
REPEAT VICTIMIZATION AND HOT SPOTS: THE OVERLAP AND ITS IMPLICATIONS FOR CRIME CONTROL AND PROBLEM-ORIENTED POLICING

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***Abstract:** Repeat victimization and crime hot spots have both been growth areas in the study and practice of policing and crime control in recent years. Since their convergence seems both inevitable and desirable, this chapter studies the relationship with two key aims. The first is to describe and explore the relationship. The second is to try to move toward suggestions of whether and how they might most fruitfully be integrated to result in the most effective crime control and policing strategies. This chapter examines the overlap between repeat victimization and hot spots in relation to high-crime areas and repeat offending for different crime types. The paper concludes by suggesting that crime control and problem-oriented policing should benefit from a synergy if the approaches are integrated. Several benefits for policing and crime control are identified.*

Two growth areas of criminological research and criminal justice practice in recent years are the study of crime "hot spots" and repeat victimization. Hot-spot policing is based upon the empirical findings that certain locations demand a lot of police time and attention, and so focusing effort upon them may lead to less crime and/or, calls for

service. Preventing repeat victimization is emerging as an important area for policing and crime control. Academic studies over the last quarter century have shown that the same people and places are more likely to be repeatedly victimized. However, it is only in the last decade or so that recognition has grown that an appropriate crime control strategy might be to respond to one crime by trying to prevent the next. As well as preventing crime, efforts using this strategy to date seem popular among victims, and it's always nice to have a satisfied customer. Common to both repeat victimization and hot-spot approaches to crime control is a focus upon clusters of crime and a desire to improve the efficiency with which scarce resources are targeted upon the crime problem. A convergence of the two seems not only inevitable but also desirable. Hence this paper is exploratory in nature and has two main aims. First, it seeks to delineate some of the nature of the relationship between repeat victimization and hot spots and suggest some hypotheses that might be tested. Secondly, it aims to tease out some of the potentially important implications for crime control and policing.

That hot spots and repeat victims do generally coincide has already been shown in one English city (Johnson et al., 1997). The present paper concludes that some hot spots will contain more repeat victimization than others, and that there will be variation by crime type. Repeat victimization may be more intense and likely to occur more quickly within hot spots. In some instances, a crime control strategy that prevents repeat victimization may be appropriate. In others, a strategy targeting hot spots may be appropriate. For an important segment, an integrated response based around preventing repeat victimization in hot spots, or combining tactics from the portfolios of each strategy, may be more appropriate still. In high-crime areas, focusing upon repeat victimization for some crimes will allocate crime control resources to hot spots as a matter of course. The use of repeat victimization and hot spots as performance indicators for problem-oriented policing should be a means of implementing the approaches, as well as ensuring new and innovative tactical applications. It is important for research to begin to explore and understand where, when and how these different strategic applications might be applied. Research to examine and understand the relationship between repeat victimization and hot spots, and the influence upon them of offending and repeat offending, needs to be undertaken. The pursuit of such a research agenda should lead to an integrated policing strategy that is greater than the sum of the parts as a result of synergy between the strategies.

The first section of this paper briefly reviews the major milestones in the literature on the policing of hot spots and repeat victimization. This sets the context for what follows. The second section presents definitions of the concepts in question. Where possible, the most commonly used and easily understood definitions are used. The intention is that these should conform with definitions of practical utility for policing. While defining the concepts sounds simple (after all, haven't we already got definitions since we've already talked about the concepts?), clarity of concepts is almost certainly a prerequisite to developing effective policing responses for different situations. The overlap between repeat victimization and hot spots is then examined in relation to high-crime areas and repeat offending, as well as in relation to different types of crime. The paper concludes by suggesting some of the potential implications for crime control and policing.

Much empirical work in measuring the overlap between repeat victimization, hot spots and repeat offending remains to be undertaken. However, the relationship is almost certainly to be important for policing and related research. The present paper therefore concentrates upon the development of conceptual building blocks, the formation of a theoretical framework informed by empirical evidence where available, and the development of hypotheses for testing. It is intended that these should provide a platform upon which to begin research designed to construct empirically proven crime control responses.

