Crime Prevention Through Social and Physical Environmental Change

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One approach to crime prevention where behavior analysts can make important contributions is the modification of environmental opportunities and victim vulnerabilities that are related to higher rates of offending. Examples of environmental crime prevention are discussed in the following areas: (1) modifying physical environments in order to "harden" targets of crime, (2) training victims to be less vulnerable to victimization, (3) eliminating portrayals of certain groups of people that legitimize their victimization, and (4) organizing neighborhoods and communities to strengthen their means of social control. Two implications of environmental crime prevention—the role of individual differences and the scope of prevention—are discussed.
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In the first century A.D., Seneca exhorted his fellow Greeks, "He who does not prevent a crime when he can, encourages it," and Cicero added, "Every evil in the bud is easily crushed." Since Seneca and Cicero, the cloak of prevention has been wrapped around a large body of interventions. At one time or another, banishment, imprisonment, eugenics, political revolution, social change, economic reforms, education, parent effectiveness training, religious conversion, environmental redesign, neighborhood watches, gun control, more police, purchases of locks, alarms, dogs, and mace, probation, diversion, amputation, castration, and execution have been championed as methods of crime prevention. This list should remind us that for every Seneca there is also a Lord Braxfield, an 18th century Scottish judge whose favorite saying was reputed to be, "Hang a thief when he is young, and he'll not steal when he is old."

Our imprecision about what constitutes prevention is beginning to yield some predictable consequences. Critics of crime prevention programs cite the past failures of the field and the lack of adequate evaluation as reasons to scrap future federal investments in prevention and return to a policy of incapacitation through lengthy imprisonment of chronic offenders. The irony of this position is that it occurs at a time when prevention research is beginning to uncover some promising developments.

The prospects for preventing crime and delinquency should not be viewed too pessimistically. Indeed, an optimistic view of the *potential* for prevention is aligned with cutting-edge scholarship in criminology (Glaser, 1979), prediction of violence (Monahan, 1984), and prevention in general (Cowen, 1983). Five target areas for crime prevention seem particularly promising because they possess, to different degrees, two components that appear essential to sound primary prevention—a *generative base* that provides the knowledge and rationale for interventions and an *executive base* that implements and evaluates programs of prevention (see Cowen, 1983). The five areas are as follows: (1) diversion of predelinquent youth from the official processing of the criminal justice system; (2) reductions of family violence that has been associated with a spectrum of later antisocial and violent behavior by adults who were abused or observed domestic abuse as children; (3) development of better parental discipline techniques in order to improve children's abilities to regulate their own behavior; (4) development of cognitive, behavioral, academic, and occupational competencies

that are important buffers in youths' struggles to cope with stress; and (5) modification of the environmental opportunities and victim vulnerabilities that are related to higher rates of offending.

This paper concentrates on the possibilities contained in the last area—the modification of social and physical environments (see Nietzel & Himelein, 1986 for a review of all five areas). Prevention of this type can be conceptualized in a behavior-analytic framework. Social and physical environments provide antecedent cues that set the occasion for criminal behavior and the consequences associated with such behavior. If we can design environments that make criminal behaviors more difficult and/or increase the costs of committing crimes, some criminal behavior may be prevented.

SITUATIONAL CRIME PREVENTION

Conceptual Basis

The criminal justice system has recently begun to pay more attention to the victims of crime. This orientation goes by several names such as the victimization perspective, victimology, and situational prevention, and it has generated new programs in victim compensation, witness protection, treatment of victims, and new strategies for crime prevention.

From a victimization perspective, crime prevention is based on interventions that change the relationship among the offender, the victim, and the environment so that opportunities for crime are reduced. The rationale for prevention of victimization may be summarized as follows (see Clarke, 1983; Lewis & Salem, 1981): (1) crime is the result of opportunities for victimization provided by certain physical environmental settings or by certain generally or specifically vulnerable people, all of which can be conceptualized as discriminative stimuli; (2) crime can be prevented by decreasing these opportunities; and (3) the opportunities themselves can be decreased through (a) modifying the physical environment so as to increase the proba-

bility of surveillance or to "harden" specific targets of crime, (b) training victims with general or special vulnerabilities to become less susceptible to victimization, (c) eliminating portrayals of certain groups of people that may increase their risk of victimization, and (d) organizing neighborhoods, organizations, or communities to strengthen their means of social control.

