
UNINTENDED CONSEQUENCES OF CRIME PREVENTION

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Abstract: A review identifies unintended consequences of crime prevention initiatives that may nullify their effectiveness or produce counterproductive results. A typology of regressive outcomes includes crime escalation, displacement, overdeterrence, and perverse incentives. Causes of these negative externalities include failures in analysis, planning and implementation. However, safeguards are possible to avoid many of the unintended consequences.

PART ONE: INTRODUCTION

It borders on the fatuous to suggest that programs designed to prevent crime do not always succeed. Regardless of success or failure, some programs generate what economists would refer to as social costs, or "negative externalities." The ways in which crime prevention programs may become derailed are numerous and diverse, as are the generic pathologies that give rise to these derailments. The present essay pursues this theme by attempting an overview of the ways in which crime prevention initiatives may defeat themselves or otherwise inflict collateral damage. The focus goes beyond those initiatives that simply fail to have their intended effect. Rather, we are concerned with initiatives that either

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backfire entirely, in effect making things worse, or those resulting in significant harm that offsets many or most of the benefits that the original initiatives may produce. Our concern rests primarily with institutions operating "upstream" of prosecution, delivering what is generally referred to as "situational" or "social" crime prevention, although downstream examples may be invoked where illustrative.

Despite its apparent preoccupation with failure, this essay has been written in a constructive spirit. Just as the study of engineering failures does not imply that society should forsake the use of bridges or buildings, the study of crime prevention failures does not suggest that crime prevention efforts should be abandoned. The analysis of engineering failures enables the subsequent construction of stronger bridges and taller buildings; the analysis of crime prevention failure can lead to the design and implementation of better crime prevention programs. Thus the objective of this essay is not to cast a pall of pessimism over the enterprise of crime prevention, but rather to foster more analytical rigor in the planning, implementation, and evaluation of crime prevention activity.

The paper has three main parts. Part II presents a typology of regressive outcomes that may flow from crime prevention policies, to include such phenomena as escalation, overdeterrence, and the generation of perverse incentives. Part III seeks to explain the etiology of these negative externalities in terms of such phenomena as planning and implementation failures. Part IV suggests principles and safeguards that, if heeded by those in a position to formulate and implement crime prevention policy, will serve to reduce the risk of undesirable unintended consequences.

PART TWO: VARIETIES OF COUNTERPRODUCTIVE CRIME PREVENTION

Escalation

Ironies abound in criminal justice. G. Marx (1981) reminds us that authorities may, in the course of various strategies to combat crime, actually *produce* crime. He identifies three basic situations in which policing strategies may contribute to crime. The first of these—and the only one to concern us here—is *escalation*. In some cases, apparently

well-designed programs with the best of intentions may do more harm than good. One of the earliest and most celebrated delinquency prevention initiatives was undertaken more than 50 years ago in the Boston area. The Cambridge-Somerville Youth Study, as it was known, provided services to at-risk youths, including academic tutoring, recreational opportunities, family support, health services, and counselling. The program made eminent theoretical sense, and was praised by participants and administrators alike. Unfortunately, a follow-up study of program participants and a control group (McCord, 1978) revealed that the program failed on a number of criteria. Not only were participants more likely than members of the control group to offend, but they compared unfavourably on a number of additional criteria including mortality, stress-related disease, and evidence of mental illness and alcoholism.

Other forms of escalation are less subtle and more immediately apparent. The construction of physical barriers may invite their defacing or destruction. The frustration that results from blocked criminal opportunity may lead to expressive violence, or to an instrumental reliance on more forceful means of goal attainment (Marx 1990). For example, aggressive interdiction of youthful joy riders can bring about high-speed police chases that may end in extensive property damage, injury or death (Clarke and Harris 1992; Homel 1994). Increases in potential penalties may lead to more violent resistance to police at the time of arrest (Homel 1994). Other situations of police interaction with individual citizens or groups may entail reciprocal heightening of aggression—from dirty looks, to exchange of affront, to exchange of force. Overreaction or inept police intervention can grossly aggravate conditions that, if left to their own devices, would peter out or blow over. Creative policymaking and law enforcement require a good sense of when a situation requires benign neglect; where intervention is warranted, it should be delivered in a manner that minimises the potential for escalation (Veno and Veno 1993).

In some circumstances, the countermeasures in question may be unwittingly provocative. A recent insightful essay by Sherman (1993) notes that punishment may produce defiance, not deterrence, depending upon the recipient's perception of the fairness of the process by which it was delivered. Thus, while some individuals may be expected to respond to the threat or reality of punishment with compliance, others may evince a diametrically opposed reaction.

The same logic applies to business regulation. Bardach and Kagan (1982) recognized that "rulebook regulation" had a tendency to foster an

organised culture of resistance in some businesspeople. In their recent work on nursing home regulation, Makkai and Braithwaite (1994) have found just such an effect, where in some contexts a deterrent regulatory posture actually *reduces* compliance.

Threatened restrictions or prohibitions of the sale of certain firearms may inspire increased purchases of such weapons in anticipation of future non-availability. The inspiration may extend to guns in general, thus leading to an overall increase in firearms ownership. The potency of the firearm as a symbol (negative for some, but positive for others) is such that proposals to regulate the ownership of weapons may trigger strong resistance.

In other circumstances, countermeasures may directly or indirectly lead to collateral damage of greater magnitude than that resulting from the target behaviour. Marx (1990) observed that fencing installed to discourage soccer hooliganism contributed to the deaths of 93 spectators who were crushed in the Hillsborough (U.K.) stadium disaster. He also noted that the casualty toll from the London Underground fire at Kings Cross was higher because of toxic fumes produced by chemicals contained in anti-graffiti paint. O'Malley (1994) noted that "speed humps" designed to slow vehicular traffic may occasion significant damage to vehicles (not to mention emergency vehicles) failing to reduce speed sufficiently.

