Crime Reduction Research Series Paper 11

Working out what to do: Evidence-based crime reduction

Nick Tilley and Gloria Laycock

The views expressed in this report are those of the authors, not necessarily those of the Home Office (nor do they reflect Government policy).

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Crime Reduction Research Series

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Foreword

Local problem-solving as a means of crime and disorder reduction has been emphasised in both the United Kingdom and the United States. In each country, however, reviews have found problem-solving efforts in practice often to be unsystematic and ill-informed.

This report draws on a body of research from both sides of the Atlantic to develop a framework through which police and local partnerships can improve their performance by better identifying and defining the specific local crime and disorder problems and by developing appropriate tactics effectively to address them.

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Executive Summary

The aim of this report is to help police services and local partnerships approach crime prevention and problem-solving in a coherent, informed and structured way, to improve prospects for real achievement. It distils principles for effective, evidence-based practice. Drawing mainly on research in the United States and United Kingdom, it discusses the application of six key concepts: aims, problem-specification, tactics, mechanisms, context and replication. The examples used in the report relate specifically to situational crime prevention, for which there is the strongest research base, though the principles would be relevant also to other approaches to prevention. A case study of domestic burglary is presented.

Key concepts

Aims describe overall problem-solving or crime reduction aspirations e.g. to reduce burglary. *Problem-specification* comprises a more detailed and evidenced statement of an aim e.g. reduce burglary by tackling repeat victimisation, having established that this is a major issue in the project area. *Tactics* describe what will actually be done to tackle the problem. Mechanisms refer to the ways in which tactics will bring about change. *Context* comprises the place, time, social organisation etc within which the tactics will activate change mechanisms. *Replication* involves adopting and adapting approaches that have been found effective in one context, such that they will work similarly when implemented in another place.

Aims and problem-specification: Research has identified many characteristic features of crime and disorder problems: notably that they cluster on 'hot spots', 'hot victims', 'hot offenders', and 'hot products'; that low level disorder often encourages more serious problems; and that some circumstances, such as ready firearm availability, can facilitate crime. The development of local strategies can usefully begin with such frequently found patterns, checking whether they are also found in relation to the specific local problem being addressed. The typical patterns are not invariant.

Tactics: Once specific features of the local problem have been identified empirically, decisions on the focus of interventions can take place. These comprise the tactics. Much research has been conducted on situational tactics to reduce crime opportunity. They have been shown often to be highly effective, through their activation of a number of key mechanisms.

Mechanisms: Few situational measures make crime impossible. The four main opportunity-reducing mechanisms that have been identified in situational crime prevention include 'increase in perceived effort', 'increase in perceived risk', 'reduction in anticipated reward' and 'removal of excuses' in committing crime. Provocation-reduction might comprise a fifth. A variety of measures can be introduced to trigger each of these mechanisms. They will need to be chosen according to the nature of the problem in its specific context.

Context: Features of the situation which give rise to problems are relevant to both the nature of those problems and the potential of specific measures to reduce them. Changes in perceptions of risk, effort and reward that are potentially brought about through situational measures, and their effects on decisions by those who might otherwise offend, depend on circumstances. Significant features of context in relation to a specific situational measure and the mechanisms it might trigger could include, for example, the attributes of the offending population, levels of publicity, community attitudes, the physical lay-out where the measures are introduced, the plausibility of back-up and so on.

Replication: Many efforts to replicate past programmes fail because of inattention to the mechanisms activated by the tactics used, and their dependency on local context. Translation of past successes into future programmes involves understanding how and why they have worked, what it is about them that needs to reproduced and the conditions needed for similar effects to be generated.

Situational tactics and their selection

Situational tactics are rooted in research showing the significance of opportunity in the generation of criminal behaviour. They are probably most useful in strategies that target problems concentrated on particular places, victims, products or methods. Clarke's typology of opportunity reducing techniques is described, slightly elaborated and explained, highlighting the underlying change mechanisms through which situational measures can bring about their effects.

No situational measure provides a panacea. Effectiveness depends on circumstance, and analysis is needed before measures can be selected. Though sometimes obvious, the choice of situational tactics may require imagination as well as a good grasp of the local context for the crime problems being addressed. Deciding on tactics calls for thought about their potential side-effects in the context in which they are being introduced as well as their anticipated impact on the targeted crime and disorder problems.

Many crime reduction tactics have a characteristic life-cycle. To begin with there may be a substantial effect, but this can fade over time. Attention to ways of sustaining effects is therefore needed. Those tactics least liable to diminishing impact, for example target removal, are clearly preferable. Strategies involving a coherent blend of tactics have great promise, for example 'crackdown and consolidation' and 'weed and seed'. These marry enforcement, to bring about short-term impacts, to measures liable to produce longer-term changes in the wake of the short-term measures.

Domestic burglary

There are varying contexts for neighbourhood watch, a common tactic to try to reduce domestic burglary. Understanding these suggests that Neighbourhood Watch might be implemented differentially in different neighbourhoods to trigger mechanisms to deal with specific burglary-related problems.

Research over the past few years has highlighted the significance of repeat victimisation in domestic burglary. Demonstration projects have shown how tactics have effectively been tailored to trigger mechanisms to reduce risks to those shown to be most vulnerable through prior victimisation. Replications have involved the refinement of the approach in the context of variations in setting. Tactics currently being developed to address repeat victimisation are marrying detection and prevention.

Where next?

Implementing a strategic approach to crime reduction and problem-solving along the lines described in this paper depend on a strong strategic planning capacity, good data and an ability to analyse it, and willingness and capacity to apply leverage, where necessary, on those best placed to act to reduce crime.

The paper ends with two checklists. The first is for police agencies and partnerships to ensure they are set up to deliver effective evidence-based practice. The second is for those trying to address problems to check that what they are planning makes sense.

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1. Introduction

Modern policing prioritises the reduction of crime and disorder. Problem-solving is widely understood to be the best means of doing so. In some cases this may entail work in partnership with the general community or with other agencies; in others the police may work alone. In all cases the aim is to reduce crime, disorder or calls for service. Whilst there is a consensus that this is sensible, recent reports suggest that what has been done in practice has tended to be weak (Read and Tilley 2000; Scott 2000, Goldstein, personal communication). The SARA process (Scanning, Analysis, Response and Assessment), where it is used by police agencies to address problems, tends to be used in a mechanistic and uncreative way, and does not make use of the existing lessons from research. As a consequence, the process goes on at an almost exclusively low level in the organisation and often results in trivial analyses of poorly articulated problems with responses hardly connected to the analysis, and with an over-reliance on traditional enforcement. This paper outlines some lessons from research, which if adopted should improve performance.

The report draws on two primary sources: research reports published by the British Home Office and the review of research, primarily from the United States of America, addressing what works in crime prevention, prepared by Sherman et al for the United States Congress (1997).

Six key concepts are used throughout the report. These are: aims, problem-specification, tactics, mechanisms, context and replication. The *aim* of the project is a statement of overall aspiration – reduce burglary, prevent domestic violence etc. The *problem-specification* is a more detailed and evidenced statement of that aim. Which aspect of burglary will form the focus of intervention? It may be that reducing repeat victimisation is seen as appropriate, or tackling commercial burglary may be argued as more likely to deliver bigger reductions. The *tactics* describe what will actually be done to tackle the problem and the *mechanisms* describe how the tactics will work. So the tactic may be to increase arrests for burglary and the reductive mechanism might then be incapacitation and deterrence. The *context* is the place, time, social organisation etc within which the tactics will be applied. Tactics are often sensitive to context - they work in some contexts and not in others – examples of this are given later in the report. Understanding *replication* will assist in modifying approaches

that have been shown to be effective in one context, so that they are also effective somewhere else.

The intention is not to provide an off-the-shelf recipe book for practitioners. Rather, the aim is to illustrate some of the principles of crime reduction through which effective approaches can be developed or modified to suit local circumstances. The report falls into four further sections:

- Specifying problems
- Developing tactics – mechanisms, contexts and replication
- A practical example: domestic burglary
- Conclusion: where next?

2. Specifying problems

Unqualified aims to reduce crime or tackle disorder are laudable but probably not deliverable. They compare with aspirations to 'win the war'. Wars are won on the back of strategic planning, effective tactics and hard work. So in order to reduce crime and disorder the presenting problem – crime – needs to be broken down into more manageable proportions. This is the process of 'problem specification' and it refers to the identification of those aspects of a crime or disorder problem which comprise the focus for intervention. As we envisage the process, hypotheses about the nature of the crime and disorder problem at the level at which they are to apply (the beat, area, precinct, or wherever) might initially be guided by evidence from existing research. To take an analogy from the healthcare field, our aim might be to reduce the incidence of AIDS, and we note that a relationship between AIDS and unprotected sexual activity has been demonstrated nationally. We would then want to check that the same relationship held true at the level at which we were to apply our strategy, let us say, a suburb of a major city. (It would not hold true, for example, if there were a substantial proportion of the population that had been given infected blood.) Our problem would then more specifically be stated as that of reducing the incidence of unprotected sex.

In our field, problems are specified on the basis of an analysis of data in the area in which we are to work. Take domestic violence, as an example. We know from existing research that domestic violence is particularly prone to repeat occurrence. The relevance of this to the local level in which we were proposing to launch an initiative would need to be confirmed. The existing research literature can provide clues as to what to look for in specifying the problem more accurately, and in sufficient detail to enable plausible interventions to be developed. The fact that there are some already established relationships at national level should, therefore, be helpful in guiding the local analyses, but they do not, of course, constitute an exhaustive set. There may be many other nationally or locally relevant relationships which could form the focus of an intervention and which have not yet been identified.

It is perhaps worth noting what would *not* constitute a good problem specification in our terms. Let us assume that there is pressure to reduce street crime – this is the *aim*. The

problem may be specified as protecting the elderly. But there is no evidence that the elderly are disproportionately victims of violent street crime; indeed they are generally *less* likely to be victims than young adult males. A proposal to reduce street violence by protecting the elderly, therefore, is likely to succeed only in unusual circumstances. Problem specifications of this kind may arise not on the basis of an analysis of local crime data but through sympathy for the elderly, which may be more related to fear of crime than to crime itself.

Decades of research have demonstrated that problems of crime and disorder can be broken down into more specific and potentially actionable problems. These are now discussed with a note on what is necessary at a local level in order to verify the existence of the problem there. It is known from research that:

- *Crime and disorder cluster in 'hot spots'*

There is substantial evidence that crime and disorder tend to cluster in certain places or at certain times (Eck, 1997). Some housing areas are more likely than others to suffer domestic burglary (Mirrlees-Black *et al*, 1998); some stores are more prone to shop theft than others (Mirrlees-Black and Ross, 1995); some post offices, banks and building societies are more vulnerable to robbery (Ekblom, 1987; Austin, 1988; Matthews, 1996); and disorder associated with pubs and clubs, perhaps not surprisingly, tends to occur in city centres on Friday and Saturday nights at closing time (Hope, 1985). Drugs are sold in identifiable markets (Edmunds *et al*, 1996), prostitutes frequent 'red light' districts (Matthews, 1993) – the list is long. These patterns are sufficiently stable over time to suggest that action directed specifically at them would pay off handsomely (Spelman, 1995; Braga *et al*, 1999).

In order to confirm the existence of hot spots within the area planned for an intervention, an accurate and up-to-date crime recording system is needed. There are numerous examples of police data not meeting these criteria. Incomplete data, and a lack of specificity, are common problems. For example, a car park may appear as a hot spot for car crime, but it is rarely the case that the exact location of any incident *within* the car park will be recorded. Indeed, the identification of the car park itself can sometimes be vague in police data sets, requiring manual recoding and extensive cleaning of the data.

