

# The National Swedish Council for Crime Prevention

## Crime Prevention

Eckart Kühlhorn  
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Research and  
Development Division

Report No 9

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Stockholm, Sweden  
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The National Swedish Council for Crime Prevention (Brottsförebyggande rådet) established 1974, is a government agency under the Ministry of Justice. The Council is headed by a board of 19 persons appointed by the government and representing a wide range of important functions in the community. The Council has an office with a permanent staff.

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## The Editors' Foreword

### Some theses concerning crime prevention

#### *The need for a theory*

Attempts to prevent crime have been made virtually since the birth of mankind. But it was only with the development of modern behavioural science that we acquired the instruments needed for systematic analysis of experience, social facts, and results of research. The data now available concerning crime and crime prevention measures have in a short period grown enormously and can hardly any longer be effectively handled without a fundamental theory as to how crime prevention measures function.

In the general debate one often encounters cocksure assertions and simple recipes against threatening criminality. "Prevention is better than cure" is an example of the banalities that are voiced abroad. We can readily agree with the proposition, but the question as to what crime prevention measures should be taken in practice has thereby hardly found any reply.

Different debaters claim to have found the philosopher's stone in the form of a cure for all types of crime. In Sweden we sometimes hear, for example, that the root of the evil is our commercial mass culture. To combat crime, therefore, we should oppose commercialism. Another royal road sometimes indicated in Sweden for lowering of the crime rate is a profounder democracy.

Criminologists as well, and others professionally engaged on questions of how to prevent crime, make very general recommendations. "Informal social control" or "technical solutions" are examples of such universal remedies.

All of those who, in this book, hope to see their ideas of a universal remedy against a rising and/or altogether too high a crime rate confirmed will be disappointed.



No such remedy is presented. Crimes have different causes, are committed in different situations, and must be combated in different ways.

✓ This book contains analyses and summarized accounts of ways known today for preventing particular crimes. We wish especially to emphasize two points in this context. In the first place it is a matter of theories concerning the probable effects of certain measures against crime. That is something entirely different from theories about causes of crime. Often we can do nothing about the causes of crime but must be content to deal with symptoms, sometimes because the causes are unknown, at others because they are so interwoven with urbanization, family structure and the general social development as to be beyond our control. A theory of crime prevention is thus comparable, for example, to theorizing about the effects of mass communication. On the other hand it cannot, of course, be compared to theories which attempt to explain, why communication arises at all. In the same way the theories concerning crime prevention that we present in the sequel are oriented rather towards our experience of the effects of measures in general than towards various general theories about the origin of criminality. The affinity between our theories of crime prevention and general criminological theories comes to light mostly in the section concerned with the handling of situations which permit or give rise to crime.

The book presents experience of successful and sometimes less successful attempts at crime prevention. It contains proposals for crime prevention measures. It also contains theories concerning crime prevention and must therefore be seen, too, as a modest contribution to a more grounded theory in the sphere of crime prevention. In the words of Barney G. Glaser and Anselm L. Strauss (1979) a grounded theory is needed in order to be able to

1. to enable prediction and explanation of behaviour
2. to be useful in theoretical advantage in the subject
3. to be useful in practical applications-prediction and

explanation should be able to give the practitioner understanding and some control of situation

4. to provide a perspective on behaviour - a chance to be taken toward data
5. to guide and provide a style for research on particular areas of behaviour

### *Crime prevention – a definition*

Most people would agree that manifestly inappropriate attempts to prevent crime do not deserve to be denoted as crime-preventing. If anyone asserts that the high consumption of sugar in our country underlies juvenile criminality, and therefore proposes an increased tax on sugar, there would be few who would categorize the proposal as a crime prevention measure.

Often, however, the matter is not so simple. The possibilities of directing potential juvenile delinquents into the narrow path by offering them positive alternatives to criminal activities are, for example, difficult to assess. Proposals are not seldom encountered in Sweden from individuals, organizations and public authorities for (increased) government grants for particular youth activities, which are said to be crime-preventive. They may be religious organizations which wish to conduct missionary associations wishing to offer youth classical music instead of punk rock, amateur theatrical societies which wish to give them an alternative to westerns with their glorification of violence, boxing clubs which wish to give youth a legal outlet for their aggressions...

It is, of course, fully possible to define crime prevention measures as all measures taken with the express or implied aim to (also) reduce crime. The aforementioned examples of reportedly crime preventing activities, however, give one pause for consideration. There is usually no possibility to measure to what extent they actually lead to less criminality. It is therefore recom-

mended that the term 'crime prevention measures' be reserved for measures which allow an evaluation of the extent to which the aim is achieved.

We make a distinction also between rehabilitation and prevention. One of the main differences is, that prevention operates in an impersonalized way with measures of the same character for individuals in the target group while treatment methods are highly individualized.

There has always been a clear distinction between institutions for prevention such as the police and institutions with the aim to rehabilitate offenders. The fact, that treatment and prevention have the same aim does not mean that these efforts should be combined in one approach.

We therefore recommend the following definition:

Crime prevention measures are all technical, informative and educational methods aimed at preventing criminal acts and effected in a way that allows an evaluation of the extent to which the aim is achieved.

The definition thus differs from others that have been employed (e.g. Berckhauer, 1980) in its requirement that the degree of goal fulfilment shall be evaluable, particularly through empirical studies.

Our theories of crime prevention - which are thus based on an effect-oriented definition - need not conflict with theories of crime as a result of (unsatisfactory) social conditions. Even criminologists who argue that property is theft, and who view theft of bicycles as a natural result of their ownership by private persons, would undoubtedly lock their bicycles when they leave them in order to put the finishing touch to their arguments in the ideological debate. And those who express themselves in favour of theories of the kind we advance

in this foreword are obviously aware that locked cycles as well are stolen in societies in which the economic causes underlying cycle thefts have not been abolished.

### *The opportunity structure - the dependent variable*

In descriptions of crime prevention measures one can usually distinguish two main variables, namely the actual measures taken (the new locks, the stricter watch, etc) and the hoped for effect of the measures. The paper "Towards a common sense in crime control" presents an interesting diagram of the latter, dependent variable. The diagram contains three components. The first is whether the measures are aimed to affect criminals or victims, or situations which permit or provoke crime. The second takes into account whether the intended effect is to occur before, during or after the criminal act. And the third relates to whether the intended effect is temporary or permanent.

This book gives examples of all three components. The paper "Crime prevention - Evaluation of a national publicity campaign" describes a campaign in Holland advising individuals how to protect themselves against crime. The campaign described in "Women by night" has the same concentration on the victim component in opportunity structures. Its object was to induce women in Bremen to observe greater caution in their relations with (unknown) men and thus to prevent rape. The latter campaign is one of the book's examples of a less successful crime prevention project. Other measures described in the book are directed to potential criminals. The Swedish measure of multiprogramming of income data forming the basis for national health insurance and for housing allowances entailed an increased risk of discovery for those who toyed with the idea of "juggling with housing allowances". The proposals for antitheft locks on motor vehicles, presented in "A crime prevention

car", are addressed neither to criminals nor victims but are intended to change the present situation in which cars are all too easily accessible and incite to crime in other ways as well.

The crime prevention concept may be said to imply that the measures shall be aimed at effects before crime is committed. A greater risk of discovery, which resulted from the Swedish demand for proof of identity when paying by cheque ("Controlling the opportunity structure"), admittedly leads to a greater number of legal actions after cheque forgery but also deters potential offenders from even attempting to commit such crimes.

Campaigns, empirically, attain only temporary effects. Situational changes, such as statutory requirements of theftproof car locks or sectoral agreements to demand proof of identity when paying by cheque, on the other hand, are examples of measures with more permanent effects.

The experience of, among other factors, the Swedish measures against cheque forgery and fraud in obtaining housing allowances lends support to the view that strongly crime-reducing effects can be achieved by direct control of the opportunity structure. The effects of indirect control, by means of campaigns for example, are, as far as can be judged, considerably weaker. The direct control should, however, be fairly strict. The paper "External effects of a crime prevention program in the Hague" describes the Moerwijk project. This comprised the establishment of special police units for prevention of residential burglaries by among other means, increased patrolling and information to the public. The paper indicates, however, that the effects of these measures were considerably weaker than those measured in the aforementioned Swedish trials, since it was difficult to get a sufficiently strict control over the opportunity structure.

From the foregoing remarks one may draw the following conclusions, which may be regarded as a contribution to a basic theory in this sphere:

1. the prevention of different types of crime requires different types of measures
2. the more stringent the measures taken to control the opportunity structure for a particular type of crime, the greater, the probability of success in reducing the number of such crimes
3. the opportunity structure for a particular crime can be changed by measures whose crime-prevention effects differ according to the object for the measures (victim, perpetrator, situation), the time for occurrence of the effect (before, during or after the criminal act), and the duration of the effect (non-recurrent measures, structured measures).

To these conclusions may be added certain reflections presented in the paper "A first step towards a victimological risk analysis". This deals with crime prevention based on an analysis of the risks of becoming a victim of crime. The analysis starts with the proposition of Cohen & Felson (1978) that crime presupposes a potential perpetrator, a suitable victim or object and inadequate protection of the victim or object. The opportunity structure is determined by the interplay between potential criminals and potential victims. A first factor which affects this interplay is proximity - geographical and social - between criminal and victim. A second factor is the attraction of the victim or object for potential criminals. A third is the accessibility of the victim or object. This is dependent on technical and social circumstances, e.g. locks and surveillance. The analysis finds support from many examples in this book. It leads us to the opinion that the offenders should occupy the central place in an analysis of the opportunity structure, but that it is important that the analysis should include the latter three factors as well.

To the earlier three conclusions we therefore add two more:

4. even if crime prevention measures should always be aimed at preventing the commission of crime, they need not always be directed against potential criminals
5. the opportunity structure is determined, inter alia, by the contacts between perpetrator and victim, and factors such as the proximity, attraction and accessibility of the victim or object to potential criminals play an important role.

### *Crime prevention – the independent variable*

The effect striven for in crime prevention - a changed opportunity structure - is the dependent variable in our scheme. The measures taken to attain this effect are the independent variable. These measures can be taken both inside and outside the judicial system. "Juggling with housing allowances" gives an example of crime prevention measures initiated and put into effect entirely without participation of police, prosecutor, courts of law or the penal system. It is probable that preventive measures against tax offences, customs fraud misuse of various forms of state grants, etc, will often be taken by taxation, customs and other authorities concerned outside the judicial system.

The earlier given definition of crime prevention includes what is customarily embraced in the traditional concept of general deterrence. At least three reasons may be adduced for this. In the paper "General deterrence and prevention" it is stated that certain judicial measures really do have effects of a general deterrent character on certain types of crime. "Crime and its control in Sweden" gives support to that view. Another reason which may be adduced is that the chief variable in the general

deterrence theory consists of the clearance rate. That the clearance rate or risk of discovery is of vital importance also in crime prevention is shown, for instance, by the experience from the Moerwijk project ("External effects of a crime prevention program in the Hague") and by the Swedish measures against juggling with housing allowances. Both projects were based on the theory that a sharply raised risk of discovery would deter from crime. The third reason finally, is that the significance of sanctions cannot always be disregarded. In "General deterrence and prevention" it is reported that, when the Chief Public Prosecutor in Sweden tightened up the practice of prosecution of drug offences, the police acquired a greater motivation in their work, which resulted in a greater risk of discovery and in a heavy rise in the number of drug offences brought to the notice of the police. A grounded theory of crime prevention should therefore accord a place to notions of general deterrence.

The foregoing leads to one additional conclusion, viz.

6. crime prevention measures are not reserved to judicial authorities.

With regard to the one latter conclusion we may mention that it actually indicates under what conditions conclusions 1-5 apply. The following four conclusions must be considered in the same way.

"Women by night" describes certain difficulties encountered in the work of crime prevention. By the issue of leaflets the police in Bremen wished to give women an insight into the risks of rape and the possibilities of protecting against it. The leaflets were, however, interpreted as an attempt to place the responsibility for such crimes on women and led to demonstrations by several women's organizations. This jeopardized the prospects of success of the project. The paper points to the risks of such Cassandra effects in crime prevention. Such an

effect implies that a measure is neutralized by counter-measures taken inside or outside the organization wishing to prevent crime. In Sweden we may note at present that the account and credit card enterprises are not willing to introduce compulsory proof of identity when using these cards for payment, as is the rule today for payment by cheque. The introduction of compulsory proof of identity when paying by cheque was also preceded by some resistance on the part of shopkeepers among others.

We may thus draw an additional conclusion, viz. that

7. crime prevention has its price in money or inconvenience and may consequently encounter considerable resistance inside or outside the organization which recommends the preventive measures.

### *Evaluation of crime prevention measures*

As earlier mentioned, our definition of crime prevention presupposes that the degree of fulfilment of the goal shall be controllable.

It is not possible to evaluate all crime prevention measures. The term 'crime-preventive' can therefore not be reserved for measures which have demonstrably led to a reduction of crime. But it must at least appear probable that such is the case. One should therefore make it a requirement that the measures are so radical and the relation between measures and crimes so plausible that they may be expected to have some crime reduction effects.

