into contact with women.

There were approximately equal numbers of respondents in each age group apart from the group of subjects aged between 55 and 64 years, who only accounted for 11 cases (7% of the total). Overall 26 (17%) of the respondents were aged between 18 and 24 years; 29 (19%) were aged between 25 and 34 years; 32 (21%) were aged between 35 and 44 years; 20 (13%) were aged between 45 and 54 years; and 35 (23%) were 65 years or older.

Socio-economic status was assessed using the Elley-Irving socio-economic scale (Elley & Irving, 1985). SES1 represented the highest socio-economic status consisting mainly of professional occupations, while SES6, the lowest socio-economic group, consisted of unskilled occupations. Almost one quarter (38) of the subjects could not be assessed on this measure - mainly because they were retired or did not wish to answer this question. Of the 115 cases where data was obtained 10% had SES1 jobs, 16% had SES2 jobs, 14% had SES3 jobs, 23% had SES4 jobs, 12% had SES5 jobs and 25% had SES6 jobs. These percentages compare to Elley-Irving's classification of the labour force (excluding farmers) - SES1 8%, SES2 12%, SES3 24.5%, SES4 28.5%, SES5 18%, SES6 9%.

Tables 1 and 2 look at the subject characteristics on the basis of residence within geographic area (eg. Milson, Highbury and Takaro) and affiliation within each of the victim, indirect victim and nonvictim groups.

Table 1: Subjects - Distribution by Area.

	Milson no. (%)	Highbury no. (%)	Takaro no. (%)
Group status			
victim	11 (21)	14 (36)	19 (32)
indirect victim	19 (35)	10 (26)	21 (35)
nonvictim	24 (44)	15 (38)	20 (33)
Age (years)			
18-24	11 (20)	5 (13)	10 (17)
25-34	7 (13)	10 (26)	12 (20)
35-44	19 (35)	3 (8)	10 (17)
45-54	5 (9)	9 (23)	6 (10)
55-64	2 (4)	2 (5)	7 (11)
65+	10 (19)	10 (25)	15 (25)
Sex			
male	20 (37)	16 (41)	23 (38)
female	34 (63)	23 (59)	37 (62)
SES			
1	2 (4)	2 (5)	7 (12)
2	9 (17)	2 (5)	7 (12)
3	9 (17)	3 (8)	4 (7)
4	12 (22)	6 (15)	8 (13)
5	5 (9)	4 (10)	5 (8)
6	11 (20)	10 (26)	8 (13)
missing	6 (11)	12 (31)	21 (35)
Total	54	39	60

Table 2: Subjects - Distribution by Group Status.

	Victims no. (%)	Indirect Victims no. (%)	Nonvictims no. (%)
Area			
Milson	11 (21)	19 (35)	24 (44)
Highbury	14 (36)	10 (26)	15 (38)
Takaro	19 (32)	21 (35)	20 (33)
Age (years)			
18-24	8 (18)	8 (16)	10 (17)
25-34	7 (16)	10 (20)	12 (20)
35-44	10 (23)	8 (16)	14 (24)
45-54	8 (18)	4 (8)	8 (14)
55-64	1 (2)	5 (10)	5 (8)
65+	10 (23)	15 (30)	10 (17)
Sex			
male	23 (52)	20 (40)	16 (27)
female	21 (48)	30 (60)	43 (73)
SES			
1	3 (7)	4 (8)	4 (7)
2	9 (20)	5 (10)	5 (8)
3	3 (7)	2 (4)	11 (19)
4	7 (16)	6 (12)	13 (22)
5	4 (9)	6 (12)	4 (7)
6	6 (14)	12 (24)	11 (19)
missing	12 (27)	15 (30)	11 (19)
Total	44	50	59

Questionnaire.

A questionnaire (see appendix I) was constructed to encompass all variables in the study.

Group Status

Group status was first clarified by asking the respondent to indicate if their home had been burgled in the last 12 months. A 'yes' response classified the subject as a direct victim.

Indirect victimization status was then assessed and was defined as an individual who knew of any friend, neighbour or close family member who had been the victim of a household burglary in the last 12 months.

Respondents answering yes to both the direct and indirect victimization questions were classified as direct victims as preliminary analyses revealed no differences, on crime perceptions measures or in total protective actions engaged in, between this group and the direct victim group only.

Severity Index

Questions 2,3 and 4 of the questionnaire were designed by the researcher and were applicable only to those who indicated that they were direct victims. A severity

index was calculated as a composite of three factors - monetary value, the loss of sentimental items and instances of vandalism or physical destruction. Responses to these questions were subjectively coded according to the criteria as outlined in appendix II, and a severity index arrived at.

Neighbourhood Crime

Respondents were asked to estimate the burglary crime rate - as a percentage, over a 12 month period, for the three areas of Milson, Highbury and Takaro (one of which was the area in which they resided). Respondents were similarly asked to estimate the burglary rate for Palmerston North as a whole. These two questions were presented in reverse sequence for half the respondents so that any order effects could be identified and controlled for. Preliminary analysis revealed no significant differences on estimated burglary rates between respondents answering forms A or B of the questionnaire.

Perceived risk of Burglary

Respondents were asked to estimate their perceived risk of burglary. The respondent estimated on an 11-point likert rating scale how likely they thought it was that they would be burgled. The scale ranged from 0 (certain it will not happen) to 10 (certain to happen). A 12 month/1 year time period was specified to ensure all respondents were thinking about the same time frame.

Protective Actions

The final section of the questionnaire asked respondents to indicate which of a number of protective actions they engaged in. "Protective" actions was used rather than preventive actions in other studies (Perloff and Fetzer, 1986; Tyler, 1980) as the actions described were not all preventive as such. For example, having home contents insurance.

Ten protective actions were specified. Some entailed one time only actions, eg. installing additional locks, others required ongoing actions, eg. locking windows and doors when out, using a time light or leaving lights on when away, and others were a combination of the two, eg. installing and using a burglar alarm. Respondents were also given the option to indicate if they engaged in any other protective actions, and if so to indicate what they were.

The list of protective actions was constructed from combining what other researchers had used whilst taking note of the New Zealand situation. For example, neighbourhood watch was the most appropriate community crime prevention organisation. The present researcher did not find it necessary to ask respondents questions commonly asked in United States studies such as if they had purchased a gun or had put bars on their windows (Bankston, Thompson, Jenkins & Forsyth, 1990; Skogan & Maxfield, 1981).

Procedure

Pilot Testing

Before the main survey pilot testing of the questionnaire was carried out with 15 male and female respondents - 6 of these were psychology department staff and the remainder comprised of undergraduate students. The purpose of the pilot testing was to check the wording and meaning of questions and to obtain feedback about the presentation of the questionnaire and the relative ease with which respondents understood the questions.