Unintentional Enticement

It should come as no surprise to learn that warning messages may produce perverse effects. Merely by dramatising certain aspects of non-compliance, they can advertise the behaviour in question, bringing it to the attention of those who would otherwise be oblivious, or exciting the curiosity of those who would otherwise be only vaguely aware. Worse still, warning messages may entice the potentially rebellious. Symbolic protest is a common response to the moralistic injunction. Stern warnings from law enforcement authorities about the perils of various illicit drugs serve to publicise the substances in question in a manner that only the most creative minds in the advertising industry could hope to rival. Denunciation by moral entrepreneurs can impel the eager consumption of controversial literature, film and related material. The phenomenon in question, arguably both timeless and ubiquitous, has been termed the "forbidden fruit effect" (Sieber. 1981:136).

Reversal of Effects

Interventions may be seen to operate with intended effect in the short term, only to have their impact reverse over time. Sherman et al. (1991) observe that short-custody arrest for domestic violence, while producing a deterrent effect in the short term, actually produced a criminogenic or counter-deterrent effect for some groups with the passage of time.

A recent discussion of street lighting in Glasgow noted how an intervention introduced as a perceived solution can actually worsen the problem it was meant to address. To illustrate how feelings—and, indeed, the reality of safety—can be undermined rather than enhanced, one cannot improve upon the following words of one female respondent: "I think it's worse now: With the lights, people can see you. When they couldn't see you they didn't know who you were. You could be anybody. Now they can see you're a lassie" (quoted in Nair et al., 1993:560).

In his general discussion of counterproductive social interventions, Sieber (1981) suggests that situations can occur in which expectations may rise beyond the capacity of an intervention to meet them. In such circumstances, the effects of rebound may be worse than the status quo ante.

Labelling

One of the more popular theories in the sociology of deviance is that of labelling. Briefly stated, the designation of an individual as delinquent facilitates the internalization of that identity, increasing the likelihood of subsequent delinquent behaviour. The logic of labelling can be extended beyond offenders. One might suggest, for example, that to be labelled as a *victim* facilitates the internalization of that identity, and subtly reinforces a self-image of dependence and diminished autonomy. The result may be a prolongation of distress occasioned by the circumstances of victimization, and a delay of eventual recovery. Indeed, in some cases, labelling may entail a fatalistic resignation and repeated victimization. Perhaps for this reason, some advocates refer to the status as that of survivor rather than victim.

Labelling theory can have a spatial dimension as well. The mere identification of a place as dangerous or rowdy sends a signal. Persons who are risk-averse and who value tranquility will be inclined to avoid such a location, while those who would be producers and consumers of risk would be attracted to such a place. Where signals of danger do not initially reflect empirical reality, they may operate as self-fulfilling prophecies, transforming both the image and the reality of a place. Of course, there are locations that are objectively unsafe or in the actual process of decline. To identify them otherwise could produce an unwarranted sense of security or, at best, incredulity. But absent visible indicia of deterioration, inappropriate crime prevention messages can "create" crime.

Warnings and Self-fulfilling Prophecies

We noted above how warning messages can be unintentionally enticing, thereby producing a "forbidden fruit effect." There are other ways in which warnings can become self-fulfilling. Those responsible for the regulation of banks and insurance companies are at times cautious about publicising the vulnerability of these financial institutions, lest the bad news trigger a run and bring about the very circumstances that regulators seek to prevent. Moral suasion and a hope that the beleaguered institution might trade out of its difficulties tends to be the preferred regulatory strategy.

Criminal Exploitation of Crime Prevention Information

Information can be a double-edged sword. On the one hand, it can be a useful instrument in the furtherance of risk reduction. On the other hand, crime prevention information may serve as instructional material in the methods of crime. There are circumstances in which information can be exploited in furtherance of precisely the activity it was intended to prevent. One need not be an expert in military strategy to recognize that knowledge of an adversary's defenses can be very helpful in planning an attack. So, too, with crime prevention.

When crime prevention entails nothing more than communicating ordinary criminal "street wisdom" to a wider public for purposes of target hardening, well and good. However, when the direction of information flow is reversed, and knowledge of vulnerabilities and countermeasures is communicated to prospective offenders, there is a risk that an otherwise

criminally latent person may be tempted to try his or her hand, or that a person with more resolute criminal inclinations will exploit the information in order to adapt his or her modus operandi or otherwise circumvent the structures of prevention. Maintaining a degree of uncertainty can thus be an appropriate crime prevention strategy.

Under-enforcement

On the other hand, the existence of draconian sanctions may produce under-enforcement. This may reflect the tacit recognition that the "law on the books" defies practical application. The principle is as common to business regulation (Sunstein, 1990) as it is to those remaining laws that seek to regulate consensual sexual activity between adults in private. Overly restrictive laws encourage mutually dependent relations between nominal adversaries (Sieber, 1981). One hardly need mention the potential for corruption posed by certain types of prohibitions. Given the risks that would appear to beset under-enforcement and over-enforcement, it may be appropriate to think in terms of an optimal level of enforcement (Makkai and Braithwaite 1993; Viscusi and Zeckhauser, 1979).

Displacement

Perhaps the most familiar unintended consequence of crime prevention is displacement. The risk that undesirable activity, rather than prevented absolutely, will be shifted into other areas within or beyond one's jurisdiction or policy domain has become part of conventional criminological wisdom (Barr and Pease, 1990).