Figure 1 (from Bennett and Durie, 1999) shows an example of the kind of pattern that can be found. It is not always necessary to carry out sophisticated analysis of these maps.

Simply looking at them, and identifying a hot spot, but following this up with on-the-ground observation, can be very productive. It can, for instance, demonstrate the existence of barriers, like main roads, rivers and railway lines that might not have been particularly obvious from the map.

Figure 1: Residential burglary hot spots in Cambridge: 1993 and 1994

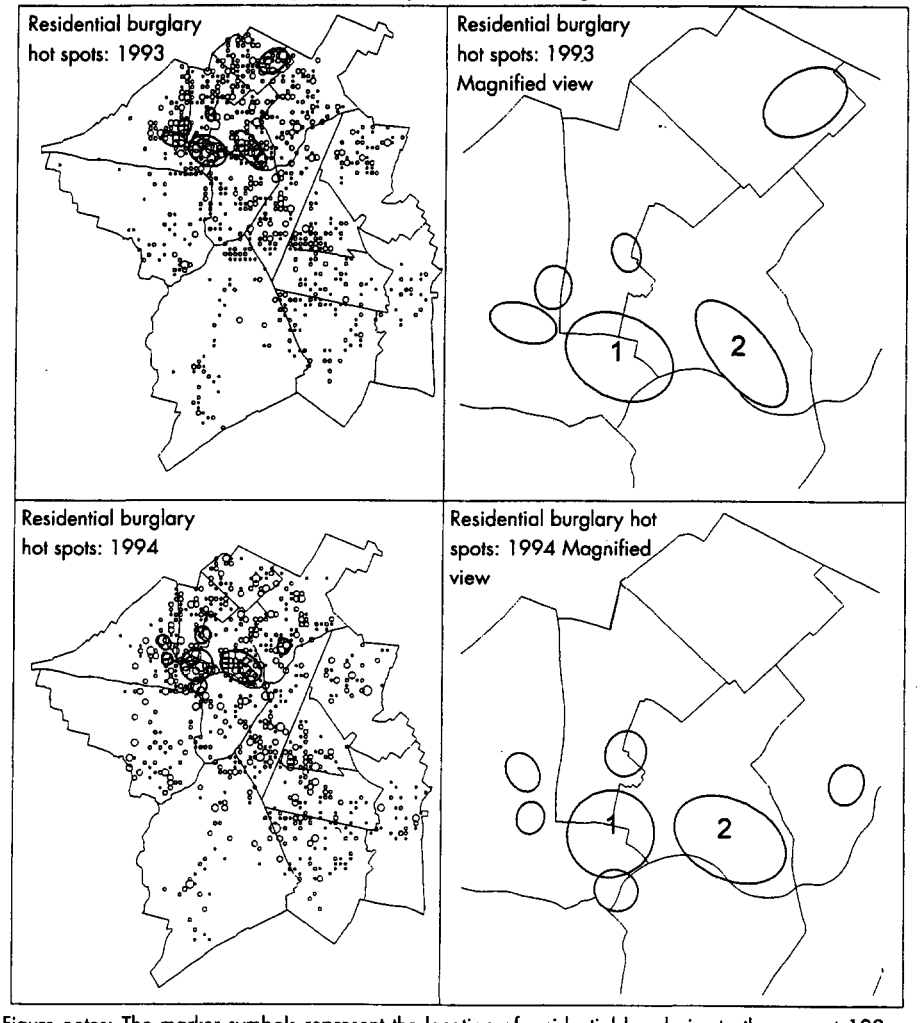


Figure notes: The marker symbols represent the location of residential burglaries to the nearest 100m grid square. the symbols have been graduated from 1 to 22 (1993) and 1 to 15 (1994) to represent the frequency of burglaries in each 100m grid square. The 'hot spot' ellipses were calculated using STAC (Spatial and Temporal Analysis of Crime) software based on a search radius of 150m and drawn using mapInfo. All ellipses identified in the analysis are included on the full-sized maps.

- *Crime clusters on 'hot victims' (repeat victims)*

Beginning in the early 1980's the Home Office supported a programme of research and development on the prevention of repeat victimisation (Forrester, *et al*, 1988, 1990; Sampson and Farrell, 1990; Sampson, 1991; Sampson and Phillips, 1992; Tilley, 1993a; Lloyd *et al*, 1994; Pitts and Smith, 1995; Sampson and Phillips, 1995; Anderson *et al*, 1995; Chenery *et al*, 1997; Hanmer *et al*, 1999). Farrell and Pease (1993) note that repeat victimisation is relevant to domestic and commercial burglary, car crime, racial attacks, school crime, bullying, domestic violence, credit card fraud, retail sector crime, obscene phone calls and neighbour disputes.

Targeting repeat victims as a means of reducing crime makes sense and it has been part of the UK policy since the mid 1990's. The government was, however, aware of some of the practical difficulties that this presented to the police in determining its local relevance. As a way of encouraging the police to pay attention to repeat victimisation, the UK government set a target for all forces to have available a means of identifying repeat victims by the end of 1996, and to go on to establish a strategy to reduce it by 1998. Farrell and colleagues report the results of a survey of all 43 UK forces, which records the progress made by the forces in 1999. At that time all UK police agencies claimed to be able to identify repeat victims and to have developed a strategy to reduce its incidence (Farrell *et al*, 2000).

In tackling repeat victimisation the first issue identified by the police was its definition. Should the unit of analysis be the individual, the household, the vehicle or other target? Should crimes of different types count as repeat victimisation? The formal response from the British Home Office, which is where much of this work has been carried out, has been that the appropriate definition is simply the one that works the best in the specific circumstances. This means that practitioners in the field are obliged to use a little initiative, but given that our expertise in this area is still developing, it is probably the optimal solution. The snapshot of police activity reported by Farrell and his co-workers looked at what definitions were used in practice. Data were examined relating to the definition of repeat residential burglary for 42 of the 43 UK forces, and that relating to commercial burglary was used for the City of London police, where domestic burglary was less of a concern. The results are shown in Table 1 (taken from Farrell *et al*, 2000).

Table 1: Operational definitions of repeat residential burglary

Definition	Forces (N=43)
At least one burglary	43
Same residence	42
Previously recorded burglary	42
Within a 12-month rolling period	38
Same victim	29
Previously unrecorded burglary	10
Different crime – previously recorded	7
Different crime – previously unrecorded	2
Within period other than 12 months	2

Note: Table shows multiple responses per force.

Table 1 gives a sense of how forces approached the definition. There is the potential for confusion here since strictly, there is no repeat victim until after a second offence. This has caused conceptual difficulties. The requirement is for the police to *prevent* repeat victimisation, which means that they should be targeting all first-time victims to ensure that they are not re-victimised. Defining a repeat victim as having been burgled once is logically incorrect, but operationally spot-on.

Once defined, attention turned to measurement. Typical police data sets are designed to record separate incidents of offending in order to provide uniform statistics for central recording purposes, or to control the dispatch of officers to calls for service. Such systems are not necessarily capable of providing routine information on the extent to which a particular location or individual has been the subject of a previous offence. Table 2 (again taken from Farrell *et al*, 2000) shows how forces were measuring the extent of repeat victimisation.

Table 2: What systems did forces use to identify repeats?

System	Forces (N=43)
Computerized crime recording system	28
Manual system for identification of rv	26
Relies on questioning victim	24
Crime Pattern Analysis systems identify rv	20
Incident logging system identifies rv	12
Hot spot/ hot dotting (GIS)	7
Other agencies id rv and exchange info	5
Systems automatically identify repeats	2
Links victim/offender/ location made	2

Note: Table shows multiple responses per force.

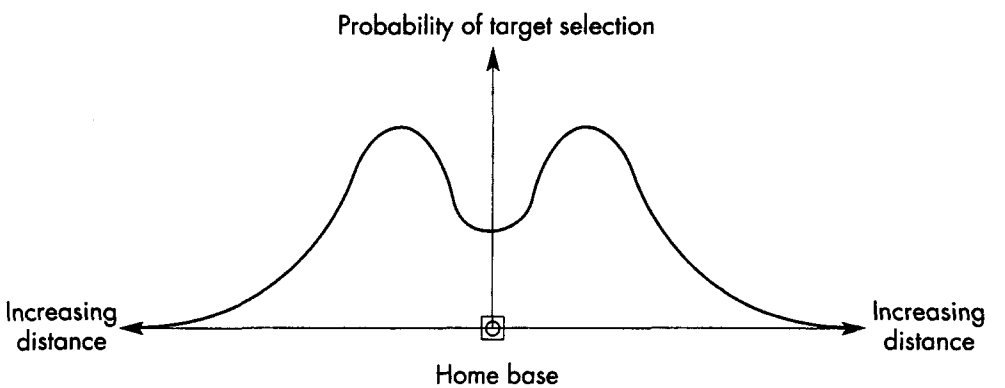
In the US, it is difficult to get a complete picture of the extent to which the significance of attending to repeat crimes has penetrated police activity, but in those few areas where this issue has been targeted for academic attention there does seem to be some reluctance to accept the research evidence (Lamm Weisel, 2000). Furthermore, the problem of incomplete or inaccurate data is compounded when repeat victimisation is the subject of attention. The usual inaccuracies of recording are present, but there is the added problem, particularly common in the United States, of the failure to record the apartment number of a home which may have been burgled and which is located in an apartment block. This means that it looks as though there is a great deal of repeat burglary because the apartment blocks are registering in the crime analysis rather than the individual units of which they are comprised (Lamm Weisel, 2000).

- *Crime is carried out by 'hot people' (repeat offenders)*

There is now well-established research evidence that a small proportion of offenders commit a high proportion of offences. For example, UK-based research has shown that by their 40th birthday, seven per cent of males born in 1953 had four or more court appearances and these offenders accounted for 59 per cent of all court appearances by males (Home Office, 1999b). Targeting these people makes sense, particularly since at the local level they can account for their own mini-crime wave in their area of operation, although it may be the case that any respite is short-lived.

In order to target high-rate offenders, good police intelligence is required, which is supported by a crime analysis system capable of linking crime patterns to offender residence (past and present), *modus operandi* and the areas in which the offender works and 'plays'. Research also suggests that the home of the offender can form a focus for criminal activity, perhaps with a buffer nearby where offenders might believe themselves to be at risk of recognition (Brantingham and Brantingham, 1984). These 'spaces' are illustrated in Figure 2, (adapted from Brantingham and Brantingham, 1981). All these factors have been shown through research to influence the choice of criminal target. This is true even for the most serious offences of rape and serial murder (Rossmo, 1996).

Figure 2: Distribution of offences around a criminal's home



- *Crime is targeted upon 'hot products'*

There is no doubt that some products are more attractive to thieves than others. Again, both research and common sense agree on this (Felson, 1998). It is also clear that this attractiveness can in many circumstances be 'designed out' or otherwise dealt with. Some of the attributes of these products are fairly obvious – their value and portability for example. They can be summarised by the acronym CRAVED – concealable, removable, available, valuable, enjoyable and disposable (Clarke, 1999). Action aimed at 'cooling' hot products could be productive and each element of the acronym can be considered as a means of reducing the product's appeal. Thus it could be made less concealable (as is done in stores when goods are tagged), more difficult to remove (as when car stereos are broken down into their component parts and built into the vehicle), less readily available (as when we are encouraged to take extra care of our credit cards and to keep the PIN

number separate), less valuable (as when goods are personalised thus making them less attractive to a would-be purchaser), less enjoyable (as when clothing is vulnerable to dye stains if it is taken without paying) and less easily disposed of (as when stolen goods markets are targeted for police action).