As a result of the pilot testing it was decided to alter the wording of questions 6 and 7 (estimates of crime rates) so that respondents were asked to estimate percentages rather than a rate per 1000, as was originally specified. Pilot subjects generally stated that in answering these questions they actually converted the rate to a percentage in their mind.

The pilot survey also alerted the researcher to the possibility of order effects for questions 6 and 7 and consequently two forms of the questionnaire were printed and administered alternatively so that any resulting order effects could be identified and controlled for.

Subject Recruitment

Subjects were selected from three areas of Palmerston North - Milson, Takaro and Highbury. These three areas were selected because they represented low, medium and high risk areas for burglary and because they had comparable population bases so that the proportion of the sample obtained from each area would be similar. Four point two percent of the population was sampled from Milson, 3.3% from Highbury and 3% from Takaro. Subjects were divided into three subsamples - victims, indirect victims and nonvictims.

The Palmerston North Police Department provided the researcher with the addresses of household burglaries in each of the three areas above in the twelve months to April 1992. From each of these areas the victim subsample was randomly selected on the basis of population size and the relative numbers of burglaries. For example there were only 25 burglaries in Milson in the year to April 1992, as compared to 63 in Highbury and 92 in Takaro - consequently only 21% of Milson's sample were victims, as compared to 36% for Highbury and 32% for Takaro.

Samples for the remaining two groups were also selected from each of the three areas above. Households were listed by street number, for all streets within an area, ranked numerically, and from this listing samples were randomly selected. At this point it was not possible to differentiate between indirect victim and nonvictim subsamples, and there was the possibility of overlap between the victim subsample and the remaining two groups. Indirect victim and nonvictim status were only

classified after the respondent had answered the questionnaire.

This procedure described above is a random selection of households, not individual respondents. This method seemed most appropriate as burglaries are more accurately defined as an offence against a household, not an individual. From each of these households one member was selected to participate in the research. Generally the person first contacted answered the questionnaire.

Data Collection

Subjects were personally approached in their homes by the present researcher where possible. The researcher introduced herself and explained to the respondent the nature of the research. A letter was obtained from the Palmerston North Police Department explaining to the prospective respondent that they were being interviewed for research purposes only. This letter was shown to the respondents (see appendix III). The researcher then asked them if they would like to participate in the research by answering a short questionnaire. Only four people refused to do so.

The respondents were made aware on the questionnaire form that their participation was voluntary, that they were free to withdraw from the study at any time, that they did not have to answer any questions that they did not wish to answer, and that their responses were completely confidential (no names or identifying code would be used).

Respondents usually filled in the questionnaire at the time the researcher approached them. In 16 cases the time of approach was not convenient for the respondent and an alternative time was arranged to complete the questionnaire. In a further five cases the respondent asked to be left with the questionnaire and a call back time was arranged for debriefing and for the researcher to answer any questions that the respondent had pertaining to the questionnaire.

After completion of the questionnaire respondents were thanked for their participation. The researcher explained to the respondent her interest in the area of burglary and briefly outlined the current research in the area suggesting that victims of burglary are possibly more likely to estimate their chances of future burglaries to be higher and are also likely to engage in more preventive actions than are nonvictims. Respondents were also informed of the percentages of burglaries in the different areas of Palmerston North and in Palmerston North as a whole. A summary of the research results, to be received later in the year, was offered to any respondents interested in the outcome of the study (see appendix IV).

The majority of the subjects were personally approached by the researcher. After five unsuccessful attempts at trying to procure a subject this way the present researcher sent each of these households a copy of the questionnaire with an attached letter explaining the nature and purpose of the research (see appendix V). At collection of the questionnaire (at a time stipulated in the initial letter) the present researcher tried again to contact the respondents to debrief them. If this was not possible the respondents were again left with a letter, this time detailing what the

questionnaire was all about and also provided them with the researchers phone number in the case of any further enquiries (see appendix VI).

At the first collection date a number of respondents had not completed the questionnaire and were left with a letter asking them to please do so and a time for another collection date (see appendix VII). After this the procedure for first time completers was followed. However, six did not complete the mailed questionnaire - in three of these cases the house was vacant or the residents were away from home.

CHAPTER FIVE

RESULTS

Preliminary analysis of results involved examining the data for missing values, checking the accuracy of the data input and examining the shape of the distributions.

Table 3: Descriptive Statistics - Estimated Percentage of Burglary Rates in each Area, by all Subjects.

Area Estimated	Score range (%)	Skewness	Mean	SD
Milson	1-90	1.622	17.7	18.7
Highbury	1-90	1.115	24.5	21.0
Takaro	1-80	1.199	21.8	19.6
Palm. Nth.	1-80	.784	26.5	20.2

Table 3 shows that for all areas estimations of burglary rates were highly variable, although on the whole mean estimations clustered in the lower quarter.

Table 4: Descriptive Statistics - Rating of Perceived Risk of Future Victimization and Total Protective Actions Engaged in, by all Subjects.

	Score Range	Skewness	Mean	SD
Likelihood	1-10	.598	3.5	2.4
Total Protective Actions	1-10	-.206	6.2	1.8

In contrast to Table 3 the above table shows less variability, in terms of standard deviations, and mean estimates which more closely approximate a point nearer the middle of the scale. Note however that the range of scores is still very large.

The mean score in relation to the SD, range of scores and skewness measure, gives an indication of the extent to which the distribution deviates from a normal distribution. In the data reported here only likelihood of future victimization and total protective actions approximate a normal distribution.

Such results were not unexpected. Respondents were asked to estimate burglary rates in the areas of Milson, Highbury and Takaro, and in Palmerston North as a whole. As the true rate of burglaries in these areas are 1%, 6%, 4% and 4% respectively estimates were expected to cluster at the lower end of the scale, with some high estimates. This accounts for the large score range, large SD relative to the mean and

skewness of the distributions.

**Table 5: Percentage of Respondents Engaging in each
 of the Protective Actions.**

Protective Action	Percentage answering 'yes'
Home contents insurance	81.7
Installed additional locks	54.9
Installed and use a burglar alarm	5.9
Marked valuables with name and identification	37.9
Recorded serial numbers of valuables	45.1
Lock windows/doors when out	97.3
Lock windows/doors when home at night	94.8
Use a time light or leave lights on when away	41.8
Cancel deliveries when away	81.7
Participate in community crime prevention programme	37.9
Other	34.6

From Table 5 it can be seen that the vast majority of respondents locked windows and doors when home at night or when out and almost 82% had home contents insurance and cancelled deliveries when away. However less than half of the respondents had installed a burglar alarm, marked valuables, recorded serial numbers, used a time light or joined a community organisation concerned with crime prevention.

