Police Research Series Paper 98

Opportunity Makes the Thief

Practical theory for crime prevention

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Policing and Reducing Crime Unit: Police Research Series

The Policing and Reducing Crime Unit (PRC Unit) was formed in 1998 as a result of the merger of the Police Research Group (PRG) and the Research and Statistics Directorate. The PRC Unit is now one part of the Research, Development and Statistics Directorate of the Home Office. The PRC Unit carries out and commissions research in the social and management sciences on policing and crime reduction, broadening out the role that PRG played.

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Forewor d

Along with personal and social factors that are usually thought of as causes, this report makes the case for seeing opportunity as a third principal cause of crime. Combining the wisdom from several recent and converging opportunity theories, this report is timely in view of the local crime and disorder strategies that will have to be developed over the next few months. It improves our understanding of how opportunities to commit crime contribute to criminal motivation, and provides a perspective for developing workable solutions to prevent specific crime problems.

S W BOYS SMITH

Director of Police Policy Home Office November 1998

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Executive summar y

Crime theory can and should assist crime prevention. Recent "opportunity" theories of crime have emphasized principles which are close to the real world, easy to explain and teach, and ready to put into practice. They include the routine activity approach, the rational choice perspective, and crime pattern theory. These theories build on the old saying that "opportunity makes the thief." They are described in this publication, which argues that opportunity is a "root cause" of crime, and illustrates how the theories assist thinking about crime prevention.

Ten principles of crime opportunity theory are presented in this publication:

- 1. Opportunities play a role in causing all crime not just common property crime. For example, studies of bars and pubs show how their design and management plays an important role in generating violence or preventing it. Studies of credit card and other frauds identify security loopholes that can be blocked. Even sexual offenses and drug dealing are subject to opportunity reduction.
- 2. Crime opportunities are highly specific The robbery of post offices depends upon a different constellation of opportunities than for bank robberies or muggings on the street. Theft of cars for joyriding has an entirely different pattern of opportunity than theft of cars for their parts, and different again from car theft for sale abroad. Crime opportunity theory helps sort out these differences, which need to be understood if prevention is to be properly tailored to the crimes in question.
- 3. Crime opportunities are concentrated in time and space. Dramatic differences are found from one address to another, even within a high crime area. Crime shifts greatly by hour of day and day of the week, reflecting the opportunities to carry it out. Routine activity theory and crime pattern theory are helpful in understanding the concentration of crime opportunities at particular places and times.
- 4. Crime opportunities depend on everyday movements of activity Offenders and their targets shift according to the trips to work, school, and leisure settings. For example, pickpockets seek crowds in the city centre and burglars visit suburbs in the afternoon when residents are at work or school.
- 5. One crime produces opportunities for another There are many ways in which this can occur. For example, burglary tends to set up conditions for buying and selling stolen goods and for credit card fraud. Pimping and prostitution can bring assaults and robbery in their wake. A successful break-in may encourage the offender to return at a later date. If a youth has his bike taken, he may feel justified in stealing another one in replacement.

- 6. Some products offer more tempting crime opportunities. These opportunities reflect particularly the value, inertia, visibility of, and access to potential crime targets. For example, VCRs are high in value and low in inertia (they can easily be carried), and are often left in visible and accessible locations. This helps explain why they are so frequently taken by burglars.
- 7. Social and technological changes produce new crime opportunities. Any new product goes through four stages: innovation, growth, mass marketing and saturation. The middle two stages tend to produce the most theft. Thus when laptop computers first came on the market, they were rather exotic machines appealing to only a few consumers. As their price declined and more people began to understand their uses, the market for them began to grow. At the same time, they began to be at risk of theft. These risks remain high at present while they are being heavily promoted and are much in demand. As their price reduces further, and most people can afford them, their risks of theft will decline to levels more like those of calculators and other everyday business aids.
- 8. Crime can be prevented by reducing opportunities. The opportunity-reducing methods of situational crime prevention fit systematic patterns and rules which cut across every walk of life, even though prevention methods must be tailored to each situation. These methods derive from rational choice theory and aim, (i) to increase the perceived effort of crime, (ii) to increase the perceived risks, (iii) to reduce the anticipated rewards, and (iv) to remove excuses for crime. Thus situational crime prevention is not just a collection of ad hoc methods, but is firmly grounded in opportunity theory. There are approaching one hundred evaluated examples of the successful implementation of situational crime prevention.
- 9. Reducing opportunities does not usually displace crime. Evaluations have usually found little displacement following the implementation of situational prevention. No studies have found displacement to be complete. This means that each person or organization reducing crime can accomplish some real gain. Even crime which is displaced can be directed away from the worst targets, times or places.
- 10. Focused opportunity reduction can produce wider declines in crime. Prevention measures in one location can lead to a "diffusion of benefits" to nearby times and places because offenders seem to overestimate the reach of the measures. Moreover, there is good reason to believe that reductions in crime opportunity can drive down larger crime rates for community and society.

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A. Introduction

Criminological theory has long seemed irrelevant to those who have to deal with offenders in the real world. This irrelevance stems partly from attributing the causes of crime to distant factors, such as child-rearing practices, genetic makeup, and psychological or social processes. These are mostly beyond the reach of everyday practice, and their combination is extremely complicated for those who want to understand crime, much less do something about it. In this publication, we shall show that understanding crime causation is not necessarily burdensome and that this understanding is relevant to the routine prevention work undertaken by police and others. In brief, we will argue that "opportunity makes the thief" is much more than just an old saying and has important implications for crime policy and practice.

Individual behavior is a product of an interaction between the person and the setting. Most criminological theory pays attention only to the first, asking why certain people might be more criminally inclined or less so. This neglects the second, the important features of each setting that help to translate criminal inclinations into action.

This preoccupation with criminal inclinations has produced a lop-sided picture of the causes of crime, but this is being corrected in new work by environmental criminologists, showing how some settings provide many more crime opportunities than others. Yet critics often downplay opportunities or temptations as true causes of crime. To show why this is mistaken we note that no crime can occur without the physical opportunities to carry it out. Whatever one's criminal inclinations, one cannot commit a crime without overcoming its physical requirements. Since crime opportunities are necessary conditions for crime to occur, this makes them causes in a strong sense of the word. At the same time, many people from uncaring or broken homes have never committed crimes, and many people from good families in comfortable circumstances have become active offenders. No theory about individuals can claim that it has found the necessary conditions for a person to commit crime. To be sure, no single cause of crime is sufficient to guarantee its occurrence; yet opportunity above all others is necessary and therefore has as much or more claim to being a "root cause".

To offer an example of our thinking, shoplifting not only varies across individuals but also among stores. Any store that makes shoplifting easy causes more crime to occur in two ways: by encouraging more people to participate in the crime and by helping each shoplifter to be more efficient as a thief. On the other side of the coin, stores that have thwarted shoplifting with careful design and management reduce the problem by producing fewer thieves and cutting the efficiency of each offender.

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Box 1. Experiments in Temptation

The best way to establish a causal relationship is through an experiment, but it would be unethical to create new opportunities for burglary or robbery, then sit back to see what happens. But some researchers have undertaken experiments with more minor transgressions. In the 1920s, as part of the famous "Character Education Inquiry" undertaken in America, researchers gave schoolchildren the opportunity to cheat on tests, to lie about cheating and to steal coins from puzzles used. What the researchers discovered is that only a few children resisted all these temptations. Rather, most behaved dishonestly some of the time, supporting the idea that opportunities cause crime. In other experiments, researchers have scattered stamped and addressed letters in the streets to see whether people would pick them up and post them. People were less likely to post those letters they found containing money, showing their response to opportunity. People were more likely to post letters addressed to males than females, indicating that a person makes a considered decision whether to respond to temptation.

Sources:

- (1) H. Hartshorne and M.A. May. 1928. Studies in DeceitNew York: Macmillan
- (2) David P. Farrington and Barry J. Knight. 1980. Stealing from a "lost" letter. Criminal Justice and BehaviorVol 7, Pages 423-436.