Actions such as these can be taken at local level but in some cases national or even international action may be needed, where products are designed and manufactured (Laycock and Tilley, 1995b). So, for example, if motor vehicles need better in-built security there is little local leverage through which this might be achieved, and national action is needed. Similarly the redesign of credit cards is not likely to happen because a local police chief feels it is necessary; in this case international action may be required. There is, however, an important role for local agencies in promoting this change, through the early identification of the problem and the subsequent provision of data, which demonstrates its scale and makes the case for national action. This approach requires alertness at local level to the need to identify such product design flaws and an effective means of communication to a national body with the capacity and capability to deal with the information (Laycock and Webb, 2000; Foresight Crime Prevention Panel 2000a; 2000b).

- *Ignoring low-level disorder encourages crime*

Ever since Wilson and Kelling produced their now famous article in *Atlantic Monthly* (1982) there has been a certain seduction to the notion that tackling low-level disorder would have the knock-on effect of lowering more serious crime (see also Skogan, 1990). It has been argued that the reductions in crime in New York are evidence of this. The New York experience is, however, rather more complex, and admits to the possibility that the reductions are a combination of less use of crack cocaine, a far more accountable and outcome-oriented police force, a reduction in the number of young people likely to be involved in criminal activity for demographic reasons and a wide range of other tactics adopted by the New York Police in addition to dealing with disorder (Kelling and Coles, 1996; Blumstein and Rosenfeld, 1998; Kelling and Bratton, 1998; Fagan, Zimring and Kim, 1998; Bowling, 1999; Eck and Maguire, 2000).

Nevertheless, there are reasonable theoretical grounds for thinking that a reduction in disorder may 'nip crime in the bud' and deter vulnerable young people from getting involved in more serious offending, or may send 'signals' to potential offenders that crime is not tolerated here. Although Sherman (1997) regards the research evidence as only

moderately strong, he does conclude that a police focus on street activity can help reduce serious crime. This implies a causal relationship between anti-social behavior and later, more serious offending, while at present we can only be sure of a correlation. Table 3 shows the 2000 British Crime Survey (BCS) findings about risks of domestic burglary, vehicle-related crime and violent crime in areas with high physical disorder compared to the national rates (Kershaw *et al*, 2000). It is clear that residence in areas with high physical disorder is associated with a substantially higher that average crime rate for a range of offence types. The BCS finds similar disparities between perceived risk of violent and property crime between those living in areas of physical disorder and those not doing so. Not surprisingly it also shows differences in fear of crime according to local levels of physical disorder. So we can be fairly confident that there is a positive association between signs of disorder and more serious offending.

Table 3: Crime and physical disorder (from Kershaw et al, 2000)

	National average	Area with high physical disorder	Relative risk for those in areas with high physical disorder
Domestic burglary	4.3	11.1	2.6
Vehicle-related crime (vehicle owners)	12.6	20	1.6
Violent crime	4.2	7.9	1.9

Recent work by Sampson and Raudenbush (1999), using data from Chicago, has queried the *causal* nature of this relationship. Once other neighbourhood characteristics are taken into account, such as the race and income levels of the population, they found that the relationship largely disappears. Sampson and Raudenbush argue that disorder may nevertheless have an impact indirectly – by undermining community stability through its effects on migration and investment decisions.

Low-level disorder, like crime, tends to cluster in hot spots, which makes it a convenient focus for action. Read *et al* (1999) found that calls in the hot spot residential beats were almost twice those for urban beats, almost four times those for market towns and 10 times those for rural areas. Moreover, calls were concentrated within each area type. Within the hot spot area 15 per cent of the callers called three or more times and were responsible for 39 per cent of the calls. Within the urban area 12 per cent of callers called three or more

times and were responsible for 33 per cent of the calls. In the market town 10 per cent of callers made three or more calls and were responsible for 34 per cent of the calls. Within the rural beat three per cent of the callers called three or more times and were responsible for eight per cent of the calls. As with crime, calls relating to disorder are concentrated by area and within areas.

There are two further reasons for addressing low-level disorder specifically. One is that disorder itself is a concern of local communities, and thus a legitimate target for police attention – as many as 70 per cent of calls for service to the police are not directly related to crime, but most are concerned one way or another with disorder. The second reason is that, as was noted above, low-level disorder may be a precursor to more serious offending. The argument runs that the signal sent to potential offenders in areas where incidents of disorder are ignored, is that 'nobody cares', and that crime therefore will also be ignored. This second reason remains a matter of academic debate and the jury is still out. But there is no doubt that communities care about these lower-level incidents and want them dealt with. Dealing with them effectively can, however, be more difficult than it may appear because one person's incident of disorder is another person's idea of a good time. The definition of disorder is thus problematic. This means that police and partnerships need to be clear on their powers when intervening and also that they might sensibly engage with the community to ensure that local people, particularly the community leaders, understand (and endorse) what is being proposed and why. This is all the more important in areas of high cultural diversity where police action can be interpreted as aggressive or divisive and where the 'disorder' itself may not be universally unacceptable (Bland and Read, 2000).

- *'Crime facilitators' exist*

It is also known from research that certain conditions in the immediate environment facilitate crime and disorder – drugs, alcohol, guns and other weapons are obvious examples. The removal, or control, of these crime facilitators makes sense (on firearms, see for example Wintemute, 2000) and should contribute to the reduction of crime.

Drugs are, of course, illegal in themselves, but the addicts' need to buy drugs also allegedly fuels the property crime rate. Violence may be precipitated through the pharmacological effects of the substances taken, and through efforts to control the illegal market (Johnson *et al*, 2000). The extent to which this is so is difficult to determine. There is much talk of drug-related crime, and the arrestee drug-abuse monitoring program (ADAM program) in the US

and its counterparts in other jurisdictions (the International ADAM program) clearly demonstrates the extent to which arrestees have taken drugs of various kinds. There are some significant differences between countries, not only in the rate at which arrestees take drugs but also in the type of drugs taken. Taylor and Bennett (1999) have shown, for example, that use of opiates, amphetamines and methadone was significantly lower in the US than in England, and that cocaine use, use of any drug and multiple drug use were significantly higher. There can also be significant differences within countries. White and Gorman (2000) report substantial variations in types of drugs and in patterns of change in types of drugs taken over a 20 year period across 17 cities in the United States.

The relationship between drugs and crime is contested. It may be quite complex, and seems to vary by place (White and Gorman, 2000). A high rate of drug consumption in the arrestee population does not, of course, prove that the offending was carried out *because* of the drug abuse. It may be the crime that leads to the drug use. Crime and drug consumption may be associated because they are both produced by some common third factor. Drug-taking and crime may reinforce one another. There is some now rather old research from the UK (Parker and Newcombe, 1987), which shows that a significant increase in domestic burglary was indeed fuelled by new drug users coming into the frame and needing cash to maintain their addiction. The research also showed, however, that there were a number of addicted offenders whose interest in drugs post-dated their offending behavior, and for whom drugs and crime were arguably not causally related. So targeting drug abuse will certainly address the problem of drug crime, but may not reduce other property or violent crime as much as might be assumed, depending upon the extent to which the need for drugs is the only driver of crime in the local area.

The possession of a gun may also be an offence in its own right, in that certain people, notably known offenders in the US and now any UK citizen, may not legally possess a handgun. But guns are obvious facilitators of both property and violent crime and their control should reduce offending. Again this is not a universally supported view. The National Rifle Association in the United States, for example, does not agree that guns are crime facilitators and should therefore be controlled. There is, however, a growing body of evidence to support the control or removal of handguns (for the US, see Wintemute, 2000). A recent study by Knuttson and Strype (2000) compared gun-related incidents in Sweden (where the police are armed) with Norway (where they are not). They compared a number of aspects of gun-related incidents in both countries, including the impact of the regulations and policy, the number of police injuries and the number of times shots were fired by the police. They showed that there

were more adverse incidents (i.e. suspects being injured or killed, the firing of guns by the police, or officers being injured) in Sweden than in Norway.

Alcohol is similar to drugs and guns in that it is an offence in most jurisdictions to be drunk in public and to drive while drinking, and there are age restrictions on access to alcohol. But alcohol is also implicated in offending, particularly domestic violence (Morley and Mullender, 1994), where it arguably acts as a disinhibitor, and is centrally involved in the typical disorder associated with the weekend recreation of young people when they spill out onto the streets as bars and public houses close.

Table 4 below sets out the various problem areas discussed in this section and the kinds of facilities that need to be in place in order to determine their relevance at any particular location.

Table 4: Potentially useful targets for the reduction of crime

Strategy	Requirements for local validation
Targeting hot spots	Crime recording systems capable of identifying hot spots.
Targeting high-rate offenders	High quality intelligence on local criminals and crime patterns; good communication across CJS agencies; collaborative CJS tactics.
Targeting repeat victims	Unique identifier for victims of crime; geo-coded crime reference for places.
Targeting low-level disorder	Acceptable definition of disorder which does not create community tensions, assuming low-level disorder a precursor to more serious problems.
Targeting hot products	Generally most relevant at national level but products attractive to criminals may be identified locally, in which case there is a need for a channel of communication to national level where product redesign can be addressed.
Targeting crime facilitators	Good police intelligence systems; detailed crime data capable of identifying the consistent involvement of weapons, drugs (including alcohol) and other facilitators.

Accurate and evidence-based problem specification is, of course, only the first step toward a solution. Whether or not crime is reduced depends on the strength of the tactics applied to the problem. Effectiveness is thus dependent upon the measures introduced to change the pattern.

3. Developing tactics – mechanisms, contexts and replication

In this section we begin by describing in more detail what we mean by tactics, mechanisms and contexts, and replication. We then take situationally-based tactics as an example of the way in which a more detailed understanding of the mechanisms through which any given tactic might work, can be used effectively.

Tactics

The term 'tactic' is used to refer to the interventions which are to be applied in response to the presenting problem – *what* is to be done. Evidence-based tactics are those where research has been undertaken showing that they can be effective as a means of solving problems in the relevant context. In Britain the talk is of 'getting the grease to the squeak' in crime reduction. Evidence-based problems identify the 'squeaks'; evidence-based tactics apply the right 'grease'. We assume that the chance of successful problem-solving increases with the adequacy of the evidence on which it is based. Going back to our medical example, our problem of reducing the incidence of unprotected sexual activity might be achieved if we publicise the relationship between sexual activity and AIDS, and provide free condoms. These would be the *tactics*.

Mechanisms and contexts

Crime reduction mechanisms are the processes whereby the interventions used in tactics alter crime levels.

Sometimes the mechanisms through which crime reduction measures work are obvious. For example, in relation to some attractive targets for theft, such as jewellery or cash, installation and use of an unbreakable and immovable safe will make their access too difficult for potential offenders. Colloquially, this might be termed the *too tricky target* mechanism. If potential offenders perceive the safe to be beyond their safe-cracking

abilities, the mechanism triggered would comprise a *looks too tricky one*. If there are still objects that might be stolen where a secure safe is installed but they are of relatively low level, installation may also trigger a *too few pickings* mechanism. In relation to prolific criminals, their apprehension, prosecution, conviction and incarceration will keep them away from direct involvement in most crime, at least while they are inside. We might call this the *too tied up for crime* mechanism!

In most cases, however, crime reduction measures do not make crime impossible by the level of restraint introduced to offenders or by the level of physical protection to potential targets. If they have an effect, they do so in more subtle ways.