Depending upon the scope of analysis, one may envisage situations wherein displacement results in net loss. For example, criminality may be displaced from affluent, more resilient targets to those less able to afford loss. Clarke and Harris (1992) observe that new measures to prevent automobile theft will increase the vulnerability of older, cheaper vehicles. Alternatively, theft may be displaced to a location with more numerous and accessible targets. Distributive considerations aside, the risk inherent in displacement is that the displaced activity may have a more serious impact than the original activity, or that it might take a more intractable form.

Displacement is also evident in regulatory domains. The migration of industries to jurisdictions with relatively permissive regulatory regimes is often noted. The phenomena of cross-border and cross-media pollution are other examples (Guruswamy, 1991; Andrews, 1993). New smokestacks may improve British air quality, but only at the expense of Scandinavian forests and lakes damaged by acid rain. Within jurisdictions, the administration of tax laws is an ongoing drama involving authorities closing "loopholes," while a small industry exists to locate new avenues of avoidance and evasion.

Creative Adaptation

There are those crime prevention initiatives that may foreclose easy options, but in so doing inspire adaptive behaviour on the part of offenders that can entail more inventive, devious or violent activity. With a view to remaining "one step ahead of the law," entrepreneurial criminals may engage in increasingly refined avoidance behaviour. The ingenuity and adaptability of crime prevention targets may be enhanced by new challenges and, with repeated strengthening, may constitute a more formidable threat than was initially the case. Marx (1990) heralds an endless spiral of technologies and counter-technologies for crime and crime prevention.

This may entail the "professionalization" of crime. Marx (1981) observed how strict enforcement of drug laws can serve to neutralize opportunistic amateur dealers and thereby strengthen the market position of well-organized professionals. Supply reduction strategies that make for higher prices and higher profits can generate intense competition among drug dealers, which may manifest itself in energetic efforts to create new markets (Reuter and Kleiman, 1986; Sherman, 1992).

Adaptation may also characterise juvenile offending. Reiss (1980) and Klein (1993) have suggested that certain policies relating to juvenile gangs may have a counterproductive effect. The neutralization of a gang member through arrest may be followed by aggressive attempts to recruit a replacement. Such efforts may succeed so well that the size and cohesion of the gang would actually increase as a result.

Adaptation can at times be more brutal than creative. One could imagine, for example, an increase in hostage taking by robbers in response to physical security barriers in banks, or the threat of immolation by petrol

rather than the use of firearms in the robbery of service station attendants protected by bullet-proof shields (Sherman 1992).

Technology may also be exploited to defeat law enforcement initiatives. The advent of radar detectors, CB radios and police-radio scanners has made traffic law enforcement that much more difficult (Kane 1993). Hidden speed cameras and aerial surveillance may, however, prove more difficult to circumvent.

Over-deterrence

In some cases, prevention measures or threatened sanctions may be so intense that they can have a detrimental effect on legitimate activity. Surveillance, for example, is often broad in scope and indiscriminating. The revolutions in information processing and surveillance technology have brought about a shrinking of one's private space, and have reduced the anonymity of public space. Crime prevention programs based on surveillance may achieve their goals, but in so doing may exert a chilling effect on public spontaneity. Programs that encourage citizens to report the sins of others may produce a deterrent effect, but may also create a society of informers in which no one can be trusted (Marx, 1989). Programs that require certain types of offenders, such as drunk drivers or child molesters, to identify themselves may invite harassment and vigilantism (Marx, 1990). Screening processes designed to prevent fraud against social welfare systems can be so rigorous that they exclude those who would be legitimate beneficiaries. Not only can they discourage legitimate claimants from seeking their entitlements, they may erroneously identify law-abiding persons as fraudulent (Marx, 1986).

Critics of business regulation often cite the threat of criminal liability as a disincentive to investment and innovation. It has recently been suggested that liability rules and prudential requirements in the U.S. have made responsible lenders overcautious, to the detriment of that nation's economic recovery (Rowlett, 1993). Downs (1973) observed that strict enforcement of building codes, ostensibly in the interests of the health and safety of low-income tenants, led to the abandonment of buildings by landlords and a consequent shortage of affordable accommodation.

Policies to discourage the employment of illegal immigrants may entail the threat of severe penalties for employers and strict liability for hiring workers without proper documentation. The strategy is at first blush compelling: not only would it appear to protect disadvantaged workers

against exploitation by unscrupulous employers, it would serve to protect employment opportunities for legitimate members of the work force. In furtherance of these worthy ends, the state would enlist the resources of the employer in screening prospective employees.

To shift such potential risks and administrative burdens onto the employer may incline some to avoid employing members of ethnic minorities altogether. The price of discouraging the employment of illegal immigrants can thus be discrimination against immigrants in general.

A deterrent posture may be so ferocious that it defies credibility or even implementation. Sunstein (1990) reminds us that draconian standards may produce underregulation; regulators may be loath to enforce standards they perceive as too stringent, or to trigger penalties they perceive as too severe. The idea is hardly new; one may recall from the history of English criminal law the plethora of offences that carried the penalty of death, while only a relatively small proportion of crimes resulted in executions. Jurors and judges were simply reluctant to convict (Zimring and Hawkins 1973).

Perverse Incentives

Policies can be structured in such a manner as to provide perverse incentives, whether for the target of prevention activity or for third parties (Schultze, 1973). One need not be an economist to recognise that certain efforts in furtherance of prevention may distort markets in a manner that produces unforeseen, and often undesirable, outcomes.