Individual propensities towards crime and criminogenic features of settings, while both important, are not equally simple to analyze. The usual approach – discovering who has greater personal propensities towards crime and why – is a more formidable task. Statistical analyses to unravel individual causes are highly complicated and seem to go in circles. Articulate essays about the causes of crime may persuade one group of readers but seem to make little headway in persuading others. We see no immediate prospect of success in resolving the many controversies about what causes individual crime propensities.

On the other hand, theories about how settings cause crime are more successful, not only in gaining empirical verification but in reaching consensus. For example, we know that large pubs with many drunken young males jostling one another produce more fights. We know that the layout of certain parks or streets invites prostitution and drug-dealing. We understand some of the design and management principles that help to make public housing insecure or safe. Even when there is room for controversy and refinement, theory about crime settings has thus far escaped the state of intellectual warfare.

The theory of crime settings rests on a single principle: that easy or tempting opportunities entice people into criminal action. This principle is found in each of the new opportunity theories of crime, including the routine activity approach,

crime pattern theory and the rational choice perspective. Even though they differ in orientation and purpose, they have many common assumptions. We shall draw these out and explain how they lead to the inescapable conclusion that opportunity is a cause of crime. In arguing this, we shall show that crime opportunities are at least as important as individual factors and are far more tangible and immediately relevant to everyday life. That is why such theories are readily understandable as well as helpful for formulating practical crime control policies.

This publication is a direct response to those who criticise police and private-sector crime prevention for "neglecting the root causes of crime". This criticism erroneously assumes that the earliest and most remote causes are most significant. Instead, the more immediate causes are often more powerful in generating crime.

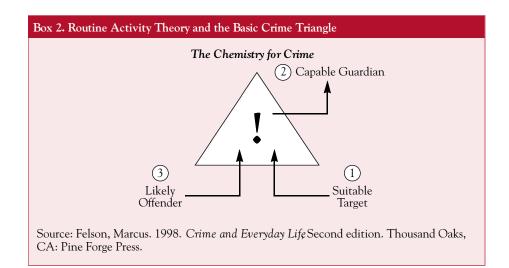
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B. The New Opportunity Theories

A remarkable convergence of crime opportunity theories is in progress. Perhaps the word "theory" is a bit grandiose, since so many loose ends remain to be tied. Strictly speaking, it makes more sense to refer to them as "approaches," since none of them is a complete and formal theory. Indeed, each of the three examines crime opportunities from a different direction and yet they arrive at the same place. We discuss the features of the three approaches in turn.

1. The Routine Activity Approach

The routine activity approach started as an explanation of predatory crimes. It assumed that for such crimes to occur there must be a convergence in time and space of three minimal elements: a likely offender, a suitable target, and the absence of a capable guardian against crime. The approach took the likely offender as given and focused on the other elements. The guardian was not usually a police officer or security guard but rather anybody whose presence or proximity would discourage a crime from happening. Thus a housewife or doorman, a neighbour or co-worker would tend, simply by being present, to serve as guardian. Guardianship is often inadvertent, yet still has a powerful impact against crime. Most important, when guardians are absent, a target is especially subject to the risk of criminal attack.



In the routine activity approach, the term target is preferred over victim, who might be completely absent from the scene of the crime. Thus the owner of a TV is normally away when a burglar takes it. The TV is the target and it is the absence of the owner and other guardians that makes the theft easier. Targets of crime can be a person or an object, whose position in space or time puts it at more or less risk of criminal attack. Four main elements influence a target's risk of criminal attack, as summed by the acronym VIVA:

- Value
- Inertia
- Visibility
- Access

All four of these dimensions are considered from an offender's viewpoint. Offenders will only be interested in targets that they *value*, for whatever reason. Thus the latest popular CD hit will be stolen more from record stores than a Beethoven CD of roughly equal monetary value, since most offenders would like to have the former but not the latter. *Inertia* is simply the weight of the item. Thus small electronic goods are stolen more than weighty items, unless these latter are wheeled or motorised to overcome their weight. *Visibility* refers to the exposure of theft targets to offenders, as when someone flashes money in public or puts valuable goods by the window. *Access* refers to street patterns, placement of goods near the door, or other features of everyday life making it easy for offenders to get to targets.

For the usual predatory crime to occur, a likely offender must find a suitable target in the absence of a capable guardian. This means that crime can increase without more offenders if there are more targets, or if offenders can get to targets with no guardians present. This also means that community life can change to produce more crime opportunities without any increase in criminal motivation.

Using this thinking and a variety of data, the routine activity approach still offers the best explanation for the rise in burglary in the United States and western Europe during the 1960s and 1970s. Included in this explanation is the finding that the best predictor of annual burglary rates is the weight of the smallest television set sold each year. Another important component of the explanation is that far more homes in this period were left unguarded in the day as more women entered full-time paid work. In fact, the most general explanation of crime rate trends is an indicator of the dispersion of activities away from family and household settings. As people spend more time among strangers and away from their own homes, their risk of personal and property victimization rises.

Although the routine activity approach begins with these ideas about minimal elements of crime and activity patterns, it ends up emphasising changes in technology and organization on a societal scale. Thus the spread of transistors and plastics to everyday products of the 1960s generated vast increases in the volume of lightweight durable goods that are easy to steal. The change in occupational structure included a major growth of the female labor force and a dispersion of women and their activities away from the safer setting of their homes. These are structural changes in crime opportunity with dramatic impacts on society.

2. Crime Pattern Theor y

Local crime patterns can tell us much about how people interact with their physical environment, producing more crime opportunity or less. Crime pattern theory, a central component of environmental criminology, considers how people and things involved in crime move about in space and time. Fitting well with the routine activity approach, this theory has three main concepts: nodes, paths, and edges. "Nodes", which is a term from transportation, refers to where people travel to and from. Such places not only can generate crime within, but also nearby. For example a tough bar may generate more crime outside the premises than inside. Thus the word "node" conveys a sense of movement and hence carries extra meaning about crime opportunities.

Each offender searches for crime targets around personal activity nodes (such as home, school and entertainment area) and the paths among them. In addition, the paths that people take in their everyday activities are closely related to where they fall victim to crime. This is why crime pattern theory pays so much attention to the geographical distribution of crime and the daily rhythm of activity. For example, it generates crime maps for different hours of the day and days of the week, linking crime to commuter flows, school children being let out, bars closing, or any other process that moves people among nodes and along paths.

The third concept of crime pattern theory, edges, refers to the boundaries of areas where people live, work, shop or seek entertainment. Some crimes are more likely to occur at the edges – such as racial attacks, robberies, or shoplifting – because people from different neighbourhoods who do not know each other come together at edges. The distinction between insiders and outsiders helps underscore the importance of edges, since insiders usually commit crimes closer to their own neighbourhoods, while outsiders find it safer to offend at the edges, then to retreat to their own areas. Most importantly, crime pattern theorists and other environmental criminologists have shown that the design and management of town, city, and business areas can produce major shifts in crime rates. For

example, it is possible to reduce crime by calming traffic and orienting windows so people can better supervise their own streets.

3. The Rational Choice Perspective

The rational choice perspective focuses upon the offender's decision making. Its main assumption is that offending is purposive behavior, designed to benefit the offender in some way. Offenders have goals when they commit crimes, even if these goals are short sighted and take into account only a few benefits and risks at a time. These constraints on thinking limit an offender's rationality. It is also limited by the amount of time and effort that offenders can give to the decision and by the quality of the information available to them. They rarely have a full picture of all the various costs and benefits of the crime.

To understand crime choices, one must always analyze highly specific categories of offence. The reason for this specificity is that offences have such different purposes and and are influenced by very different situational factors. For example, car thieves are of several different kinds, including joyriders, people stealing components or things left in the car, those stealing cars for resale or to dismantle for spare parts, those wanting a car to use for another crime, and those simply wanting to drive home. This is not to say that those who commit one type of car theft never commit another; it merely states that car theft for one purpose is quite different from car theft for an entirely different purpose and must be analysed accordingly.