Most physical security measures introduced to domestic premises do not make burglary impossible. Alarms do not comprise physical barriers. Locks do not make peripheral security unbreachable. Neighbourhood Watch does not directly stop burglars getting in. Property marking does not stop stolen goods being picked up and carried out. Mechanisms describe the way these measures might inhibit domestic burglary. Alarms, for example, might make domestic burglary seem too risky to the prospective offender. They might prompt nosey neighbours to intervene directly, call the police, or keep notes on the offenders and their means of transport. Alarms could also attract the attention of a passing police officer. In some cases, they may ring directly to the police or a security company who may dispatch someone. Where perceived risk increase is at work, we could call this the *reduced odds of getting away with it* mechanism. If offenders are caught and they are prolific, alarms may also be a way of triggering the *too tied up for crime* mechanism that we have already mentioned.

Social interventions may trigger multiple mechanisms. Take after school clubs. They may keep children off the streets at times when they are at risk of either committing crime or being victimised, thereby activating the *too tied up for crime* mechanism. They may provide children at risk with a positive non-criminal role model with whom they identify, activating an I'm not a criminal kind of person mechanism. After school clubs may conceivably provide remedial education that provides skills and increases the options available to those attending, an I can do other things than crime mechanism.

Some tactics can also activate unintended mechanisms. Offenders may find an alternative crime, target for crime, time for crime, or technique for crime rather than simply desist in the face of measures introduced. This comprises a *look for a better crime bet* mechanism.

Offenders referred to social programmes such as motor projects may be brought together and learn new techniques or develop new networks or learn new means of justifying their criminal behaviour. These comprise *criminal capacity building* mechanisms of various sorts. Likewise, after school clubs may also inadvertently trigger *criminal capacity building* mechanisms. Offenders may be angered by some coercive criminal justice interventions and may take it out on victims. This comprises an *I'll get my own back* mechanism. Offenders may also give up on the plans to commit a crime and do something else or stop looking for opportunities for a particular crime or in a particular area if the risk and effort looks too high in comparison to the prospective rewards. This comprises the *it's no longer worth the candle* mechanism.

What change inducing mechanisms are actually activated by a given tactic depends on the *context*. Context thus refers to features of the situation that are relevant to the mechanisms potentially triggered by tactics introduced. It is the mechanisms activated in the presenting context that determine whether the problem is solved or lessened, or the crime and disorder reduced.

The safe will only trigger the *looks too tricky* mechanism if it is known or perceived to be secure, and this may depend on its appearance, announcements about its installation that are received by potential offenders, the existence of knowledgeable safe-cracking criminal networks, and the current technical capacities of offenders. Thus the context here is that of the *informed but incapable offender*. Alarms can only activate the nosey neighbour induced, *reduced odds of success* mechanisms if there are nearby neighbours, if the neighbours care about the crime committed, and if they are not too frightened of recrimination by offenders to do anything. In the latter case their concern is with triggering offender *I'll get my own back* mechanisms. Nosey neighbour induced, reduced odds of success mechanisms are thus only activated in what might be called the *committed, close and confident community* context.

Some tactics generate unwanted side effects, which are also contingent on context. The *look for a better crime bet* mechanism (i.e. that displacing crime) will be activated only when there are consistently committed offenders whose needs and wants survive to the next criminal opportunity. This is a *persistent offender disposition* context. In a given area, the direction and rate of substitute offending will depend also on the *available alternatives* features of the context.

Tactics work in relation to a given problem by activating mechanisms that reduce the targeted problems in its presenting *context*. The problem is determined by the crime and disorder patterns. Picking tactics depends on analysis of the contexts in which those patterns are generated and the opportunities to trigger preventive mechanisms. Lateral thought may sometimes be needed to think through how a mechanism might be triggered. In the old west in relation to robberies of stagecoaches, where silver bullion was stolen, the *too tricky target* mechanism was activated by recasting small ingots into 300lb lumps that could not be carried on horseback!

Replication

Replication is clearly important in evidence-based crime prevention. It is through replication that successful interventions are disseminated more widely. The pay-off from hard-won evidence that a given preventive response has been effective is its successful application elsewhere.

Replication is more difficult than it may appear at first sight. Strictly, it is never possible to do exactly the same. Different people are involved in different places and at different times. Decisions are always needed about what has to be reproduced and about what counts as alike enough for practical purposes. In the case of alarms, for example, do visibility, manufacturer, volume, ringing time, ringing tone, method of activation, number of sensors, rate of misactivations, distance from neighbours, distance from police station, ease of operation, zonability, and level of neighbourhood cultural homogeneity etc all matter?

The track record of replications is not good. Mixed findings from evaluation studies are the norm. This is the case, for example, for property marking, street lighting, patrol, and for arrest for domestic violence. The Sherman *et al* (1997) review tries to balance evidence but repeatedly finds mixed messages. The problem in replication is that of distilling the crucial elements of the tactic, the measures introduced, the mechanisms triggered and the context. Too often it is expected that the same measure will automatically produce the same outcome. It won't. Both common sense and research findings agree on that.

Replication requires that apparently successful tactics be understood in the context in which they were used and the lessons applied thoughtfully in the situation faced by practitioners hoping to repeat the success of a previous initiative. This is a major reason why tactics, mechanisms and contexts need to be spelled out. Replications of successful initiatives in

policing and crime reduction have almost always failed consistently to produce the same outcomes. This is not necessarily because the original initiative was flawed in some unexpected way, but because there was little clarity about what exactly it was that made it work where it did in the first place.

The points about problem specification, tactics, contexts, mechanisms, and replication can be briefly illustrated by reference to efforts to reduce repeat domestic violence through mandatory arrest of perpetrators. Tackling domestic violence by trying to reduce repeats makes sense in terms of research evidence. There are clearly different tactics that can be used to do so (Morley and Mullender, 1994; Hanmer *et al*, 1999). We focus here on mandatory arrest, since this has been widely used and widely evaluated.

A controlled experiment in Minneapolis found an association between perpetrator arrest and reduced rates of repeat spousal domestic violence. Subjects meeting the necessary conditions were randomly allocated to one of three responses – arrest, advice or sending away. Arrest was associated with lowest repeat arrest rate. The study findings, published in 1984 (Sherman and Berk), were followed by a rapid increase in mandatory arrest policies in the United States. In 1984 10 per cent of cities of more that 100,000 had mandatory arrest policies, rising to 43 per cent in 1986 and 90 per cent in 1988 (Sherman, 1992). Replications of the Minneapolis experiment were conducted in other cities, again using randomly controlled trials. Some found an increase in repeat domestic violence with arrest and others found a decrease. The explanation was that the effects of arrest vary by context: differing mechanisms are triggered by arrest in differing circumstances. In areas of high employment and marriage, arrest *shames* the perpetrator and decreases rates of repeat violence. In areas of low employment and marriage, arrest angers the perpetrator and increases rates of repeat domestic violence. Same problem, same tactic, different context, different mechanism, different outcome. The arrest tactics were inappropriately replicated. The findings were mixed. Some victims suffered in consequence. Later studies have checked out the conjectures (Sherman *et al*, 1997). It is unlikely that all possible contexts, mechanisms and outcomes of arrest policies have yet been identified (Tilley, 2000). Our point is that if some thought had been given to the *mechanisms* through which the arrest policy might work at the time of the original Minneapolis experiment, then a great deal of time might have been saved and, more importantly, some victims may not have been put at risk. With the benefit of hindsight it is difficult to see why arresting an abusive partner would reduce the likelihood of reoffending if that person had a history of arrest or had little to lose by arrest. The hypotheses being tested in experiments such as these need to be spelled out and to be plausible. Only then can informed practice and policy decisions about replication be made.

Situational tactics

We have argued that adopting an effective approach to crime reduction ideally requires a degree of tactical understanding of what works, where, and how.

The strongest research base on crime reduction tactics probably now relates to situational methods. The modules are relatively well developed. There are established research methodologies. There has been a substantial amount of empirical research. Potential pitfalls have been identified, and there is a body of research addressing them. For this reason, in the remainder of this section, we concentrate on situational tactics. The discussion is intended to help practitioners think about how situational measures should be selected to address presenting crime and disorder problems.

Situational tactics are especially useful in strategies that target problems concentrated on particular places, victims, products or methods. Individual crime and disorder problems vary from place to place, victim to victim, product to product, and time to time. So does the scope for intervention. Thus, there is and can be no simple mathematical formula that will provide a universal answer. That is why effective policing and crime reduction calls for well-trained and educated professionals. Situational crime prevention provides principles for selecting tactics rather than recipes that can be applied mechanically.

The form of reasoning advocated here in relation to the choice of situational tactics is, we suggest, needed also in relation to other tactics that might be considered. In that sense the following discussion is intended to be exemplary. We are focussing on situational tactics because they have the strongest foundations, and hence methods of selecting them can be described with most confidence.

In the following discussion, we describe the theoretical and empirical foundations of situational crime prevention. We outline the typology that has been developed to encompass situational methods and try to reveal the underlying logic of situational tactics. The purpose of this is to help practitioners better choose situational tactics by tracing through how they might be expected to bring about intended and unintended effects in their specific conditions. It is also the purpose by extension to show what will be needed to think through in a similar fashion the ways in which other tactics might be expected to bring about their effects.

Research has shown that opportunity is crucial in producing many patterns of criminal and other problem behaviour. This is the case even where the behaviour in question appears to reflect individuals' problems and dispositions. At first sight it might appear that suicide rates could be reduced only with a fall in the sorts of personal problems that presumably lead individuals to decide to take their own lives. In practice, research has found that changing opportunities for suicide has had a large impact on levels. In particular the change from town or coal gas, which contained highly toxic carbon monoxide, to natural gas, which does not contain carbon monoxide, was associated with a massive fall in suicide rates in England and Wales. Between 1958 and 1977 the annual total number of suicides fell by 26 per cent, from 5,298 to 3,944. Those by domestic gas fell from 2,637 to two - from comprising half the total number of suicides to just 0.2 per cent. The reduced opportunity for suicide was not accompanied by substantial displacement (Clarke and Mayhew, 1988). Readily available, painless, non-disfiguring suicide methods that do not require much courage, facilitate suicide. A happy by-product of changed gas-supply methods withdrew that easy opportunity and led to the dramatic fall in rates.

Research has also found that a side-effect of making helmet-wearing compulsory for motorcyclists, and enforcing that obligation, has been to reduce levels of motorcycle theft. Mayhew, Clarke and Elliot (1989) show that in the Federal Republic of Germany between 1980 and 1986, during which there was progressive enforcement of helmet legislation, theft of motorcycles fell by 65 per cent, a drop of 99,000 per annum. Over the same period theft of cars increased by 10 per cent, or 6,000 per annum, and theft of pedal cycles fell by 16 per cent, or 57,000 per annum – displacement to other forms of vehicle theft does not seem to have occurred. The German data indicate that if potential thieves are not carrying a helmet they will not steal motorcycles; the risks of being stopped are too high. Few people routinely carry helmets unless they have their own motorbikes.

The research relating to forms of gas supply and suicide rates and on enforced helmet-wearing and motorcycle theft suggests that changes in opportunity can lead to changes in behaviour without directly addressing the motivation of individuals. Felson and Clarke (1998) refer to 'approaching one hundred case studies of situational crime prevention' (p. 23). These have revealed the extensive potential that alteration in opportunity can have for changing criminal and other problem behaviour.

Clarke (1997) has usefully developed a typology of 16 situational crime prevention techniques, shown in Table 5. The fundamental, underlying mechanism in the first three sets of cases is an alteration in the balance of costs and benefits facing the prospective offender. This basic mechanism is effected by changes in the balance of perceived rewards, effort and risks. Perceived effort can be increased in various ways, for instance by hardening targets, controlling access to targets and so on. Each of these ways of increasing perceived effort can be brought about by the introduction of one or more specific measures. In the case of target hardening, steering wheel locks and anti-robbery screens are clearly just two examples. Note the reference to *perceived* effort. Whilst actual effort or risk might be increased, it is *perception* by the potential offenders that is crucial for their decisions as to whether to attempt an offence. Perceptions can be affected by publicity. This was the case in a property-marking experiment in North Wales, which was accompanied, both at the launch of the scheme and 18 months later when the evaluation results were published, by a considerable amount of local publicity (Laycock, 1985; Laycock,1992). What mechanism had caused the observed reduction in burglary – the marking of property or the publicity – became unclear (see Pawson and Tilley, 1997, for a fuller discussion).