Even if the resources thus do not suffice for evaluation of all crime prevention projects, it is important that projects are organized as far as possible so as to allow an evaluation to be made. In planning this evaluation it is important to choose criteria which allow a determination of the extent to which the crime prevention measures bring about the desired result. Reference may

be made in this context to "External effects of a crime prevention program in the Hague". In that paper is described how in the Moerwijk project eight criteria were used for evaluating the work of the burglary control team. These were whether the public were aware of the existence of the team, public willingness to report crime, public willingness itself to take precautionary measures, the local resident's opinion of the police, the clearance rate, the trend in the numbers of burglaries brought to the notice of the police, the fear of crime and the local resident's opinion of the burglary control team. An advantage of criteria of this kind is that some of them are hierarchically related to one another so that indicators are obtained at an early stage if the expected effects do not take place. If, for example, a large proportion of the Moerwijk population had not discovered the existence of the burglary control team, one could hardly expect them to have taken any measures for their own protection according to the program. Particularly having regard to the time and cost aspect such "chains of criteria" should be included in the evaluation programs.

The foregoing leads to additional conclusions:

8. crime prevention measures require careful planning and should not be taken unless it is at least probable that they will lead to a lower crime rate than if nothing is done
9. crime prevention measures should, if possible, be evaluated on the basis of criteria which at an early stage indicate whether the measures appear to be producing the desired result

Evaluation of crime prevention measures requires an advanced technique. Special arrangements are required, for example, in order to be able to determine whether a campaign for greater self-protection is observed chiefly by persons who have already taken such measures or whether it really reaches new groups. Another great

problem of evaluation made by means of interviews is to distinguish answers given because the subject wishes to appear in a socially favourable light. It may be a matter, for example, of whether the person has taken any action in response to a campaign for greater self-protection. There is the risk that the respondent wishes to appear to the interviewer as a responsible citizen who protects his property and thus exaggerates the protective measures he has taken. Another difficulty is to decide whether crime prevention measures have the result that crimes are committed at another time, in another way or at another place, or that one type of crime is replaced by another. Such difficulties are brought up, for instance, in "Controlling the opportunity structure". If difficulties of these kinds are not overcome, the result is usually an exaggerated view of the efficiency of the measures taken and an idealization of the true situation.

And, herewith, a last conclusion can be drawn, viz.

10. evaluation of crime prevention measures should be conducted by professionals.

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# Toward a Common-Sense Approach in Crime Control

*Dr Ruud J. Vader*

## Introduction

This chapter consists of two parts. In the first section, the phenomenon of crime control is put into a stimulus-response perspective. The second section describes how preventive crime control responses could be functionally improved. This section represents the nucleus of a lecture that I gave in 1979.<sup>1</sup>

## Crime control, what are we talking about?

Crime control is often described in terms of the many repressive and preventive activities that are alleged to contribute to the control of crime. Discussions on the (in)adequacy of these activities rarely lack the observation that there is an urgent need to formulate a comprehensive crime control policy at the various levels of government and administration. The following way of looking at the phenomenon may be helpful in edging our way towards such a policy.

For this purpose it is useful to think about crime control in terms of its life cycle and the various stages of development.

The root of crime control lies in the emergence of that which is at some stage considered desirable to control, namely crime. This emergence can be depicted as follows: (for practical purpose I will confine my attention to one specific crime - bicycle theft - in order to make

the argument somewhat less abstract. The patterns of occurrence and reactive lines may be different for other types of crime).

Fig. 1

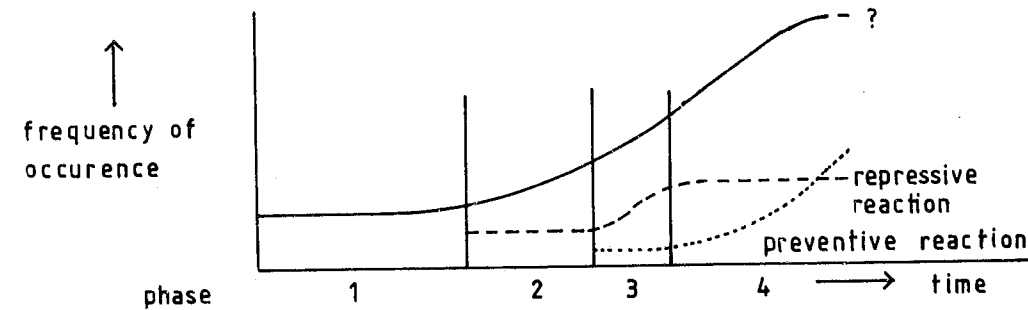


Fig. 1 Life cycle of bicycle-theft and reactions to it.

I would assume this to be a typical reaction pattern if society is facing a crime problem.

Phases 1-4 are characterised as followed:

#### Phase 1. Pre-phase.

All elements that make bicycle-theft possible are present (see sect. 2 for a review of such elements), yet theft is rare or non-existent. The possibilities are not any significant extent converted into probabilities.

#### Phase 2. The problem begins.

This is the phase in which bicycles are being stolen, but the thefts are not considered to be a specific problem. People steal all sorts of things, this time it's a bicycle. Police reaction consists of run-off-the-mill registration and detection.

#### Phase 3. The problem is getting recognized.

The thefts keep on increasing and the problem is being defined as serious. All sorts of demands (political, economic, legal) are being raised to formulate a (police-)policy to combat the problem. The crime is now

getting more specific repressive attention by the police. Registration measures are improved, campaigns are being mounted and task-forces are being formed. In this phase there is an emergence of preventive efforts by appealing to potential victims to be more careful with their property. This phase terminates at the point where the problem still increases and the limits of financial, procedural and personnel capacities in repressing it are reached.

#### Phase 4. The problem is getting out of hand: a call for systematic prevention.

This is the phase in which the police are forced into systematic prevention efforts. All else seems to have failed.

In sect. 2 of this chapter a model is presented for approaching existing crime problems in a systematic way. A more elaborated description of such an approach was recently published by the Dutch Crime Prevention Bureau and an English translation of it will be available shortly<sup>2)</sup>.

The point that I want to make by presenting this life-cycle scheme is that prevention, as it occurs in many instances, is something that is thought of rather late in the day. In order to combat a crime problem (more) effectively it is, in my opinion, necessary to move the preventive reaction at least one phase to the left, and preferably two phases.

I believe that a systematic preventive reaction should start at the latest at approximately the same time that repression is intensified. If the start of systematic prevention could be further advanced, the repression may not need to be intensified to the same extent at all.

At first sight my propositions may seem rather obvious. Still the pattern of figure 1a often remains as it is.

The main explanation of this may be the fact that the organisational structure of police forces shows a fundamental lack in being able to perform a continuous monitoring function (which is needed in phase 1 and 2) and an early warning function (which is needed in phase 2 and 3). Even the many operations or planning departments use the information that is available to them mostly for purposes of improving repressive reactions in phase 3. Consequently I believe that the first step towards a preventive approach that really warrants its label is to assign to some person or unit within the force the two functions that I mentioned. Let me now turn to the way in which one can address oneself in a systematic way to the problems one may find.

### A systematic approach

Once we have accepted the idea that prevention of crime should be less "reactive", we need a way to think through our crime problems and their commensurate control mechanisms. In doing so we need to organise our tools and the way in which they are being used.

#### Arraying the tools of Crime Control

If we want to get away from using Crime Control measures in an ad-hoc fashion, the first thing we need is to array the available measures in a coherent way. Major advantages that derive from such an array are, first of all, that the measures can be regarded within the perspective of their mutual relationships and, secondly, it can serve a heuristic function when searching for alternative solutions to crime problems.

Even though one can find a number of arrays in the literature - and recognizing that different purposes require different arrays - I have found it useful to categorise the tools for crime control along three basic dimensions:

1. Is the primary intended effect of the measure aimed at altering
  - the behaviour of the perpetrator
  - the behaviour of the victim
  - the situation in which or because of which crime is possible?
2. Is the primary effect of the measure intended to occur:
  - before the offence takes place
  - during the offence
  - after the offence has taken place?
3. What is the level of operation of the primary intended effect of the measure:
  - incidental
  - structural?

Graphically the answers to these questions can be presented in the following matrix:



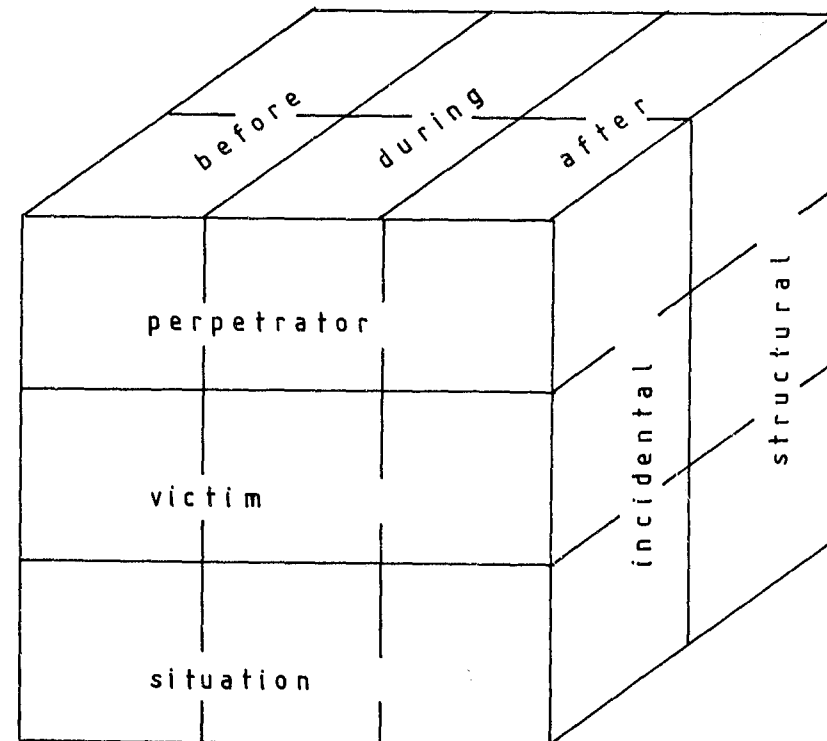


Fig. 2 Matrix of Crime Control Measures

Measures are arrayed according to the object at which their primary intended effect is directed, to the time at which this effect occurs and to the level at which it is to operate.

Before turning to the subject of strategy I would like to mention one more possible function of this matrix in addition to the functions of creating coherent order and of providing a heuristic aid in finding solutions for crime problems. The additional function concerns the possibility to ascribe specific characteristics to the various categories of measures, for instance in terms of unwanted side-effects like prescription of *modus operandi* or like increasing injustice or subjective insecurity.

I shall return to such effects in the next section. The matrix meanwhile, however much it may be further developed, remains to serve its purpose as an instrument for structuring our ideas about crime control measures.

#### Elements for a strategic model of Crime Control

Obvious elements for a strategic model of Crime Control are its objectives, the means or instruments by which its objectives are to be achieved, the conditions that must be met before instruments can function effectively, and the other effects that may derive from the use of applied instruments. Let me consider these elements in an example. If the stated objective of citizen participation in an operation-identification program were the reduction of the individual risk for a participant to become a victim of burglars, a necessary condition would be that prospective burglars are made aware of the fact that objects in the premises are registered.

Awareness alone, however, is not enough. The burglar must also be reasonably convinced that stealing registered goods leads to increased risk of apprehension, and eventual conviction, or would be significantly less rewarding in terms of lower cash-value for such goods. An additional condition for the measure "registration" to be effective would be a sustained effort at better detection rates for registered stolen goods as compared with non-registered stolen goods. If successful this would lead to a second effect - in addition to the stated objective of individual burglar-risk reduction - namely an increase in detection and possible clearance rates. Other effects, both from applying the instrument (registration plus the announcement thereof) or from attaining the stated objectives, might include backfiring of the program unless a sufficiently large proportion of the population participates, or various forms of displacement of the crime that is being countered.

As becomes apparent from the example, the use of a strategic model requires one to reason through various

relationships between the elements of the model.

Starting at stated objectives one must consider alternative instruments for achieving them.

And taking a closer look at those instruments, one must take into consideration whether and under what conditions the instruments can function effectively. Crucial in this sequence is the question to what extent the immediate effect of the selected measure contributes to the achievement of the objective it purports to attain.

And if one suspects such contribution to be insufficient, what additional measures must be taken?

Finally one must include possible effects that might derive from the use of selected instruments and weigh the costs in terms of negative effects against the benefits of goal attainment.

Before I present the model, let me briefly discuss its constituent elements.

Crime control measures do not, in my opinion, contribute any independent value to society. Intuitively one senses that crime control should not be necessary, just as crime should not exist in the first place. Thus, the ultimate objective of crime control must be found in a reduction of loss of security which can be regarded as a fundamental aspect of wellbeing. To my mind it is of utmost importance for the police to relate the fight for greater security with the well-being of citizens. For thereby the ultimate objective of crime control obtains two connotations of the concept of security, firstly the concrete chance for a citizen to become a victim of crime and secondly his fear of crime, or the absence thereof. I term these connotations objective and subjective security respectively. The ultimate objective of police crime control measures can now be defined as:

enhancing objective and  
subjective security of citizens  
with regard to crime.

Allowing for both preventive and repressive measures, the following more specific objectives of police crime control measures can be formulated:

1. Reduction of the risk for individuals to become a victim of crime
2. Reduction of the general level of crime
3. Balancing the level of fear for crime with actual crime threats
4. Reduction of the amount of damage (material or immaterial) through crime.