During the 1993 Christmas season in the U.S., a well-meaning citizen sponsored a "toys-for-guns" program, whereby individuals could exchange a firearm for a gift certificate redeemable at a prominent chain of toy stores. The symbolism was so compelling that it captured the imagination of millions and inspired numerous variations on the "Gun Buyback" theme. Although the appeal of such strategies is considerable, and the reduction of a firearms inventory is doubtless laudable, it has been nevertheless suggested that such programs may distort the market for firearms, inadvertently subsidizing firearms manufacturers, possibly producing gun thefts, and enhancing the value of the least expensive weapons (Eckholm, 1994).

Interference in markets can produce singularly inappropriate incentives. Resort to theft in order to finance consumption of drugs is a pattern

of behaviour deeply embedded in conventional criminological wisdom. Competition for drug markets often becomes violent. It should come as no surprise, therefore, that drug "crackdowns" may be accompanied by increases in violent crime (Sherman, 1992). In his study of police undercover operations, Marx (1988) reminds us that police "stings" based on undercover purchase of stolen goods may serve to increase the number of active burglars. The threat of draconian penalties may also produce perverse incentives; the death penalty for murder will arguably place potential witnesses to any capital crime at greater risk of their lives. In those jurisdictions that impose capital punishment for offences other than homicide, the perpetrator may reduce the risk of execution by killing the victim outright.

Moral Hazard as an Incentive to Offend

The term "moral hazard" normally refers to the inclination of persons who are insured against a risk to engage in a greater degree of risk-taking activity (Heimer, 1985). Thus, persons who are insured against theft may be less likely to invest in additional security measures. But the term has been used more broadly to encompass incentives to offend. Consider policies whereby rewards are offered for citizen assistance in the detection and reporting of an offence (Levmore, 1986). The incentive to orchestrate an offence in order to claim an award for its detection or prosecution is hardly a novel idea. One imaginative practitioner who succeeded for a time was the celebrated eighteenth-century thief-taker Jonathan Wild (Howson, 1970). Until his arrangements were discovered, Wild practiced at two complementary professions. On the one hand, he would recover lost property for a commission; on the other, he operated simultaneously as a receiver of stolen goods. Such ironies are by no means limited to eighteenth-century property crime. Prior to a recent amendment, it was possible for the architect of a fraud against the U.S. government to seek a reward under the False Claims Act (Phillips, 1990).

Over and above issues of moral hazard, insurance generally is an invitation to fraud during periods of economic contraction or when the value of the insured asset has depreciated. Overinsurance, in particular, creates an ongoing incentive to destroy property (Heimer, 1985).

The domain of environmental protection provides other examples of perverse incentives. Consider, for example, a system of rebates for the

return of toxic waste generated in a manufacturing process. In the absence of a carefully designed pricing structure, such a program might create incentives to increase the production of toxic waste. One could, for example, dilute a substance and seek a rebate for the larger volume. Alternatively, one could produce "counterfeit" waste, generating a substance for no other purpose than to claim a rebate (Russell, 1988). Landes and Posner (1975) have noted the incentive to breed noxious pests in order to claim a bounty for their extermination. Such a policy could produce the perverse effect of increasing the very problem which it was designed to address. It is, in effect, an invitation to fraud.

In addition to the risk of counterfeiting noted above, incentive systems, depending upon their structure, may invite collusion between prospective enforcers and offenders. Where the enforcer's potential reward is less than the offender's likely penalty, there exists an incentive for the prospective offender to bribe. Where the potential penalty is smaller than the potential reward, there is an incentive to fabricate an offence. A matter of greater concern arises when disincentives to prevent an offence are produced by the availability of greater compensation for disclosing an offence after the fact. An incentive thus exists to allow damage to occur in order to obtain a larger quantum of compensation (Landes and Posner, 1975).

Informers' reward programs also carry the potential for blackmail. A prospective informer may demand payment from a violator as a condition of refraining from disclosure. As long as the amount demanded is less than the expected costs (financial and non-material) that would flow from official knowledge of non-compliance, it will be in the violator's interest to pay "hush money."

Perhaps the most dramatic example of the moral hazard in recent regulatory affairs is the constellation of events collectively known as the savings and loan scandal that occurred in the U.S. during the latter half of the 1980s (Mayer, 1992). With a view toward stimulating the economy, the Reagan Administration relaxed prudential controls on small financial institutions, while at the same time insuring their deposits. The result could be described most charitably as a frenzy of unwise investment; in reality, a great deal of activity was sufficiently fraudulent as to give new meaning to the axiom "the easiest way to rob a bank is to own one."

Moral Hazard and Vulnerability to Victimization

Moral hazard more commonly refers to the propensity of persons insured against risk to engage in risk-taking behaviour. As knowledgeable insurance people are aware, the phenomenon of moral hazard has significant implications for crime prevention. For this reason, insurance contracts often have in-built conditions and incentives to undertake preventive measures.

Insurance aside, there are other occasions when moral hazard may operate to net disadvantage. These entail circumstances when prevention initiatives create a false sense of security. For example, it has been suggested that the use of "dummy" surveillance cameras may have a lulling effect on unwitting members of the public (Clarke and Weisburd, 1994). Police patrols with two officers may be more risk-prone than single officer patrols (Wilson and Brewer, 1992).

It has also been suggested that training in self-defence and assertiveness may enhance feelings of competence and self-esteem and, indeed, may enhance personal safety (McDaniel, 1993). While this may well be the case, such feelings may lead one to enter situations that are best avoided, and perhaps may contribute to the escalation of violence (Skogan and Block, 1986). A spouse's new-found assertiveness may be viewed by a chronically abusive partner as provocative and as justification for further abuse (O'Leary et al., 1985; Black, 1984). In his study of high-speed police pursuits, Homel (1990) reported that police officers with advanced driver training tended to have more accidents than their counterparts without such training.