MILESTONES IN THE STUDY OF HOT SPOTS AND REPEAT VICTIMIZATION

Hot spots are reviewed first because this concept is more established than that of repeat victimization in the American policing repertoire. This review is followed by a review of work on repeat victimization and its overlap with hot spots.

Hot Spots

While both repeat victimization and hot spots have undoubtedly been around as long as crime itself, hot spots have been formally recognized in the literature — albeit in various guises — at least as long as policing. In 1751, Henry Fielding recommended the focusing of efforts upon crime-prone locations to deter offenders (Fielding, (1751J1975). Critchley (1967:42) noted how, in the 1700s and early 1800s there were an estimated "10,000 thieves, footpads, prostitutes,

and pilferers at work" on the docks of the Thames River in London. These hot spots were the basis for developing riverside police patrols. In 1909 Leonard Fuld identified "nuisance* locations for crime, such as gambling houses and saloons and emphasized the potential for preventive policing (Fuld [1909] 1971). By the 1960s, nuisance area patrols had evolved into high-risk "hazards" patrols (e.g., Wilson, 1963). August Vollmer, cited in Wilson (1963), developed a three-dimensional classification of crime hazards. This consisted of (1) crime-prone victims, including criminals, migrants, alcoholics, solicitors, and peddlers; (2) crime-prone property and places, including unoccupied dwellings, gas stations, main arteries, shipping docks and saloons; and (3) high-risk crime locations such as athletic events and radical meetings. In the 1970s, the uniform distribution of police patrol received formal criticism (Kelling et al., 1974), and the case was made for the identification and inspection of crime hazards (e.g., Wilson and McLaren, 1977, 1972). At the same time, there was increasing evidence that focused and intensified policing efforts could reduce crime in high-crime locations (Pate et al., 1976; Chaiken et al., 1974).

Renewed interest in the policing of hot spots came in the 1980s with the discovery, backed by firm empirical evidence, that a small number of locations generated a disproportionate number of calls for service (Sherman et al., 1989; Sherman, 1989; Weisburd et al., 1989). Sherman (1995) compared the criminal careers of places to those of offenders, and determined that estimates of future crimes may be six times more predictable by their location than by the identity of the offender. The most well-known empirical finding related to the concentration of hot spots is probably Sherman et al.'s, (1989) finding that 50% of calls to the Minneapolis police in a year came from only 3% of addresses and intersections in the city. These findings and others like them were the basis for the development of what is fast becoming a series of experimental police interventions at hot spots. However, one important aspect of hot spots is that they attract a range of crimes, so that unlike most crime prevention tactics that are crime-specific (see, e.g., Clarke, 1995, 1992, 1983), the suggestion is that hot-spot policing might prevent a range of crimes from occurring. The range of studies of hot spots has broadened and combined with problem-oriented policing strategies, to include drug-market hot-spot policing (e.g., Green, 1996; 1995; Weisburd et al., 1994); and policing the hot spots of gun-related violence (Kennedy et al., 1996; McEwen and Taxman 1995; Sherman and Rogan, 1995). The hot-spot work to date has centered primarily on the possibility

for interventions. There has not, to the authors' knowledge, been any investigation of the potential utility of monitoring hot spots as a performance indicator for policing.

Repeat Victimization

Victimization has been around as long as crime; repeat victimization followed not long afterward. Although pressure from victims was undoubtedly influential in the conception of policing, the academic study of victims reputedly began with Hans von Hentig (1948), and Mendelsohn may well have coined the term "victimology" in a paper written in 1947.¹ After a period of intermittent but pioneering studies (e.g., Schafer, 1968, 1960; Wolfgang, 1958) the systematic study of crime victims exploded in the 1970s: Emilio Viano's 1976 anthology contains 46 separately authored papers, for example. Victims' rights advocates were beginning to influence a range of areas of public policy, including the response that victims received from the police.