As the matrix of crime control measures that I have discussed earlier suggests, these objectives can be operationalised in terms of perpetrators (from better guidance in order to prevent deviant behaviour to improved detection, apprehension, conviction and rehabilitation), in terms of victims (from educating them with regard to elementary precautions to motivating them to report crimes and provide the police with adequate information for their repressive tasks) and finally in terms of situations (from architectural designs that are less inducive to criminal behaviour, defensible space that lessens opportunities for such behaviour, to techno-preventive hardware such as locks and bolts).

Though it may be argued that a good relationship between the police and the public is more than a means properly speaking, we tend - in the Netherlands - to regard improvement of this relationship as a fundamental goal for all crime control measures. This choice must be considered against the fact that we have, in our country, no separate police force charged with just justiciary tasks exclusively. The task of maintaining order and rendering assistance to those who need it, on the one hand, and the tasks associated with prevention, detection of crime and apprehension of criminals on the other, is combined within every single police force. Bearing this combination of functions in mind, there are at least two good reasons for this emphasis. The first

is that without a good relationship the police, when executing their repressive function effectively, can hardly expect the citizens to voluntarily cooperate in prevention programs. Secondly, as a consequence of adopting a definition of goals that comprises subjective security, we reject misinforming the public by letting them believe that they are more secure than they actually are, and we also reject the method of boosting people's fear of crime in order to get them to take preventive measures. With propaganda and unnecessary fear ruled out in this way, we must - and do - rely on a good relationship between the police and the public, thereby adding a further objective to the list:

5. Attaining and maintaining a good relationship between the police and the public.

The advantages of defining the objectives of police crime control as broadly as I have done become clear if one realises that goal attainment for one objective may sometimes have a negative impact on the other stated objectives. Relating measures and objectives, as the model suggests, allows for adjustment of the measures so as to offset such negative side-effects, or for adding additional measures that amplify positive effects. A fine example of similar reasoning can be found in Austria. Before initiating measures aimed at reduction of the number of bank robberies the Vienna police, together with the University of Vienna and a private security firm, analysed the probable displacement of robberies. As predicted, the robbers turned from banks to petrol stations. The latter, prior to the implementation of the anti-bank-robbery measures, were informed and instructed as regards preventive measures. Thus, inclusion of not only the immediate category of victims, but also of displacement effects and considerations regarding the general level of robberies, led to more effective crime control than could have been expected from a narrower approach, which would only have taken the specific bank problem into account.

Having discussed measures and objectives, the remaining elements of our model are "conditions" and "other effects". Conditions may come in many forms, they may apply to personnel, finance, information, etc. At the level of implementing measures they may be as trivial - in the case of operation identification - as having engravers available and sufficient citizen support. Likewise, for security hardware advice by the police, a necessary condition is the availability in local stores of the materials recommended. Granted, this may not be a primary responsibility for the police, but if it is overlooked, the practical effect of recommending certain materials may be nil.

At the level of goal attainment - taking the registration example again - conditions may take the form of additional measures with regard to antiburglary activities.

Other effects - I am referring to effects other than the stated objectives - may be as diverse as displacement, unnecessary arousal of fear or increased reporting of crime. Registration campaigns not only lead to preventive objectives but also engender expectations in the public as to improved detection. That obviously is the implication of the often heard commentary by policemen when victims report without adequate information: "if you don't know what you're missing, how do you expect the police to trace it?"

Clearly registration programs alone cannot do the job, a police department must be prepared for and capable of processing an increased and improved input. This applies - consequently - also to the public prosecutor and the judicial and penitentiary systems.

A preliminary model that contains the basic elements as discussed can graphically be presented as follows.

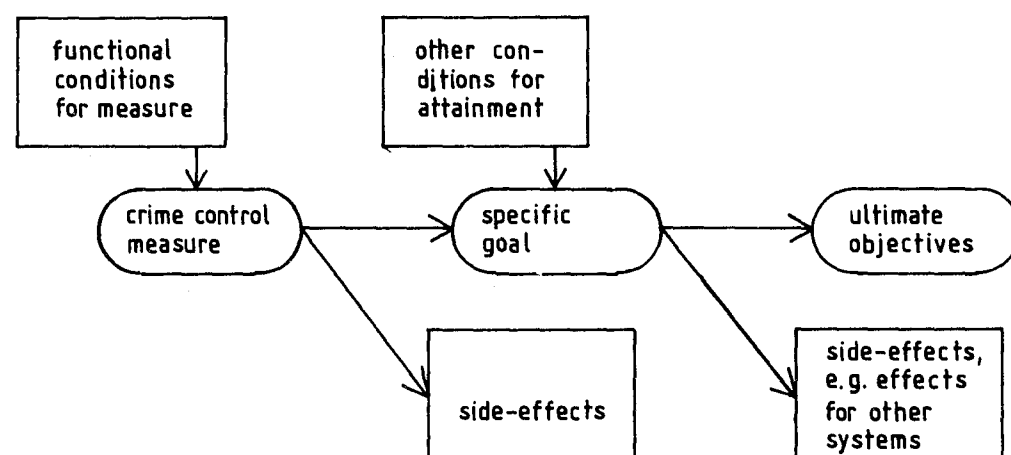


Fig. 3. Preliminary Crime Control Model, relating goals to measures, conditions and further effects.

Summarizing what I have noted about the elements of the model, the following questions must be asked of each element when working out a strategy:

1. How is the specific goal operationalised, how will attainment be measured and how does attainment relate to the ultimate objectives of crime control: reduction of the chance for individuals to be victimized, reduction of the general level of crime, balancing fear with actual crime levels and a good police-public relationship?
2. What is the selected crime control measure, to what extent can it contribute - when functioning as expected - to attainment of the specific goal?
3. What conditions must be met before the selected measure can function effectively and, if they cannot

be met fully, what is the consequence thereof for attaining the specific goal?

4. What may be other expected effects that derive from applying the selected crime control measure, e.g. geographical displacement of crime, displacement in terms of criminals selecting different targets or using other modus operandi on the same targets, or arousing fear?
5. What other measures may be necessary to warrant attainment of the specific goal if effective functioning of the selected measure would by itself be insufficient? Also what additional measures may be used to amplify the effect of the selected measure or to diminish factors that possibly reduce its effectiveness?
6. If the specified goal is reached, how does that affect other systems, what arrangements must be made to ensure that goal attainment at the specified level does not generate problems at another level or in adjacent systems that might well frustrate the contribution of the whole strategy in terms of achieving its ultimate objectives?

#### Some general guidelines for a crime control strategy

The logical sequence of steps involved in a crime control strategy are: 1) diagnosis, 2) defining a specific goal and the measure(s) by which it must be achieved, 3) implementation and 4) evaluation.

#### Diagnosis

This phase involves description of the problem by answering the following questions:

- 1) What is the problem and who reported it?
- 2) What is the measure of intensity of the problem expressed in offences:
  - absolute numbers in last 5 years

- ratio as compared with other offences
  - trend over the past 5 years, possibly supplemented with prognosis for the years to come?
- 3) What are the offence characteristics according to:
- place
  - time
  - characteristics of victim
  - weapons used/modus operandi (absolute and trend)
  - damage
  - type of damaged/stolen goods
  - other possible criminal characteristics?
- 4) Personal sense of security in relation to specific offences
- 5) What are the factors that encourage/discourage the offence (i.e. level of preventive countermeasures, publicity of offences, mental attitudes of the population, etc )?
- 6) What knowledge and experience already exist in relation to this offence, and to solutions and countermeasures?

#### Defining goals and measures

In this phase we select solutions on the basis of examination and diagnosis. To reach the solutions we develop countermeasures and choose the concrete measures necessary. Searching for measures may be enhanced by using the matrix of crime control measures.

In the choice of a certain countermeasure it is of importance to determine:

- the target which are set
- which are the target groups towards whom the countermeasures are directed
- who implements the countermeasures
- when to apply countermeasures
- whom to approach as the closest concerned
- which other persons or institutions can assist or might oppose application and how these "target groups" can be approached

- the cost involved in the countermeasures.

When working out the strategy one has furthermore to consider the six categories of questions that I just mentioned when discussing the model.

#### Implementation

Implementing the strategy requires that target groups be approached at a predetermined time and in a predetermined order. Preventive and/or repressive measures are then executed, including a follow-up in order to establish that the measures, as far as their application is conditional on other persons or measures, are fully implemented. Problems which present themselves at the implementation stage are solved, including continuing care to meet personnel, material and otherwise supportive conditions.

#### Evaluation

Evaluation during and at the end of the activities associated with the implementation and execution of the strategy is basically not different from a repeated diagnosis and examination of the changes brought about in the perspective of the changes that were a priori declared desirable.

It is important to look at possible side-effects - and to measure them! - of both the introduction of measures and of attaining the specified goals.

#### Final remarks

I hope I have been able not only to convince the reader once more of the fact that criminality and our efforts to counter it are of a highly complicated nature, but also of the fact that this complexity can be so structured as to enable us to address ourselves to our tasks in a rational and orderly way.

If that is the case, then the purpose of this chapter has been well served.

## Footnotes

- 1) Conference on: "Contributions to the development of a concept of Crime Prevention", Polizeiführungsakademie, November 1979, Münster, Germany.
- 2) English translation of "Oriënteringsnota Voorkoming Misdrijven". This translation can be obtained free of charge from:  
 "The National Crime Prevention Bureau",  
 P.O.Box 20301,  
 2500 EH The Hague,  
 Netherlands.

86456<sup>35</sup>

## Essays in the Systematization of Prevention Strategy

*Herbert Schäfer*

### Thinking by numbers

The task of systematization in criminalistic strategy is not confined to the level of theoretical considerations alone. Criminalistic strategy is also more than planning alone. It calls for meaningful, logical decisions that are to be carried into effect, and in the last analysis it must, in all its consequences, ease the work of the tacticians in the field. It must clear the way for the detective and preventive work of the police, must promote its implementation, and must help to improve its results.

Unfortunately, the realization that strategies are necessary has not yet spread far enough and wide enough. When it comes to the necessary thinking the police are still only on the threshold of a development which is admittedly being greatly retarded by "the reproduction of the reproducers" but which cannot in the long run be stopped (1).

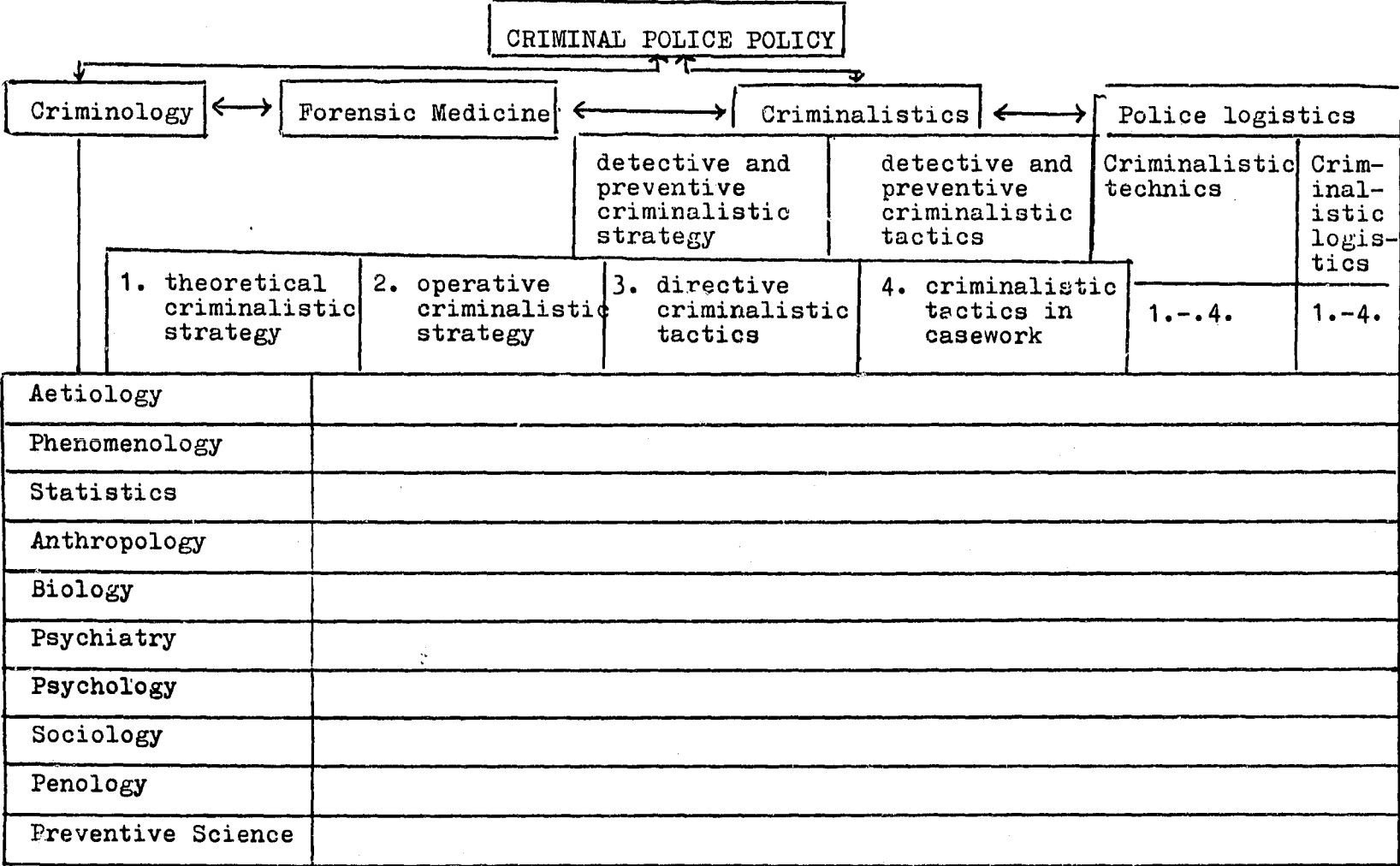
The first material to be published on the theme of "Criminalistic Strategy and Criminalistic Tactics" appeared in 1973 in "Fundamentals of Criminalistics", issued by the present author (2). Since then, the con-

cepts that were at that time introduced have established themselves in practice. They await sub-classification and refinement.