One of the more interesting debates in recent years surrounds the deterrent consequences of the private ownership of firearms. While some have argued that a significant amount of crime is deterred by the realization that the prospective victim may be armed (Kleck, 1988; Kleck and Patterson, 1993), advocates of firearms control argue that arming in self-defence will contribute to firearms accidents, escalation of violence between victim and offender, and opportunistic use of firearms in interpersonal disputes (Kellermann, 1993, 1992; Cook, 1993; Zimring, 1991).

Crime Prevention as Fear Generation

We have seen above how crime prevention activity can produce a false sense of security, and may lead to unwarranted risk-taking. The flip side of this would entail situations in which crime prevention initiatives generate a degree of fear, cynicism and suspicion unwarranted by empirical reality (Marx, 1986). Rather than enhancing freedom, some technologies of crime prevention may produce a fortress mentality (O'Malley, 1992). While one of the fundamental objectives of crime prevention is fear reduction, there remains the risk that crime prevention activity may actually exacerbate fear of crime (Rosenbaum, 1988; Rosenbaum et al., 1986; Winkel, 1991). A recent longitudinal study reported a positive relationship between precautionary behaviours and fear of crime (Norris and Kaniasty, 1992). Various child protection programs have been criticised for delivering more fear than actual security.

The above review of the many ways in which crime prevention efforts can produce harm is almost certainly not exhaustive, nor are the types mutually exclusive. Barr and Pease (1990), for example, observe that displacement can entail escalation. Our task now is to begin to understand how the "best laid plans" can so easily go astray.

PART THREE: EXPLAINING COUNTERPRODUCTIVE CRIME PREVENTION

The most cynical explanation of counterproductive crime prevention would hold that authorities are less focused on longer-term realities than they are with short-term image. In such a world, crime prevention programs exist not so much to prevent crime as to demonstrate official concern and the illusion of action. Ultimate outcomes, if less than successful, are likely to be someone else's problem. Whether or not this may be an intractable fact of life in contemporary Western democratic political systems cannot distract us too greatly for present purposes. We may not be able to lengthen the periodicity of electoral cycles, but we can at least acknowledge—and indeed celebrate—the contributions of true policy visionaries. In any event, for those who may be involved in the actual engineering of crime prevention programs, there are more scientifically significant considerations. We turn now to a practical discussion of what

might be termed "engineering flaws" in the design and implementation of crime prevention programs.

Bad Science

Wishful thinking is no substitute for theoretical understanding. Underlying most crime prevention failures, ironic or otherwise, is bad science. In this regard, perhaps the most common pitfall is the tendency to overgeneralize. General theory may be the ideal of scientists, but inappropriate application of general theory, or failure to account for situational variation, can be the bane of those who might seek to make a difference in the real world (Braithwaite, 1993). What works in Wollongong might fail on Palm Island.

Even in a limited setting, those policy entrepreneurs who are enamoured of a certain paradigm, such as rational choice or deterrence theory, may discover that not all targets of control are "utility maximizers." Some targets, in fact, may act in a very irrational manner. The threat of punishment may *invite* offending. We can learn about human behaviour from the Imp of Perversity as well as from James Buchanan. Recall how the identical stimulus can elicit compliance from some individuals, and provoke defiance on the part of others.

The same risks may beset those who would prevent and control corporate crime. As Fisse and Braithwaite (1993) remind us, "organizations are so different that any universalistic approach to controlling them will encounter difficulty" (p. 130). So it is that the cutting edge of corporate criminology envisages the ideal regulatory policy as entailing a mix of instruments best-suited for specific organizational contexts (Gunningham, 1993).

It is often tempting to generalize from past policy outcomes that have met with apparent success. Closer examination, whether through replication or secondary analysis, may reveal nuances not previously apparent that can seriously limit the generalizability of findings. One recalls, for example, the widely heralded findings from Minneapolis on the deterrent effects of mandatory arrest for spouse abuse. Because of the apparent operational success of this form of intervention, as well as its intuitive appeal and resonance with the retributive inclinations of many of those concerned over the problem of spouse abuse, its adoption was widely advocated (Sherman and Cohn, 1989). Only later did it become apparent

that the intervention of mandatory arrest was effective in preventing recidivism by some abusive spouses and not others. Specifically, Sherman (1993) found an interaction effect between arrest and unemployment; arrestees who were employed were less likely to reoffend, but unemployed arrestees were *more* likely to do so.

Another potential source of ironic reversal, and of crime prevention failure in general, is the tendency to intervene at an inappropriate point in the causal chain that produces the problem in question. The practice of treating the symptoms of a problem rather than its causes is as risk-prone as it is familiar (Marx, 1990); post-hoc nuisance abatement is no substitute for prevention (Janicke 1990). The aforementioned anecdote about improving the lighting in the Glasgow neighbourhood is a good example.

A more basic scientific shortcoming is the apparent failure to understand the causal processes upon which one seeks to intervene. Recall the observations of Sherman (1993) that a deterrent stimulus perceived as fair will have its intended effect, while the identical stimulus—if perceived as unjust—will elicit defiance and resistance. An invitation to empathy will have no impact upon the affectless; the spectre of shame no effect upon the shameless.

Moreover, there remains the possibility that an intervention can trigger other causal processes. The functional disruption of related systems is familiar to students of ecology. Similar principles apply in social life (Sieber, 1981). McCord's (1978) follow-up analysis of the Cambridge-Somerville program suggests possible reasons for that program's ironic outcomes. She observes that contact with program staff whose values differed from those of the participants' own families may have produced conflicts that produced subsequent dissatisfaction. Assistance and support provided by the program may have engendered dependency and expectations on the part of participants. These expectations, when unfulfilled following conclusion of the program, may have created resentment. The warm inner glow of benevolence may have prevented program designers from anticipating that their interventions would generate such consequential side effects.