Each of these offenders has to make a different calculus. Joyriders may pick a car with good acceleration that is fun to drive, while parts "choppers" may pick an older car whose parts may be valuable for resale. Those stealing a car for resale might pick a luxury car though not one so exotic as to draw immediate police attention. In choosing a vehicle for use in another crime, an offender will probably consider its performance and reliability. Those simply wanting to drive home may pick the car most convenient to steal.

Rational choice theorising in criminology is really quite down to earth, trying to see the world from the offender's perspective. It seeks to understand how the offender makes crime choices, driven by a particular motive within a specific setting, which offers the opportunities to satisfy that motive. Rational choice theory has an image of the offender who thinks before he acts, even if only for a moment, taking into account some benefits and costs in committing the offence. To be sure, the offender's calculus is mostly based on that which is most evident and immediate, while neglecting the more remote costs and benefits of crime or its avoidance. That

is why the usual offender pays rather less attention to eventual punishment or the long-term impact of drugs than to the immediate or proximate pleasures offered by the offence, or the risks that someone will thwart it on the spot.

This perspective has given rise to interviews asking each offender concrete questions about specific crimes, what he wanted, thought about, and did. For example, researchers have taken burglars around in cars, asking them specifically why they would pick one street and not another, one house and not another, one time and not another. Other researchers have gone around with shoplifters to see what items they would have selected, how this is affected by shelf placement, and how they think about their specific illegal tasks. Indeed, modus operandi is a central concern of rational choice theory in criminology. This theory and research is closely linked to situational crime prevention, which is explicitly designed to reduce crime opportunities. Indeed, if withdrawing the opportunity causes crime to go down, it becomes impossible to deny that providing more criminal opportunity causes crime to go up.

Now that we have presented the three main theories of crime opportunity, it should be evident that they do more than overlap – they have many of the same assumptions. Each one treats crime opportunity as generating crime and each pays close attention to what offenders actually do in the course of a crime. The three theories of crime opportunity can be put in order according to where they give most attention, ranging from the larger society (routine activities) to the local area (crime pattern theory) to the individual (rational choice). Together they tell us that the society and locality can change crime opportunity, while the individual offender makes decisions in response to these changes. Altering the volume of crime opportunities at any level will produce a change in criminal outcomes. Town planning, defensible space architecture, problem oriented policing, situational prevention – all of these offer methods for reducing crime opportunities. None of these methods is the focus of the current publication but any success they might have serves as a demonstration of our basic theoretical point, that opportunity is a cause of crime.

C. Ten Principles of Opportunity and Crime

We have already stated the general principle of this publication, that opportunity causes crime. This has generated ten sub-principles of crime opportunity. We devote a section to each and offer illustrations within each section.

Box 3. Ten Principles of Opportunity and Crime

- 1. Opportunities play a role in causing all crime
- 2. Crime opportunities are highly specific
- 3. Crime opportunities are concentrated in time and space
- 4. Crime opportunities depend on everyday movements
- 5. One crime produces opportunities for another
- 6. Some products offer more tempting crime opportunities
- 7. Social and technological changes produce new crime opportunities
- 8. Opportunities for crime can be reduced
- 9. Reducing opportunities does not usually displace crime
- 10. Focussed opportunity reduction can produce wider declines in crime

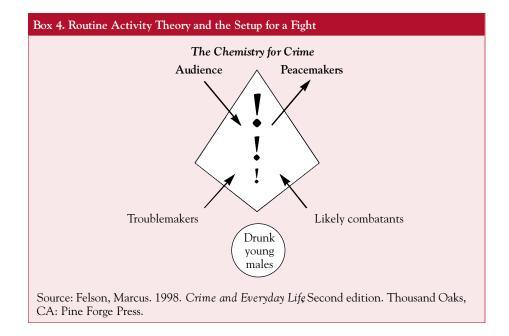
1. Opportunities play a role in causing all crime.

Many of the early examples linking opportunity to crime dealt with theft and burglary. As a result, some observers mistakenly concluded that opportunity applies only to the more common property offences. We believe that opportunity has an important part to play in every class of offence, including violence.

Home Office research has already demonstrated how to reduce the opportunity for robbing post offices, and other research has applied similar principles to convenience stores and banks. A greater challenge is to explain why people get into foolish fights and attack others with no apparent gain. Why would such violent offences reflect crime opportunities? Theorists for many years explained such violence as irrational and expressive, hence not influenced by decisions or opportunities. More recently, theorists have begun to argue that all violence involves some sort of decision. Fights are not as senseless as they may seem later or to people not involved. To understand we need to look at the offender's viewpoint and to focus on the moment of the offence and just before it. At that time, the violent person may have a grievance and the attack may be made to remedy a perceived injustice. Or the offender may wish to preserve self esteem after a perceived insult. For example, someone in a pub goes to the toilet and comes back to find his chair taken. The person who took it has made him look weak in front of others. Having had too much to drink, he impolitely asks for his chair back and gets an equally impolite response. This escalates into a fight. Although the outcome may seem silly later, it makes sense at the time to those involved.

Studies of bars and pubs have shown that their design and management can lead to violence or its absence. Violent opportunities in pubs increase when they are larger in size; are dominated by young males; have clienteles that do not know each other; make it difficult to avoid jostling others; and have untrained and inexperienced bar staff. Liquor policy can have a major impact on the opportunity for violence within pubs and in the area outside. Happy hours, late closing, pub concentration and bar hopping – all of these have an impact on the opportunity for violence.

The structure of conflicts has been studied not only in barroom settings but also in the laboratory, where researchers have shown that a young male insulting another in front of an audience will tend to receive back an insulting or aggressive response. Changing the composition of persons present – such as increasing the number of middle-aged persons and females – leads to less risk of an aggressive response. Other research confirms the commonsense notion that bigger people are more likely to hit little people, and that larger numbers of offenders are more likely to attack smaller numbers. In short, violence is strongly influenced by opportunity.



The same is also true of sexual offences. The opportunities that give rise to burglary may put occupants at risk of sexual assault, often unplanned. Children are most likely to be abused by adults who have access to them through everyday roles, and these adults need times and settings where guardians will not interfere with their crimes. Domestic violence also depends upon privacy, in particular, the absence of other family members or neighbours who might prevent the assault. Obscene and threatening phone calls depend upon telephone access and the ability of the caller to hide his own identity. Caller identification devices in the United States have removed much of this opportunity with demonstrated success.

The comparison of the United States to other nations underscores the role of guns as facilitators of homicide and aggravated assault. Homicide rates in the United States are many times higher than in Britain and other European nations. This is not because the United States is a more criminal society. If it were, rates for other crimes such as car theft and burglary would also be higher when, in fact, they are lower than in Britain and some other countries in Europe. Rather, the much higher homicide rates of the United States result from the widespread availability of handguns, which means that the opportunity to carry out a quick but deadly attack is much greater, even when the victim is stronger than the attacker.

Drug dealing and vice also depend upon opportunity. For example, drug sellers in the United States seek apartment buildings that have no building manager on the premises. Through redesign, management and patrol, drug markets have been driven out of parks and shopping malls. Street prostitution has been controlled in some settings through traffic routing to interfere with kerb crawling. Minor design changes within Manhattan's commuter bus terminal have taken away the opportunity for male prostitutes, telephone fraudsters who sell illicit phone calls, and hustlers who offer to carry people's luggage and then mug them.

The significance of opportunity for fraud and white collar crime is beginning to be studied. Tax forms making it easy to comply thereby avoid a need to threaten people with punishment. Researchers have shown that easy check cashing makes for easy check fraud. In Sweden it has been found that the opportunity for cheating the government when claiming housing allowances can be reduced by linking different computers containing information about people's stated income. This fact has been publicised so that claimants report consistent information. The phone fraud at the Manhattan bus terminal, mentioned above, was removed by programming the telephones not to call outside the New York Metropolitan Area. Refund fraud in stores has been reduced in Australia by setting up and enforcing better rules for returning goods. Employee reimbursement fraud is limited by requiring original

receipts and setting per diem rules. Multiple signatories and independent auditors help prevent larger frauds from organizations. Even construction racketeering can be lowered by changing the rules for letting out bids and checking on them.