The chart that follows (A) sets forth a scheme of arrangement and conception that shows the interrelationships of criminalistics and criminology along with their usefulness and position in a strategic system of criminal-law enforcement. It is derived from the presentation of detective criminalistics, but it will also serve in the context of preventive criminalistics, since both spheres of criminalistics presuppose the same investigation into facts and make use of the same data and findings in the fields of science and art. In many cases, the facts that can be evaluated in the context of prevention and are amenable to scientific analysis will already be apparent from the relevant particulars that emerge from the investigation. It is true that the chart begins with the combating of criminality as its strategic goal, but it also embraces the tactical work on the crime. The same starting-points apply in the work of prevention whether it is concerned with criminality at large or with the individual crime or with the criminal behaviour of an individual wrongdoer. The same breakdown applies to police logistics as a whole, on all levels of action and decision.

The various areas of criminalistics are logically bound up together and condition each other, albeit no such system of conditions and contexts has yet been put forward. The principles of theoretical criminalistic strategy provide the source for the guiding axioms of operative strategy, which in their turn condition the guidelines of the tactical direction and point the way to the rules governing tactical casework. This sequential relationship of authority, of responsibility and of the scope of criminalistic competence and its quality, varying in nature though not in value, extends equally to prevention criminalistics.

Chart A.





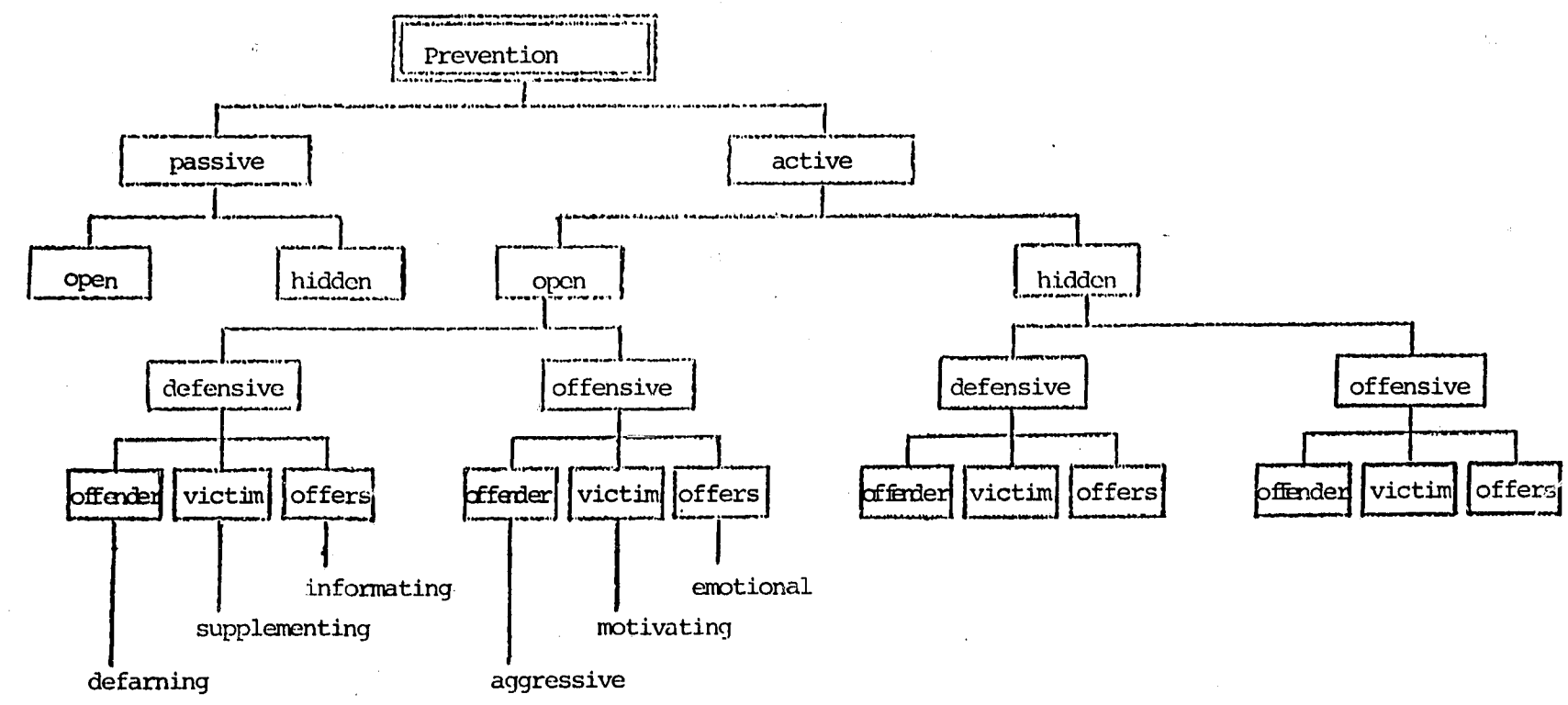
Decisions in respect of prevention strategy under the heading of regional, part or crime strategies can be eased with the aid of the second working chart appended hereto (B). In particular, priority over every fundamental strategic decision must be accorded to the question of whether, in view of a specific manner of commission of a crime, the preventive warning should be addressed in the first place to the public or preferably to a specific third party or else direct to the potential victim or even to or against the offender. The fixing of priorities is possible only after a thorough analysis of all the criminological considerations, unless it is to be effected by rule of thumb - i.e. in the way it has always been done.

From the determination of the point of attack there follows, that is to say the varying but always psychologically based method, the "choice of the angle of approach" for the action. This system needs to be thought through again. A stimulus thereto may hopefully be provided by Chart (C), which contains a breakdown of the various forms of prevention on the operative and tactically directive plane. This breakdown, which is in need of improvement and completion, is intended as a basis for discussion.

Chart B.

	TYPE OF OFFENCE																
	Prevention	VICTIMS				OFFENDERS				TARGET GROUPS				PUBLIC			
	Influences	Logi- stics	Moti- va- tion	Be- hav- iour	Per- son	Logi- stics	Moti- va- tion	Be- hav- iour	Per- son	Logi- stics	Moti- va- tion	Be- hav- iour	Per- son	Logi- stics	Moti- va- tion	Be- hav- iour	Per- son
Pre-crime phase	material																
	human																
	psychological																
Crime impetus	material																
	human																
	psychological																
Commission	material																
	human																
	psychological																
Post-crime phase	material																
	human																
	psychological																

Chart C.



## The principle of information and the pillory effect

The criminalist concerned with prevention must expect, even more than those who work in the detective sphere, that the steps he takes will encounter difficulties and resistances; in certain circumstances, after all, his work starts not from a clear set of facts and laws but from a vague state of insecurity in which the menacing danger may materialize - or may not. This state of suspense and this uncertainty set their mark on the tactics of the prevention criminalist - to the point of complete inactivity and dispensing with any kind of warning. Above all in the case of non-material crimes (such as fraud in its innumerable variants), he is very much inhibited by the fear that the swindler will strike back by laying counter-charges, by lodging complaints with superior authority, and by suing or threatening to sue for damages.

The same reticence is evident over the mentioning of an offender by name (or possibly even more so through the dissemination of photographs, the description of habits, places frequented, etc.). The same applies in the case of warnings against business firms whose (unknown) representatives behave fraudulently. At this point, if not before, the prevention criminalists - and sometimes their superiors as well - get "cold feet" and take the line that their legal obligation not to overdo things can best be observed by leaving the unsuspecting victim to his fate (which he may still be able to avoid by his own vigilance) and by keeping their hands off the intelligent and slick swindler who is prepared to strike back, and at all events not to bring him to public attention under his own name. It is correct that with all preventive warnings the principle of matching action to circumstances must be borne in mind. The warning effect that is intended and achieved through the information principle (no warning is possible without information!) must stop short of the

pillory effect, i.e. the unnecessary exposure of the offender against whom people are being warned. Admittedly, the offender will to a certain extent be exposed by any warning in which he is referred to by name. However, such exposure must not go further than is dictated by the circumstances of the case. In a way it is an unavoidable concomitant of the warning, a consequence of the public information. The same applies to the question of illegal interference with a trade undertaking (or firm). If there is no justification for the interference that the issue of the warning even by itself will constitute an action for damages will lie pursuant to § 823 BGB (unlawful act).

On the other hand, there is no legal necessity for the guilt of the offender to be established before a preventive public warning can be issued. The offender does not have to be convicted before the police can warn people against him. In the typical case a warning is issued against an offender who has not yet been convicted and who for that reason is still at large and still going full blast; the police do not delay their warning until he has been convicted of fraud and is serving a prison sentence - for the duration of which he is normally harmless. Nor is an adverse judgment in a civil court a necessary precondition for the issuance of a warning. On the other hand, a civil-court judgment in an individual case may be sufficient to establish malicious deceit by the offender (that is to say the defendant) of a victim (the plaintiff), which will for the most part provide grounds on which to issue preventive warnings to others. A judgment of this kind may be cited.

It is also possible - and legally admissible - to make public the advertisements of a marriage bureau, just as they were taken from the newspaper, when the mere reproduction of the - juxtaposed - advertisements renders it evident that certain statements made in them cannot

**Kinderkrankenschwester, 26/166,**  
schlank, sportlich, unendlich an-



schmiegsam.  
Liebevoll um-  
sorgt sie die  
kleinen Kinder.  
Es macht ihr  
sehr viel Freu-  
de und Spaß.  
Dies sind dann  
die glücklichen  
Stunden in ih-  
rem Leben. Ihr  
Wunsch ist es,

nie mehr allein und einsam zu  
sein. Wo bist Du, der sie anruft  
und mit ihr einen gemeinsamen,  
schönen Abend verbringt.

**VIP Institut Bremen, Remberti-**  
ring 19, Tel. 04 21 / 32 48 18, tägl.  
von 13-19 Uhr, auch Sa./So.

Weserkurier  
v. 28.3.1981

**Fremdsprachenkorrespondentin,**

28/169, sportlich, schlank, unend-



lich sanft. Nach-  
dem sie mehrere  
Jahre im Ausland  
gelebt hat, bleibt  
sie nun wieder  
in ihrer Heimat,  
aber es ist doch  
alles sehr fremd  
für sie, und es  
fehlt ihr der lie-  
bevolle Partner,  
den sie abends

an der Tür schon begrüßen und  
in den Arm nehmen kann. Sie  
würde doch alles für ihn tun. Bitte  
sei so lieb und melde Dich doch  
mal. **VIP Institut Bremen, Rem-**  
bertiring 19, Tel. 04 21 - 32 48 18  
(13-19 Uhr, auch Sa./So.)

Weserkurier  
v. 22.8.1980

be correct. This is apparent from the accompanying illustration of two advertisements; the manner of the presentation alone is enough to give the reader second thoughts and put him on his guard.

Since criminal proceedings for the determination of the public danger do not carry any weight, even if they may be helpful, a fraudulent entrepreneur may be enjoined from the exercise of his trade through the channels of administrative justice even before a conviction against him has been handed down. Only in this way can administrative justice discharge its preventive duty. As a rule, however, the administration in charge of the case will hesitate, and will put off the promulgation of an appropriate prohibition until the conviction has been confirmed. The hesitancy of prevention criminalists and administrative officials makes it easy for swindlers, in particular, to go on shamelessly fleecing many more victims even though a criminal investigation is in progress.

Inherent in every advanced, early, offensive, indeed aggressive prevention method is the particular danger that it will impinge upon economic, political or ideological interests and will thereby provoke vigorous counteroffensives, frontal or flanking. These sources of resistance to preventive warnings (and other measures) may then be able to head off the prevention criminalist, who is caught flatfooted because he is at home only within his own expertise, when they succeed in infiltrating the hierarchical system of superiors and subordinates, or in dominating it by indirect means, or influencing it, and can gain ascendancy over the official preventionist in the chain of command. The sought-after prohibition against preventive measures through the superior officials need not be accompanied by any explanation, or at any rate any adequate explanation, as far as the internal workings of the organization are concerned. It simply has to be obeyed.

## Principles and their effects

The prevention specialist must spot these and other risks more than the investigative officer does - and must when the occasion arises deliberately ignore them on tactical or operative grounds when he can do so in planned forms. The operative principle according to which, when specific steps have been taken, the effect arises not through any action on one's own part but through the reaction of the opposite party (or anybody else), comes into play here, combined as appropriate with the tactical "provocation of the wrong behaviour" in the reaction (and in the overreaction too). Admittedly, the triggering of a situation is something that has to be learned. For the most part, things work out to the disadvantage of the preventive measure when there is political interference or when decisions are made hierarchically. This applies most particularly upon the implementation of new prevention considerations (strategic principle of innovation) that trigger off the "back-off effect" inside or outside the organization (2).