In addition to inadequate understanding of basic causal processes, there is often among policy entrepreneurs an inadequate appreciation of the systemic nature of modern society. Given the density of contemporary social space, efforts to influence one variable are likely to influence others, either directly or indirectly. Engineers of crime prevention are often

insufficiently aware of the wider social ecology—the complex, interdependent systems of social life in which the target behaviour resides. Most policies have wider ramifications.

Two facts of life compound this situation. The first is a common inclination to oversimplify problems and their solutions, a phenomenon too familiar to dwell upon here. Another is the bureaucratic specialization that characterises contemporary public administration. Not only does this produce a degree of professional tunnel vision, it creates a risk that parochial organizational goals may dilute or displace the main thrust of the intervention.

The fragmented nature of much policy space means that decisions taken in one policy sphere often have impacts in others. The movement to deinstitutionalize mental hospital patients in the 1970s and 1980s was heralded as humane and progressive; life in "the community" simply had to be better than in the Dickensian institutions of the state. The absence of intermediate care or community-based facilities, however, resulted in new problems of public order and homelessness, with a substantial increase in the workload of police, welfare, and housing authorities.

Bad Planning

Ironic policy reversals may also result from bad planning. One of the most fundamental causes of bad planning is the failure to learn. Learning failures may take a variety of forms. One can, of course, be genuinely ignorant of precedent—oblivious to the past. But dissonance reduction is a more common human characteristic; it is much more common to luxuriate in one's previous triumphs than to dwell on one's past blunders. Unfortunate episodes of the past are more often repressed, their inherent lessons unlearned.

Although many organizations lack the institutional memory to assist in planning, numerous models exist. Principles of aviation and maritime safety have developed systematically in response to accidents. The cumulative wisdom that they represent make it all that much more difficult to repeat a course of action that has previously had disastrous consequences.

These problems are compounded by some common principles of the sociology of knowledge. Those who may be unable to forget their past mistakes are nevertheless unlikely to flaunt them. Planning failures, not

to mention planning disasters, are not usually publicised, and are even less likely to find their way into the scientific literature.

Sieber (1981) suggests a number of manifestations of bad planning. The time required to achieve program goals may be greater than originally anticipated. Planners may underestimate the scope and depth of the target problem, as well as the quantity and quality of the intervention required to successfully address it. Thus, many short-term gains lead ultimately to defeat.

Implementation Failure

A final source of counterproductive crime prevention arises from defects in program implementation. This can entail resource inadequacy, lack of coordination between the various interests involved, and failure of oversight.

Resource Inadequacy

Programs that might otherwise succeed can fail because of a lack of resources. The program itself may be well-conceived and on target, but may founder because the intervention is of insufficient strength to affect on the problem. To use an analogy, where a sufficient dose of antibiotics can combat an infection, an insufficient dose may in fact aggravate the disease. Just as infrastructure maintenance deferred in order to save money may result ultimately in greater costs, so too can half-hearted investment in a program lead to failure and the necessity of greater remedial expenditures down the track.

Perhaps on a more mundane level is the suggestion that effective employment of security guards (or indeed, public police) requires that they be sufficiently compensated to offset the temptation to take advantage of the criminal opportunities open to them. In the absence of an appropriate incentive structure, these temptations can become part of the problem. Elsewhere, Clarke and his collaborators (1994) report how the initial design of new coin collection machines for the London Underground was of insufficient sophistication to prevent the use of slugs. Following widespread exploitation of the design shortcomings, authorities were forced to reinvest in more complex (and expensive) technology.

Lack of Coordination

The complexities of public policy often entail the involvement of more than one organization. Implementation failure may occur because of insufficient coordination between agencies with responsibility for or influence upon a program. There may be conflict and inconsistencies within and between relevant agencies; organizations can operate at cross-purposes (Castellani, 1992). The unfortunate consequence of the deinstitutionalization of the mentally ill was noted above. Policy analysts generally would do well to focus on the overlap of policy space during program development and implementation. Bottoms and Wiles (1988), for example, discuss the relationship between crime and housing policy.

In the best of all possible worlds, interagency coordination would be natural and flawless. But in the real world, where institutional fragmentation tends to be the rule, organizations often have their own agendas and priorities (Robertson, 1989). The risk that program goals will be displaced by organizational imperatives will increase with the number of agencies involved.

Oversight Failure

Another factor contributing to counterproductive crime prevention is lack of monitoring and oversight. For those concerned with image rather than substance, this may be of less concern. But for those seeking to effect genuine change, some kind of monitoring system is essential. Just as one should take care in generalizing from successful crime prevention outcomes, so too should one beware of overgeneralizing from crime prevention failures. The fact that a particular program is found to have negative consequences does not necessarily imply that the type of intervention in general is counterproductive; rather, it may be inhibitive only as specifically configured.

Some failures develop slowly enough to be noticed before causing irreparable damage, and corrective measures may be taken. However, there often exists the disinclination to perceive indicia of failure when they begin to appear. The tendency to perceive favourable evidence and to minimize disconfirming evidence is particularly strong on the part of those who may have a vested interest in program success (Chan, 1979).