In sum, the myth that opportunity is a cause only of theft and other common property crimes is rapidly being dispelled as environmental criminologists complete their studies into ever-widening categories of crime. Indeed, as every detective knows, opportunity plays a part in even the most carefully planned and deeply motivated offences of murder. There is no class of crime in which opportunity does not play a role.

Box 5. Suicide and Opportunity

In common with many serious crimes, suicide is usually seen to be a deeply motivated act, only committed by very unhappy or disturbed people. However, a strong and surprising opportunity component appears in gas suicide trends in this country during the 1960s and 1970s.

As can be seen from the table, in 1958 almost half the 5298 people who killed themselves in England and Wales did so by domestic gas, which contained high levels of carbon monoxide and was highly lethal. Most commonly, they would put their head in the gas oven or would lie down by a gas fire having blocked up any gaps under doors or around windows. Death would often come quite quickly, sometimes in as little as twenty minutes.

Year	Total Suicides	Suicides by Domestic Gas	Percent of Total
1958	5,298	2,637	49.8
1959	5,207	2,594	49.8
1960	5,112	2,499	48.9
1961	5,200	2,379	45.8
1962	5,588	2,469	44.2
1963	5,714	2,368	41,4
1964	5,566	2,088	37.5
1965	5,161	1,702	33.0
1966	4,994	1,593	31.9
1967	4,711	1,336	28.4
1968	4,584	988	21.6
1969	4,326	790	18.3
1970	3,940	511	13.0
1971	3,945	346	8.8
1972	3,770	197	5.2
1973	3,823	143	3.7
1974	3,899	50	1.3
1975	3,693	23	.6
1976	3,816	14	.4
1977	3,944	8	.2

Box 5. Suicide and Opportunity (continued)

During the 1960s, domestic gas became less lethal because it began to be manufactured from oil rather than from coal, and the proportion of those killing themselves with gas began to decline. In 1968, when a second major change occurred in the gas supply only just over 20 percent of suicides involved domestic gas. This second major change was the replacement of manufactured gas by natural gas from the recently discovered North Sea fields. Natural gas is free of carbon monoxide and is almost impossible to use for suicide. By the mid-1970s when natural gas had been introduced throughout most of the country, less than one percent of suicides were by domestic gas.

This finding has been confirmed in other countries where natural gas has replaced manufactured gas. What is deeply surprising is that suicides did not displace wholesale to other methods. Between 1968 and 1975, total suicides dropped by about one third from 5298 to 3693. This was during a time of much economic uncertainty when one might have expected suicides to increase and, indeed, was generally increasing in other European countries.

Why did people not turn to other methods instead? Why did they not overdose on sleeping pills, shoot or hang themselves, jump out of high buildings, or put their heads on the railway tracks? It seems that all these methods have disadvantages not possessed by gas. Overdoses require the necessary number of pills to be collected and, in any case, are a much less lethal than poisoning by coal gas. Not everyone has a gun, and these result in blood and disfigurement. Hanging oneself or jumping out of a tall building might require much courage and resolution. Clambering onto the railway may not be easy for everyone, especially older people. Domestic gas, on the other hand, is piped into most people homes and is readily available, bloodless, painless and lethal. It is easy to understand why it was the method of choice in Britain for so many years. Nor is it so surprising that when the opportunity to use it was removed, the overall suicide rate declined.

Source: Ronald V. Clarke and Pat Mayhew. The British gas suicide story and its implications for prevention. In Michael Tonry and Norval Morris (eds.), 1988. Crime and Justice: A Review of ResearchVol. 10. Chicago: University of Chicago Press.

2. Crime opportunities are highly specific

We do not believe in a single crime opportunity factor applying to all crimes. Indeed, our point is exactly the opposite. Crime opportunities are highly specific to each offence and offender subset. As a rule, crime analysts should not define the offence in legal terms, since that is not usually what the offender considers when making a decision about a crime. Thus, an offender may walk down a street of bungalows looking for something to steal, leaving it open whether to take from the garden, the drive, the carport or the house itself. Even when committing a burglary, one offender may be interested mainly in cash, while others are seeking electronic goods, and still others jewellery. Among the latter, some use what they have stolen themselves, others sell it to an acquaintance, others find second-hand stores, and yet others go to the pub or flea market to offload the stolen goods. As discussed

earlier, several types of car thieves commit exactly the same legal offence but with very different goals in mind and hence different modus operandi. This is not to say that offenders are pure specialists, since they may go looking for crime opportunities and take whichever ones come up. Even those who have one thing in mind one day may shift their attention on another day.

In general, the opportunity for crime must be evaluated for very specific categories of offence. Thus robbery of post offices, banks, people on the streets or in the stairwells of council housing, are all different crimes from the standpoint of crime opportunity theory. Their modus operandi will differ, along with the methods for reducing the opportunity. Even within these categories, smaller opportunity categories are needed. Thus the "inside-job" bank robbery must be distinguished from more common "stick ups". To be sure, some opportunity principles may fit all crimes. But even these need to be applied taking into account the specific setting and modus operandi.

Because offences differ, reductions in opportunity are also highly specific. Removing one crime opportunity may have no impact on another. For example, employing attendants to collect money at the exit of a multi-story car park may succeed in reducing the opportunity to steal a car. But this may have little effect on stealing goods left in cars parked on the higher levels. Devices that prevent stealing the car itself do not necessarily prevent breaking the window and taking the radio. Locks that prevent burglary have no impact on thefts of goods left outside in the back yard.

3. Crime opportunities are concentrated in time and space.

Just because people and property are scattered throughout the city does not mean that crime opportunities are equally distributed; quite the contrary, for the following reasons:

- Many people and things are not suitable targets for criminal attack.
- Many locations are unfavorable for crime to occur.
- A given location may be ideal for crime at one time but unfavorable for crime at another.
- Those who would discourage crime from happening, such as homeowners, concierges, receptionists, or security guards, cannot be everywhere.
- Nor can the most likely offenders be everywhere.

Indeed, the spatial and temporal distribution of people and things is highly uneven and sets the stage for crime to occur at particular times and places. This helps explain why a community bustling with activity does not necessarily generate crime everywhere and at every time. A street robber might be able to attack a weaker victim at daytime or dusk if he can find a moment when others are absent. But for attacking a stronger victim he might need a darker time and a more aggressive mode of attack. A residential burglar can find abandoned residential streets in the day and kick a door in, but at night he will have to be more quiet.

Researchers have recently begun to study crime "hot spots," namely addresses which draw many more calls for police service than others. Hot spots can drive up a local crime rate. Even though most people and places in the area are largely free from crime, their reputation is tarnished by the near-by hot spots. Removing one or two drug houses or badly-run pubs can thus change the whole complexion of a neighbourhood.

The term "hot spots" should not seduce us too readily. It neglects the crime on the paths leading to and from the places in question, as well as the negative side effects of crime in an area. To help explain these patterns, environmental criminologists talk about "crime generators" and "crime attractors". A crime generator produces crime on the spot and perhaps spews it out to nearby areas. A crime attractor brings people in who would not have gone there in the first place. Thus if a drug market or shady pub first serves local people, it serves to generate crime that might not have occurred. As outsiders hear about it and decide to go there, it becomes a crime attractor. We can add a third concept, the crime detractor. This refers to a location that discourages offenders and offending. A stable business, the presence of middle aged women, mixes of activities, or easy natural surveillance can have such a positive consequence. We might see the metropolitan environment as a patchwork of crime generators, crime attractors, crime detractors, and neutral areas.

Box 6. Stings can Backfire to Create Opportunites for Crime

Police in the United States have in various places opened up storefront fences and then arrested offenders who come there to sell stolen goods. But the results are sometimes unexpected as shown in a study of one sting that targeted car thieves. Researchers mapped car thefts by proximity to the sting location. Their findings indicate, at a minimum, that the sting pulled crime to its vicinity like a magnet pulls iron filings. Thus living near a sting can expose one to crime, rather than protecting one. If this fact were widely known, police would receive much less approval than they currently do when the results of a sting operation are reported in the press. The more interesting interpretation of the results of the study is far worse: that the sting increased crime opportunities and that it resulted in more thefts simply because thieves had a ready market for the vehicles.