Although good recent reviews of the literature on preventing repeat victimization are available (see Davis et al., 1997; Friedman and Tucker, 1997), the subject deserves some examination. The first study of repeat victimization of which the authors are aware was by Johnson et al. (1973). It arose from the concerns of hospital staff about the frequency with which certain persons returned to a Texas hospital with serious gunshot and stab wounds. Their concern was orientated toward the implied drain upon hospital resources and the possible implications for health insurance practices. In 1976, Eduard Zeigenhagen pursued their findings using a survey of victims traced from crime reports, and established much of the basic pattern of repeat victimization: the same people accounting for a disproportionate amount of all crime (Zeigenhagen, 1976). In parallel, during the 1970s, studies of domestic violence were emerging that showed one of its main characteristics to be frequent repetition (e.g., Strauss 1976). Yet it was two classic works on victimization surveys — by Hindelang et al., (1978), and by Sparks et al., (1977) — that established the quantitative analysis and mathematical modeling of the distribution of repeat victimization among the mainstream literature.

Several studies examined repeat victimization in the early 1980s, particularly using National Crime Survey data (e.g., Reiss 1980; Fienberg, 1980; Nelson, 1980). Sherman and Berk's (1984) landmark study of the effect of arrest policies upon repeated domestic violence can be seen in this vein. However, the potential for policing and preventing repeat victimization was first explicitly formulated as part of a burglary prevention project begun in 1985 in the U.K. (Forrester et

al., 1990; 1988). Following this study, several British studies examined different crime types and explored the potential for preventing repeat victimization as a general strategy for crime prevention (see Farrell, 1995, for a review). Repeat victimization was subsequently adopted as a performance indicator for policing in the U.K. (Tilley 1994), for which two main reasons seem to exist. First, the overall crime rate is not necessarily a good indicator of police performance per se. It is influenced by many factors outside of the control of the police, including socioeconomic and political factors, routine activities and criminal opportunities. Second, responding to victimization is a "normal" role of the police, and so the adaptation of this role to include the prevention of repeat victimization seems both a logical and efficient use of resources.

Pease and Laycock (1998) argue that repeat victimization presents the opportunity for crime prevention through two major approaches. The first is crime deflection. This entails the blocking of opportunities to commit crime (see Clarke and Homel, 1997, for a classification of techniques). The second is the detection of offenders. Since repeat victimization allows an element of prediction about where and when crime will occur, it can facilitate the detection of offenders at these locations. As well as crime control through policing in the public and private spheres, repeat victimization is beginning to influence other areas of criminal justice. Among these, the implications for victim services may be profound, since the preeminent notion is that of developing a useful response to victimization (see Davis et al., 1997). There may be few more helpful services to victims than ensuring that further crime does not take place. Other areas remain to be explored in relation to repeat victimization. These may include: the provision of compensation for repeat victims; probation practices that might be tailored to account for offenders who target the same victims; health and other insurance practices that may need to be reconsidered to some extent; and the possibility that legal and judicial practices might need to adjust to account for the notion of repeat victimization.

DEFINING THE CONCEPTS

Before examining the relationship between repeat victimization and crime hot spots, we need to define the relevant concepts and terms. Why are definitions of repeat victimization and hot spots needed? Surely they must exist in the literature that was just reviewed. To some extent this is true, but particularly in relation to "places," and the units of measurement of hot spots, it may be neces-

sary to try to reduce ambiguity. Is a place that is repeatedly burgled a hot spot or a repeatedly victimized target? What if the same place is also frequently the location of assaults? What about a person who is repeatedly robbed while dealing drugs at a drug market? The clarification of such issues and the related concepts seems to be more than just a matter of academic semantics. Unless policing has clear working definitions and concepts, and understands the relationship between them, the strategies and tactics that emerge to tackle crime may reflect that lack of understanding. Whether a cluster of crime is responded to as a hot spot or an instance of repeat victimization may be important.

We refer here to three basic concepts:

Repeat victimization: The repeated victimization of the same target. The target can be an individual, a group of persons, a property (dwelling, commercial or other), a motor vehicle or another unit of analysis. Repeat victimization can be by either the same or different types of crime. The unit of analysis of the target is typically single.

Hot spot: A small geographical unit in which crime is concentrated, such as a street intersection and up to one-half block in each direction, with variation in diameter according to context.

High-crime area: A geographical area, typically larger than a hot spot, in which crime is concentrated. Examples might include a public housing project, a commercial business park or area, or a similar geographically bounded and distinct area.