The last set of cases shown by Clarke, 'Removing excuses for crime,' is slightly different from the others. It assumes that there is a set of rules inhibiting criminal behaviour, which the self-interested potential offender can often conveniently 'forget' when an opportunity arises. Removing excuses prevents this forgetting. Clarke shows, for example, how specific measures such as hotel registration procedures, customs declarations and explicit codes of conduct can set rules that help remove potential offenders' excuses for committing crimes.

Table 5: sixteen opportunity-reducing techniques of situational crime prevention with examples

A) Increase the perceived effort of crime	
1. Harden targets	Steering column locks, anti-robbery screens
2. Control access to targets	Entry phones, electronic access to garages
3. Deflect offenders from targets	Bus stop location, street closures, segregation of rival fans
4. Control crime facilitators	Photos on credit cards, plastic beer glasses in bars
B) Increase the perceived risks of crime	
5. Screen entrances and exits	Electronic merchandise tags, baggage screening
6. Formal surveillance	Red light and speed cameras, security guards
7. Surveillance by employees	Park attendants, CCTV on double decker buses
8. Natural surveillance	Street lighting, defensible space architecture
C) Reduce anticipated rewards of crime	
9. Remove targets	Phonecards, removable car radios, women's refuges
10. Identify property	Vehicle licensing, property marking, car parts marking
11. Reduce temptation	Rapid repair of vandalism, off-street parking
12. Deny benefits	Ink merchandise tags, PIN for car radios, graffiti cleaning
D) Remove excuses of crime	
13. Set rules	Hotel registration, customs declaration, codes of conduct
14. Alert conscience	Roadside speedometers, 'idiots drink-and-drive' signs
15. Control disinhibitors	Drinking age laws, car ignition breathalyser, V-chip in TV
16. Assist compliance	Litter bins, public lavatories, easy library check-out

Another way of representing Clarke's typology is by level of measure and mechanisms. This is shown in Figure 3, for increasing the perceived effort and risk of crime (A and B in Table 5), and by implication reducing anticipated rewards (C) also, and in Figure 4 for removal of excuses (D). Here we show the underlying logic of situational crime prevention. The various tactics, for example the introduction of steering column locks, lead to an increase in the perceived effort of crime, which in turn alters the cost benefit assessment by the potential offender and hopefully reduces the likelihood of the potential offender choosing to offend. The top line, labelled

'activity', refers to what is put in place, for example the fitting of steering wheel locks. The second line, 'M1', refers to the mechanisms behind the activity. That is, it describes what the activity does to prevent crime. The steering wheel lock hardens the car as a target of crime. The question then is, 'What is it about target hardening that reduces crime?' This is described as 'M2'. 'M2' is the mechanism behind 'M1'. Target hardening increases the perceived effort that offenders will need to make to commit their crime – in this case the perceived effort to steal a car. This is a deeper mechanism than that described as 'M1'. It is more general and comes closer to capturing the underlying change in reasoning and resources that are brought about by introducing steering wheel locks. Yet we can still ask what it is about increasing perceived effort that reduces crime. This is described as 'M3'. 'M3' is the mechanism behind 'M2'. Increasing perceived effort alters the cost-benefit balance facing the prospective offender. Effort comprises a cost. Perceived effort comprises a perceived cost. A sufficient change in perceived costs will alter the balance sufficiently for a subset of offenders to decide not to commit that crime and presumably to switch their behavior to something else which then becomes the action that yields the best perceived outcome. 'M3' is more general than 'M2'. It is also 'deeper' than 'M2'. It explains how 'M2' works. It gets close to basic causal mechanisms lying behind human action. Altering perceived risk and reward levels also potentially changes the balance of perceived costs and benefits of criminal (or any other) behaviour. It thus lies behind M2 (decreasing perceived reward) and M2 (increasing perceived risk) as well as M2 (increasing perceived effort). Planning tactics and anticipating impacts from them involves working through how measures may plausibly be expected to trigger change mechanisms amongst those whose behaviour is targeted. Unless there are a priori (or preferably research-based) grounds for believing that the measures will trigger underlying preventive mechanisms to generate changes, introducing them will involve the use of blind faith, or at best unformulated 'horse sense'!

Figure 3 shows how a range of situational measures is ultimately underpinned by a basic mechanism: 'altering the cost benefit calculations' made by potential offenders. Figure 4 tries to show how other situational measures are ultimately underpinned by a somewhat different basic mechanism: 'making criminal behaviour normatively unacceptable' to potential offenders.

Figure 5 extends the situational classification a little further and refers to the ways in which situational tactics may be used to 'design out' the frustrating situations that can lead to aggressive behaviour or incivilities. In Figure 5, the basic underlying mechanism is 'removal of emotional arousal'. It is effected through a reduction in provocation, which is brought about by, for example, spatial separation.

Figure 3: Situational crime prevention tactics: rational choice related measures and mechanisms

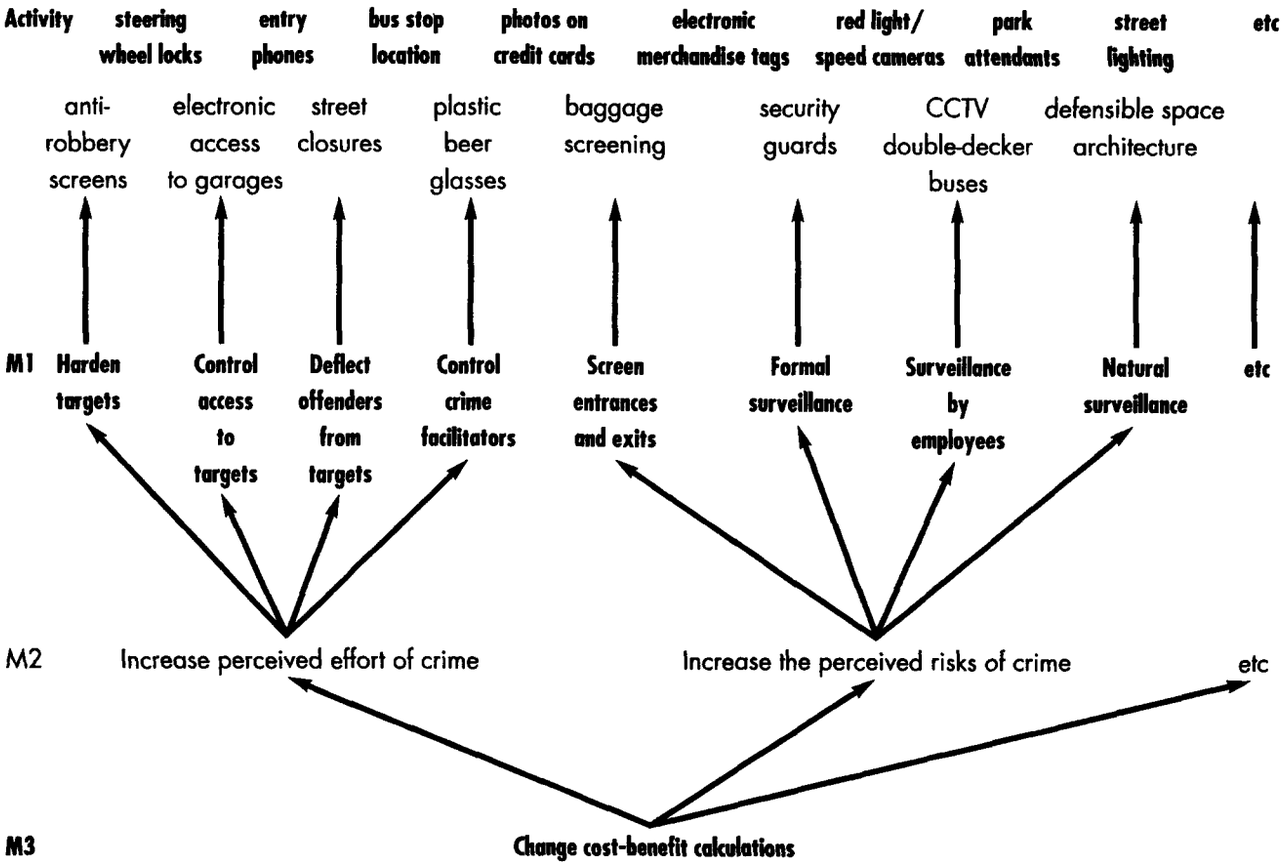


Figure 4: Situational crime prevention tactics: norm-related measures and mechanisms