Source: Robert Langworthy and James LeBeau. 1992. The spatial evolution of a sting clientele. *Journal of Criminal JusticeVol* 20, Pages 541-552

4. Crime opportunities depend on everyday movements of activity

If vendors of snacks and drinks seek crowds, so do pickpockets, luggage thieves, and bag snatchers. Other offenders pay closer attention to the absence of people. For example, the flow of people to work generates a counter flow of burglars to residential areas, taking advantage of their absence. The flow of workers home at night and on weekends produces a counter flow a few hours later of commercial and industrial burglars to take advantage of the situation. Those who use the Underground for trips to crime go to places they know using the lines they know, finding targets along the way or at the familiar destinations.

Changes in transportation lines can have a major impact on crime opportunities. Thus new roads or railway lines establish new crime risks in areas they touch, while closing down crime opportunities in areas they cut off. Pathways to and from school are essential features of crime opportunity in an area. If such pathways are not constructed or planned, youths will find their own routes, sometimes with significant consequences for crime.

Everyday movement patterns help us understand crime generators and crime attractors, discussed above. Such nodes generate movements, just as movements influence the nodes themselves. But movement patterns relevant to crime cannot be understood by taking nodes one at a time. People move among nodes and that is why their location with respect to one another is so important. The crucial question to ask is which activities and settings are adjacent and which ones are separate. Thus putting a secondary school next to a shopping area creates shoplifting, vandalism, and truancy. Adjacent schools may generate fights, if ages are the same, and bullying if ages are different.

Crime pattern theorists have described offender movements in terms of a basic search pattern. Starting with a triangle, they consider offenders going from home to work to recreation. Around each of these three nodes and along each of these three paths, offenders look around for crime opportunities. They may find these a little way off the path, but they usually do not go far beyond the area they know. This basic pattern of movement has been elaborated by environmental criminologists to include additional nodes, such as schools, recreation areas, and the like, with the extra paths among them. However, most offenders (like other citizens) do not know every inch of town and do not search everywhere.

These principles have been used to map the locations of serial offences, then calculating where the offender probably lives and works. This "geographic

profiling" has helped to narrow down the range of likely suspects, leading to an arrest. It shows that highly unusual crime can follow very routine patterns.

5. One crime produces opportunities for another

Having embarked upon one crime, the offender can unwittingly be drawn into others simply because of the opportunities that unfold in the course of committing the act. The best example comes from a burglary, which can generate several types of crime on the spot, including a weapons charge, an assault or a sexual attack inside the home. A burglary also generates such crimes as selling and receiving stolen goods or the fraudulent use of stolen credit cards. Finally, when more than one offender is involved, their conflicts over splitting up the loot can readily lead to violence.

Pimping and prostitution also set in motion a variety of other problems. These often lead to one party stealing from, robbing or assaulting the other, or selling illegal drugs. What if a prostitute's customer refuses to pay or if the two disagree on what he owes? This may lead to an attack. Prostitution can also involve trading sex for drugs or stolen goods, or repaying pimps or landlords with sex. Those engaging in illegal activities, no matter how small, immediately compromise their positions and may be impelled towards additional offences. Any offence can involve violence among the illegal parties, as they cannot go to a civil court and ask the judge to resolve their differences.

Any surreptitious crime puts people in danger of some further illegal act. Even something so small as a traffic violation may lead the guilty party to speed away to avoid detection, then to be chased by police, then to be charged with resisting arrest, etc. Small traffic violations can lead to "road rage" involving assaults, homicides or dangerous dueling with vehicles. Not only can more minor crimes lead to major ones, but the reverse is also true. Rapists may rob their victims. Those who provide illegal gambling services to others may bet illegally themselves. Those who sell larger packages of illegal drugs may use some themselves.

In addition, some minor offences provide camouflage for those that are more serious. Loitering, streetwalking, illegal vending, and minor drug selling can all hide pickpocketing, serious drug sales, and setting people up for robbery. Many laws are aimed to attack earlier links in the chain of criminal events, drug paraphernalia or burglary tools. Even loitering and trespassing laws can be interpreted, in part, as removing pre-criminal conditions.

In sum, individual offenders might dig themselves deeper into crime in at least eight ways:

- 1. Blowing illegal gains on drugs or prostitutes.
- 2. Repeating the offence later against the same victim or target.
- 3. Spending time with co-offenders, who lead them into more crime.
- 4. Spending time with dangerous people, who then victimise them.
- 5. Spending more time in dangerous settings at dangerous hours.
- 6. Provoking others to attack them.
- 7. Developing expensive drug dependencies, leading to criminal acts.
- 8. Impairing judgment through substance abuse, then taking more risks.

Box 7. Repeat Victimization and Crime Opportunities

The Police Research Group has sponsored studies of repeat victimization, not only adding understanding about crime, but also fostering crime prevention. Professor Ken Pease and associates have shown that persons and businesses victimised once have an extra risk of falling victim to crime again. By focusing preventive efforts on those victimised a first time, they have shown that scarce resources have their most impact in preventing subsequent crime. Repeat victimization can be closely linked to crime opportunity for several reasons:

- The most opportune targets for crime attract multiple attacks.
- Offenders successful the first time go back again because they anticipate another success.
- Offenders know what is there and what they missed the first time.
- Offenders give time for the victim to replace what they stole and then return to take the replacements.
- In a violent offence, the offender has learned who cannot resist and who can be attacked again.

In sum, the most opportune targets at the outset become even more opportune after they were first victimised. This unhappy circumstance has a positive side: efforts to prevent crime also have the best chance to succeed when focused on these cases. This growing area of knowledge and experience has been applied to burglary, robbery, theft, domestic violence, and commercial theft, among other offences. Like most of the studies discussed in this publication, many of the basic insights began in Britain but have since been confirmed and extended in many other countries.

Source: Graham Farrell and Ken Pease. 1994. Once Bitten, Twice Bitten: Repeat Victimization and its Implications for Pention Crime Prevention Unit Paper 46. London: Home Office

In each of these ways, one crime produces the opportunity for the individual to commit another. But the process of compounding crime opportunities occurs also for local areas. Sometimes minor crime simply adds up, and its impact is focused in a harmful way. For example, painting one piece of graffiti probably will not lead directly to rape, murder, and kidnapping. On the other hand, hundreds of pieces of graffiti within a very small area could help destroy social control and contribute to more serious crime later. This "broken windows" theory contends that the proliferation of minor crime can serve to destroy a neighbourhood. Perceiving that social controls have broken down, criminals from outside move in to take control.

Box 8. Van Dijk Crime Chains

A basic principle of crime opportunity is that crime itself breeds crime. One way this happens is that one person victimises another who then victimises a third person, and so on. We call this a Van Dijk chain, named after the Dutch criminologist who has studied victimization and helped formulate crime opportunity theory. Van Dijk noticed a typical pattern in the theft of bicycles. The victim of a bike theft would steal a bike from someone else to replace it. That victim would in turn steal a bike from another owner, and so on. Thus a single bicycle theft would have a multiplier effect, leading to several additional bicycle thefts. Van Dijk chains could apply to the theft of any items with these four attributes:

- widely owned
- necessary for daily use
- easily taken
- sufficiently expensive

A similar pattern probably applied to hand calculators within schools, until their price dropped and computers replaced them. Perhaps personal computer thefts today can be partly explained with Van Dijk chains.

Source: Jan van Dijk. 1994. Understanding crime rates: On interactions between raional choices of victims and offenders. *British Journal of Criminolog* Vol 34, Pages 105-121.

6. Some products offer more tempting crime opportunities

When Willie Sutton, the notorious criminal, was asked why he robbed banks, he is said to have answered, "That's where the money is". Cash is a very convenient object of theft, since it has high value per pound and is generally convertible. Yet new, marked, or consecutively numbered bank notes reduce the opportunity for theft.