The back-off effect runs parallel to the "Cassandra effect" (3) that is triggered by the information. The Cassandra effect is the negative counterpart of the warning effect and is capable of neutralizing it; the back-off effect is the negative counterpart of the impulse effect, which is triggered by the innovation. Such effects must be borne in mind, otherwise many prevention efforts, for these reasons alone, would never get off the ground. Admittedly, that seems to be the standard fate of innumerable such efforts - a fate that the criminalistic practitioner can bear only because, in face of the superabundance of criminality, he ignores such setbacks and proceeds with his daily routine - and with the new prevention project - wherein

as the occasion arises he repeats the same errors and ends up with the same defects. The reproach of unsystematic work leaves him untouched, since everyone is familiar with "the difficulty of prevention".

This does not complete the list of prevention difficulties. To prevent is to act, to keep going, in line with the proverb which says that "if you don't do anything, you can't do anything wrong". To prevent, in particular, means to act without being able to recognize all the ultimate causes and relationships of a criminal process of development. If the police were to wait until all criminogenic causes had been duly identified and quantified and their relationships one with another duly evaluated they would have to wait until doomsday, for, after all, causal research has been going on ever since the time of Lombroso at the very least. Even so, it would of course be a sheer waste of energy just to strike out blindly. Causal research is a matter of urgency, but prevention must - in the sense of criminalistic strategy - do without the scientific honing as events dictate. Here as elsewhere, the failure to act does more harm than putting a foot wrong in the choice of method, or sub-method, or auxiliary method.

In numerous cases, preventive effect can be sought only indirectly (principle of indirectness). Frequently, checks to criminality by indirect means can be achieved only when a series and succession of impulses, consequences and effects precede the final, sought-after success and prepare the ground for it. (The principle of indirectness applies above all to the prophylaxis of the social services.)

The principle of indirectness triggers off the billiard-ball effect: one step systematically provides the impulse for the next. That is what the ideal conception looks like. Since, however, prevention delivers its

impulse to "psychological balls", it is not always possible to discern the pathways by which these invisible impulses run and the unforeseen points at which they "click". Theoretically - and just as theoretically as causality research - such third-party effects are amenable to tracing and recognition. In practice, however, the recognition of such possible third-party effects is upset by the profusion of possibilities and probabilities. On the one hand, the forecasting, estimation and calculation of such third-party effects and the third-party reactions that result from them must be urgently counselled in the development of any prevention strategy. On the other hand, interest pockets and constellations (not only scientific but also psychological, ideological and political in nature) are multifactorial and present in concealed form to such a degree that making full allowance for them would bring the work of prevention by the police to a complete standstill. In point of fact that would appear to be the reason why the non-binding prevention assignment that is enshrined in the opportunistic police law, and which is relatively gentle compared with the obligatory prosecution of crime once committed, de facto never comes to realisation vis-à-vis numerous manifestations of criminality - indeed, is never even tried out. In consequence, the risk that preventive measures will trigger off third-party reactions must be consciously accepted as part of the package, unless preference be given to total immobility.

## On the psychological antiprevention

Many of the bounds of prevention are set as consequences of the assignment that is formulated in law under the heading of social and crime-prevention policy. Thus, the police must not tackle every kind of peril, but are confined to the parrying of dangers to public security. And they are not expected to concern themselves with the upbringing of children or with health in general, since their assignment is not one of social hygiene or welfare, but solely one of ensuring public safety.

Other bounds circumscribe this legal assignment even more closely when so desired by the authorities in charge of the political organization and the holders of national power: by understaffing and underequipping the police it is possible to throttle prevention right down to the zero point - without any change in the law. If the population acquiesces in this condition of zero prevention (which is also a strategic principle) as an element in the constitutional reality, it gets in this way precisely that performance by the state that it expects and deserves. That may sound cynical, but as the final result of bourgeois indifference it is beyond dispute.

Many of the bounds that are set to prevention are corollaries of the way in which the offence is committed or of the special (above all psychological) role of the victim. In drawing up strategy for dealing with the offence, therefore, particular attention must be paid to the examination and critical assessment of the preventability of the offence (using the preventability graph already presented in the foregoing). Only if the offence appears preventable by a given approach can steps be taken along multi-dimensional lines, with due regard for the varying preventability chances and degrees per approach.

A point that must always be borne in mind, irrespective of what approach is decided upon in view of the offence, is that deviant behaviour (just like normal behaviour) begins "in the head", in other words that it is the outcome of a long concatenation of motivation and a long process of learning and opinion-forming. Accordingly, prevention is a matter of "plugging oneself into" an ongoing concatenation of motivation, in order to initiate new motivations or, as the case may be, to seize upon motivations that serve the ends of prevention and to harness them to the purposes of prevention (by using the victim's self-preservation drive perhaps, or by deterring or "re-educating" the offender for example). In other words; prevention likewise begins "in the head", where it impinges upon morals, ethics, opinions, experiences, impressions and endowments with their normal or abnormal effects. And that is the point at which to begin. This approach illustrates all the difficulty attendant upon even the slightest moves in the direction of prevention.

This is why the principle of the psychological approach is so enormously important in the work of prevention, even when it is unnoticed or underestimated in the workaday labours of the preventionist. Even the installation of mechanical security devices is bound up with a double psychological prevention approach: in the first place the investor must be convinced that the security arrangements are capable of protecting him from specific dangers and in the second place the investment must deter the determined criminal from his intended deed or must demonstrate to him the pointlessness of his efforts if he goes so far as trying to carry it out.

It must be recognized that on the part of the victim there are various attitudes that get in the way of prevention efforts. The following may be mentioned by way of example;



a) the Hannemann principle (5), which states that other people (and other agencies) are better placed to deal with the matter in hand, for which reason they should be the first to take action and should take the lead in solving the problem, while the exponent of the principle remains idle. The Hannemann principle sets off the abstention effect and embodies a relativized "Count Me Out" standpoint;

b) the St. Florian principle (6), which triggers the indifference effect. This effect, despite awareness of all the negative and injurious circumstances, is borne up by an unwarrantable optimism; the line taken by the optimist is that he is specifically exempted from any risk of being struck by misfortune. The original saying, an ironical, bantering prayer, is: "Saint Florian leave my house alone - let the others burn"; it is not without a touch of jealous spite, accepting - almost with gratitude - injury to one's neighbour in place of the injury which one has oneself been spared.

A phenomenon which, by contrast, operates in the interest of prevention is the "Rider on the White Horse" principle, which triggers the unassailability effect. The concrete significance of this is that in connection with many preventive measures the prevention criminalist has to take difficulties, enmities and disadvantages as part of the job and must therefore work them into his calculations at an early stage. When it comes to coping with these afflictions it may quite well be that his superiors will remain aloof and let him get on with it, because, after all, he "brought it on himself". If, however, he has seen the said difficulties (perhaps without being able to describe them accurately in advance), and if he has evaluated them and incorporated them into his strategic concept without attaching undue weight to them, then the strategy as such - along with the people pursuing it - will be the more unassailable and more secure to the extent that they either let such assaults glance off them or, duly following a plan, take account of them and react to them (or keep quiet).

## Remarks on prevention potential

In all efforts to bring about an improvement in results it must constantly be borne in mind that there are available in the population potentials which - on a modest scale - can be activated on behalf of preventive measures. Numerous citizens have already banded themselves into associations and fellowships which endeavour, by direct or indirect means, to solve prophylactic or preventive problems. This involvement runs the gamut from the German Red Cross by way of the Sea Rescue Society or the German Lifesaving Society to societies for the protection of children, animals and natural amenities, including the innumerable citizens' initiatives and small societies pursuing local objectives. In view of the numerous dangers that threaten numerous interests, the hand of the citizen would appear to be better placed to raise the shield over them than the hand of the State. The State monopoly on power is not paired with any monopoly on prevention. Thus, it is up to the citizen to look after his own interests - along with some neglected public interests.

On the other hand, experience indicates that the prevention potential should not be overestimated, since only small elements of the population are prepared to watch out for themselves in the face of criminal activities and to back up others in so doing, and an exceedingly small proportion of people are prepared to participate, rather like assistants in the execution of a sentence, in the resocialization of convicts so as to keep them from relapsing into crime. Apart from this, the distrust of the police that has been systematically cultivated for more than ten years precludes many a contact that might have facilitated the work of prevention.

## Footnotes

1) According to my experience, the introduction of new thinking from the bottom up (not by decree) takes around then years, or five years when it is introduced by fiat, before innovation and renewals are absorbed and accepted.

2) Herbert Schäfer (publisher); Grundlagen der Kriminalistik, Vol. 11, 1973, now: Kriminalistik Verlag, Heidelberg. The concept of "criminalistic strategy" was likewise introduced by the author, originally in 1966/67 in reports on this subject to the German Federal Office of Criminal Investigation.

3) The reference is to the old German proverbs, "The ox shies at the new gate" and "What the peasant doesn't know he doesn't eat", which are paraphrases of this back-off effect.

4) Cassandra was the daughter of Priam. Apollo, the son of Zeus, conferred the gift of prophecy on her when he was wooing her. She rejected his suit, and since he could not take his "present" back he therefore deprived her of the power to persuade. Her prophecies and warnings - however accurate they were - went unheeded. Accordingly, during the siege of Troy (probably around 1200 B.C.), she warned the Trojans in vain against the Wooden Horse that the retiring Greeks had left behind them and by means of which they finally succeeded in taking the city. After the fall of Troy Cassandra suffered rape, became the slave and paramour of Agamemnon, and was finally slain together with him by Clytemnestra.

5) "You go first, Hannemann, your boots are bigger." In these terms, Jockele, the sixth of the "Seven Swabians", urged on his comrade-in-arms, with whom he was wielding the great pike against a monster which in the end turned out to be a terrified rabbit.

6) St. Florian, one of the early Christian martyrs, was drowned for his faith in about the year 304. Rustic superstition therefore believes that he presides over water, and in Catholic districts he is accordingly the patron saint who is called upon for protection against peril by fire.

7) The reference is to Theodor Strom's novella "The Rider on the White Horse" (Der Schimmelreiter): the dyke warden Hauke Haien had offended against superstitious custom at the time when the dyke was constructed by saving the life of a dog that was to have been buried in it ("something living must go into the dyke"). When the dyke failed he plunged on his horse into the breach, crying "Take me, and spare the others."

# A First Step towards Victimological Risk Analysis

A conceptual model for the prevention of "petty" crime

Carl H. D. Steinmetz

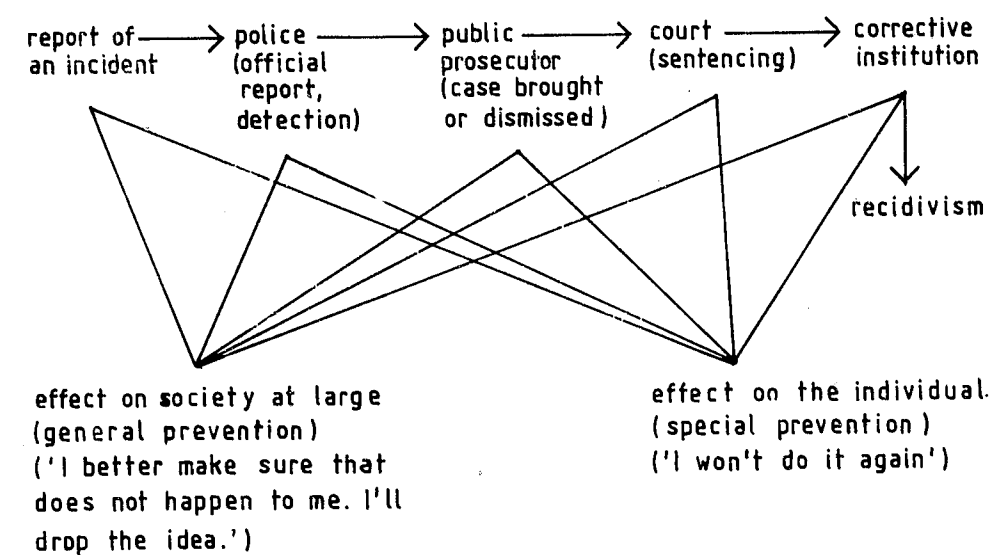
## Introduction

Up to the beginning of the seventies criminologists tended to favour the offender-oriented approach in studying developments in crime. Criminological theory put the emphasis on the individual offender, his or her psychological characteristics, and the social environment in which criminal behaviour developed.

This approach was closely related to the traditional approach of the police and the public prosecutor, and indeed originated from it historically. Since the beginning the criminologist has been someone who writes reports about the offender for the court.

The traditional approach is based on the premise that law enforcement and conviction in the courts are adequate deterrents to stop potential and known offenders from committing crimes. According to J.P.S. Fiselier (1978) this premise derives from the assumption that 'crime is essentially the behaviour of individuals (offenders) who have come to the conclusion that the anticipated advantages outweigh the possible disadvantages'. According to this view it is the task of the Ministry of Justice to make the disadvantages as great as possible.

Criminal lawyers and criminologists use the terms 'general' and 'special' prevention when discussing deterring people from crime. General prevention in the



narrow sense<sup>1</sup> (Denkers, 1975) aims at deterring those who have never committed crimes, while special (individual) prevention (Van der Werff, 1979) is more offender-oriented.