Although all the above terminology is widely used, this is sometimes done in different contexts and manners, and with different definitions. The remainder of this section discusses the concepts in more detail.

Repeat Victimization

The clearest definition is of the repeatedly victimized target. The individual person is the easiest concept, and allows the use of the more specific term "repeat victim." Other units of analysis include dwellings, commercial or other properties, family units or other group (such as may occur in the case of hate crime harassment), motor vehicles or another type of target. A general rule of thumb seems to be that the choice of the unit of analysis depends upon selection of the

unit at which a preventive response can be most appropriately developed. Hence, where there is possible ambiguity as to whether the car or the person is repeatedly victimized in the case of auto theft, both measures can be used. However, it is likely that one will prove of greater utility than the other depending upon the type of preventive response that is developed.

A recent National Institute of Justice publication introduced the notion of repeat victims and repeatedly victimized places as "hot-dots" of crime (Pease and Laycock, 1996). This facilitates a spatial comparison as the starting point on the spectrum of spatial crime clusters: hot-dots; hot places and spots; high-crime areas; and hot towns, cities, regions, and continents. While the concepts are all directly related, it is the development of an appropriate preventive response that is important.

Hot Spots

A "hot spot" can be an ambiguous concept since its popularity as a soundbite has led to some different usages. The definition given above is primarily that used by Sherman et al., (1989), and Sherman and Weisburd (1988) in their groundbreaking work on the subject. Buerger et al., (1995) discuss in detail the operational ramifications of the difficulty of defining a hot spot. In practice, it can be unclear where a hot spot begins and ends, thus making it difficult to measure and police. Guidi et al., (1997) provide one of the clearest explanations of how geomapping software can define hot spots in terms of the radius of an ellipse and the number of crimes within it. They suggest that the optimal size of a hot spot is 100 to 300 meters, depending on local circumstances. The radius of a hot spot may be at the lower end of the scale in a densely populated urban area. It is of course conceivable that a "spot" could be uniformly hot across a large area, thus forcing a definition of a hot spot that is greater than one used elsewhere and perhaps leading to coincidence with a high-crime area. While the radius controls the size of hot spots, the choice of the number of incidents it must contain controls how many hot spots are in a given area. However, a telling observation on this type of hot spot concept is Pease's (1998) point that it is defined as a statistical rather than a geographical concept. Statistically created ellipses may not be real areas in some instances.

High-crime areas are here distinguished from small hot spots, even though statistically they may utilize a similar definition. A practical definition of spatial crime concentration therefore needs to meet a balance between a statistical identification of a cluster of crime,

and a real geographical area upon which resources can be concentrated. In practice this may simply mean the application of the local knowledge of police officers or others involved with the crime analysis, to statistically defined hot spots of varying sizes, for different crime types and circumstances. The subjective aspects of this approach could be minimized through the use of simple selection criteria, the most obvious of which is that there should probably be no large physical barriers running across a hot spot. This would eliminate hot spots that were statistical artifacts rather than true crime problems.

High-Crime Areas

The preceding discussion explained the practical basis for utilizing a definition of high-crime areas. However, even this is a fairly amorphous concept. In essence it is a large hot spot, but it usually has a more defined geographical form. Criminological works note the coincidence between some public housing sites and crime, and there have been problem-oriented approaches to reduce crime in these areas. The unit of analysis for the approach has typically been the public housing site rather than the phenomenon of geographical clusters or other clusters of crime in general. The concrete existence of the high-crime area is demonstrated by the existence of many studies that look at "crime in public housing," thereby implying a definition of high crime with a specific geographical area.

THE OVERLAP

The three concepts, as outlined above will all overlap in practice. Repeat victimization will occur inside and outside, but can cluster into, both hot spots and high-crime areas. However, not all hot spots or high-crime areas will involve repeat victimization, not all high-crime areas will be made up of hot spots, and not all hot spots will be located in high-crime areas. The relationships, including "single" victimizations, are shown in Figure 1. The figure is not crime-specific and could refer to robbery, theft, auto crime, a conglomeration of these and/or other crimes.