The VIVA model stated earlier offers a starting point for evaluating which things make better crime targets. For example, videocassette players have made good targets because they are high in value and low in inertia, that is, they have high

value per pound. They are also highly visible and accessible. Numerous other examples exist of such "hot products", consumer items that seem particularly at risk of theft:

- Research in many countries, including recent Home Office work, has shown that particular models of car are at much greater risk of theft than others.
- The cars most at risk of theft vary with the precise nature of the offence. Thus a few years ago the cars most taken for joyriding in the United States were "macho" American-built vehicles, such as the Chevrolet Camaro, with plenty of acceleration. Those most likely to be stripped of parts were European cars such as Volkswagen Cabriolets with good radios easily interchanged between different models. Those most likely to be stolen for resale were very expensive models such as Porsche and Mercedes. (The increased popularity in America of high priced "sport utility vehicles", such as the Toyota Land Cruiser or the Range Rover, has changed these patterns in recent years)
- A recent Home Office study has shown that livestock carriers have the highest rates of theft of any commercial vehicles (SEE BOX).
- Lorries carrying cigarettes and liquor were most likely to be hijacked in the past, but electronic goods are now also frequently targeted.
- Studies in the retail industry, both of employee theft and shoplifting, have
 consistently shown that certain items are much more likely to be stolen than
 others. For example, a Home Office project of a few years ago showed that
 "popular" records and tapes were much more likely to be stolen from the HMV
 store in Oxford Street than classical recordings.
- Residential burglars usually seek cash, jewellery and electronic goods (and guns in America). As discussed above, the increase in lightweight electronic goods in peoples' homes has been held partly responsible for the substantial increase of residential burglary in America during the 1970s.
- Cellular telephones, poorly-designed ticket machines on the London Underground, and aluminium cash compartments on public phones have all generated small crime waves.

Box 9. Which Lorries get Stolen

Crime opportunity theories can be directly applied to analyzing crime problems. An excellent example comes from a Police Research Group study of theft of heavy goods vehicles, in which the theft rates per 1,000 lorries of various types were calculated. Lorries parked in industrial estates accounted for over half of the thefts. By contrast, less than one per cent were stolen from supervised lorry parks. Thefts were mainly at night or on weekends, when supervision was low. Smaller companies, apparently less able to supervise, were more vulnerable to risk of HGV theft. Construction vehicles, scattered over many sights, were very frequently stolen. Lorries for carrying livestock also had very high risk. Many of these were private horse boxes. These tended to be older and relatively low in value. Their vulnerability may have been due to their value on the second hand market since few private owners would want to spend much money on such a specialised vehicle.

Source: Rick Brown. 1995. The Nature and Extent of Heavy Goods Vehicle Thestime Detection and Prevention Series. Paper 66. London: Home Office Police Research Group

This brief list suggests that hot products might help to explain patterns for many kinds of theft, as well as crime waves or increases in crime. These products might also help explain repeat victimization, as in cases where someone with a particular model of car has it repeatedly stolen or when shops carrying goods attractive to thieves are repeatedly burgled.

While we may know which products are hot, we know little about *why* they are hot. Studies are needed to understand why particular product brands attract more theft than other brands. For example, why are some brands of sneakers so much more likely to be stolen than other brands which sell equally well? Stuidies are also needed to elucidate the criminogenic properties of whole classes of products, such as cellular phones.

Such research will have many implications for prevention, some of which will have to do with design changes, either undertaken voluntarily by manufacturers or mandated by government. For example, security-coded radios have greatly reduced theft from high risk cars (i.e. those with good radios that could easily be removed and fitted in other cars). If consumers knew the different risks of theft attached to particular items, they would begin to demand that hot products have more built-in security. An example would be security coding for video cassette players. In addition, businesses would be encouraged to make detailed studies of their losses so as to focus improved security on high risk items rather than to disperse it across all product lines without much benefit. Research on hot products will also assist police efforts to undermine fencing operations.

7. Social and technological changes produce new crime opportunities

Technology frequently works to produce new products, but many of these are not especially suitable for theft, since they have no mass market or are too difficult to use. Other products become targets for theft. Even these often go through a life cycle and may become no longer attractive to thieves. In general, mass-produced consumer goods pass through a life cycle of four stages:

- 1. Innovation Stage.
- 2. Growth Stage
- Mass Market Stage
- Saturation Stage

In the *innovation*stage, the product is sold to a special group of consumers. It may be expensive, difficult to use, relatively heavy and awkward. That explains why the early computers were not likely to be stolen. Even the early home video cassette players were not supported by a wide selection of available movies from nearby video stores. So why steal them? In the *growth* stage, products becomes easier to use, cheaper to buy, lighter and less awkward to carry. More people know how to use them and want one, and thefts therefore accelerate. That is just what happened as the desk computer became more popular and as video cassette players and CD players gained ground. In the *mass market* stage, the product gains further in appeal. More units are sold and theft becomes endemic. By the *saturation* stage, most people who really want the product have it, and thefts decline. For example, video cassette and CD players are now so common that they cost relatively little and offer few rewards to the thief; hand calculators sell for a few dollars and are mostly safe on your desk with the door open.

Many products that once fed the crime wave are now in the saturation stage, offering little incentive to theft. As innovations occur, new products enter the same cycle. In addition, valuable items, such as airbags and laptop computers, provide valuable new targets for easy theft.

The dramatic historical changes in products and activities influence crime rates and types. We have already described how more women in the labor force and lighter durable goods provide more crime opportunities. Increased use of motor cars has expanded the territory of predatory criminals. Millions of cars left unguarded on city streets provide widespread opportunities for theft. Despite the growth in car ownership there is little sign that the saturation stage has yet been reached.

The newer trends include the spread of mobile phones, which have greatly increased the scope for defrauding the phone companies because these can easily be "cloned" and used without paying charges. Developments of wider significance are the spread of automatic teller machines in banks, and the rapidly growing use of POS (point of sale) terminals and plastic money in stores. In the United States, and most likely also in Britain and elsewhere, these developments in the past few years have brought an exponential growth in the use of plastic money or of smaller packets of cash, with a major shift in the direction of a cashless society. In the process, there is far less cash around to steal or rob. It is present in such small amounts as to feed less crime.

8. Crime can be prevented by reducing opportunities

If it were not true that reducing opportunities helps prevent crime, no-one would bother to take routine precautions such as locking their cars and houses, keeping their money in safe places, counseling their children to avoid strangers, and watching the neighbours' home when they are away. In fact, we all take these kinds of precautions every day of our lives.

These actions might sometimes displace the risk of criminal attack to others. To avoid this and achieve more general reductions in risks of crime, wider action to reduce opportunities must be taken by the police, by government and by other agencies. Similar thinking guides several approaches to crime prevention, including:

- problem-oriented policing
- defensible space architecture
- crime prevention through environmental design
- situational crime prevention.

Despite their differences, each seeks to reduce opportunities for crime for particular kinds of targets, places, and classes of victims. Each is concerned with preventing very specific kinds of crime. None of the four attempts to improve human character. Most important, all four seek to block crime in practical, natural, and simple ways, at low social and economic costs.

The best developed of these approaches is situational crime prevention. Approaching one hundred case studies of situational prevention have been collected and published, many by the Home Office. We have already mentioned some of these examples in the course of this discussion. We cannot review the remainder here, but instead we will illustrate the variety of possible measures by

taking one set of crimes relating to telephones, which are both important facilitators of crime and targets of crime. Situational prevention studies have documented the effectiveness of opportunity-reducing measures in a variety of contexts, as follows:

PHONE CRIME PROBLEM	SITUATIONAL PREVENTION METHOD
Phone booth vandalism	Improved design and sighting
Cash theft from public phones	Phone cards, stronger coin boxes
Theft of cellular phones	Phones programmed for one user
Massive phone fraud, NY bus terminal	Phones bar international calls
Jail brawls over phone use	Phones ration each inmate's time
Public phones for drug sales	Removing phones, limiting incoming calls
Obscene and threatening calls	Caller ID devices
Fear of calling the police	Free private phones provided for some

Most examples of situational prevention do not concern telephones at all, but this merely illustrates the variety of offences and prevention measures related to one small instrument. As said, the general principle permeating these various applications is to reduce crime opportunities. Sixteen opportunity-reducing techniques have been identified, falling under four objectives derived from rational choice theory: increasing the perceived effort of crime, increasing the perceived risks, reducing the anticipated rewards, and removing excuse for crime. This illustrates how opportunity theory has direct application to crime prevention.