Interventions

Target hardening. Making environments more crime-resistant is an idea as old as Francis Bacon's observation that "opportunity makes a thief." One of the first proposals for environmental crime prevention was the view that physical space and buildings could be planned so as to encourage natural surveillance (Jacobs, 1961). This idea was later elaborated into a "defensible space theory" (Newman, 1973), which consisted of four components:

(a) the use of real and symbolic barriers subdividing the residential environment into manageable zones which would "encourage tenants to assume territorial attitudes and prerogatives"; (b) the provision of opportunities for residential surveillance; (c) the design of sites so that the occupants are not perceived as stigmatized or vulnerable; and (d) the placement of residential structures in proximity to safe or nonthreatening areas. (Taylor, Gottfredson, & Brower, 1980)

In a book entitled *Crime Prevention Through Environmental Design,* C. Ray Jeffrey (1971) described criminal acts according to the settings and reinforcement provided by crimes, and concluded that "to change criminal behavior we must deal directly with criminal behavior by removing the environmental reinforcement which maintains the behavior" (p. 185). He suggested several methods of behavioral and environmental engineering that would increase the protection of private property, increase social contacts in settings that formerly produced isolation, make theft insurance contingent on citizens taking specific steps towards crime prevention, and promote citizen involvement in protecting their neighborhoods.

Other examples of environmental pre-

vention include deterrent patrolling; the placement of humps in roads to reduce speeding; the development of multiple social uses of unsupervised space in high crime areas; the electronic monitoring of the location and activities of offenders on parole, probation, or diversion; and the use of incentives to encourage voluntary surrender of handguns. Three common elements of these strategies are (a) disruption of criminal resources, (b) modification of environments to make crime physically more difficult, and (c) transmission of the message that crimes will be detected and punished.[1]

Target hardening has been criticized because it is said only to displace rather than prevent crime. Displacement is the criminological equivalent of symptom substitution and another indication of the lasting popularity of hydraulic models of behavior. There are five types of displacement: geographic (a shift in location), temporal (a change in the time of offending), tactical (an alteration in method), target (a choice of a different victim), and statutory (a change in the choice of crime). The evidence for different forms of displacement is mixed, although it is certainly not an inevitable by-product of situational prevention (Clarke, 1982).

Evaluations of prevention programs based on defensible space ideas have yielded conflicting results. Some programs are associated with lower crime rates, but these reductions are not usually well maintained. A major problem with defensible space projects is that they often deteriorate to a kind of architectural determinism, which is not what Jacobs or Newman had intended. The crime pre-

ventive aspects of environmental change can be realized only when it promotes crucial behaviors in its inhabitants. Behavior analysts can play an important role in studying how to maximize environmental facilitation of citizens' potential crime-preventing behaviors.

Decreasing victim vulnerability. Higher rates of criminal victimization occur for the young, for nonwhites, for males, for the poor, and for single persons—all suggesting that life-style and opportunity are important factors in victim vulnerability.

Potential victims may also display nonverbal cues that communicate vulnerabilities to offenders. For example, in one study, people walking through New York City were unobtrusively videotaped; these tapes were then shown to prisoners who had been convicted of violent crimes (Grayson & Stein, 1981). The inmates rated the videotapes on a 10-point scale that measured a victim's assault potential. Older men and women were rated as more likely assault targets than younger persons, but a more interesting finding was that victims and nonvictims could be differentiated on the basis of specific body movements. Victims took either long or short strides as opposed to nonvictims. They also shifted their weight differently and moved their arms, feet, and legs in a stilted or exaggerated way. There was a co-ordination to the movements of nonvictims that was absent in the movements of the potential victims. Such differences suggest that programs designed to modify movements that unintentionally invite assaults might be a useful component in self-defense training.