Figure 1: Repeat Victimization, Hot Spots and High-Crime Areas

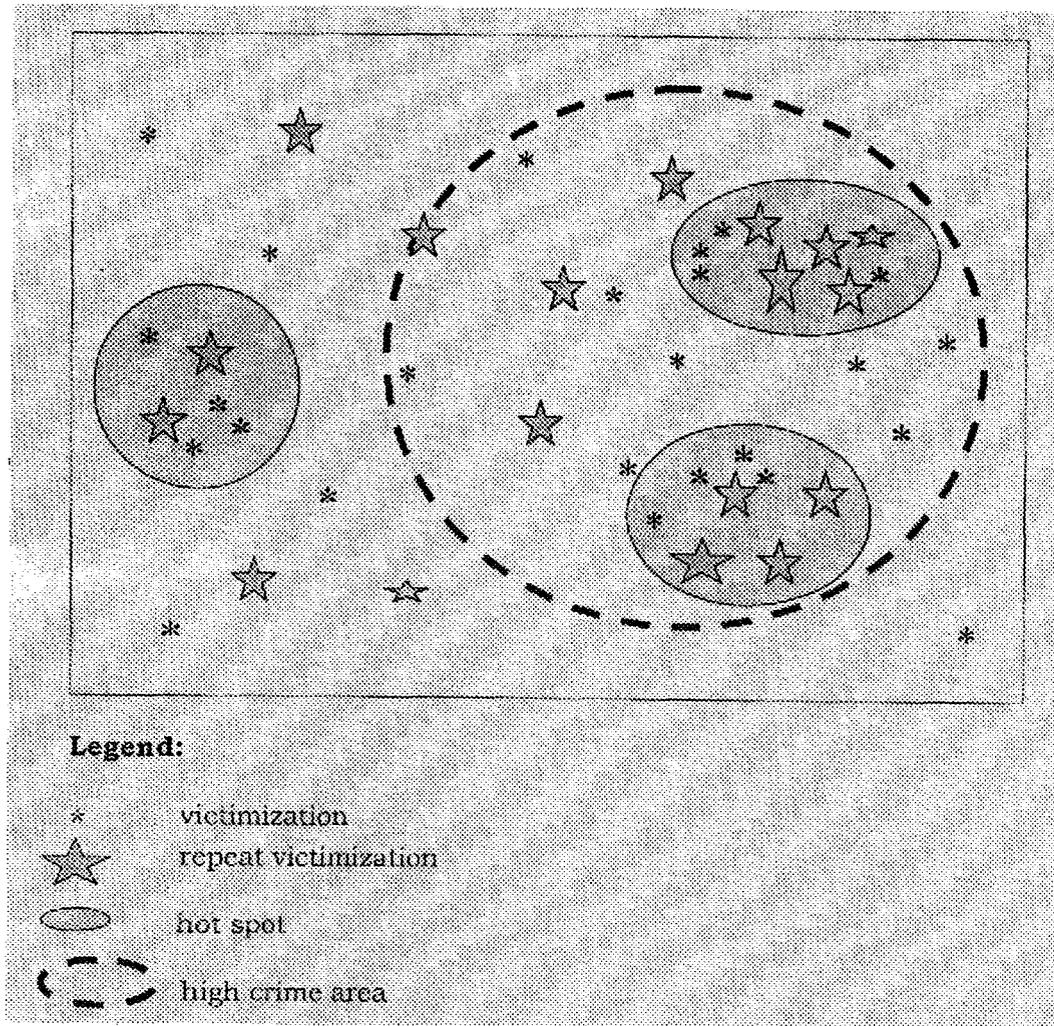
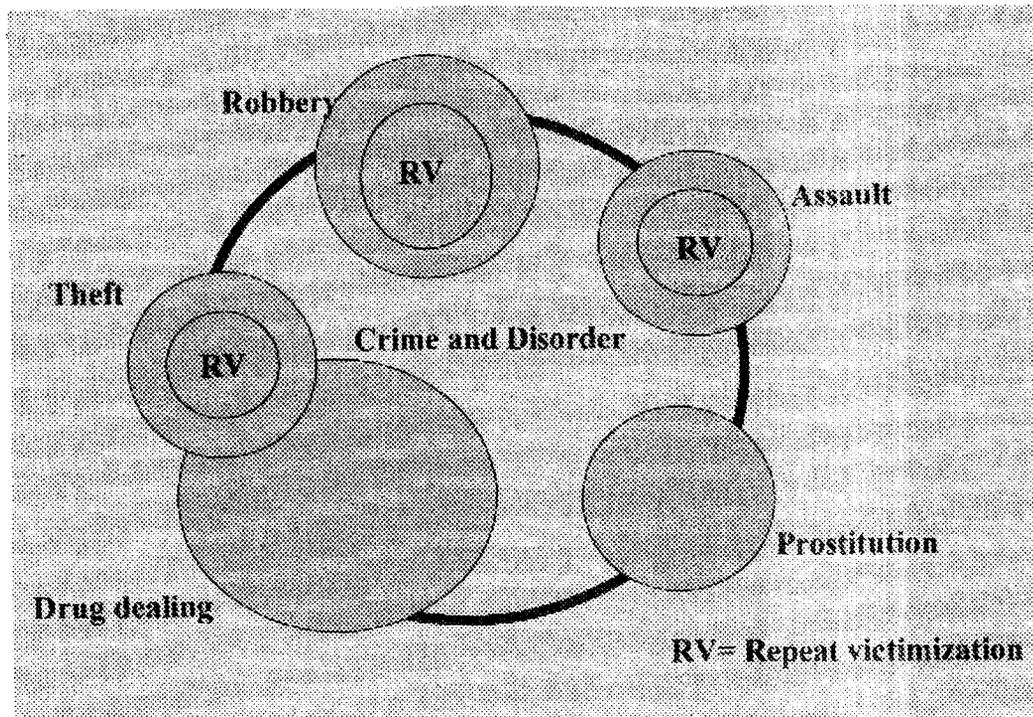