Box 10. Sixteen Opportunity-reducing Techniques of Situational Crime Prevention with Examples

Increase the perceived effort of crime

Harden targets: steering column locks, anti-robbery screens
 Control access to targets: entryphones, electronic access to garages

3. Deflect offenders from targets: bus stop location, street closings, segregation of rival fans

4. Control crime facilitators: photos on credit cards, plastic beer glasses in pubs

Increase the perceived risks of crime

5. Screen entrances and exits: electroniomerchandise tags, baggage screening
 6. Formal surveillance: red light and speed cameras, security guards
 7. Surveillance by employees: park attendants, CCTV on double deck buses
 8. Natural surveillance: street lighting, defensible space architectur

Reduce the antipated 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

Remove excuses for 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

Source: Clarke, Ronald. V. (Ed.). 1997. Situational Crime Prevention: Successful Case Studies Second Edition. Albany, NY: Harrow & Heston.

9. Reducing opportunities does not usually displace crime

All these different ways of reducing opportunities for crime have met the same objection, that all they do is move crime around, not prevent it. This theory of "displacement" sees crime as being shifted around in five main ways:

- crime can be moved from one location to another (geographical displacement);
- crime can be moved from one time to another (temporal displacement);
- crime can be directed away from one target to another (target displacement)
- one method of committing crime can be substituted for another (tactical displacement);
- one kind of crime can be substituted for another (crime type displacement).

In each case, it is assumed that offenders must commit crime, whatever the impediments they face, or, to put the point in colloquial terms, "bad will out". There are several varieties of this assumption. In some cases it is assumed that the propensity to commit crime builds up and must be discharged, in the same way that sexual release is sought. In other cases, the drive to commit crime is seen to be so strong and persistent that, like a flood tide, it will break through any barriers. In yet other cases, it is assumed that "professional" criminals or drug addicts must obtain a certain income from crime to maintain their lifestyles or their habits.

Whatever the basis of the assumption, it neglects the important causal roles of temptation and opportunity. Consider the case of the supermarket that has introduced new security measures to reduce shoplifting. As a result, casual shoplifters will not begin to shop in a different supermarket, where they can continue to steal occasionally, unless it offers equal convenience and value. They are even less likely to begin stealing office supplies and other small items from work to make up for their reduced shoplifting. Most unlikely of all is that they would be driven to some entirely different form of crime, such as lying in wait for senior citizens and snatching their bags of groceries.

Even in the case of more committed offenders, the displacement theory gives far too little importance to the causal role of opportunity. Thus, research on drug addicts has shown that they are accustomed to using quite different amounts and kinds of illegal substances at different points in their careers. Nor is there any simple progression in drug use. Rather, addicts might be forced later in their careers to use smaller amounts or less agreeable drugs because the supply of drugs has been curtailed. As for professional criminals, such as bank robbers, there is no reason to assume that most of them must obtain a fixed amount of money from crime. They would surely commit fewer robberies if these became difficult and risky, just as they would commit more if robberies became easy. Like all of us, bank robbers may sometimes have to come to terms with reduced circumstances and be content with a lower level of income.

Those who assume that displacement is inevitable overestimate its capacity to occur. This shown by the example of drug markets. It is frequently assumed that closing down a particular drug market will result in dealers simply moving to another nearby location where they can continue their trade. But this ignores the reasons why the original location was chosen in the first place. It might:

- be easy for drug purchasers to reach by car;
- be easy to find and to drive to from distant parts of the city or suburbs;
- be near a bus stop for those who have to travel by public transport;
- be near the dealers' homes and particularly convenient for them;

- be near a pub or corner store that provides dealers with refreshments and a betting shop that provides entertainment;
- have a public phone to facilitate contacts between dealers and purchasers.

Most nearby locations will lack these combined advantages for dealers and purchasers. When suitable locations exist nearby, they may already be drug sites whose dealers will fight to keep control.

This shows that the scope for displacement may be more limited than is often assumed, but it does not mean that it should be ignored. Rational choice theory predicts that:

Offenders will displace their prevented crimes when the benefits for doing so outweigh the costs. They will not displace their crimes when the costs outweigh their benefits.

Several examples of the apparent displacement of crime can be quoted. For example, soon after steering locks were introduced for all new cars sold in Britain from 1971, older cars not fitted with these locks were increasingly stolen. Since these cars were easy for offenders to find, this displacement was not a surprising outcome. But numerous other studies have found that displacement did not occur at all, or only to a limited extent. Examples include the following:

- New identification procedures greatly reduced check frauds in Sweden, with no evidence of displacement to a range of "conceivable" alternative crimes
- Extensive target hardening undertaken in banks in Australia lowered robbery
 rates, but there was no indication that as a result corner stores, petrol stations,
 betting shops, motels, or people in the street began to experience more robberies.
- The council improved street lighting for a run-down housing estate in the Midlands; the declining crime, was not displaced to the estate nearby.
- Lighting and rearranging stalls substantially lessened thefts at covered markets in Birmingham, but no evidence was found of displacement to nearby markets.
- When a package of security improvements reduced thefts in a multi-story car park in Dover, there was no evidence that thefts were displaced to other nearby car parks.
- Following successful action to control street prostitution in Finsbury Park through street closures and intensified policing, there was little evidence that prostitutes simply moved to other nearby locations. According to the researchers who examined these results, many of the women working the streets

in Finsbury Park were not deeply committed to prostitution. Many saw it as a relatively easy way to make a living. When conditions changed so did their involvement and many seem to have given up "the game".

Box 11. Displacement Should Not be Taken for Granted

When crime is reduced by prevention efforts, it is easy to suggest that it will be displaced elsewhere. Yet claims for displacement have often evaporated under closer scrutiny. For example, London Underground officials believed that their success in modifying new ticket machines to eliminate 50p slugs had simply displaced the problem to One Pound slugs. With the latter more difficult to prevent, they thought they had worsened their problems. Even though One Pound slugs began to appear as soon as the 50p ones were eliminated, more detailed analysis showed that:

- One Pound slugs were found in stations not previously affected by 50p slugs
- 50p slugs could be made by any schoolboy simply by wrapping a 10p coin in silver foil
- Only people skilled in metal work and having equipment could make One Pound slugs by filling copper pipes with solder and then slicing them carefully.
- The scale of the problem created by the Pound slugs (less than 3,500 per month) never approached that of the 50p slugs (approaching 95,000 per month at their height).

We can see that the two problems involved different stations and offenders and that the claim of displacement is dubious.

Source: Ronald V Clarke et al. 1994. Subway slugs: Tracking diplacement on the London Underground. British Journal of Criminolog Vol 34, Pages 122-138

A case can be made that the offenders' costs of displacing in these examples tended to outweigh the benefits. These and many additional examples strongly support the conclusion that displacement occurs much less frequently or fully than was previously believed. This is the consensus of three different reviews of the displacement literature undertaken by scholars in Canada, the United States and the Netherlands. The latter study, for the Dutch Ministry of Justice, is the most recent and most comprehensive. It reports that in 22 of 55 studies in which displacement was studied, no evidence of its occurrence was found. In the remaining 33 studies in which evidence of displacement was found, only some of the crime seems to have been displaced. In no case was the amount of crime displaced equal to the crime prevented.

To sum up, displacement is always a threat to prevention, but there are strong theoretical reasons for believing that it is far from inevitable. In addition, the studies of displacement show that even when it does occur, it may be far from complete and that important net reductions in crime can be achieved by opportunity-reducing measures.

Box 12. Helmet Laws and the Opportunity for Motorcycle Theft

Home Office researchers noticed a marked decline in thefts of motorcycles soon after safety laws were introduced for England and Wales in 1973 requiring motorcyclists to wear helmets. Offenders wanting to steal a motorbike now had to go equipped with a helmet or they would be spotted quickly. Similar declines in motorcycle theft have been reported following the enactment of helmet laws in Holland, India, Germany and elsewhere.