Personality and coping styles may also differentiate victims from nonvictims. For example, Meyers, Templer, and Brown (1984) compared rape victims with nonvictim controls on several biographical and psychological measures, and found that the victims scored lower on social presence, dominance, assertiveness, independent achievement, and internal locus of control. Past drug or alcohol abuse and a history of psychiatric hospitalization were also associated with victimization. Retrospective assess-

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[1] Behavior analytic research methodology is a useful technique for comparing the effects of these kinds of environmental manipulations. For example, antecedent stimulus control in the form of specific antishoplifting signs has been shown to reduce shoplifting (McNees, Egli, Marshall, Schnelle, & Risley, 1976) and campus theft (Geller, Koltuniak, & Shilling, 1983). Similarly, installation of steering column locks on cars in England was followed by a dramatic reduction in theft of such cars; however, a time-series design revealed an accompanying increase in the theft of older cars without the steering column locks (Clarke, 1982).

ments of victims must be considered cautiously because of the possibility that any differences are consequences rather than antecedents of the attack. Two other interpretations of different pre-attack victim styles are possible. It is one thing to claim that rapists select victims for apparent vulnerability and ability to cope, but quite another to imply that women set the occasion for the attacks they suffer or fail to resist them strenuously enough. The first view suggests some implications for prevention; the latter, however, risks a return to a "blame the victim" perspective that is anathema to prevention.

Behavior analysts could contribute to two research priorities in the area of victim vulnerability. First, we need to understand what specific behaviors on the part of potential victims lead potential attackers to perceive them as vulnerable and therefore increase the chances of being victimized. Second, with these discoveries in hand, we could design interventions intended to promote those behaviors that are most incompatible with perceptions of vulnerability. Although our more cognitively-oriented brethren might conceptualize this research agenda in self-efficacy terms (Bandura, 1977; see Biglan, 1987 for a behavior-analytic formulation of self-efficacy), the fact remains that it is overt performance that transmits the cues of invulnerability likely to deter criminal attacks.

Lessening fear, along with promoting assertive, self-confident, and independent behavior, have been important elements in victimization prevention programs designed for women (Kidder, Boell, & Moyer, 1983). The importance of protective strategies that emphasize behavioral activity as opposed to passivity or restriction is predicated on findings that active behaviors will reduce fear while passive strategies will lead to behavior that may cause the perception of vulnerability (Bandura, 1977). In implementing this type of prevention, behavior analysts must be clear that participants can prevent their victimization without assuming that they are to be blamed for causing it.

Environment-oriented crime preven-

tion is also compatible with the way crime victims conceptualize their own victimization. For example, Himelein (1987) interviewed 80 burglary victims within two weeks of their burglaries, and approximately three months later, about several aspects of how they reacted to being burglarized. Among the findings were that 92.5% of the victims struggled with the question of why they in particular had been burglarized. The answers to this question were grouped into six categories. Fifty percent of the answers involved one of two explanations: an *environmental vulnerability* (e.g., "I live in a very accessible place, it is very remote; it is easy to get into because there is a lot of grass.") or a *modifiable personal vulnerability* (e.g., "I was silly enough to leave my purse in plain sight on the table; I know it was a bad move and I don't usually do it."). Only 7% of the victims blamed their burglaries on *chance*. These responses suggest that crime victims, and perhaps nonvictims as well, already view crime in ways that could be converted into specific crime-prevention action on their part.

"Consciousness-raising" about victims. Attempts by individuals to prevent victimization need to be matched by societal-level interventions that modify the portrayal of certain crimes, how the public reacts to these crimes, and how the victims of these crimes are viewed by the public. It is important that behavior analysts address any phenomena that legitimize certain offenses at a social level. For example, with respect to rape prevention, Morokoff (1983) suggests three strategies that could apply to other offenses as well: (1) educating the public in order to reduce prevalent misconceptions about rape (e.g., forced sex is an enjoyable activity for women, rape produces no long-term consequences for the victim); (2) reducing the depiction of sexual violence and aggression toward women in the media; and (3) increasing the power and resources of women so that stereotypes of them as masochistic or deserving of victimization are more difficult to perpetuate.