In the remainder of the results section each of the crime-related predictors are looked at in relation to each of the crime perceptions measures and total protective actions engaged in. This is followed by a presentation of the demographic effects and results pertaining to the accuracy of perceptions of crime rates.

VICTIMIZATION EFFECTS

Table 6: Mean Percentage Estimates of Burglary Rates in each Area, by Victimization Status.

Area Estimated	Victimization Status		
	V N=44	IV N=50	NV N=59
Milson	20.54	16.82	16.29
Highbury	27.64	24.44	22.34
Takaro	24.47	21.14	20.48
Palm. Nth	28.84	23.70	27.20

V victims IV indirect victims NV nonvictims

From Table 6 it can be seen that victims of domestic burglary consistently estimated the percentage of burglaries to be greater in each of the four areas than did indirect victims and nonvictims.

However, a one-way analysis of variance failed to show any significant differences between the means of the three groups. For estimations of burglary rates in Milson $F(2,150) = .73$, NS; in Highbury $F(2,150) = .79$, NS; in Takaro $F(2,150) = .57$, NS, and in Palmerston North $F(2,150)$, NS.

Irrespective of victimization status Milson was consistently estimated to be the area with the lowest burglary rate and Highbury to be the area with the highest burglary rate. Mean estimates of the burglary rate in Palmerston North as a whole was seen as being greater than burglary rates of the individual areas by victims and nonvictims, but was rated lower than Highbury’s burglary rate by the indirect victim group.

Table 7: Mean Rating of Likelihood of Future Victimization, by Victimization Status.

Area Estimated	Victimization Status		
	V N=44	IV N=50	NV N=59
Likelihood	3.32	3.68	3.68

V victims IV indirect victims NV nonvictims

The mean estimates on the likelihood of future victimization measure were all very close. Victims perceived themselves as slightly less likely to be victimized than did the direct victims and nonvictims. A one-way analysis of variance failed to indicate any significant difference between the three groups on this likelihood measure ($F(2,150) = .30, NS$).

Table 8: Mean Number of Protective Actions, by Victimization Status.

Area Estimated	Victimization Status		
	V N=44	IV N=50	NV N=59
Total Protective Actions	6.09	6.32	6.15

V victims IV indirect victims NV nonvictims

The mean number of protective actions was not significantly different among the three groups ($F(2,150) = .68$, NS). Chi-square tests were performed on each of the 11 specified protective actions - no significant results were obtained. However, of interest was the frequency of installing and using a burglar alarm. Eleven point four percent of victims had installed and used a burglar alarm, as compared with 6% of the indirect victim group and only 1.7% of the nonvictim group.

A severity index was developed (see appendix II) to ascertain whether victims experiencing more severe burglaries estimated their likelihood of future victimization to be higher and engaged in more protective behaviours than did those victims experiencing less severe burglaries. Results are tabulated in Table 9.

Table 9: Mean Likelihood of Future Victimization and Mean Total Protective Actions by Severity of Burglary.

	Degree of Severity			
	1* N=12	2 N=13	3 N=9	4 N=10
Likelihood	3.92	3.62	3.22	3.90
Total protective Actions	4.92	6.15	6.78	6.80

* represents least severe burglary.

It appears from the data that as the severity of the burglary increases so too does the number of protective actions engaged in. Further, an individuals perceived likelihood of future victimization was highest among the least severe and most severe burglaries. Despite the differences in these values, none were significant. For the likelihood measure $F(3,40) = .11$, NS and for total protective actions $F(3,40) = 2.57$, NS.

AREA OF RESIDENCE EFFECTS

Table 10: Mean Percentage Estimates of Burglary Rates in each Area, by Area of Residence.

Area Estimated	Area of Residence		
	Milson N=54	Highbury N=39	Takaro N=60
Milson	11.06	25.13	18.82
Highbury	23.78	24.97	24.98
Takaro	22.96	22.21	20.60
Palm. Nth.	25.96	31.39	23.88

It appears individuals residing in Milson estimated the percentage of burglaries in their area to be well below the estimates of individuals residing in other areas. A one-way analysis of variance showed this difference to be significant ($F(2,150) = 7.11, p < .01$).

Individuals residing in both Milson and Takaro selected Milson, Takaro and Highbury to be representative of lowest, medium and highest burglary rates respectively. Individuals residing in Highbury estimated all three burglary rates to be relatively equal, although for these individuals Milson was estimated as being the

area with the highest burglary rate (in marked contrast to the other two groups).

Respondents in Milson and Takaro estimated their "own" area to have a lower burglary rate than did respondents from the other areas - however this did not apply to residents living in Highbury. Respondents in all areas estimated their "own" area to have a lower burglary rate than that of Palmerston North.

**Table 11: Mean Rating of Likelihood of Future Victimization,
by Area of Residence.**

Area Estimated	Area of Residence		
	Milson N=54	Highbury N=39	Takaro N=60
Likelihood	3.43	3.57	3.63

A one-way analysis of variance did not show any significant differences between the groups in their perception of likelihood of future victimization ($F(2,150) = .10$, NS).

Table 12: Mean Number of Protective Actions, by Area of Residence.

Area Estimated	Area of Residence		
	Milson N=54	Highbury N=39	Takaro N=60
Total Protective Actions	6.48	6.18	5.93

Individuals residing in Milson engaged in slightly more protective actions than did individuals in the other two groups, but the difference was not significant ($F(2,150) = 1.25$, NS).

However, chi-square tests revealed that residents of Milson were more likely to have home contents insurance than were residents in the other areas (chi-square = 7.01, $p < .05$). The percentages of respondents in each area with home contents insurance were, in Milson 90.7%, in Takaro 81.7%, and in Highbury 69.2%.

AGE EFFECTS

Table 13: Mean Percentage Estimates of Burglary Rates in each Area, by Age of Respondents.

Area Estimated	Age (years)					
	18-24 N=26	25-34 N=29	35-44 N=32	45-54 N=20	55-64 N=11	65+ N=35
Milson	19.00	27.59	15.84	18.20	16.27	10.34
Highbury	26.88	32.76	23.34	22.55	21.64	19.17
Takaro	26.23	25.66	24.22	20.25	14.09	16.60
Palm. Nth.	32.23	33.45	26.06	26.65	20.00	18.97

Individuals in the 25-34 year age group estimated considerably higher numbers of burglaries in Milson than did individuals in the other age groups. This finding was replicated for percentage estimates of burglary in Palmerston North, but in this case the 25-34 year age group was closely followed by the 18-24 year age group. The two groups estimated a burglary percentage some 5% higher than did the next closest age group.