In itself, this is remarkable evidence of the power of opportunity in causing crime, but detailed data from Germany helped researchers examine whether the declines in motorbike theft had been displaced to thefts of cars or bicycles. On- the-spot fines for failing to wear a helmet were introduced in Germany in 1980. The first column of the table shows that by 1986 thefts of motorbikes had dropped to about one third of their level in 1980, from about 150,000 to about 50,000. (The gradual decline probably reflects stronger enforcement and growing knowledge about the requirement). If this fall in thefts is due solely to the requirement to wear a helmet, and no other convincing explanation has yet been put forward, it suggests that motorbike theft has a much larger opportunistic component than anyone would have thought.

THEFTS OF MOTORCYCLES, CARS AND BICYCLES IN GERMANY

Year	Motorcycles	Cars	Bicycles
1980	153,153	64,131	358,865
1981	143,317	71,916	410,223
1982	134,735	78,543	453,850
1983	118,550	82,211	415,398
1984	90,008	72,170	376,946
1985	73,442	69,659	337,337
1986	54,208	70,245	301,890

The second and third columns of the table show the national totals for car and bike thefts during the same years. These provide some limited evidence of displacement in that thefts of cars increased by nearly 10 percent between 1980 and 1986, from about 64,000 to 70,000. Thefts of bicycles also increased between 1980 and 1983, but by the end of the period had declined again to a level below that for 1980. Altogether, it is clear that at best only a small proportion of the 100,000 motorbike thefts saved by the helmet laws were displaced to thefts of other vehicles.

A little thought shows why this may not be surprising. Motorbikes may be particularly attractive to steal. They are much more fun to ride than bikes for the young men who comprise most of the thieves. Even if the intention is merely to get home late at night, a motorbike offers significant advantages, especially if the distance is more than a few miles. Motorbikes may also be easier to steal than cars since the latter have to be broken into before they can be started. Like bikes, cars also offer less excitement than motorcycles and they may require more knowledge to operate.

Source: Pat Mayhew et al. 1989. Motorcycle theft, helmet legislation and displacement. Howard Journal of Criminal JusticeVol 28, pages 1-8.

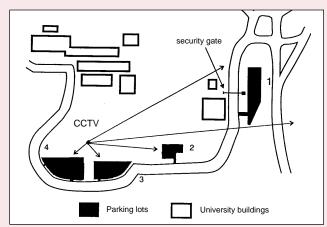
10. Focused opportunity reduction can produce wider declines in crime

Apart from showing that displacement is not the threat once thought, studies of displacement have yielded an additional dividend. They have found that sometimes the reverse of displacement can occur. Rather than crime being exported to other times and places by prevention measures, it is the benefits of focused prevention measures that can spread beyond the targets of intervention. Many examples now exist, including the following:

- When CCTV cameras were introduced to monitor three car parks at the University of Surrey, crime declined not only in these car parks but also in one other that was not given surveillance by the cameras.
- When CCTV cameras were installed on five double-decker buses belonging to a
 fleet of 80 in the North of England, vandalism by schoolchildren dropped for the
 whole fleet, not just those with cameras (three of which were fitted only with
 dummy cameras).
- When books in an University of Wisconsin library were electronically tagged to sound an alarm if they were removed illegitimately, not only did thefts of books decline but also of video-cassettes and other materials that had not been tagged.
- When a New Jersey discount electronic retailer introduced a regime of daily counting of valuable merchandise in the warehouse, not only did thefts of these items plummet, but also of those of other items not repeatedly counted.
- When "red light" cameras were installed at certain junctions in Strathclyde, not
 only did fewer people "run the lights" at these locations, but also at other traffic
 lights nearby.
- The implementation of a package of situational measures for houses that had been repeatedly burgled on the Kirkholt housing estate reduced burglaries for the whole of Kirkholt, not just for those houses given additional protection.
- When vehicle tracking systems were introduced in six large American cities, risks of theft declined not just for car owners who purchased the devices, but also city-wide.

Box 13. Diffusion of Benefits and CCTV in University Car Parks

A new chief of security at the University of Surrey decided to deal with a plague of thefts in the university's car parks by introducing CCTV. He installed a camera on a mast to provide surveillance of the car parks. As shown by the diagram, the camera could not provide surveillance equally for all four car parks because its view of car park 1 was obscured by buildings. It might have been expected, therefore, that if the CCTV had any value in preventing crime this would only be for the car parks it covered adequately. It might also have been expected that crime would be displaced by the camera from these car parks to the one not given proper surveillance. In fact, in the year following the introduction of the CCTV, incidents of theft and vandalism in the lots were cut in half, from 138 in the year prior to 65 in the year after. Incidents declined just as much in car park 1, not covered by the cameras, as in the other three car parks. This diffusion of the benefits of CCTV probably resulted from potential offenders being aware that it had been introduced at the University, but not knowing its limitations. Many probably decided that it was no longer worth the risk and effort of going to the university car parks to commit crime.



Source: Barry Poyner. 1997. Situational prevention in two parking facilities. In: Ronald V. Clarke (ed.), Situational Crime Prevention: Successful Case Studiend. Ed. Albany, NY: Harrow and Heston

These are all examples of what researchers call the "diffusion of benefits" of crime prevention measures. Taken together, these examples suggest that potential offenders may be aware that new prevention measures have been introduced, but they are often unsure of the precise scope of these. They may believe the measures have been implemented more widely than they really have, and that the effort needed to commit crime or the risks incurred have been increased for a wider range of places, times or targets than in fact is the case.

Diffusion of benefits greatly increases the practical appeal of opportunity-reduction programmes. It has only recently been identified and we do not yet know how to enhance it. One important method may be through publicity. A publicity campaign helped to spread the benefits of CCTV cameras across an entire fleet 80 buses, although these were installed on just a few of the buses. One of the buses with the cameras was widely demonstrated to schoolchildren in the area and substantial newspaper publicity attended the first successes of these cameras in assisting arrests.

We should expect the diffusion of benefits to decay when offenders discover that the risks and effort of committing crime have not increased as much as they had thought. This occurred in the early days of the breathalyzer which had a much greater immediate impact on drunken driving than expected given the actual increase in the risk of getting caught. However, as drivers learned that the risks of being stopped were still quite small, drunken driving began to increase again. This may mean that ways will have to be found of keeping offenders guessing about the precise levels of threat or quite how much extra effort is needed if they are to continue with crime.

D. Conclusions

In this publication, we have sought to correct an imbalance in criminological theory, which has neglected the important role of opportunity in causing crime. We have not denied that personal or social variables are important causes of crime. Indeed, crime is the product of an interaction between the person and the setting. Not only can we understand crime events more fully by studying their settings, but we can also gain much more knowledge about crime patterns and trends.

Most important, the tangible settings for crime open a vast world for crime theory. Criminologists no longer need be confined to abstractions or discussion of class, or race or intelligence quotients. They can deal also with the here-and-now of everyday life – in particular those features of the world which govern our movements, give pattern and consistency to our lives, and structure our choices and decisions, including those concerning crime. Combining first-hand experience with information about routine crimes, criminologists can enrich the theoretical enterprise.

Accepting opportunity as a cause of crime also opens up a new vista of crime prevention policies focused upon opportunity-reduction. These policies do not merely complement existing efforts to diminish individual propensities to commit crime through social and community programmes or the threat of criminal sanctions. Rather, the newer policies operate on circumstances much closer to the criminal event and thus have much greater chance to reduce crime immediately. This promise has become more secure in the light of findings from recent research on displacement and diffusion. Displacement rarely, if ever, leads to all the gains being lost from focused opportunity reducing measures. Diffusion of benefits results in crime sometimes being reduced beyond the focus of such measures.

In other words, accepting that opportunity is a cause of crime, equal in importance to those personal and social variables that are usually thought of as causes, results in a criminology that is not only more complete in its theorising, but also more relevant to policy and practice. It also means that much of the prevention work undertaken by police, private security, and business personnel in reducing crime opportunities deals fully and directly with basic causes of crime.

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