Societies prone to rape, family vio-

lence, or other offenses against "traditional" victims are societies that limit victims' access to power. As a consequence, powerless people become the likely targets of exploitation. Likewise, whenever the motive of profit is promoted more strongly than the motive of honest business conduct, increases in occupational and white-collar crime can also be predicted. Public education and the use of mass media to provide nonaggressive and law-abiding models are strategies for system-level "consciousness-raising" that behavior analysts need to pursue and evaluate.

In this regard, Leitenberg (1983) has called for mandatory high-school courses in parenting and childrearing as an example of proactive, nation-wide delinquency prevention. He has recommended that such a course be required for obtaining a marriage license — analogous to requiring driver's education before one can receive a driver's license. Courses in sex roles and human sexuality could also be developed for promoting knowledge and nonsexist attitudes about sexual behavior.

Similarly, the role of television in its portrayal of certain classes of victims (e.g., women) and about the relative gains and costs of criminality needs to be explored. Social scientists have devoted so much effort to discovering a link between televised violence and viewer aggression that they have neglected the study of how television might shape more general behaviors of even greater importance in preventing criminality.

Organizing citizen groups to prevent crime. One of the most insidious effects of crime is the damage it does to a community's sense of moral order and social control. Crime traumatizes groups as much as it terrifies the individual victim. Just as many crime victims suffer a sense of vulnerability, communities with high crime rates are also disrupted and become stigmatized and more vulnerable. Crime prevention, then, should be practiced collectively by existing groups and organizations rather than by individual citizens (Lewis & Salem, 1981). The fear of crime is greatest in communities that

lack the power to regulate themselves or that claim they lack such power. For this reason, local groups rather than individuals need to develop preventive responses to crime. Such collective efforts are important because they should enhance community cohesion and the sense that the community is capable of insuring its own moral order. Common examples of such strategies include neighborhood watch programs to prevent burglaries and the recruitment of citizens to observe public facilities and spaces in order to prevent vandalism.

In addition to making communities more efficacious in coping with crime, the most successful prevention programs will be the ones that make it clear that the community will not tolerate crime and will make criminality costly if it occurs.

IMPLICATIONS

An environmentally oriented approach to crime prevention has several implications for criminology, the focus of interventions, and social policy. Two of these implications need immediate consideration.

First, endorsement of environmental strategies is not incompatible with a view of criminality that stresses certain predispositions to offend. In fact, advocates of environmental prevention must consider such individual differences seriously because these differences are likely to dampen the effects of environmental contingencies when applied to potential offenders. How to overcome these individual difference "hurdles" has no easy answer, but consistency, swiftness, and certainty in anti-crime contingencies are qualities likely to be important to the maximization of preventive impact.

A second implication of environmental approaches to prevention is whether to continue with "baby steps" (Cowen, 1977) toward progress or to attempt "giant leaps" along the lines advocated by Leitenberg's (1983) call for political activism as an ingredient in crime prevention. Both baby steps and giant leaps move us forward and therefore both de-

serve our support. Any one-sided inter-
vention, whether psychotherapy or pre-
vention, is risky because one-sided
solutions can create as many problems as
they solve (Rappaport, 1981). Large-scale
prevention, in particular, runs risks of
overpowering the naturally existing abil-
ities in a population. Further, Weick's
(1984) concept of "small wins" instructs
us to not pass up the baby steps in favor
of the giant leaps. Small wins, which are
moderate accomplishments that produce
visible results, promote personal control,
increase our understanding of problems,
encourage us to act, and reduce fear of
disorder and crime. Perhaps the best ad-
vice is to keep taking the baby steps at
the same time we try to lengthen our
stride. The small wins can continue, as
the bigger victories come within reach.

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