Table 1 summarizes the above discussion by suggesting the salience of the explanatory factors for each type of regressive outcome. Situational

Table 1: Regressive Crime Prevention Outcomes and their Explanation

	Scientific Inadequacy		Planning Failure	Implementation Deficits		
	Over Generalization	Poor Causal Analysis		Resources	Coordination	Oversight
ESCALATION	✓	✓	✓			✓
Enticement	✓		✓			
Reversal of Effects		✓		✓		✓
Labelling		✓				✓
Self-fulfilling Prophecy		✓	✓			
Criminal Exploitation						
Under-enforcement			✓	✓		✓
DISPLACEMENT		✓		✓		
CREATIVE ADAPTATION		✓	✓			
OVER-DETERRENCE			✓		✓	
PERVERSE INCENTIVES		✓	✓		✓	
Fear generation			✓			

prevention activities would appear most vulnerable to displacement, creative adaptation and overdeterrence. These regressive outcomes are most likely to arise from deficits in planning and coordination. Social crime prevention initiatives, by contrast, appear at risk of resulting in escalation. This risk appears to arise primarily from inadequate scientific analysis, reinforced by shortcomings in planning. The hypotheses implicit in Table 1 must at this stage be regarded as tentative. One hopes they are amenable to testing and refinement by subsequent analysis.

PART FOUR: REDUCING THE RISK OF COUNTERPRODUCTIVE CRIME PREVENTION

At this stage, it would be delightful to deliver a revolutionary new recipe for fail-safe crime prevention policy. Unfortunately, nothing remotely resembling such an alluring prospect is at hand. Rather, and somewhat anticlimactically, what are available are some basic principles derived largely from common sense. Their saving virtue is that they can be ignored only at one's peril.

There is an important role for evangelists in crime prevention. Political mobilization and marketing are essential to the crime prevention enterprise, and evangelists are better at these tasks than are skeptics. Skeptics, too, play an essential role: as they never tire of reminding us, many roads to disaster are paved with the best of intentions. A less visible, but no less important, role is that of analyst. An effective crime prevention program will probably require the efforts of all three.

Analysis

First, crime prevention planners should make an effort to understand the context and mechanisms of their intended activity. They should comprehend the systems in which they propose to intervene, and the processes they propose to disrupt. They should look beyond the superficial, mechanistic doctrines of opportunity and deterrence, and understand the psychological processes, social organization, and economic systems in which target behaviour is embedded (Felson, 1994).

These systems can be as diverse as the mind-set of homeless Aboriginal youths, the social network of an ethnic street gang, or the market for heroin in a given region. Given the density of policy space, planners should

also attend to the political and administrative systems on which their programs will impinge (Castellani, 1992). A grounding in principles of ecology and systems thinking will be useful in this regard. Those who design crime prevention programs would do well to engage in "pluralist planning" (Chan, 1979), and devise scenarios from a variety of institutional perspectives (Hall, 1980). They should invite independent analytical criticism and the search for likely interactions that may be overlooked by a program's designers. One might suggest an ongoing role for the institutionalized skeptic, one whose role it is to pose hard questions.

To the extent possible, planners should endeavour to model a proposed intervention and anticipate the ramifications of their program, especially the program's potential downside risks. Planners should then seek to structure their intervention in a manner that would minimise the negative externalities in question. An outstanding example of research that consciously sought to anticipate various systemic impacts of a prospective policy intervention is the feasibility research into the controlled availability of opioids, conducted at the Australian National University's National Centre for Epidemiology and Population Health. This project sought to identify a wide range of repercussions that might arise in the event that heroin were distributed on a controlled basis to dependent persons in the Australian Capital Territory. For example, Bammer and her colleagues sought, among other things, to assess public opinion regarding the controlled distribution of heroin; the effect which such a distribution scheme would have on the existing illicit market; and means of reducing the risk that such a policy would attract drug users to Canberra from other parts of Australia.

Special care should be taken in the design of crime prevention protocols. Recall McCord's (1978) suggestion that the delivery of services in the Cambridge-Somerville Program may have unwittingly generated tensions in the treatment recipients. Also recall Winkel's (1991) finding that the form in which crime prevention information is communicated can spell either success or increased insecurity. Negative communication strategies can enhance fear of crime without reducing risk.

The risk of being blinded by public pressure for a quick fix is a common feature of contemporary politics. The tendency to be dazzled by a particular technology or method may lead to its overuse and eventually to its diminishing effectiveness. Interventions with particular symbolic value or resonance, such as "boot camps" for juvenile offenders, "toys-for-guns"

programs, or mandatory sentencing structures based on the principle of "three strikes and you're out," should not be embraced uncritically.

Anticipatory planning is central to policy development (Pressman and Wildavsky, 1984). One hardly needs reminding that large-scale interventions are best undertaken only after piloting or pretesting. But while they are in operation, crime prevention initiatives—or, indeed, pilot studies—should incorporate built-in feedback mechanisms, monitoring systems and contingency plans in the event that negative consequences start to become apparent (Sieber, 1981; Pressman and Wildavsky, 1984). Early warning of dysfunction may permit refinement or modification. The need for such contingency planning should be obvious in projects like the Kansas City Preventive Patrol Experiment, where preventive patrols were withdrawn from randomly selected areas of the city without informing residents. Kelling (1985) describes how the experimental procedures provided for monitoring of crime rates over the course of the experiment and contingency plans to terminate the project in the event of unacceptable increases in crime. Of course, interventions whose effects may not become apparent until after the significant passage of time are less amenable to corrective feedback. Recall the Cambridge-Somerville study, where the adverse impact on participants' mortality was not evident for many years.