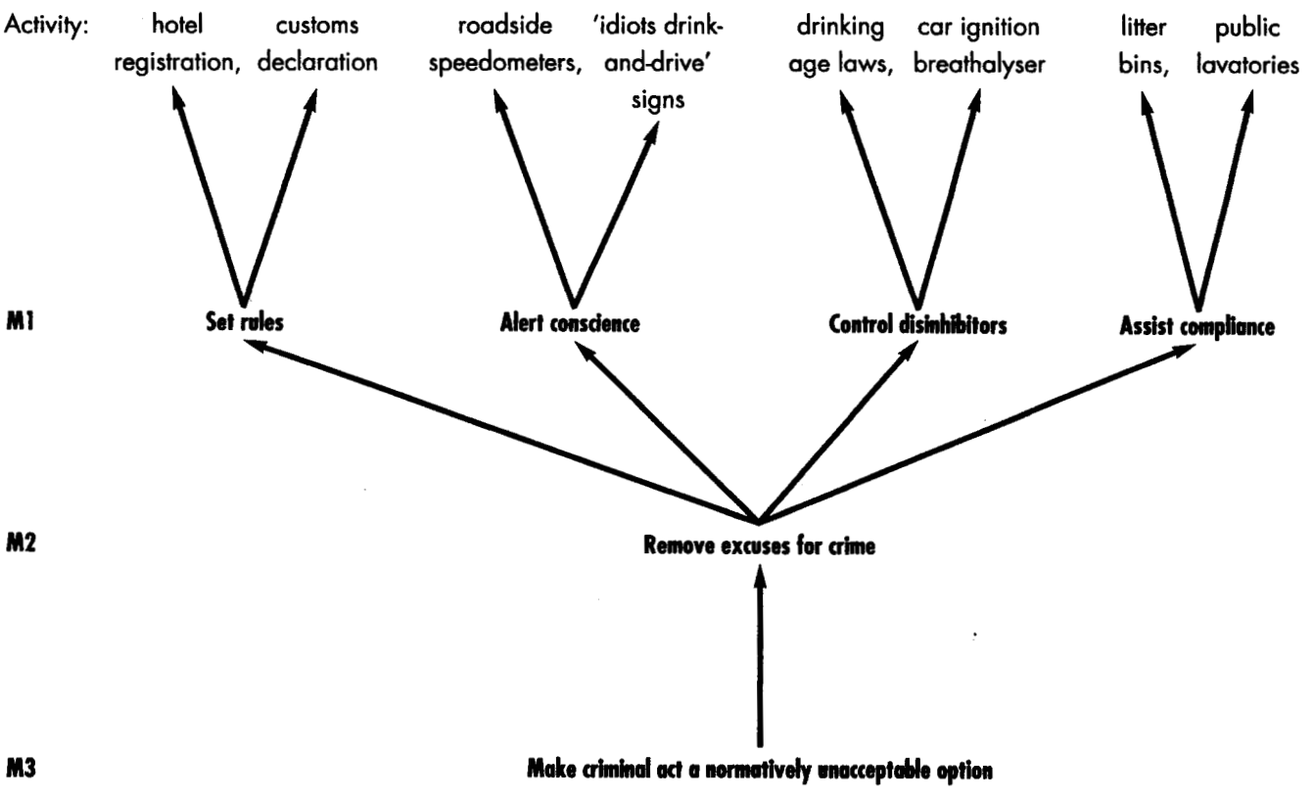
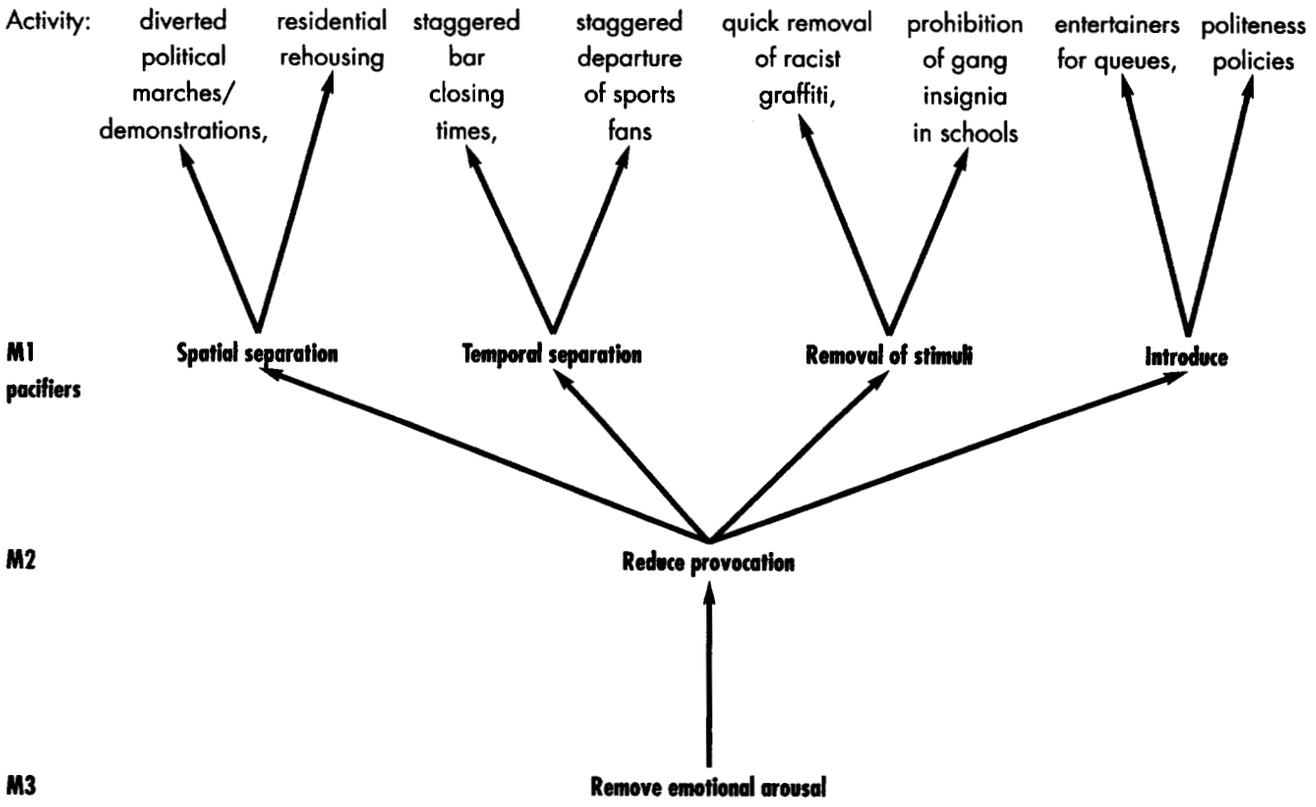


Figure 5: Situational crime prevention tactics: provocation related measures and mechanisms



Situational crime prevention requires careful analysis in deciding on tactics. It advocates looking in detail at specific crime problems. This is to understand how potential offenders encounter opportunities in which committing a crime makes sense to them, i.e. when they judge likely benefits to outweigh effort and expected risks and where offenders' notions of what is acceptable behaviour for them do not inhibit them. Let us take the publicity associated with drug abuse as an example. Much of this publicity draws attention to the increase in the abuse of drugs, particularly by young people. What might be the effect of this on a teenager's perception of drug abuse? Might they think that it was becoming 'normal' for young people to take drugs? Everyone else is doing it – why aren't they? Would this publicity accord with the messages they are getting from their friends, who may be experimenting with drugs? Would they, in other words, be more likely to experiment following the kind of publicity we normally associate with drug taking, or not?

The analysis reveals how the context shapes opportunities that lead to patterns of criminal behaviour. The issue for tactic development is to find manipulable features of the problem context that will significantly change potential offenders' reasoning and lead to their committing fewer crimes. Possibilities will often emerge where there is some conspicuous and clear aspect of the context that is creating crime opportunities and that can be altered to reduce them. In hindsight these can seem to be all too obvious:

- Making coins visible in parking meters, where many 'slugs' were being used, increasing risk (Decker, 1992)

- Improving the physical security of properties repeatedly burgled, increasing difficulty (Forrester *et al*, 1990)

- Mobilising neighbours of chronic victims of domestic violence to report suspected domestic violence, increasing risk (Hanmer *et al*, 1999)

- Installing video cameras on buses where children cannot be seen by adults, increasing risk (Poyner, 1992)

- Removing pre-payment electricity and gas meters found to be broken in 40 per cent of burglaries in some public housing areas, reducing expected rewards (Hill, 1986)

In some cases the identification of manipulable aspects of the context required more lateral thought:

- Widening the aisles of markets to reduce theft from shopping bags, increasing risk and difficulty (Poyner and Webb, 1992)
- Rapid cleaning of graffiti from the New York subway, reducing rewards for perpetrators (Sloan-Howitt and Kelling, 1997)
- Redesigning the road lay-out to make it more difficult for men on the lookout for prostitutes to find and pick them up (Matthews, 1993).

Smith and Clarke (2000) point out that problems may have to be looked at in detail to work out where points of intervention make sense. As shown in Table 6, they list different problems associated with the telephone and situational crime prevention measures to address them.

Table 6: Varying phone crime problems and situational tactics developed to deal with them

Phone crime problem	Situational crime prevention method
Phone booth vandalism	Improved design, siting for sighting
Cash theft from public phones	Phone cards, stronger coin boxes
Theft of cellular phones	Phones programmed for one user
Massive phone fraud, New York bus terminal	Phones bar international calls
Jail brawls over phone use	Phones ration inmate's time
Public phones for drug sales	Removing phones, limiting incoming calls
Obscene and threatening calls	Caller identification devices
Fear of calling the police	Free private phones provided for some

In picking tactics, it is important to consider the side-effects measures may have. Several unintended downsides to situational crime prevention have been mentioned:

- that it creates a fortress society
- that it disregards human rights
- that it does not address the root causes of crime
- that it merely displaces crime.

The points about a fortress society and about loss of human rights relate to particular techniques, not to situational methods per se – it is difficult to construe widened aisles as a contribution to a fortress society or as a threat to human rights! Furthermore, the situational approach probably comes out quite well on the human rights scale when compared with some sentencing or treatment options.

The meaning of 'root causes' is not clear. At one level if there were no laws there would be no crime, but this approach would not take us very far. Accepting that crime is a legal construct, research shows that the 'causes' of crime are many and varied – poor parenting, lack of education, poverty, greed, drug addiction, genetic predisposition, and so on (Hawkins, 1996; Wilson and Herrnstein, 1985). The most significant, and universal cause is, however, opportunity. If there were no opportunities there would be no crimes; the same cannot be said for any of the other contributory causes. In so far as opportunity creates criminality by rewarding those with low motivation with success in easily chosen and completed crime, it thus comprises a root cause – as one recent paper puts it, 'Opportunity makes the thief' (Felson and Clarke, 1998). In so far as research suggests that given the opportunity few sectors of the population are above using crime opportunities, the notion that crime problems are a function only of distinctly criminal folk may be of limited value (Gabor, 1994). In so far as research reveals that in Britain as many as a third of men have criminal records by the time they are aged 35 notwithstanding low clear-up rates, criminal disposition seems to be far from abnormal (Barclay, 1993).

The most commonly raised concern with using situational tactics has been the spectre of displacement. Indeed some seem to believe that the risk of displacement seriously undermines the usefulness of situational tactics. Attention to displacement is therefore important. Were it to be the case that more harm was done by displaced crimes than had been done by those prevented, this would tell seriously against a given tactic.

It is difficult to conduct anything like conclusive research on displacement. A short thought experiment may be useful. Suppose all situational measures were to be abandoned: no locks, no customs control, cash left for parking in an open pot for occasional collection, no library checkouts, no baggage screening at airports, no ticket checks at train stations, no traffic lights, etc, would there be no change in the volume of crime and disorder? Would net safety levels remain the same? If your answer is 'No', then your assumption is that situational measures do not simply displace.

Where displacement has been looked for empirically – in relation to what seem to be the next most likely crimes, or places for crime, or methods of crime, or times of crime to those targeted with situational techniques – the findings are pretty clear. It is never the case that all crime is displaced. It is often difficult to find any displacement. Probably the best documented evidence on displacement was the finding in Britain that the installation of steering column locks only to new cars led to an increase in theft of older cars which did not have them fitted (Webb, 1994). It is worth adding that not all displacement is malign. If the displacement is to less serious crimes, or if victimisation is less concentrated on the most vulnerable as a result of displacement then it might be considered relatively benign (Barr and Pease, 1990). It needs to be recognised that at any given point in time crime distribution may in part be a function of individuals' efforts to reduce their own risks. In so far as displacement occurs this may have the unintended consequence of deflecting crime to those less able to provide their own protection. Public support for situational crime prevention, directed at those who are vulnerable and unable to afford their own protection, may compensate for existing displacement effects, even if re-placing crime somewhat.

In addition to negative side-effects, situational tactics may have positive ones also. Here the best documented relate to 'diffusion of benefits', a kind of halo effect whereby preventive effects are felt beyond their operational scope (Clarke and Weisburd, 1994). The mechanism here is often taken to relate to potential offender uncertainty over the scope of the initiative. Offenders do not know what area it covers, the crimes covered or the period of its operation (Clarke, 1997). Diffusion of benefits has been found, for example:

- In CCTV systems in a car park not covered by the cameras (Poyner, 1992)
- In CCTV systems in buses not included in a scheme (Poyner, 1992)

- In a property-marking scheme in small isolated communities for property not actually marked (Laycock, 1985)

- In police crack-downs beyond the period during which they were in operation (Sherman, 1990).

It may also be that where alterations have been made widely in vulnerability at the individual level, offenders will no longer visit an area with crime commission purposes in mind. Offenders may be deflected from areas where there has been a sufficient reduction in the availability of suitable individual targets, for example easily breached dwellings with prepayment meters containing cash. Even those without the meters, who might otherwise be selected by the burglar once in the area, will be at reduced risk. There may thus be indirect as well as direct beneficiaries. This was found in the Kirkholt burglary prevention project in Rochdale (Forrester *et al*, 1988, 1990).

Selecting tactics

Understanding local situations

There is clearly a wide range of tactics that can be applied to solve problems and to reduce crime. Routine activities theory (Cohen and Felson, 1979; Felson, 1998) posits that three conditions must converge in time and space for a direct contact predatory crime to occur. These comprise presence of likely/motivated offender; presence of suitable target; and absence of an effective intermediary either capably to 'guard' (protect) the victim or intimately to 'handle' (discourage) the offender.