Figure 1 shows a hypothetical map that includes single victimization, repeat victimization, hot spots of crime and high-crime areas. It is an example of how the concepts may well overlap. This visual presentation is probably the clearest means of illustrating the nature of the relationships described in the previous paragraphs.

In her review of retail crime, Joanna Shapland (1995) notes how commercial establishments are characterized by high rates of repeat

victimization. It seems reasonable to expect that hot spots of commercial burglary in business parks and districts will be characterized by particularly high rates of repeat victimization. Figure 3 shows how repeat victimization, hot spots and repeat offending may overlap for commercial burglary, or for other crime types. The relative importance of repeat victimization, hot spots, and repeat offending, and the degree of overlap between them, will vary greatly according to crime type and circumstances. Trevor Bennett conducted a groundbreaking investigation of repeat burglary at hot spots in Cambridge, England (Bennett and Durie, 1996; Bennett, 1995), upon which Guidi et al., (1997) based much of the method for their impressive analysis of burglaries in Beenleigh in Queensland, Australia. Both found rates of repeat victimization to be greater in hot spots than in other areas.

Figure 2: Drug Market Hot Spot



A representation of the drug market hot spot is shown in Figure 2. This is obviously a crude simplification of a drug market where differ-

ent hard and soft crimes and disorder take place. Some of the crimes may include repeated victimization of the same drug dealers and customers, local residents or passersby. The appropriate response is more likely to be policing of a hot spot rather than preventing repeat victimization, since many of the victims and potential repeat victims, with possibly the exception of innocent passersby and local residents, may be unlikely to cooperate. Hence a crackdown, high-profile policing or another problem-oriented response (see, e.g., Green, 1996) might be more appropriate in this instance.