It has gradually become clear, as reflected in a large number of articles and much research, that the high hopes originally held of general and individual prevention have not been fulfilled. Van der Werff (1979) has shown that neither short prison sentences nor fines have any special preventive effect. It has already been known for some time that longer prison sentences certainly do not have the desired effect. Denkers (1975) has outlined the dubious nature of the general preventive effect. The problems associated with the general preventive effect are clear enough in themselves, but the results of research reveal 'a complex of factors within which it is not easy to detect any causality'. The studies of Denkers lead to two interrelated conclusions: it is not possible to show that the general preventive effect exists, or that it does not exist.

The failure of the deterrent mechanisms of detection and conviction combined with the increased pressure of work have caused the police and the public prosecutors, under heavy social pressure, to revise their view of the basic procedure of prosecution, sentence and treatment as the one and only remedy.

At the local level (e.g. police experiments in the Hague, Utrecht, Amsterdam and Hoogeveen, etc.) and at the decentralised national level, this change of view has led to crime prevention being accepted as a new and equally important part of crime control.

<sup>1</sup>) General prevention in the wider sense can operate in four ways: a. through deterrence; b. through the creation of norms; c. through preventing people from taking the law into their own hands; d. through rendering harmless. See: Generale Preventie, drs. F.A.C.M. Denkers, Nijmeegse Cahiers voor Criminologie, 1975.

According to Alderson (1977), a chief constable of police in the U.K., the existing police forces are likely to interpret their new task of crime prevention in the most obvious way, so that it will take the form of more or less incidental publicity campaigns about methods for safeguarding property, etc. Alderson regards giving information about security methods through the mass media or in schools or directly to the public as a form of secondary prevention. In this view other police duties such as surveillance, providing assistance and traffic control also belong to this category. He argues that informing the public about prevention is a form of secondary prevention because it does nothing directly or systematically about the causes of crime. He sees a great danger that crime prevention in this form, like some other more traditional forms of police activity, will only serve to alleviate the effects of a situation which has got out of hand. Alderson argues in favour of a form of primary prevention by which the community, possibly at the initiative of the local police force, would attempt to create a social climate in which the development of crime could be prevented.

A prerequisite for the kind of primary prevention proposed by Alderson is adequate insight into the (changing) background reasons for crime. The acceptance of crime prevention as a new police task thus leads inevitably to a new appeal to criminologists to throw light on the backgrounds to the most frequently occurring offences.

In recent years a number of interesting studies have been made of the increase or decrease of crime in the Netherlands (Dessaur, 1977; Van Dijk, 1974; Junger-Tas, 1978; Naafs and Sanies, 1979; Steensma, 1976). Without exception these studies are exercises in aggregated statistics, e.g. correcting the crime figures to allow for population growth, the proportion of men under the age of 30, the rise in standards of living, etc.

Despite the apparent differences in approach, these studies are also alike in being based on the figures for recorded crime. Another feature they have in common is that the development of recorded crime is related to one or more social developments regardless of the lack of a more comprehensive theoretical framework. Just as in the heyday of psychological criminology, when all manner of personal characteristics were treated as causal factors on the grounds of statistical correlations (Cohen, 1970), social situations and developments are now being described as 'crime-generating' on similar grounds. The danger of this kind of eclectic, multiple factor approach is that trends in crime will be detected and prognosticated on the basis of connections which may later prove to have been illusory.

Meanwhile the Dutch press has been devoting considerable space to discussing the question of whether or not security equipment and devices work (Buikhuisen, 1979). This discussion was prompted by a newspaper report that research had shown that they did not. Understandably, the newspaper reader, as a potential buyer of security devices, is anxious to know whether he is going to get value for his money, but the only possible conclusion that this discussion can lead to is that it is impossible to answer this question in a theoretical vacuum.

To make it possible to draw up programmes for general prevention, there is an urgent need for a general theoretical framework for the interpretation of changes in the level of crime. The major requirement of course is for a framework that offers starting points for actual prevention. In our view a useful first step in this direction would be to analyse the factors determining the individual's risk of becoming the victim directly or indirectly of an offence (victimological risk analysis).

This approach is based on the idea of primary prevention, since it is concerned both with the potential offender (the offender-oriented approach) and with the opportunity which makes the thief. In this article an attempt is made to take a first step towards a broader theoretical framework for 'petty' crime and to discuss the effect of existing measures in the light of this model. In the final section the roles of the public and the police in crime prevention are considered in more detail.

## Towards a theoretical frame work

### Introduction

The main premise of victimological risk analysis is that an offender must have an opportunity to commit a crime. Cohen and Felson (1978) say that for a crime to occur there must be in addition to a motivated criminal an opportunity to commit the crime, in other words there must be a suitable target (a person or object) which is inadequately protected or guarded. Moreover, they assume that the presence or absence of these elements will often occur at more or less the same time. This simultaneous occurrence will depend on time and surroundings.

From the point of view of victimology, opportunity is the occurrence of interactions (contacts) between potential offenders and potential victims. The nature and extent of these contacts will play an important role in the committing of a successful crime.

Hindelang (1978) states that interactions between potential victims and potential offenders do not occur at random. They depend on place (e.g. whether or not a large city), time (e.g. whether or not at night) and/or the area (e.g. whether or not a centre for night life).

These interactions need not necessarily involve coming into contact; they may indeed consist of the absence of the victim for example (burglary while the occupants are on holiday).

Finally, the result of these interactions will depend on the extent to which people and objects are protected or guarded.

Which factors play a major role in bringing about the contacts between potential offenders and potential victims which result in punishable offences? Which social developments have an effect on these victim-generating factors?

### *The risk model and the backgrounds to "petty" crime*

In a report on surveys of victims between 1974 and 1979 carried out by the Scientific Research and Documentation Centre (WODC) of the Ministry of Justice, Van Dijk and Steinmetz (1979) made a first attempt to determine the factors which relate to the objective risk of petty crime in the Netherlands. 'Risk' is defined as the objective chance of becoming the direct or indirect victim of a punishable offence (a chance of one equals 100% risk).

#### Proximity factor

The first factor is proximity, which has a geographic aspect (spending time or living in the vicinity of potential offenders) and a social aspect (the number of contacts with potential offenders resulting from a particular way of life). The importance of geographic proximity of potential offenders is related to the known fact that they generally prefer to operate close to home because of the cost factor and their special knowledge of life in the area. Albert J. Reiss Jr. (1978) states

that offenders try to keep the distance between the home and the scene of the crime to a minimum, and that younger offenders operate closer to home than older ones. No doubt there are exceptions to these general rules. Pick-pockets, for example, tend to hang around the anonymous crowds in busy shopping centres, while professional burglars concentrate on quiet, deserted residential districts.

Nonetheless the work of Dr. C. van der Werff (C.B.S.-tapes, 1966) has confirmed that the general rule applies in the Netherlands. His study showed that most petty crime was committed in the district in which the offender lived, and that in the large cities in the Netherlands a relatively high proportion of the inhabitants have been convicted of an offence. For this reason we may assume that the inhabitants of large cities run a higher risk of becoming victims, and this was in fact confirmed by the WODC surveys of victims.

Which social developments may positively or negatively affect geographic proximity? The most relevant developments would seem to be the growth of socially mixed residential areas (the mixing of the 'haves' and the 'have nots'), and the further segregation of home, work and recreation. This segregation makes necessary frequent journeys back and forth. Both of these developments can lead to an increased number of contacts between individuals who are unknown to each other. The possessions of one of them may be an attractive target for the other.

Social proximity is chiefly determined by individual or collective life-styles. According to Hindelang (1978) and Van Dijk and Steinmetz (1979), the risk of becoming the victim of petty crime is to a large extent dependent on the individual life-style. Some life-styles, which in turn are related to the individual's social role (young or old, married or single, high or low social class, etc), may more often lead to contacts with potential offenders than others.

For example, young people and adolescents spend an average of 60 hours per week on leisure activities, of which 47 hours are spent outside the home (evenings out). The average for the population as a whole is 47 hours leisure time, of which 14 hours are spent outside the home. Regardless of place of residence, social class or sex, young people as a group are almost 3.5 times more often the victims of crime than the elderly, almost 2.5 times more often victims than people aged between 40 and 65, and almost 1.5 times more often victims than people aged between 25 and 40. In the three largest cities in the Netherlands, being young and spending time in places of entertainment (pub, disco, etc.) in fact means spending time in the night life subculture with a group of unknown people (who prefer to remain unknown).

It must be said that the importance of social proximity as a factor in the risk of becoming a victim varies according to the type of offence. It can be deduced from the WODC surveys of victims that social proximity and individual life-style largely affect the chances of being a victim of typical street crimes such as indecent assault, physical assault and theft of bicycles. The WODC studies showed that burglary and theft of mopeds and cars were less influenced by life-style.

It is also reasonable to expect that risk-taking behaviour produces a further differentiation (i.e. a higher or lower chance of victimization than the average risk for the group) of social proximity classes. It is assumed that young people (who are more often victims anyway) with certain personality characteristics run an extra high risk of being mistreated.

Which social developments can be identified as relevant to the factor of social proximity? Firstly, it is clear that the amount of leisure, and particularly that of young people, will increase. This will lead to a corresponding increase in the number of contacts between

offenders and potential victims. Secondly, we expect the emancipation of women to lead to an increased number of contacts between potential female victims and offenders. This tendency has already been partially confirmed by studies of victims which showed a relatively sharp rise in the risk run by women. Thirdly, the growing urbanization of Dutch society inevitably leads to more contact with strangers, and thus with offenders.

Geographic and social proximity together make up the proximity factor, but proximity alone does not account for the risk of being the victim of crime. There must be a motive for the crime to be committed and, of course, opportunity.

The great mass of criminological literature deals with the motives of offenders. The most obvious motives are having to pay ever rising prices for heroin in the case of addicts (drug-related crime), the desire for goods as status symbols, and more psychological reasons such as boredom, showing off and sexual adventure. In addition, in certain categories of offenders psychological disturbances may play a role (Buikhuisen, 1979).

Motives of this sort have always been present, probably no more, and certainly no less, so in the present society than in the past. Rising unemployment will increase the need of adolescents to gain status and a sense of self-respect in an unconventional way. Clearly, research into the development of the motives of offenders is of great practical value, but here we would like to focus attention on the characteristics of the potential victims which have contributed to these motives resulting in criminal actions.

#### Attractiveness factor

In a sense the victimological counterpart of the motive is the attractiveness factor. This is the extent to which someone or something clearly represents an attractive

target for potential offenders. Attractiveness is determined by the possession of valuables (antiques, jewellery, etc.), certain sexual characteristics (young, good looking) or characteristics which arouse aggression. Here again the importance of this factor varies according to the type of crime. Possession of valuables, for example, will largely be a determinant of crimes such as burglary and theft.

Significant developments in this context are the rising numbers of people owning cars and electronic apparatus (Felson, 1978). These developments will affect the nature of contacts. These days there is simply a great deal more to steal and vandalise than there was in the 1950's.

#### Exposure factor

Mixing with strangers has led to the loss of all kinds of natural social inhibitions, and, as mentioned above, it has increased as a result of the lack of integration between home, work and recreation. Offenders need have little fear of the repercussions when they operate among strangers.

Moreover, people are less inclined to rush to each other's assistance in an impersonal and anonymous atmosphere. So in effect they offer each other less protection than may have been the case in the past. This is an obvious example of the opportunity helping to make the thief.

This third factor is known as the exposure factor. This is the extent to which an offender is given an opportunity to commit an offence when he or she comes into contact with an attractive target. Particularly as regards the opportunity offered, we would expect to find differences between various offences, and risk-taking behaviour is also likely to play an important role.



A distinction can be made between the technical and the social aspects of the exposure factor. The technical aspects are failure to lock up houses and cars adequately and carrying one's purse on top of an open shopping bag. Such technical measures are not without importance, and are referred to as 'technoprevention'. The possession of large amounts of cash is another aspect of the technical exposure. These matters have been dealt with in detail in an earlier WODC publication (Buikhuisen, 1976) and elsewhere, so we will not devote much space to them here.

The social aspects of the exposure factor are the degree to which one or other form of protection or guard is present. One example of guarding would be the preventive patrols carried out by the police. Being away from home or absent on holiday increases the risk of being the victim of burglary. It will be obvious that, particularly as regards detecting burglary and possibly intervening, neighbours can contribute to the protection of the home and property. In urban areas the prospects for this kind of protection or informal social control are poor. This is underlined by the results of an American field experiment (Takooshian and Bodinger, 1978) in eighteen cities. During this experiment<sup>1</sup> hardly a single passer-by intervened or even said anything (only 3% did do this) when they saw someone breaking into a car in broad daylight and stealing various goods (televisions, cameras, etc.). Almost everyone looked and they continued on their way. It was not uncommon for even policemen to simply walk on. There was no reason to be afraid of physical violence since more than half of those playing the part of the criminal were women.

Another remarkable result was that some of the passers-by actually helped to commit the crime or asked for 'hush money'. In another field experiment similar reactions to physical assaults in the street were observed.

<sup>1</sup>There is reason to believe that repeating the same experiment in, for example, Amsterdam would produce similar results. See e.g. G.J. van Os, Het Hux: een opvangcentrum voor heroine verslaafden in de Spuistraat, Dissertation in sociology, March 1979.