One-way analysis of variance revealed significant differences between the means for percentage estimates in Milson ($F(5,147) = 2.99, p < .05$) and percentage estimates in

Palmerston North ($F(5,147) = 2.41, p < .05$). Despite significant findings for these two areas only, individuals less than 35 years of age estimated the burglary rate to be higher than did the other age groups in all areas.

Interestingly in all but one case the oldest respondents (65+ year age group) estimated the burglary rate to be lower for Milson, Highbury, Takaro and Palmerston North than did respondents in each of the other five groups.

Table 14: Mean Rating of Likelihood of Future Victimization, by Age of Respondents.

	Age (years)					
	18-24	25-34	35-44	45-54	55-64	65+
Area						
Estimated	N=26	N=29	N=32	N=20	N=11	N=35
Likely	3.31	3.55	3.75	4.30	2.27	3.49

It appears that individuals in the 45-54 year age group perceived themselves as slightly more likely to be victimized than did respondents in the other age groups. However, no effects were significant ($F(5,147) = 1.06, NS$).

Table 15: Mean Number of Protective Actions, by Age of Respondents.

	Age (years)					
	18-24	25-34	35-44	45-54	55-64	65+
Area Estimated	N=26	N=29	N=32	N=20	N=11	N=35
Total Protective Actions	5.08	5.45	6.66	6.60	6.45	6.89

The number of protective actions undertaken generally increased as the age of the respondents increased - with the oldest group engaging in significantly more protective actions than did the youngest group ($F(5,147) = 5.05, p < .001$). A chi-square analysis of each of the protective actions revealed significant differences between age of respondents on having home contents insurance (chi-square = 15.11, $p < .01$), cancelling deliveries when away (chi-square = 25.44, $p < .01$) and participation in community crime prevention programmes such as neighbourhood watch (chi-square = 12.74, $p < .05$). Table 16 shows the percentage of respondents who practised each of these protective actions.

Table 16: Percentage of Respondents in each Age Group who Practised the following Protective Behaviours.

	Age (years)					
	18-24 N=26	25-34 N=29	35-44 N=32	45-54 N=20	55-64 N=11	65+ N=35
Home Contents	57.7	79.3	84.4	85.0	100.	91.4
Cancel Deliveries	50.0	75.9	90.6	90.0	100.	91.4
Neighbour. Watch	11.5	34.5	53.1	35.0	36.4	48.6

This illustrates that as people get older they tend to engage in more protective actions.

SOCIO-ECONOMIC STATUS EFFECTS

Table 17: Mean Percentage Estimates of Burglary Rates in each Area, by SES Group.

Area Estimated	SES group					
	1* N=11	2 N=19	3 N=16	4 N=26	5 N=14	6 N=29
Milson	16.09	9.47	22.63	17.12	14.36	26.48
Highbury	22.27	16.58	31.75	24.04	21.29	32.34
Takaro	17.55	14.47	30.19	22.62	19.21	28.34
Palm. Nth.	17.55	17.16	35.94	29.73	28.36	32.79

* highest SES group.

One-way analysis of variance results showed significant differences between the SES means for estimates of percentage of burglaries in Palmerston North ($F(5,147) = 2.70, p < .05$) and estimates of percentage of burglaries in Milson ($F(5,147) = 2.37, p < .05$).

For estimations of burglary rates in Milson and in Palmerston North SES6 and SES3 estimated the mean burglary rates to be highest. In both cases the highest SES groups (SES1 and SES2) estimated the mean burglary rates to be the lowest.

Table 18: Mean Rating of Likelihood of Future Victimization, by SES Group.

Area Estimated	SES group					
	1* N=11	2 N=19	3 N=16	4 N=26	5 N=14	6 N=29
Likelihood	3.82	3.68	3.06	3.38	2.21	4.41

* highest SES group.

Table 18 shows that individuals in the SES5 group perceived their likelihood of future victimization to be lower than did individuals in the other SES groups, and that individuals in the SES6 group perceived themselves as slightly more likely to be victimized than did individuals from the other SES groups. Despite these observations no significant differences existed between the six groups on this measure ($F(5,147) = 1.81, NS$).

Table 19: Mean Number of Protective Actions, by SES Group.

Area	SES group					
	1*	2	3	4	5	6
Estimated	N=11	N=19	N=16	N=26	N=14	N=29
Total Protective Actions	6.82	6.79	6.44	5.69	6.64	5.17

* highest SES group.

With regards to total number of protective actions it appears the higher the SES group the greater the number of protective actions. The difference between these groups was significant ($F(5,109) = 3.07, p < .05$).

Chi-square analysis of individual protective actions revealed only one significant finding - higher SES is associated with having home contents insurance (chi-square = 19.32, $p < .01$). This finding is illustrated in Table 20.

Table 20: Percentage of Respondents who have Home Contents Insurance, by SES Group.

SES Group	Percentage having Home Contents Insurance.
SES 1*	90.9%
SES 2	94.7%
SES 3	93.8%
SES 4	84.6%
SES 5	71.4%
SES 6	51.7%

* highest SES group

GENDER EFFECTS.

One-way analysis of variance did not reveal any significant differences between males and females on mean estimates of burglary rates in Milson ($F(1,151) = .02$, NS), Highbury ($F(1,151) = .56$, NS), Takaro ($F(1,151) = .11$, NS) and Palmerston North ($F(1,151) = .03$, NS), on mean perceived likelihood of future victimization ($F(1,151) = .01$, NS) or on mean protective actions ($F(1,151) = .03$, NS)

ESTIMATIONS OF BURGLARY RATES.

It was hypothesised that subjects (irrespective of victimization status, area of

Table 21 illustrates that subjects consistently overestimated the burglary rate in Milson, Highbury, Takaro and Palmerston North.

PERCEIVED LIKELIHOOD.

It was hypothesised that individuals who perceived their likelihood of future victimization to be highest would engage in more protective actions. This was not supported ($F(1,151) = .34$, NS).

CHAPTER SIX

DISCUSSION

This section discusses findings related to the research questions and hypotheses, and in light of the context in which the study was conducted. In the final sections limitations of the present research, policy options and suggestions for future research are provided.

Research Questions and Hypotheses:

Victimization Status Hypotheses

It was hypothesised that victims of domestic burglary would perceive their likelihood of future victimization to be greater, would estimate burglary rates to be higher, and would engage in more protective behaviours than would nonvictims.