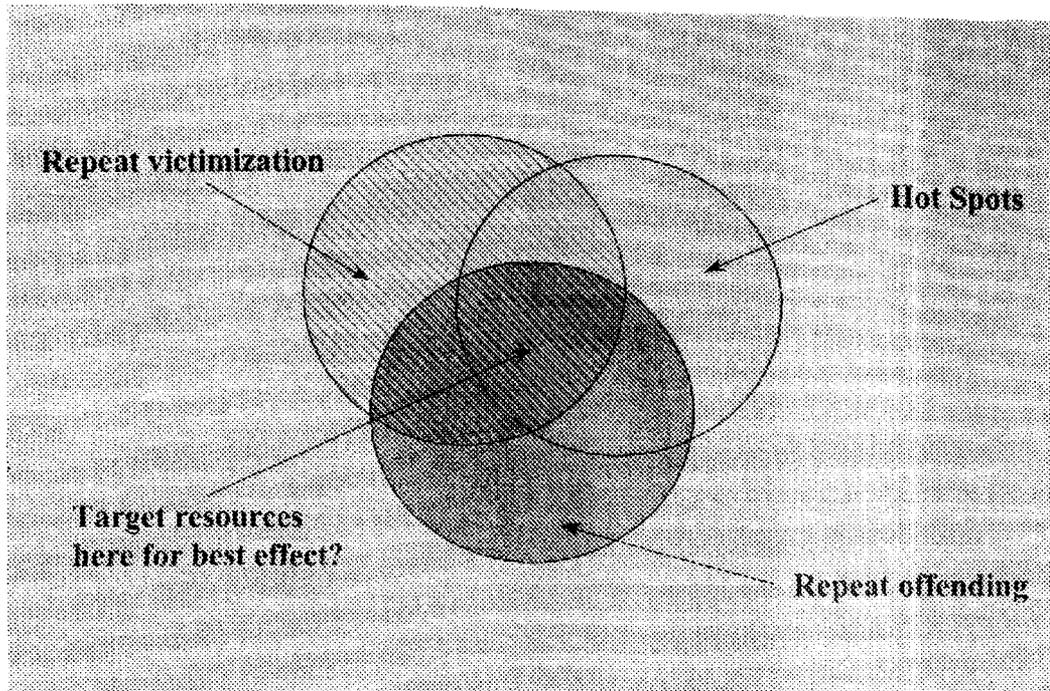
GREATER FREQUENCY OF REPEAT VICTIMIZATION IN HOT SPOTS

Why would repeat victimization be more intense in hot spots? The answer is not immediately obvious, and we turn to explanations based in the decision-making and routine activities of offenders and targets. It seems likely that there will be more repeat victimization in hot spots for at least two reasons:

- Repeat victimization may be committed by the more prolific offenders, who return sooner and more often to the same target, while generally operating within the nearby area.
- In hot spots, more likely offenders pass by a suitable target sooner and notice that something has changed to make it (even) more suitable.

The first possibility is relatively self-explanatory: offenders in hot spots might be qualitatively different from those found elsewhere. Perhaps an area is hot because of one or a few prolific offenders. Perhaps prolific offenders are attracted to a particular area because of the relative suitability of targets, or the relative absence of capable guardians. Whatever the reason, the average offender in a hot spot may commit repeat victimization more often, and perhaps more quickly, after a first victimization. This is an event-dependent explanation. A second hypothesis also seems plausible: a suitable target might be repeatedly victimized simply because of the higher flow of likely offenders passing by in the absence of a capable guardian. In addition, it is possible that different offenders victimize the same target more quickly in the wake of a first victimization if something about the target has changed (a form of temporarily heightened risk heterogeneity). A door, window or other access point to a property might be left insecure, a car might be left damaged and attracting attention, or a victim might be visibly injured and vulnerable to likely

Figure 3: Repeat Victimization, Repeat Offending, and Hot Spots



offenders who might previously not have considered them suitable. In a hot spot or high-crime area, the rate of repeat victimization will be higher if more likely offenders pass by the potential target. These explanations are consistent with a routine activities model of repeat victimization in hot spots and high-crime areas.

The hypotheses above would also suggest that the time course of repeat victimization would be likely to be steeper in hot spots. If crimes recur more quickly on average in hot spots, then crime prevention measures need to be put into place more quickly to prevent repeat crimes. Resources put in place will be utilized more quickly and more constantly over time: greater preventive efficiency per unit of input, where efficiency is measured as crimes prevented per unit of time and expenditure.

DISCUSSION AND IMPLICATIONS

The implications of this investigation of the relationship between the concepts developed as part of and related to different crime control strategies may be important. A crime prevention strategy that targets repeat victimization within hot spots would be even more efficient than a strategy that targeted repeat victimization more generally. Furthermore, since both repeat victimization and hot spots predict where offenders will be, policing strategies to detect offenders within hot spots and at repeatedly victimized places might prove effective. As interviews with offenders about repeat victimization are beginning to show, it may be that offenders at hot spots are more likely to be frequent and serious offenders. If repeat victimization predicts more frequent and serious offenders on average, then a hot spot with intense repeat victimization may predict where to locate the super-predators.