Routine activity theory can be adapted also to deal with other nuisances. It prompts attention to the attributes of the victim, complainant, or target in relation to any problem.

- How come the victims, complainants or targets are present alongside the likely offender without any effective intermediary? What makes for the victim/target's apparent suitability to the co-present offender?

- How come likely offenders are alongside suitable targets, and vulnerable potential victims without any effective intermediary? What makes the potential offender likely to act offensively or 'offendingly' when alongside the suitable victim/target?

- How come there are places and times when likely offenders encounter suitable targets for crime in the absence of effective intermediaries?

Routine activities theory stresses that in the absence of any of the three crucial conditions for a crime or problem, it will not exist. In effect it gives three bites at the preventive or problem-solving cherry. The tactics outlined all refer to actions that disrupt what Felson (1998) refers to as the crime chemistry – the way the crucial ingredients for crime are brought together and generate patterns of crime events.

As with medicine, there are in principle various potential points of intervention in relation to a given problem. No tactic is likely to be effective in all circumstances. There are no panaceas. Instead situations, like diseases, need to be analysed and judgements made about which tactics have promise. The difference between medicine and policing is that bodies and biochemistry tend to be relatively stable, whilst crime and criminality tend to be relatively volatile. The problem-solving and preventive issue, however, remains the same – that of finding which tactic types can be made to work in which conditions.

The tactics described potentially trigger preventive and problem-solving mechanisms along the lines already indicated. The particular crime contexts need to be understood to determine which are needed and which have promise in relation to any specific problem or area. The science and art of problem-solving comprises informed and evidence-based deployment of tactics in relation to the strategy being used to address a problem.

The tactics time course

There is a characteristic life cycle for crime prevention interventions. Crime rates fall quickly, the effect fades and crime begins to rise again, though often not reaching the original rates (Berry and Carter, 1992). There are several possible explanations for this pattern:

- 'regression to the mean' – preventive plans are often made during crime and disorder peaks after which there is a natural 'fall' back to the prevailing, normal rates.

- implementation fade – early enthusiasm, leadership and drive may fall, and with it impact will drop

- publicity – the initial high falls shown in the impact time course may be a function

of the publicity associated with the initiative (perhaps triggering changes in offender expectations about risk, effort and reward levels)

- new blood – fresh young offenders become available, who were not aware of the publicity that may have been associated with an initiative

- offender uncertainty and adaptation – offenders may take time to adapt to changed conditions for crime, and renewed criminal behaviour may take place only once adaptation to the new circumstances has occurred .

Whilst short-term falls may be welcome for the crimes and nuisances 'saved', it is clearly preferable to achieve sustained reductions. The precise design of the tactics chosen, methods of implementation, and mixes of tactics can all help avert the tendency for impact to fade.

Design of tactics

The design of some measures makes impact fade unlikely. The introduction of parking meters with windows that show the coin that has been inserted makes the use of substitute slugs pointless, and a measure such as this is unlikely to fade. Similarly, the complete removal of a potential crime target, such as prepayment coin meters, is not likely to fade.

Methods of implementation

Creating a break in the processes of reproducing criminal capacity can effect longer-term falls. Clarke (1995) compares the ways in which steering column locks were introduced in Germany and the UK. In Germany, the steering wheel locks were introduced to all cars, but in the UK only to new ones. In Germany, the cycle of offender reproduction and skill acquisition was in effect broken. In the UK, as already noted there was displacement of theft to older cars. Here, the offending community was reproduced as new young offenders were drawn in and there was successful adaptation to the steering wheel lock. In Germany, the normal impact time course did not happen, in the UK it did. Reapplying measures systematically may create a sustained effect. Sherman (1990) discusses ways in which crackdowns can be deployed to maximise the time during which they have an effect. By trumpeting their arrival before they take place and withdrawing without announcement, the effects can be prolonged. Moreover, offender uncertainty can be enhanced by random re-applications of the crackdown. Measures to reinforce credibility can maintain effects longer. Homel (1993) shows how random breath tests, applied at a high rate over a long period in New South Wales, have led to long-term reductions in drink-driving and corresponding falls in fatalities on the road.

Mixes of tactics

The 'weed and seed' programs in the US and their 'crackdown and consolidation' counterparts in the UK describe efforts to use short-term impacts as a basis for putting in place changes expected to have longer-term effects. In both cases, the idea is to devote substantial efforts to enforcement in local areas to create conditions where the capacity of the local community to exert control over criminal and disorderly behaviour can be built (see Tilley and Webb, 1994; Morris, 1996).

4. A practical example: domestic burglary

In this section we take the aim of reducing domestic burglary and discuss the way in which the problem can be more carefully defined, and effective tactics introduced in different contexts, using the mechanisms described. We also consider some approaches, which contrary to expectation, did not work. The reasons for their apparent failure are illustrative of the need to work through the kind of procedure outlined in the previous section and to spell out the mechanism through which the tactic is expected to have an effect.

A popular approach to the prevention of domestic burglary or housebreaking is Neighbourhood Watch or block watch (referred to as NW throughout the remainder of this section), but a number of careful evaluations (e.g. Rosenbaum, 1988; Bennett, 1990) have demonstrated that this approach does not appear to work in reducing the problem. Why is that?

NW depends for its effect on (actual or perceived) surveillance. It is assumed that someone is watching an offence take place and that they can in some way respond appropriately – either themselves or by calling the police. That is the mechanism through which it is expected to have an effect.

NW is relatively easy to introduce in low to medium crime areas where this mechanism is probably already operating. Here Neighbourhood Watch is doing no more than formalising the *status quo*. It is acknowledging that members of the community work with the police, and it is signalling this to potential offenders by means of street signs and window stickers. The majority of NW schemes can be found in low crime areas, and the majority of evaluations of NW have been carried out in low to medium crime areas where what is being tested is the marginal effect of the window sticker, perhaps a road sign, the possible involvement of a few extra households and a heightened awareness of burglary. These, in combination, do not add significantly to the already operating mechanism and this arguably accounts for the mixed results of experiments which purport to test whether NW 'works'.

NW is much less common in higher crime areas (Dowds and Mayhew, 1994) where it is more difficult to establish for a variety of reasons (Laycock and Tilley, 1995a). In these areas the police are less welcome, the community may be afraid to involve the authorities for a variety of reasons including fear of reprisals, and the burglars may be neighbours or local people who are known to the victim. It is not then a matter of watching out for strangers, but of being prepared to point the finger at local offenders and to stand up in court as a witness. The possibility of victim and witness intimidation is a significant feature in some of the worst areas (Maynard, 1994). NW is thus much more difficult to introduce in high crime areas and goes some way to explaining the relative lack of such schemes there. It illustrates the importance of understanding the interplay between the mechanism and the context.

Table 7 (taken from Laycock and Tilley, 1995a) illustrates the different reasons for introducing NW in different contexts, and the possible effects of doing so.

Table 7: Policing and Neighbourhood Watch – a strategic framework

Crime Level	Strategic objective	Characteristics	Level of police involvement
Low	Keep crime rate low Maintain public confidence Guard against vigilantes Maintain good police/ public relations Reduce fear of crime	Run by community Capable of self-funding Respond rapidly should the need arise Emphasis on partnership with the police Minimal involvement of other agencies NW signs displayed	Support on request Encourage volunteers 'Standard pack' NW Request help from community when need arises
Medium	Reduce crime rate Maintain and extend crime free value system Increase informal social control Monitor and respond to minor nuisance and incivilities Improve police/ public relations Reduce fear of crime	Reinforce characteristics of low crime areas Fund-raising events and modest subscription Other agencies involved e.g. local authorities High profile activity with tenants' associations and community groups Able to deal promptly with vandalism and incivility	Engage other agencies Provide crime data Active encouragement of schemes on high risk estates Respond promptly to emerging crime problems Active contribution for police crime prevention specialists

Table 7: ***(continued)***

Crime Level	Strategic objective	Characteristics	Level of police involvement
High	*Local authority housing* Reduce crime Increase community control Decrease tolerance of crime and incivilities Widen and deepen public confidence in policing Reduce fear of crime	Multi-agency support e.g. local authority support, probation service input Strong community coordinators with local support groups in place Small schemes Active support for victims/witnesses Active involvement of young people in crime control	Active encouragement of schemes 'Tailor-made' schemes to reflect local circumstances Immediate feedback of successes Engage other agencies Rapid response policy on intimidation Detailed crime data provided Architectural liaison officer works with local authority
	Gentrified areas Reduce crime Increase public confidence Maintain attractiveness of inner city to high income groups Reduce fear of crime	Self-financing Small schemes NW signs displayed Good police/public communications Rapid response Encourage residents to help each other to reduce risks Encourage installation of burglar alarms	Active encouragement of schemes Domestic security surveys offered Detailed crime data provided

A particularly successful approach to reducing domestic burglary is to target victims and do whatever needs to be done (given the local context) to ensure that the house is not re-burgled. Pease and his colleagues pioneered this approach, working in the UK. The first project was set on a high crime public housing estate in the North of England, covering about 2,000 dwellings. They began by carrying out a local crime analysis and showed that there was an unexpectedly high rate of repeat burglary on the estate. Once victimised there was a higher than expected chance of a repeat. The researchers, working with the local police and the local government housing officers, set about protecting the victims by whatever means seemed appropriate given their particular circumstance (Forrester *et al*, 1988; 1990).

The tactics and mechanisms varied with the individual incident, but the intention was to protect victims. Some generalisations were, nevertheless, possible. For example, homes were quickly repaired following the break-in, since the crime analysis showed that the second offence often followed quite rapidly after the first. A system of 'cocoon watch' was also introduced, which involved the victim and his or her immediate neighbours, in what might be called a mini-neighbourhood watch. With the approval of the victim, the neighbours were informed of the incident and asked to watch out for further offences. They effectively 'cocooned' the victim. So two mechanisms were operating – target hardening which invokes an *it's too difficult mechanism*, and cocoon watch, which increased the perceived or actual risk of capture and influenced the potential offenders' decision processes – the *reduced odds of getting away with it* mechanism.

The *problem specification* was to reduce domestic burglary by protecting victims (it having been demonstrated that repeat victimisation was a feature in the area). The *tactics*, which in this case were effective, depended upon the circumstances of the individual victim but included cocoon watch, rapid repairs of damaged property and target hardening. The *mechanisms* involved raising the anxiety of the potential offender by increasing the likelihood of observation through cocoon watch and making it more difficult to enter the property through target hardening. The outcome of this particular program was a 75 per cent reduction in domestic burglary over the following three years.

This problem specification, of reducing burglary by protecting victims, was *replicated* in a follow-up project set in a different part of the country, covering a wider area, with a lower overall crime rate (Anderson *et al*, 1995; Chenery *et al*, 1997). In this case, although the *problem specification* was, again, to protect the victims of burglary, the deployed *tactics* were different, reflecting the changed context. In this replication area, which covered a

whole division serving a population of 220,000, the police adopted what became known as the 'Olympic model' as set out in Table 8 (adapted from Chenery *et al*, 1997). A different tactic was adopted depending upon how many times the home had been burgled previously. These prior victimisations constituted a changed context. After a first burglary a 'bronze' response was adopted which involved providing fairly standard crime prevention advice to the victim and carrying out routine police activities such as checking known informants and stolen goods outlets. Cocoon watch was also adopted where appropriate and rapid repairs were carried out in local authority owned property, with a security upgrade if appropriate.

If this approach failed, and a second burglary was carried out, then a 'silver' approach was adopted, which included visits from a police crime prevention expert, targeted police patrols and the installation of a monitored alarm. A further burglary resulted in a 'gold' response, which concentrated effort on catching the perpetrator. A tracker device might be installed in high value portable goods, for example, and other technical solutions introduced aimed at detection.