The chief characteristic of the urban environment is the absence of formal and informal social control. Changes in urban areas have led to environments (e.g. at home, work and school) where everyone used to know everyone else becoming dominated by anonymity and impersonality. Gardiner (1978) suggests that the increased density and clustering of means of transport (roads and railways, etc) and of systems for the provision of goods and services has resulted in social segregation, which in turn is the most evident reason for impersonal and anonymous environments. Examples of this include small streets which become busy routes connecting one part of the city with another, and schools and neighbourhood shops which become school complexes and large shopping centres. The combination of various socioeconomic and physical processes (high-rise and low-rise building, semi-private and public gardens, etc) has resulted in safety (as regards crime, traffic, children, police, etc) not being achieved to the same extent throughout the Netherlands.

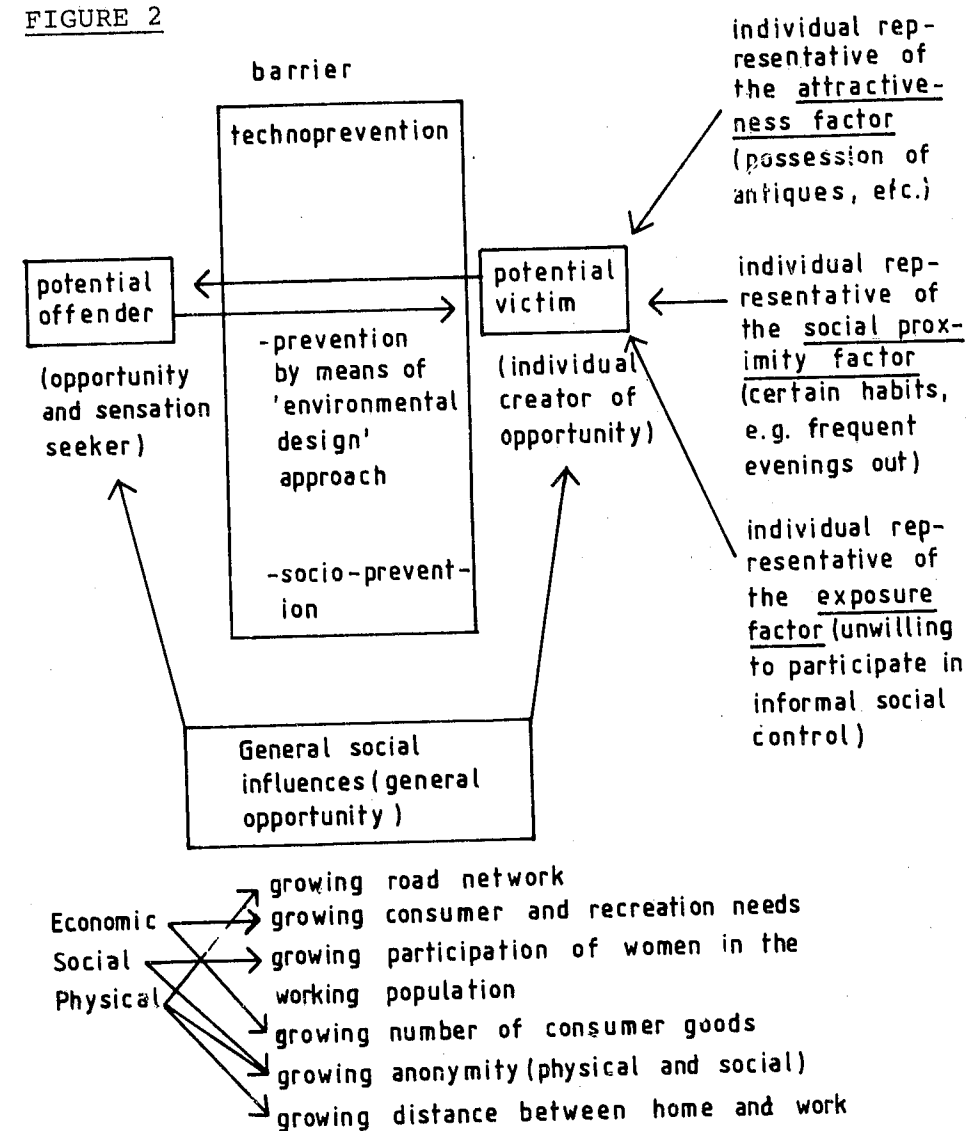
### Summary

In view of the social developments described above, we can expect to see a continuing increase in the number of contacts between potential offenders and potential victims and/or their possessions, together with growing opportunities to commit offences. The offenders' motives for committing crimes will at least remain constant. At the same time we conclude that the theoretical framework outlined above (proximity factor, attractiveness factor, and exposure factor) reveals a large number of widely varying backgrounds to the interactions between potential offenders and potential victims. The range of significant interactions between the different elements of the model is such that for future analyses a systems theory approach will have to be used. This is the only approach which would seem to offer adequate possibilities for describing optimally the dynamics of the social and physical ecology involved.

We may also conclude that this theoretical framework provides starting points for primary crime prevention. It will make it possible to systematically determine the socioeconomic, physical and social components in the structure of society which generate crime, and to see at which points barriers might be placed between potential offenders and potential victims, or at least greater obstacles created.

Such barriers are termed "technoprevention", "socio-prevention" and "crime prevention through environmental design" (see the diagram below).

FIGURE 2



## Experience with practical experiments in prevention

### Introduction

What has been the experience with practical experiments in prevention? To what extent do the results of these experiments correspond to the theoretical framework outlined above?

As stated above, the study of the interactions between the physical and social environment on the one hand, and the interactions between potential offenders and potential victims on the other demands a comprehensive theoretical framework. This means that experiments in this field must have as broad a scope as possible. This is clearly true in the case of a project in Devon and Cornwall in England (Alderson, 1977). In this experiment projection of subsets is used to establish the relations between where potential offenders live, where crimes are committed, the times at which they are committed, the characteristics of the victims, and the physical and social demographic characteristics of the scenes of crimes. However, this project lacks a theoretical framework so that the method remains highly empirical.

The other experiments discussed here were all aimed at influencing one or at the most a few of the possible interactions between environment and the offender-victim interactions. When relating the results to the theoretical framework outlined above, we must bear in mind that the factors listed have only been operationalised to a very limited extent in the prevention experiments carried out so far. This applies particularly to the attractiveness factor and the social proximity factor. In the case of the latter, it must be questioned whether it is generally

possible or desirable to make people change their life-style in order to reduce the risk of petty crime. The exposure factor and the geographic proximity factor are the easiest to influence, and in fact practical experiments in prevention are generally concerned with these factors.

### *Discussion of prevention experiments*

The significance of the exposure factor is emphasized in the work of Angel (1968), Jane Jacobs (1961), Oscar Newman (1973) and Jeffery (1977). In the pioneering phase Angel put forward the hypothesis that there was little crime in very quiet streets, and that in very crowded streets informal social control ensured that there was also little crime. Moderately busy streets would most often be the scenes of crimes. Nowadays the presence of informal social control in large cities must be doubted in view of the results of the American experiment described above. This showed that it was possible to steal valuable goods such as televisions, cameras and fur coats from parked cars in eighteen cities without the police or passers-by doing or saying anything.

Oscar Newman has focussed attention on the relation between surrounding buildings and crime. He found that a clearly visible design and clearly delineated territorial limits encouraged social control and created psychological barriers for potential offenders. The creation of defensible space would thus lead to a reduction in crime. However, Sheena Wilson (1978) repeated Newman's studies in London and found no evidence of a difference in crime rate in high-rise and low-rise buildings, especially as regards vandalism. The differences in crime rate between high- and low-rise buildings proved to be misleading and were in fact directly related to the density of the child population in each block of flats.

Pat Mayhew (1979) points out that intelligent building design is not the only possible key to a crime-free environment. There are many other factors to be taken into account, including the sort of inhabitants, the number of local offenders, the density of the child population, and the way in which the environment is managed by the public and the authorities. None of these factors can be translated into architecture.

Mayhew stresses the importance of the geographic proximity factor (the number of local offenders) and the social exposure factor (supervision of children) from the above theoretical framework. In general it can be said that the results of these studies reveal yet again how poorly informal social control functions, particularly as regards control of children and the readiness of people to participate in control of their own neighbourhood. In this context we might also mention the finding of Junger-Tas and Van der Zee-Nefkens (1978) that in the cities people are less inclined to alert the police when petty crimes are committed in the neighbourhood than they are in the country.

Waller (1978) has shown that a so-called "block watch" proved to be a good method of preventing burglaries in daytime in Canada, but it does depend on the willingness of people to cooperate in the scheme (in the long term this willingness tends to decrease).

A Home Office study (No. 49, 1978, "The impact of closed circuit television on crime in the London underground") showed that formal social control produced a considerable reduction in theft and robbery in the London underground.

The reduction of technical exposure, or technoprevention, which at first sight would seem to be the simplest topic, has not yet been considered. In the WODC report on "Criminaliteit en technopreventie" (Buikhuisen and van Bergeijk, 1976) the possibilities for technoprevention

are reviewed at length and it is suggested that the use of cash should be further limited. It is interesting that this suggestion is in accordance with the finding of Richard Block (1978) that differences in the extent of pick-pocketing and purse thefts might be related to the victim carrying cash instead of credit cards or cheques.

This example illustrates the complex nature of crime prevention. Given that at present (1979/1980) there are signs of an increase in cheque and giro frauds in the Netherlands, it is clear that discouraging the use of cash would only be a temporary solution, and that a new situation demands a new, creative approach. Prevention of purse thefts leads to the creation of an attractive target for a new form of crime, i.e. cheque fraud.

If there is to be any control of the present boom in sales of security equipment, the development of the industry will have to be critically studied and made the subject of public debate. The government could possibly play a role in the task of establishing norms. This statement should not be taken to indicate opposition to technology prevention or the security industry; it is simply an early warning against the growth of an uncontrollable technology spiral. The same problem has been raised in a slightly different context by E.J. Tuininga (1979). According to him, it might be said that the technology was originally developed at the meso-level (commerce and industry), but that now the consequences of technological developments are affecting the micro- (individual) and macro- (society) levels.

Obvious examples of technical protection are the steering column lock in cars and the crash helmet for moped-riders. Mayhew (1975) reported on the anticipated and actual effects of the introduction of steering column locks. It was expected that thefts of cars would be reduced, but research showed that in fact the introduction of the steering column lock had more effect on joy-riding (unauthorised taking).

In the same article Mayhew points out that one of the effects was a shift of attention. The results showed that joy-riders and car thieves began to concentrate on older cars which had no steering column lock.

It is now clear that in the planning of general strategies of prevention and in the introduction of similar protective measures, the shift or displacement effect will have to be taken into account. On the basis of opportunity structures, Repetto (1976) distinguishes between five forms of displacement: a) to another time, b) to another tactic (modus operandi), c) to another area (nearby or a little further away), and d) so-called functional displacement to another crime.

The effects of making crash helmets compulsory for moped-riders are mentioned in the WODC surveys of victims. It would not surprise us to discover that these effects were largely due to a decrease in joy-riding. In 1978 the percentages of victims (and thus the chance of becoming a victim of this offence) again increased. This rise may indicate a change in the modus operandi (potential joy-riders stealing helmets or both moped and helmet).

Apart from these technical preventive measures, there is the matter of reliable locks on doors and windows. This kind of prevention (including locking bicycles and mopeds, etc) has two drawbacks which have not yet been solved.

The first is what Waller (1979) describes as the "security illusion". The installation of good locks gives the occupants the illusion that they are safe, although the houses are still vulnerable if there is no improvement in the way in which they are guarded. It must be made clear to the public that locks are only a first barrier and as such a useful aid in the functioning of informal social control. If no one reacts when an alarm bell rings, there is little point in installing one.

The second drawback is the following. The WODC victim surveys of the last three years show that most people are aware of the existence of technical protective devices. Furthermore, they intend to make use of them. In practice, however, they frequently fail to do so. In 30% of cases the victims had not used any technical prevention, e.g. they failed to lock their bicycles or left windows or doors open. This contrast between good intentions and actual behaviour can be better understood if we remember that the population group running the greatest risk, i.e. young people, is by nature more inclined to take risks. It should also be borne in mind that the reward (reduced risk) for making the effort to apply technical measures at all times is rather abstract and uncertain.

In our view something can be done about these problems by making the public aware of how the risks are divided over the population. Young people in particular should be encouraged to take preventive measures. Ways should also be sought to make the taking of such measures directly rewarding, although this will not be an easy task.

A similar idea lay behind a Home Office study of wilful damage and vandalism in double-decker buses. It turned out that damage could be limited by locating the conductor in the centre of the bus. This enabled the conductor to control the social situation in the bus. This measure had immediate advantages for all concerned and at the same time reduced vandalism.

### *Conclusions*

Research has already produced some evidence for the value of an approach in which the physical, social and technical measures complement each other. On the basis of the learning theories of psychology, it would seem to be of great importance in crime prevention that a link is made with the general welfare situation. Crime prevention is

not a matter of technology alone. It requires adaptation of certain habits and social developments. The chances of success in achieving the necessary adaptations will be significantly greater if they contribute to the general welfare as well as preventing crime.

In order to remove, or at least allow for, a number of drawbacks, the model will have to include in its calculations the level at which measures can be taken and the appropriate cost-benefit analysis. The latest report on the WODC victim surveys distinguishes between measures at the micro-(individual), meso-(district or local authority) and macro-(government) levels. The micro- and meso-levels are closely interrelated since in general these are the levels at which the welfare debate is pursued. One example is the relation between technical preventive measures and individual willingness to participate in e.g. a block watch system on the one hand, and general coordination to encourage formal and informal social contact (help for the aged, holiday registrars, etc) in a neighbourhood on the other. Measures taken at the macro-(government) level have the obvious advantage that displacement of punishable offences nationally is unlikely to follow automatically.