Preventing repeat victimization is a crime prevention strategy that is easily integrated with Herman Goldstein's vision of problem-oriented policing (Goldstein 1990). Preventing repeat victimization should also be a strategy used in other areas of security in the public and private sector. In addition, the significance of repeat victimization for a range of criminal justice and crime-related practices is emerging. To date, these include: the practices of victim support services; probation practice; the way in which criminal statistics are collected and collated; health, home and other insurance practices; and the way in which crime is measured. Criminology is grappling with theories and empirical evidence relating to why repeat victimization occurs and clusters in the manner it does, its relationship to repeat offending, and its role in the criminal careers of victims and places. Other areas have barely been touched on. For example, what are the implications of repeat victimization for prosecution, plea bargaining, sentencing, victim impact statements, compensation, reparations, and perhaps even the legal definitions of what constitutes a victim and victimization? Like repeat offending, repeat victimization is now a criminological commonplace, and it seems likely that in time it will influence most areas of criminal justice research and practice.

Much research into the overlap among repeat victimization, hot spots and nuisance places, and repeat offending remains to be undertaken. However, this should not preclude some speculation about what an integrated approach and some of its potential benefits might look like. The nature and benefits of an integrated approach may include the following six points:

- Preventing repeat victimization is appropriate for some crimes, and policing hot spots for others, but for a significant third group a mixed or integrated preventive approach may be disproportionately rewarding.
- Repeat victimization is already used as an enhanced allocation mechanism for crime prevention resources. Targeting repeats within hot spots should further enhance the efficiency of this mechanism.
- Repeat victimization, hot spots and similar nuisance places can each be used to focus offender detection tactics. If repeat victimization predicts the location of offenders who are more frequent and serious than the average, then repeat victimization in hot spots may predict where to find the super-predators.
- Rates of repeat victimization, and of crime at hot spots and nuisance places, should make appropriate performance indicators (Pis) for problem-oriented policing. Their use as Pis will increase the rate at which each is implemented.
- For many crimes, targeting repeat victimization for prevention and detection automatically places resources in hot spots and high-crime areas. This also avoids the need for complex mapping or analysis (Pease, 1998).
- Necessity, driven by performance indicators for problem-oriented policing, will be the mother of new and inventive ways of preventing repeats and policing hot spots and nuisance places.

In short, synergy should make the whole of an integrated approach greater than the sum of the parts. This may be one of the next peaks toward which policing and crime control efforts should climb.

A CONCLUDING WORD OF CAUTION

Although the vision presented here is primarily of repeat victimization being wholly integrated with problem-oriented policing, a word of caution is necessary. It is not necessarily as clear-cut or, perhaps, as desirable as presented here. Testing may show that preventing repeat victimization represents a different type of approach to problem-oriented policing, and may even prove easier for everyday policing practice. An example relating to residential burglary will illustrate this point: When a victim reports a burglary to the police, this is the point at which a preventive response is triggered when repeat victimi-

zation is to be prevented. Thus there is no need for scanning and analysis. The protocol for preventing repeat victimization gives the police a list of potential measures to introduce to prevent a repeat burglary. These could include target hardening to prevent a repeat by the same modus operandi, a general security upgrade, "cocooning" of the victim by nearest neighbors, and, depending upon the priority grading of the response, extra investigatory and detection efforts. There is a need to tailor the response to the individual crime and its specific circumstances, but it is less likely that there is a need for problem-solving and initiative-taking to develop the response. Hence it is possible that repeat victimization may preferably develop alongside problem-oriented policing as a complement rather than within the typical such approach. What is clear, however, is that further testing and experience are necessary to determine the optimal strategic path to maximise the crime control impact.



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NOTES

1. Zedner's (1994) review paper attributes the term "victimology" to Wertham (1949). The Mendelsohn usage, cited in Viano (1976), was before that. However, our learned colleague Gerhard Mueller (personal communication to first author, 1998) suggests that no copies of the 1947 Mendelsohn paper are known to exist.