Table 8: Burglary reduction tactics by context

Bronze – first burglary	Silver – second burglary	Gold – third and subsequent burglary
Victim letter, property-marker pen and crime prevention advice	Visit from police crime prevention officer	Further visit from police crime prevention officer
Discount vouchers for security equipment	Search warrant	Priority automatic fingerprint search
Informants check	Installation of monitored alarm	Installation of high-tech equipment e.g. covert alarms and cameras
Early check on known outlets Targeting of offenders	Police watch visits twice weekly	Police watch daily
Loan of temporary equipment such as timer switches and dummy alarms	Security equipment loan	Index solutions 'Tracker' installed in vulnerable equipment
Cocoon watch		
Rapid repairs		
Security upgrading		

The survey of UK police described earlier and reported upon by Farrell *et al* (2000) also looked at the tactics being adopted to deal with repeat burglary. Table 9 gives the results and illustrates the wide range of tactics being adopted in relation to this problem. There were no data available from the Farrell report on how effective any of these approaches were proving to be.

Table 9: Tactics to protect victims from revictimisation

Tactic	Activity (Number of Forces)
Crime prevention measures implemented	Home Office alarm installation (27), alarm installation (13), pens for property-marking supplied (5), shriek alarms (1), carelink alarm installation (1), mobile phones for vulnerable (1).
Surveillance	NW (30), cocoon watch (18), CCTV – permanent and mobile (8), police directed patrols (28), watch schemes (2).
Other police action	Detective inspector/ crime manager notified (22), offender targeting/disruption (14), house-to-house enquiries – burglar alert (12), priority fingerprint search (11), LIO checks (8), property outlets checked (7), risk assessment at the response (6), tasking/cultivating informants (5), regular police contact with victim (4), aide-memoires for victim to help risk assessment (3), aide-memoire for officers (3), search warrant expedited (2), prison visits to identify opportunity causes (2), witness liaison (1), digital cameras for briefing (1).
Crime prevention advice(generally target hardening)	Crime prevention advice packs (25), CPO visit and advice (25), CP advice by SOCO (24), CP advice at the response (23), other means of advising on CP (16), letter to victim suggesting rv is possible (15), property surveys (12), property-marking scheme advice (11), advised re risk of rv (10), burglary pack given (9), victim's letter shows rv status noted (7), info on support organisations given (3), holiday crime prevention packs given (2), business leaflets given with council tax bills (1).
Partnership activity	Victim Support activity (28), local authority activity (26), repair schemes (15), Bobby van/age concern (11), social services activity (9), crime prevention panel/trust activity (6), Age Concern activity/Help the Aged (4), work by volunteers (2), environmental health (2), Probation Service activity (2), diversion scheme (1).

Notes to Table 9: Number of forces reporting each activity are shown in parenthesis. CP = crime prevention; CPO = Crime Prevention Officer; SOCO = Scenes of Crimes Officers (forensics); LIO = Local Intelligence Officer, rv=repeat victimisation.

Forces adopted a mean of three of the listed tactics, with a minimum of zero (by three forces) and a maximum of five (by six forces). Not all activities related to protecting the individual victim or place directly. The most popular activity, for example, was Neighbourhood Watch, which clearly operates on a neighbourhood basis. It is probable this tactic was in place or planned regardless of the repeat victimisation strategy and was therefore independent of it. The second most popular activity was visits by Victim Support, which as with directed patrols, was reported by 28 forces.

Table 9 outlines broad tactics showing specific activities within them, which could, in the right conditions, trigger mechanisms preventing repeat victimisation. Some of the mechanisms potentially triggered are more direct than others, and the ordering in the table tries to reflect this to some extent: implemented crime prevention measures come first, followed by surveillance, then other police action, crime prevention advice and partnership activity. Clearly there is variation within groups as well as between. The category 'partnership activity' is particularly problematic in this respect since there is nothing in partnership activity per se which would reduce crime; it is what the partnerships do, or facilitate, that might lead to activation of an effective crime reduction mechanism.

But what does Table 9 tell us about activities? For the most part it tells us that a wide range of activities are underway, although it is difficult from this snapshot to determine which specifically focused upon repeat victimisation. This limits possible inferences about effectiveness. Perhaps one of the more surprising points arising from Table 9 is the extent of 'other police action', which is mainly about detection. At one level it is hardly surprising that the police should include detection in their strategic approach to crime control! What makes it remarkable in this context is that there is so much of it in response to a question on crime reduction. For many years prevention has been characterised as the Cinderella of policing. The crime prevention side of the business was not valued as highly as the detection side. The suggestion from Table 9 is that the two worlds are coming closer. Detection and prevention are finally being seen as both necessary and complementary to a holistic approach to crime management.

5. Conclusion: where next?

We have been at pains in this report to describe the process of problem specification and the development of tactics to address specified problems. Both processes are necessary to the successful delivery of a crime reduction project. If crime fails to be reduced following an intervention, it may have been because the problem was not properly identified, or because the tactics which were intended to address it were inappropriate or not properly implemented. This raises issues for determining effectiveness. It makes sense to ask whether a particular tactic led to a reduction in crime, but the tactic needs to be defined in relation to the problem and be clearly related to it.

There is good evidence that addressing the kinds of problems we have outlined could pay off – we know that crimes cluster; we know that victims are at increased risk of further victimisation; we know that prolific offenders exist and can be identified; we know that problems recur. There is no reason to doubt that addressing these issues would reduce crime. The caveat to this assertion is that these relationships, which are generally present, are also a feature in any proposed project area through an analysis of the local crime data.

The major difficulties arise in deciding on the tactics to direct at a specified problem. This calls for judgement and requires an understanding of the mechanism through which the tactic is expected to work and the conditions in which its introduction is being contemplated. It requires the identification, or perhaps the redirection of existing resources.

Prerequisites for implementing effective problem specification and tactics

This paper has been primarily about *doing* effective evidence-based problem-solving and crime prevention. Its rationale lies in the findings of recent reviews that practice is generally weak (Read and Tilley, 2000; Scott 2000; Tilley *et al*, 1999). The paper has not been about organisational structures and systems. We recognise, however, that though not sufficient for it, there are certain minimal requirements or background organisational conditions which are necessary to success. This following section briefly highlights some of these conditions, though space does not permit their full discussion here.

Strategic planning capacity

If police and partnerships are to adopt this approach as a matter of routine, there needs to be capacity for strategic thinking at the appropriate level. In the UK the currently most relevant policing level would be the basic command unit, to which, in many forces, resources are now delegated. For partnerships it is the district level local authority area at which statutory responsibility is pitched. In a small US police agency it might be at Chief Officer level whilst in the larger agencies it might be at precinct or district level. At whatever level, the individual or group carrying out this function needs to be 'research-literate' – they need to know what the research literature has to say about problem specification and tactics, mechanisms and contexts. They also need to be sufficiently senior - carry enough clout - to be able to direct the use of police and other resources and, when relevant, to relate to other potential contributors to any strategic plan.

Data and intelligence

Good data on crime, and intelligence on criminals, are prerequisites to effective crime control. The (British) Crime and Disorder Act (1998) has provided a useful impetus to data collection and analysis through its requirement for a crime reduction strategy based on a crime audit. Although all local partnerships have now produced their strategies, they are variable in quality. There is a serious skills shortage at local level, which is now being addressed through the crime reduction program (Tilley *et al*, 1999). In some cases it falls to the police to provide the appropriate skills base. Crime analysts, for example, form part of the police organisation, but they need to work more proactively if they are to deliver what is required (Read and Oldfield, 1995).

Similarly in the US, the Crime Act has provided an impetus for the police to collect and analyse data but there are skills shortages at local level. Advice is being provided through a variety of means including the National Institute of Justice's Crime Mapping Research Center and a number of federally sponsored local research/practitioner partnerships.

Leverage

It is now generally acknowledged that the police alone can have only a very partial effect on crime levels. They have limited detection and arrest capabilities. Moreover, enforcement is a relatively inefficient means of crime prevention. Pre-emptive tactics against crime generally call for actions beyond the direct control of the police. For this reason, partnership has been emphasised increasingly over the past two decades, and has become ubiquitous in Britain where it has been put on a statutory footing. This growth in partnership

working should increase the likelihood that others will accept their crime reduction responsibilities. However, not all of those who can act belong to partnerships and of those who do belong, some may still be reluctant to incur the costs of prevention. Under these circumstances leverage may be necessary. As with prevention itself, the police may sometimes provide leverage directly on their own, and they may sometimes apply it with the help of collaborating partners. Police and partnerships need to get better at exercising their considerable leverage to persuade hesitant agencies, institutions and individuals to play their part (Laycock, 1996). There are several well-documented examples (see, for example, Laycock and Tilley, 1995b) where leverage has led 'reluctant' partners to take action, when they may not have been keen to do so for financial or other reasons. Successful problem-solving requires familiarity with and skills in leverage. It is not enough to explain failure by referring to others' failures to act. Effective problem-solving includes finding ways to persuade them to do so.

Checklists for effective evidence-based problem-solving

We conclude with two checklists. The first is for police agencies and local partnerships to check that they are set up to deliver effective evidence-based practice. The second is for those trying to address problems, to check that what they are doing makes sense.

Table 10: Checklist for police agencies and partnerships

Key issues	Dealt with?
Is there access to up-to- date research findings about crime and disorder problems?	
Are personnel in post with knowledge of the established research literature about the nature of crime problems? Do they have the opportunity regularly to update their understanding?	
Is there easy access to online sources of information about crime problems, such as that from the Home Office and NIJ?	
Are crime and disorder relevant data collected, recorded, and stored in ways that facilitate their analysis for problem-solving and preventive purposes? Is flexible analytic software available to test hypotheses about patterns? Do staff have the skills to make best use of the data and analytic software?	
Are personnel in post whose job it is to identify local, evidence- based crime and disorder patterns?	
Do staff have a grasp of the research literature on crime and disorder change mechanisms, on the contexts in which they can be activated, and the means of activating them?	
Do staff have a grasp of the research literature on the potential unintended consequences of crime and disorder change methods, and the contexts in which the are likely to be brought about?	
Are staff encouraged to think laterally about ways of applying crime and disorder prevention principles in new situations?	
Do staff have the ability, knowledge, and motivation to think critically about alternative intervention options?	
Is there provision for identifying and applying levers to those whose behaviour needs to change if crime and disorder problems are to be addressed effectively?	

Table 11: Checklist on problem specification and tactics for problem-solvers

Key Questions	Answered satisfactorily?
Regarding problem specification:	
Has reputable research been consulted concerning the typical attributes of the problem? What is it?	
Has local research been undertaken to find out whether these attributes exist in your particular circumstances? Summarise it.	
Have local data been analysed to find out whether there are special conditions particular to your problem? Summarise it.	
Regarding tactics:	
Have reputable studies of similar problems been traced and read? List them and summarise their main findings.	
Have potential change mechanisms, that have successfully been activated elsewhere, been identified? What are they?	
Have potential means of triggering these mechanisms been identified? What are they?	
Has the local context been analysed to determine whether these measures are likely effectively to activate the change mechanisms? What are the key features of the context?	
Has the possibility of triggering mechanisms producing unwanted side-effects been considered in the local problem's context? What evidence is there that they can realistically be expected? What are they and what effects might be expected? How might they be avoided?	
Has the possibility of triggering mechanisms producing beneficial side-effects been considered in the local problem's context? What evidence is there that they can realistically be expected? What are they and what effects might be expected? How might they be enhanced?	
What specific intended and unintended effects are expected, at what time, for which groups as a result of the proposed tactics?	

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