Despite differences between the three groups (V, IV and NV) on these measures none of the hypotheses were supported. This is in line with findings by Block and Long (1973), Hill et al. (1985) and Reiss (1982) who did not find any differences between victim and nonvictim groups on "fear of crime" measures.

Nonsignificant findings in this study only add to the equivocal nature of previous research. This does not necessarily mean that victimization effects do not exist.

Methodological limitations of the current research may have contributed to these nonsignificant findings. For example, the twelve month period used to assess victimization status may have been too long - it may be that the victimization effects for burglary only last for a short time period.

The severity index revealed that most burglaries are mild. Generally burglars only take a hoard of limited monetary value and do not take items with sentimental value attached. In the vast majority of cases vandalism was limited to a broken window, lock or door. As only three respondents had severity totals greater than four (out of a possible seven), it was necessary to combine these with the seven respondents who reported a severity total of four.

No significant differences were revealed between the groups experiencing burglaries of different severities on measures of perceived likelihood or total protective actions. This is despite an indication that the more severe the burglary the greater the number of protective actions engaged in. It may be that the measure used in the current study was insensitive to "severity" - as so few burglaries were "severe" it may be that a study with a larger sample size would reveal significant differences.

Burglary Rate of an Area Hypotheses

It was hypothesised that individuals would differ in their perceived risk of future victimization, their estimates of the burglary rates and the total number of protective actions they engaged in depending on the area in which they resided.

As the crime rate of a neighbourhood has been found to be a predictor of "fear of crime" (Clemente & Kleiman, 1977; Janson & Ryder, 1983) it was expected that those individuals residing in the area with the lowest burglary rate (Milson) would perceive their likelihood of future victimization to be lowest. In contrast those residing in the area with the highest burglary rate (Highbury) would supposedly perceive their likelihood of future victimization to be highest. Despite estimations tending in these directions the effects were not significant.

Thus, it appeared the burglary rate of an area was not an accurate predictor on ones personal assessment of future victimization. This is in line with findings by Hansen and Donoghue (1977) and Tyler (1980) who found that "self judgments" are on the whole unresponsive to base rate information.

However, estimations of burglary rates revealed different findings. Individuals residing in Milson estimated the burglary rate of their "own" area to be significantly lower than did individuals residing in Highbury or Takaro. Estimations of Milson's burglary rate by Milson residents was some 6% lower than estimates by residents from the next closest group (Takaro). Surprisingly no significant findings existed for estimations of burglary rates in Highbury, Takaro or Palmerston North.

Residents from Milson and Takaro estimated their "own" area to be "safer" (in terms of a lower burglary rate) than did residents from the other areas. Surprisingly Highbury residents estimated the burglary rates of all areas to be very similar. In fact Milson was selected as being the area with the highest burglary rate. This was

in direct contrast to the estimates of the other two groups and to the official statistics. This finding is interesting and tends towards a self serving bias - perhaps residents of Highbury did not want to recognise that they lived in the area with the highest burglary rate. Many rationalised their decision by saying that Milson had to be the highest because "that is where all the rich people live". In reality it is not necessarily the rich that are burgled - burglars often take only one or two items, they are not likely to clean out an entire household (Hough, 1985).

Burglary Rate Estimation Hypotheses

It was hypothesised that all respondents would estimate the burglary rates in Milson, Highbury, Takaro and Palmerston North to be higher than the official incidence of burglary in these areas. This hypothesis was strongly supported.

Respondents on the whole correctly recognised that Milson was the area with the lowest burglary rate and that Highbury was the area with the highest burglary rate. They also estimated that Takaro's burglary rate was some 4% higher than Milson's, and that Highbury's burglary rate was some 3% higher again. In reality the respective percentage increases are 3 and 2%. Hence, it is obvious that the respondents were aware of relative burglary rates. However the base rate estimates of burglary were far in excess of the official incidence.

Interestingly estimates of the burglary rate in Palmerston North as a whole were generally higher than estimations of individual areas - despite the official base rate

for Palmerston North being on a par with that of Takaro (approximately 4% of households per annum). In all cases residents saw their "own" area as having a lower burglary rate than did Palmerston North as a whole. Thus residents estimated their "own" area to be "safer" (in terms of a lower burglary rate) than Palmerston North. This finding corresponds with Garofalo and Laub's (1978) and Heath's (1984) findings regarding illusions of invulnerability.

In contrast to these findings a New Zealand study (Kemp, 1987) indicated that the incidence of burglary was underestimated. However, this discrepancy is most likely accounted for by the methodological procedures followed.

In the present study respondents were asked to estimate burglaries as a percentage - chosen so that individuals all had a common frame of reference with which to assess their burglary rates. In Kemp's (1987) study subjects were simply asked to estimate an absolute value ie. How many burglaries were there in New Zealand in a given year. Kemp's (1987) finding corresponded with Warr's (1980) research that respondents underestimated the frequency of common crimes, such as burglary, and overestimated the incidence of rarer crimes such as murder.

However assessing burglaries this way fails to take account of the different perceptions of the respondents. More specifically two individuals who estimated there were 10,000 burglaries in a given year might be basing their assessments upon completely different assumptions about the number of households. For example, one might assume that there are 100,000 households in New Zealand (hence a burglary rate of 10%) while respondent two might estimate there are 250,000 households

(hence a burglary rate of 4%).

Despite differences between the two studies both revealed very variable responses between subjects - with burglary estimates ranging from 1% to 80% in all areas in the present study. This indicates that the sample as a whole were uncertain regarding burglary rates.

Likelihood Hypotheses

An individual selecting 5 on the 0-10 scale of perceived likelihood of future victimization did not necessarily mean that they saw their chances of being burgled as close to 50-50, simply that they felt that they were about as likely as most people to have their home burgled.

Overall individuals perceived their likelihood of future victimization to be approximately 3 or 4. This is in line with the illusion of invulnerability researched by McPherson (1978), Perloff (1983) and Snyder (1978) - individuals see themselves as less likely to be victimized, in this case burgled, than most other people.

It was hypothesised that individuals who perceived their likelihood of future victimization to be highest would engage in more protective actions. This was not supported. An individual's assessment of how likely they were to be burgled in the future had no bearing on the total number of protective actions they engaged in. It appears that individuals were motivated by factors other than their perceived

likelihood of future victimization eg. an individual may not lock his/her door, not because they perceive their likelihood of victimization to be low, but because they think they have little to steal (Block & Long, 1973).

Demographic Variable Hypotheses

As secondary hypotheses the demographic variables of age, gender and socio-economic status were viewed to assess their effects upon the crime perceptions measures and on total protective actions undertaken.