Ethics

The risk that even successful crime prevention initiatives may cause collateral harm suggests that those who would design prevention programs adhere to the highest ethical standards. Even the probability of laudable ends may not justify the means. Very few interventions would appear to be entirely risk-free. Those who design and implement crime prevention policy should anticipate the risks faced by subjects and by third parties, and do their best to ensure that their likely distribution is equitable and that they do not outweigh the benefits of the proposed intervention. In particular, they should be attuned to existing incentive structures and systems of informal social control, and seek to envisage how their proposed intervention might affect them (Grasmick and Bursik, 1990). Where the intervention will have an impact on a market, an attempt should be made to anticipate what that impact will entail.

One could perhaps be excused for concluding from the above discussion that nothing works, nothing can be made to work, and any efforts to this end will only produce more harm than good. But this is not the case. The intended message was rather that rigorous policy analysis is an essential ingredient of crime prevention, and that there is a role for institutionalized skepticism (as opposed to cynicism) in the crime prevention enterprise. Just as knowledge advances through negative findings, so too can policy.

The majority of those with an interest in crime prevention would regard it as the most productive approach to the problem of crime that confronts contemporary society. As such, they might tend to regard it uncritically. The disinclination or unwillingness to recognise potential harm is common.

All innovation entails a degree of risk. The challenge for crime prevention is to contain that risk within reasonable limits. Just as engineering failures can be the basis of subsequent design successes (Petroski, 1985) so, too, can the analysis of counterproductive crime prevention activity be instructive.

It has become trite to quote Santayana's dictum that those who cannot remember the past are condemned to repeat it. But one can learn a great deal from disappointment. Failure analysis is central to the profession of engineering; so too should it become central to the professions of crime prevention and criminal justice.



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NOTES

1. This refers to correctional practices which may increase the risk of recidivism. Reference to prisons as "schools of crime" are as old as prisons themselves; authorities in many jurisdictions will concede that few people leave prison as more able to function as responsible citizens than when they entered. (See generally: Hawkins, 1976, Chapter 3.)

2. One cheerfully notes the contributions of Clarke and Weisburd (1994), who report a variety of positive unintended consequences of crime prevention activities.
3. These exclude crimes committed by agencies of criminal justice. (See: Grabosky, 1989; Marx, 1988.)
4. Marx (1981) also discusses the criminogenic consequences of *non-enforcement* and *covert facilitation*. For comprehensive discussions of the latter, see Marx, 1988, and the symposium published in the *Journal of Social Issues* 1987 43(3).
5. Makkai and Braithwaite (1994) identify the personality trait of emotionality as likely to provide the basis of a defiant response to a deterrent regulatory posture, especially when regulatory enforcement is perceived as mistrustful and challenging to one's professionalism.
6. For discussions of labelling theory, see: Braithwaite. (1989, 16-20); Farrington, Ohlin and Wilson (1986, 111-19).
7. For discussions of repeated or multiple victimization experiences, see: Meier and Miethe (1993) and Sparks (1981).
8. The phenomenon of neighbourhood decline is evocatively discussed by Wilson and Kelling (1982) and Skogan (1990).
9. Of course, the causal ordering of this relationship may be reversed. Authorities, with no intention of enforcing the letter of the law, may increase penalties for symbolic purposes. One finds in the realm of business regulation, for example, relatively harsh penalties on the books but relatively gentle enforcement and sanctioning (Grabosky and Braithwaite, 1986). Cynics could perhaps be excused for speculating that this is precisely what authorities intended.
10. As Barr and Pease (1990) suggest, displacement may occur in a number of dimensions. It may occur over time or across space; it may entail a shift in targets, methods or offence types. It should be noted that displacement, far from being an unintended consequence of crime prevention activity, may actually be a goal. There are those who concede the inevitability of undesirable activity, and are simply concerned that it not occur "on their watch" or in their "backyard."
11. There are those who suggest that the justice system is inherently biased against disadvantaged minorities, and that forces as inevitable as gravity

will militate against them (Black, 1989). Displacement in general will be regressively redistributive.

12. It is said that years ago, so rigorous was the surveillance of public lavatories by plainclothes police that the New South Wales Teachers' Federation warned its members, regardless of sexual preference, to avoid using such facilities in Sydney lest they run the risk of being charged with intent to engage in what was then illicit sexual activity. On a less dramatic note, Marx (1990) has observed that the removal of seating facilities in public places to discourage loitering serves to deny everyone a place to sit.

13. Other authorities argue, to the contrary, that stringent regulation can provide the impetus for innovation and thereby enhance competitive advantage (see Porter, 1990). As we noted above in the discussion of escalation, new challenges may inspire criminals to engage in creative adaptation.

14. Gloria Laycock (personal communication, May 1995) related the tale of two British ladies on the beach in Spain, who saw a young Spanish boy treating an injured bird as a football. The lady was appalled, and paid the child to give the bird to her so that she could take it away and care for it. She was alarmed to find, therefore, a few hours later, a queue of young Spanish boys at her door, all holding injured birds, and all asking for payment.

15. The vigor of the debate may be explained in part by the likelihood that there is an element of truth to the position taken by each side.

16. For the classic statement of public choice theory, see Buchanan and Tulloch (1962). For a wider overview, see Caporaso and Levine (1992).

17. A recent observer of policy failures in general criticises the tendency of governments to focus their attention too far down the chain of causation, where problems and interventions are most visible. (See Janicke, 1990, chapter 3.)

18. For a discussion of the adverse impact of inflated expectations, see Boudon (1982).

19. One need only recall how the deinstitutionalization of the mentally ill affected not only on health systems, but also on housing, welfare, and law enforcement.

20. One might also wish to maximize the diffusion of crime control benefits (see note 3 *supra*).

21. See Bammer (1993); Bammer et al., (1994a); Bammer et al., (1994b).

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