As these were not primary hypotheses the present researcher did not seek to obtain quotas across age, gender or SES groups. For these reasons it appears the distribution across area of residence and victimization status groups was not very even. Despite this chi square analyses did not show any significant shift from the expected distribution on these variables. A number of significant results arose from the analyses.

AGE:

Age groups were found to be significantly different on their estimations of burglary rates in Milson and in Palmerston North.

Interestingly individuals in the younger age groups consistently estimated the burglary rates to be higher in all areas than did those in the older age groups. In all but one case the oldest respondents (65+ year age group) estimated the burglary rate

to be lower for Milson, Highbury, Takaro and Palmerston North than did respondents in each of the other five groups.

This is in direct contrast to what is suggested in the literature - that the elderly are most fearful (Janson & Ryder, 1983; Lindquist & Duke, 1982). Despite estimates still being largely inflated, the older respondents were actually more realistic in their assessment of burglary rates.

The "protective actions" measure revealed significant differences between age groups. Generally as the age of the respondent increased so too did the total number of protective actions that they engaged in. Analysis of individual protective actions showed the elderly were significantly more likely to have home content insurance, cancel deliveries when away and be involved in community crime prevention programmes, than were younger respondents.

However the validity of the protective action findings are questionable. Individuals were asked to estimate the protective actions for the household. Although it may seem feasible that persons of similar age live together this is not necessarily a given. As no characteristics of the household were assessed it was not possible to tell, for example, whether an elderly respondent lived with a person of like age or different.

GENDER:

Despite gender being identified as one of the variables most consistently related to "fear of crime" (Conklin, 1975; Giles-Sims, 1984) no results were found to be significant in the present study.

SOCIO-ECONOMIC STATUS:

Respondents were divided into six socio-economic status groups according to the Elley-Irving scale (Elley & Irving, 1985). With regards to the crime perception measures two significant results resulted. It was found that estimates of the burglary rates in Milson and in Palmerston North were significantly different between various SES groups.

In both cases the highest SES groups (SES1 and SES2) estimated the burglary rates to be significantly below the estimates given by members of the other SES groups.

A significant finding also resulted between SES groups on the total number of protective actions engaged in. Generally the higher the SES group the greater the number of protective actions undertaken. This finding was not surprising as financial ability would have some bearing on the installation of some of the protective actions mentioned.

Chi square analysis revealed the expected finding that those individuals in the highest SES groups were more likely to have home contents insurance. Looking at the actual percentages specified it is interesting that no apparent differences exist between individuals in SES1, 2 and 3 - 90% or above of respondents in these groups had home contents insurance. This has implications for insurance companies in terms of who they aim their campaigns at.

Limitations of the Present Study:

1. Crime Type

The present study only looked at one crime type - burglary. It did not look at the differential effects of crime by comparing separate groups of crime victims. As burglary only was researched it was not possible to determine whether any other victimization experiences - both direct and indirect, influenced an individuals crime perceptions and protective actions.

This limitation is perhaps most pertinent to the crime perceptions measures. It may well be that an individual mugged in his/her neighbourhood may view all crime in that neighbourhood to be greater due to their experience. This suggestion is supported by Kemp's study (1987) - Those who report high numbers of one crime usually report high numbers of other crime types.

Generally research to date indicates that protective actions are fairly crime specific (Weinstein, 1989). For example a rape victim is probably more likely to avoid walking alone at night rather than recording the serial numbers of valuables as a result of her experience.

2. Indirect Victim Status

When assessing indirect victim status it was not possible in the present study to determine whether the implied direct victim resided in the same area as the indirect victim respondent. It may well be that the direct victim referred to resided

somewhere else, thereby reinforcing the indirect victim's perceptions about safety (via a lower burglary rate) within their own neighbourhood. Thus the insignificant findings pertaining to indirect victimization and burglary rate estimates in the present study may be a function of some other confounding variable - such as the area of residence of the direct victim relative to the indirect victim.

3. Crime Perceptions Measures

Individual estimates of the perceived likelihood of future victimization and estimates of burglary rates are both burglary perception measures. However, it is not appropriate or indeed even possible to compare the two measures. One is a general level judgment, the other an individual assessment of risk. Research has indicated that estimates of the general crime rate are unrelated to personal "fear of crime" (in this case operationalised as perceived risk) (McPherson, 1978).

In the present study comparisons are also restricted by the scales used in the two questions. One is an estimate of rate, the other a rating on a 0-10 scale. A 50% rate of burglary does not necessarily correspond with a '5' perceived risk of being burgled.

4. Time Period

A twelve month period was used throughout the questionnaire. Difficulties only arise with this when it comes to assessing the effects of victimization experiences. Research is equivocal as to the length of time that is most important. Some suggest the emotional impact of burglary (eg. anxiety about future victimization) erodes

slowly (Clarke & Hope , 1984; Hough, 1985), whilst the effects of protective actions may wear off much more quickly (Weinstein, 1989). With hindsight it may have been more appropriate to have a shorter period specified for victimization effects. Further it may be that indirect victimization effects erode quicker than direct victimization effects.

5. Assessing Protective Actions

Assessing protective actions as was done in the present study requires acknowledgement of various methodological limitations. Firstly, it was not possible to determine whether any differences existed between the three victimization status groups prior to assessment. Despite no significant results being obtained it may well be that direct victims engaged in fewer protective actions prior to the burglary.

Respondents were given a list of protective actions rather than being asked to recall their behaviours. This method most likely resulted in individuals indicating they engaged in greater numbers of actions - recognition is easier than recall. However, of benefit, utilising a list method meant respondents were not being assessed on their ability to recall actions.

6. The Questionnaire Approach

The questionnaire approach used in the present study is limited in that participants are forced to work within preestablished conceptual frameworks - they have little or no choice in the type of information they provide. Additionally self report measures are subject to respondent bias - the respondent may wish to make themselves look

better, or worse, than they actually are.

7. The Non Random Nature of Burglary

As mentioned in the introduction it is somewhat artificial to express burglary rates as, say, 4% of households, as different households have very different risks. The non random nature of burglary is acknowledged but owing to constraints was not controlled for in the present study.

Policy Options:

Over the years relatively little attention has been devoted to "fear of crime" as a policy issue. Traditionally media campaigns aimed at crime prevention have focused on the national level. It appears from the findings in this study and in others (see Lewis & Maxfield, 1980; McPherson, 1979) that policies focusing on the neighbourhood level would be most appropriate.

Previously, to decrease the social consequences of crime the policy has been simply to decrease the incidence of crime. However, as individuals generally see themselves as less likely than others to be victimized, and if their perceptions are independent of actual crime, reducing the victimization rate will do little to reduce fear.

Thus, what is important is altering perceptions of crime. It is obvious from the current study that estimates of burglary rates far exceed the official incidence - despite respondents being aware of the relative burglary rates within the city.

Presenting a more balanced view of the nature and consequences of burglary to the public is the most likely option. Misperceptions about burglary could be addressed by informing the public of the correct burglary rates (as a function of households of course, not individuals) - both in their city and within their individual neighbourhoods. The public also needs to be informed about the incidence of vandalism, destruction and the general severity of burglaries.

The quality of information available to the public also needs to be improved - after initially communicating information the public needs to be kept informed. Own neighbourhood information would be most appropriate.

Other ways to improve peoples comfort in their community include increasing the visibility of the police, improving street lighting and increased community interaction (Henig & Maxfield, 1978) - all of which we are currently seeing in the New Zealand scene.

The information portrayed to the public will most likely involve a downward move in their perceived burglary rates which may have a backlash effect of reducing the number of protective actions they engage in. It will therefore be necessary to continue encouraging protective actions.

On the whole respondents in the present study engaged in approximately six protective actions. Six out of a possible eleven actions is not particularly high.

Respondents generally locked windows and doors when out or when home at night

but were less likely to engage in some of the other actions such as writing a list of serial numbers or marking valuables.

Interestingly many people stated that they had the invisible ink pen to mark their valuables (and had had it for years in some cases) but had not yet got around to using it! The public should be made aware of all options available to them and a followup programme should be in place to establish whether people actually do them.

Suggestions for Future Research:

The present study has failed to confirm or deny the presence of victimization effects. It may well be that the experience of domestic burglary has an effect on crime perceptions and protective actions. However, burglary victimization defined as "up to one year post incident" did not. Future research in the area should ideally specify a number of time periods when establishing victimization, and compare the results of these intervals.

Limitations regarding the assessment of indirect victimization, discussed previously, should ideally be controlled for in future studies. Furthermore, if feasible more than one crime type could be investigated, to determine if victimization experiences generalise.

Despite no significant findings pertaining to the severity index the present researcher recognises this as an area warranting further investigation. The small numbers of

subjects experiencing "severe" burglaries in the present study no doubt contributed to the lack of significant findings - a larger sample size and a more "sensitive" assessment procedure may well address this issue.

The burglary rate of an area had no influence on one's assessment of personal vulnerability. However, respondents were aware of the relative "safety" of their neighbourhoods and generally viewed their own neighbourhood as being "safer" than Palmerston North as a whole.

Perhaps most significantly, the present study has alerted us to the gross overestimation of burglary rates by respondents - an area which deserves further investigation. Why are these estimates so inflated? Is this finding specific to burglary or does it generalise to other crimes? What implications for public policy and education does this have?

The answers to these and other questions will no doubt contribute to our understanding of "fear of crime", and to our understanding of the most prevalent neighbourhood crime, burglary.

APPENDIX I

PERCEPTION OF RISK OF BURGLARYQUESTIONNAIRE.

The following is a short questionnaire about your experiences with and opinions about burglary.

Some of the questions will ask you to make a guess about the percentage of burglaries in certain areas of Palmerston North. Of course most people do not know the exact numbers, so you are just required to make your best guess.

The questionnaire will take approximately 3 - 5 minutes to complete. Note that you are not obliged to answer any questions that you do not wish to answer and that you are free to decline to continue at any stage.

1. During the last 12 months has your home
been burgled? YES NO
If no, please go to question 5.
2. What was the approximate money value of the
items stolen? \$.....
3. Was there any physical damage or vandalism
associated with the burglary? YES NO
If yes, please specify _____

4. Were there any items of sentimental value
taken in the burglary? YES NO
5. During the last 12 months do you know of any
friend, neighbour or close family member who
has been the victim of a household burglary? YES NO

(Form A)

The following questions ask you to estimate the numbers of reported burglaries in certain areas of Palmerston North as a percentage ie. the number of burglaries per 100 households. Of course most people do not know the exact number, so just make your best guess.

- 6. Estimate what percentage of households in Palmerston North as a whole reported burglaries to the police in the last 12 months.

Palmerston North.....

For the next question three areas have been selected out of all the suburbs in Palmerston North and you are asked to make an estimate for each of the three areas.

- 7. Estimate for each area below the percentage of households that reported burglaries to the police in the last 12 months. Remember that this is just your best guess.

Milson	
Highbury.....	
Takaro.....	

- 8. Would you now estimate on a scale of 0-10, by circling the appropriate number, the likelihood that your household will be burgled in the next 12 months.

0	1	2	3	4	5	6	7	8	9	10
+	+	+	+	+	+	+	+	+	+	+
certain					certain					
it will					to happen					
not happen										

(Form B)

The following questions ask you to estimate the numbers of reported burglaries in certain areas of Palmerston North as a percentage ie. the number of burglaries per 100 households. Of course most people do not know the exact number, so just make your best guess.

For the next question three areas have been selected out of all the suburbs in Palmerston North and you are asked to make an estimate for each of the three areas.

6. Estimate for each area below the percentage of households that reported burglaries to the police in the last 12 months. Remember that this is just your best guess.

Milson	
Highbury.....	
Takaro.....	

7. Now estimate what percentage of households in Palmerston North as a whole reported burglaries to the police in the last 12 months.

Palmerston North.....	
-----------------------	-------------

8. Would you now estimate on a scale of 0-10, by circling the appropriate number, the likelihood that your household will be burgled in the next 12 months.

0	1	2	3	4	5	6	7	8	9	10
+---+---+---+---+---+---+---+---+---+---+										
certain it will not happen						certain to happen				

The following is a list of protective behaviours taken by people in case of future burglaries. Please indicate, by placing a tick in the appropriate box(es), which of the following are true for your household.

A.	I/we have home contents insurance.....	
B.	I/we have installed additional locks.....	
C.	I/we have installed and use a burglar alarm.....	
D.	I/we have marked valuables with name and identification.....	
E.	I/we have written a list of serial numbers of valuables.....	
F.	I/we lock windows and doors when out.....	
G.	I/we lock windows and doors when home at night....	
H.	I/we use a time light, or leave lights on when away.....	
I.	I/we cancel deliveries when away, or have someone collect these deliveries.....	
J.	I/we have joined a community organisation concerned with crime prevention - such as neighbourhood watch.....	
K.	Other protective actions.....	

Please specify_____

DEMOGRAPHICS

Please place a tick in the appropriate box for the following questions.

SEX

Male	☐	Female	☐
------	--------------------------	--------	--------------------------

AGE

18 - 24 years	☐
25 - 34 years	☐
35 - 44 years	☐
45 - 54 years	☐
55 - 64 years	☐
65 years +	☐

WHAT IS THE OCCUPATION OF THE MAIN INCOME EARNER IN YOUR
HOUSEHOLD? _____
_____.

Appendix II

Development of the Severity Index

Criteria for establishing the severity of a burglary:

Monetary:

\$0 = 0
< \$2000 = 1
\$2000 - \$5000 = 2
> \$5000 = 3

Vandalism etc.:

None	= 0
Broken window broken door/lock fridge open, rotten food	= 1
Carpet needs cleaning ransacking, dumping mess of home smashed ornaments, plants displaced	= 2
Scratches, dents to car vandalised bedrooms, ripped curtains Spray painted cars, covered with oil and anything else they could find in garage	= 3

Sentimental value:

None = 0
yes = 1

Severity index: Totals of monetary, vandalism and sentimental value - ranging from 0 - 7.

Appendix III

Police Cover Letter

Our Reference

NEW ZEALAND
POLICE STATIONPrivate Bag
Palmerston North
Phone: (06) 3570859
FAX: (06) 3590986
DX : 12149

17 February 1992

TO WHOM IT MAY CONCERN

This is to verify that Kirsty May Allan is carrying out research into people's perception of burglary.

The purpose of this research is towards a thesis for a Masters Degree at Massey University.

This survey is done with the knowledge of the Palmerston North Police.

S M DAVIES
SERGEANT SERGEANT

Appendix IV

Feedback Letter to Research Respondents

c/o Psychology Dept.

Massey University
Palmerston North

Dear Participant,

This letter is firstly to thank you again for your participation in the survey on burglary and perceptions of risk in which you participated in April/May of this year.

The purpose of the study was to examine the influence of burglary victimization experiences and area of residence on crime perceptions and protective behaviours.

Results did not reveal the presence of victimization effects ie. There were no apparent differences between individuals who had been burgled and those who had not, on any of the measures assessed. This does not necessarily mean that people who have been burgled are not affected by their experience, we probably all know somebody who has been greatly affected by being burgled. The present study obviously did not delve into all of the possible effects of burglary.

You may remember being asked to estimate burglary rates in three areas of the city (Milson, Highbury and Takaro) and in Palmerston North as a whole. Despite realistic appraisals by participants of relative burglary rates in these three areas, the actual base rates of burglary were far in excess of the official incidence.

For example;

	Burglary rate estimated by research participants	Official Rate
--	--	------------------

Milson	17% per annum	1%
Highbury	24%	6%
Takaro	22%	4%
Palmerston North	26%	4%

The results also contradict previous findings that the elderly are more fearful. In this study the older respondents were actually more realistic in their assessment of burglary rates than were younger respondents. Further, older respondents were more likely to engage in greater numbers of protective actions.

Overall the research revealed some interesting findings about people’s perceptions, particularly about assessments of burglary rates. Feel free to contact me if you require any further information.

Kirsty Allan

Appendix V

First Request Letter to Respondents

c/o Psychology Dept.
Massey University
Palmerston North

Dear Householder,

Hi, my name is Kirsty Allan and I am a fifth year student at Massey University. As part of the research for my thesis I am looking at people's experiences with burglary and opinions about burglary.

I have randomly selected a number of households within your area, yours being one of them. I have called at your house a number of times to give you the following questionnaire personally but no one has not been home on these occasions. I would appreciate **one** member of your household (aged 18 years or older) filling out the questionnaire (it only takes about 3-5 minutes) and leaving it in your letterbox for me to collect on Wednesday, 20th May.

If you have any questions concerning the questionnaire or its collection please do not hesitate to contact me at 329 6843. Note that all the information you provide is coded and kept completely confidential. I also have a letter from the police verifying that this study is legitimate and for my personal research purposes only, and if necessary I can arrange to show this to you.

Thank you very much for your cooperation,

Yours faithfully

Kirsty Allan.

Appendix VI

Debriefing Letter to Mail-Respondents

c/o Psychology Dept.
Massey University
Palmerston North

20th May 1992

Dear Householder,

Thank you very much for your cooperation in completing my survey. I will remind you again that all the information that you have provided will be kept totally confidential. If you have any further questions pertaining to the questionnaire please feel free to contact me at 329 6843.

As previously mentioned the purpose of this study was for my thesis. I am particularly interested in looking at the difference between victims, indirect victims (those who know of some friend, neighbour or close family member that has been burgled) and nonvictims. I chose burglary as a topic area of interest as the so called 'mundane' crimes have not attracted much research attention, and being a victim of burglary myself I realise that it can have an effect on your life. In analysis of the data I will be looking to see whether individual's in these three groups differ in their perceptions of risk of future victimization, the protective actions that they engage in and their estimates of the rates of burglaries (the percentage questions).

In recent years there has been much research looking at fear of crime and victimology in particular. However many of the findings are ambiguous, some indicating that victims are more fearful than nonvictims whilst others have not found this relationship.

The reason I asked you to estimate burglary rates in three areas of Palmerston North along with Palmerston North as a whole is that I wanted to see if any differences were apparent based upon the area of residence. Some research suggests most residents find their neighbourhood the safest. The three areas I selected represent high, medium and low risk areas in Palmerston (with regards to burglary rates) and their actual burglary rates are as follows -

Highbury	approx 6% (6 houses per 100, in a year)
Takaro	approx 4% (4 houses per 100, in a year)
Milson	approx 1% (1 house per 100, in a year)
P. Nth.	approx 4%

This information is obtained from police data on the numbers of burglaries in certain areas.

Thanks again for your cooperation,
Kirsty Allan

Appendix VII

Second Request Letter to Respondents

c/o Psychology Dept.
Massey University
Palmerston North

20th May 1992

Dear Householder,

Hi, this is Kirsty Allan here again. I called in today to pick up the questionnaire about burglary, and deliver a short letter explaining the nature of my research and information relevant to the survey, but found the survey was not there. I realise that you may not have had time to complete the questionnaire or may have had some difficulties with it. If this is the case would you please contact me (phone **329 6843**) to arrange an alternative pick up time or a meeting to discuss any particular aspects of the survey that you are not comfortable with. In case you simply forgot to put the survey out I will call again tomorrow, Thursday 21st May.

So far I have interviewed approximately 140 residents in Palmerston North and completed the questionnaire with them personally. I would have preferred to do this with you as well but as previously mentioned have not been able to catch you at home.

Please feel free to contact me if you have any queries, I would be grateful for your cooperation.

Yours Faithfully

Kirsty Allan.

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