Our main conclusion however is that improvement of (informal) social control offers the best hope. This implies a reorientation of the urban way of life. For those who are critics of the big-city culture the advantages of such reorientation are evident: "greater welfare and less crime". For others the advantage of crime prevention will have to be weighed against the disadvantages such as "less freedom" and "greater obligations to the neighbours", etc.

## The possible roles of the public and the police in crime prevention

It has already been argued at length that the prevention of crime must involve informal social control. We will now consider the question of informal social control in detail and in particular the related issue of the roles of the public and the police. This leads us to pose the following questions.

Who are our fellow citizens? What do they expect from each other and what subcultural differences in attitude affect their judgement of each other's expectations? The feasibility and effective range of a strategy of prevention based on the three-factor model described above will to some extent be determined by differences in priorities as regards home, work and recreational needs, and differences in the perception of the social system and, not least, of the degree of individual freedom (anonymity).

To give an intuitive indication of subcultural differences in expectations we quote the following passage from "In the city park", a short story by Herman Pieter de Boer (1979).

"The policeman on the beat had already walked past them three times. The leather of his new boots creaked and squeaked noticeably, but the ladies were not to be distracted. Their embrace continued, with sighs, kisses and whispers. The policeman made his decision, cleared his throat and took up a position in front of the couple with his hands behind his back. "What's all this, ladies?" They looked up. "Don't you recognise us?" asked the blonde in surprise. She had thrown her dotted veil back over her hat so that she could kiss unimpeded. "Not the faintest idea", said the policeman in his provincial accent. They looked at each other and burst into laughter.

"Where on earth are you from?" asked the other lady. "That's beside the point," he replied, rocking forward on his shoes the way policemen do, "but if you really want to know ..." The blonde said, "You're new to this city." "Quite correct," said the policeman, "but ..." "Well then, you couldn't know", she said. She treated him to a forgiving smile and added, while waving him on his way, "No hard feelings, officer!"

Sighing, the ladies sank back into their embrace, and were promptly lost to the outside world. The policeman furrowed his brow in an effort to gain more authority, opened his mouth and did not know what to say. He shifted his feet a few times and went on looking. But his ears were beginning to burn. He felt light-headed and was troubled by emotion.

Some distance away he saw a naked man climb out of the pond holding a duck by the neck. The policeman stood motionless for a few seconds, his eyes screwed up tightly. He took a deep breath and then walked on at a steady regulation pace. He did his best to look like a real city policeman, with an expression on his face of "Yes, oh well, we know all about that." Something on those lines, that kind of expression."

This passage gives a striking illustration of the differences in attitude between the provinces and the city, as represented in the way the policeman changes. Why is he no longer a provincial? Perhaps because nothing surprises him any more, and because this is his frame of reference when operating in the "big city". The story also provides an implicit definition of a territory. The ladies wish to be left in peace as they kiss and cuddle in the city park. In the country there are no parks for recreation, and security and peace and quiet are experienced completely differently. In agrarian communities security or peace is dictated by all-or-

nothing participation in the form of informal social control in operation there.<sup>1</sup> This forced participation in community life results in relatively strong social cohesion. On the other hand, it should be remembered that social roles, position, status and professional mobility are much less differentiated (less specialised) in the country than in the large cities. One might say that the rural population is more homogenous in composition. In particular, the low level of specialisation makes possible the operation of informal social control in the classic sense (small scale). This produces a defensible environment in which strangers, fellow inhabitants and children are kept an eye on quite regularly and constantly, and are exposed to criticism.

It is possible that the concept of a defensible environment, in which children could grow up in peace and quiet, would be valid for densely populated areas in large cities but it is highly unlikely, and would certainly not be valid for urban and suburban communities in general.

Urban and suburban societies generally involve strict segregation between the home and the place of work, the home and the shops, the home and the place of recreation, and between the place of work and the shops. In addition, there is a high degree of occupational specialisation. These factors make it difficult to define territories in terms of defensible environments. The level of general mobility is so high that it is a case of each individual heaving multiple varying territories.

It may even be questioned whether in this situation these terms have any meaning. Suttles calls urban and

<sup>1</sup>G.D. Suttles (The social construction of communities, University of Chicago Press, 1972) has made use of ethological studies to define various territories, and refers to the "zero-sum territory": you either belong there or you do not.

suburban communities administratively pyramidal territories, which as a whole are designed to achieve security and peace. Other examples of such administratively organized pyramidal territories are city districts, municipalities, nations, and Western Europe, etc.

The achievement of aims such as security and peace in these administrative, bureaucratically organized contexts is a problem. In general this task is entrusted to professional specialists in organizational units such as the army and the police.

A similar form of professionalization is found in the way schoolchildren are cared for and looked after. At home the parents, guardians or others are responsible for the behaviour of the children. At school the teaching staff are responsible, while on the street school crossing patrols and the police watch over their safety. This example illustrates how informal social control has to a large extent had to give way to professional and formal networks of social control. The protection of a natural group territory by the inhabitants of a particular area has been replaced by separate aims linked to separate institutions, e.g. the maintenance of law and order, and ensuring children's safety, etc. Separate aims and institutions were required because people wanted guarantees of relative safety and peace at home, at work and during recreation.

What conclusions can we draw from this in relation to crime prevention and what is to be the role of the public in this? At the risk of repetition, let us state firstly that the present degree of informal social control is inadequate. The low level of control undertaken by the individual citizen is partly accounted for by the idea that crime control is the exclusive responsibility of government. There are two reasons why this is no longer a practical idea. In the first place, the results of victim surveys clearly show that

the police force is not in a position to stem the tide of petty crime. In the second place, the idea is theoretically unsound: without a high degree of support from the population no police force can possibly control petty crime.

In the Netherlands the sixties saw the rise of the neighbourhood organization, the district committee, and other kinds of community bodies for democratisation and power sharing. Through participation or sharing responsibility these bodies try to influence decisions taken at the level of central government which affect local interests.

It seems to us that the public should make use of the possibilities available to strengthen or in some cases create networks for informal (and to some extent formal) social control. In the context of a decentralised welfare policy the public will have to try through participation or pressure groups to raise the question of public safety with the authorities concerned. In the view of Alderson (1977, Communal Policing) the police can play a leading role in supporting such public initiatives. If the police are to do this, they must be properly informed of crimes. This information can only be obtained if the public is ready and willing to report incidents. This again shows how the different tasks of the police should complement each other. The new task in the field of crime prevention does not make the traditional job of detection less important. The increase in the number of offences reported will mean that, unless the police have more success in solving crimes, an even greater number of people will be frustrated by the apparent inability or unwillingness of the police to take action. Apart from adopting a more effective approach (e.g. problem-oriented) to crime, the police could however probably avoid a good deal of frustration by giving people a realistic picture of the progress of their

case and by honestly admitting where necessary that nothing can be done for the time being.<sup>1</sup>

It is important to point out in this context (primary prevention) that preventing crime must be the concern of many different parties: the police, the office of the public prosecutor, the authorities (the mayor and eldermen), town planners and architects and, above all, the public at large.

<sup>1</sup>Confidence building; see "Reduction of fear of crime: strategies for intervention", Jeffery, Henning and Michael G. Maxfield, *Victimology*, Vol. 3, 1978, nos. 3-4, pp.297-313, 1979.



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# General Deterrence and Prevention

Eckart Kühlhorn

## The signification and scope of general deterrence

There is a significant difference between the continental concept of "general prevention" and the Anglo-Saxon of "general deterrence". The term "general deterrence" relates to the crime-reducing effect that the threat of punishment has on potential lawbreakers (Ball, 1956). The continental concept, on the other hand, embodies an additional component, a more indirect and long-term effect of punishment and threat of punishment, namely its moral and socio-educational influence. The continental concept has not always had its present signification. The German penologist, Paul Johan Anselm von Feuerbach, one of the originators of the idea of general prevention at the beginning of the 19th Century, spoke only of the first component namely the deterrent effect of punishment on the public. This view remained dominant during the 19th Century but was toned down at the end of the century when Franz von Liszt's modern school started to flourish. von Liszt placed the focus on individual prevention, namely the educative and socializing effects of sanctions on the lawbreaker. Whereas the modern school had no place for general prevention, the German criminologist Helmuth Mayer von Liszt's idea of the socializing influence of punishment within the concept of individual prevention was extended also to general prevention, so adding this component to von Feuerbach's concept and creating the concept, which prevails today, of the deterrent and moralizing effect of punishment (Mayer, 1936).

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For the modern empirical concept of general deterrence Johannes Andenaes introduced entirely new lines of thought. Most significant have been his discussions of the scope and character of general deterrence and his analysis of its ethics. In an article in 1966, reprinted in 1974 in "Punishment and Deterrence" (Andenaes, 1974), he brings up the following five points.

1. General prevention is not a necessary and/or sufficient prerequisite for crime-reducing effects.

Certain actions, mala per se, are so immoral that they would not be committed, even if not criminalized, while others, mala quia prohibita, are prevented only by criminalization. Andenaes assumes here that the general deterrent effects differ for different types of crime, being greatest in the case of rational crimes. Thereby he says too, indirectly, that there are other causes of law-abidingness than general deterrence or that there is no given causality between general deterrence and law-abidingness. It is on that point that the empirical research of the seven-ies has shown how extremely complicated are these relations between the judicial system, on the one hand, and criminality on the other.

Three other significant points in Andenaes' reasoning relate to the target groups for general deterrence namely:

2. The individual has a varying receptivity for general deterrent effect.

Children, the sick, the mentally insufficient are less receptive than the average citizen to the message of general deterrence.

3. Different societies have different premises for general deterrent effects.

The sense of right and justice in the more tradition-bound Europe is greater than in the USA, and this affects to efficacy of general deterrence. Andenaes

speaks in this context especially of the second component of general deterrence, the moralizing component, and introduces the concept of the perceived legitimacy of general deterrence (Andenaes, 1970).

4. Subcultural group norms can reduce general deterrent effects.

Different minority groups, e.g. immigrants, may be immune to general deterrence effects when judicial norms are contrary to their cultural norms.

The fifth point concerns the actual transmitter of general deterrence.

5. A corrupt and lax judiciary counteracts general deterrence.

## The ethical problematique of general deterrence

In the discussion also of the ethics of general deterrence Andenaes has contributed significant arguments. The main criticism of general deterrence is Kant's moral principle that punishment may be adopted solely because the law-breaker has broken the law, not to bring about any other effects. Kant stated also that man must not be used as a means for bringing about effects in others but must be treated as an end in himself. On the basis of the fundamental insight that society is more than the mere sum of its individuals Andenaes emphasizes that individual considerations must sometimes be sacrificed to the interests of society (Andenaes, 1974). He points out that Kant's principles would have disastrous consequences if they were to be applied, for example, to the sphere of military service, quarantine regulations, taking of dangerous mentally diseased persons into custody, or internment of citizens of enemy countries in wartime. At the same time as Andenaes rejects this absolute moral principle he accepts Kant's argument in a relativistic perspective. He emphasizes that man must not be treated solely as a means. Against this background he brings up various humanitarian aspects

which, apart from the assumptions of general deterrence, must be guiding principles both for legislation, choice of sanction and the meting out of punishment, in particular the proportionality principle. Among other things he objects to so-called exemplary punishment, draconic punishment, retrospective amendment of the law, and writes: "Punishment on the basis of general prevention is ethically defensible, both in legislation and sentencing, if the penalty is in reasonable proportion to the gravity of the offence and does not violate the principle of equality before the law" (1974; p 147). The importance of this standpoint is manifest for two reasons. In the first place the risks of discovery for most crimes are fairly small and are falling in practically all countries. Even if the risk of discovery varies in general with the seriousness of the crime and with the assiduity of the criminal, there is undoubtedly an element of chance - we punish only a minority of lawbreakers. In the second place there may be a slight tendency that the socially vulnerable are more often caught than other citizens, even taking into account the seriousness of the crime (Hagen, J, 1974; Tittle, Ch, 1975).

These ethical considerations, among others, led Andenaes to view general prevention as an effect on the whole population and not as an effect on others than lawbreakers (1975; p 18). "When I object to the definition of general deterrence as the effect of punishment on others, it is not only because I find the definition analytically misleading, but also because it tends to induce the feeling that somebody is sacrificed as a means of instilling fear in others, and that the use of the deterrence mechanism is, therefore, unjust or improper."

Andenaes' distinction signifies that the perspective covers the entire spectrum of potential lawbreakers. Persons who for one reason or another are not responsible for their actions need not be punished for the sake of general prevention. Andenaes expressly states that treat-

ment and care for certain types of wrong action or criminal are obviously compatible with general prevention (1974). His discussions of the ethical dimension have also fecundated modern research. Thus a panel of prominent researchers in the field of general deterrence write: "Any such (deterrent) choice involves weighting the crime reduction benefits of sanctions against the many costs involved, among them the custodial costs in prison, lost earnings, the welfare costs created, and the many other human costs associated with one group of people punishing other group." (Blumstein & Cohen, 1978, p 17).

### General deterrence as hypothesis of criminal policy

General deterrence may be regarded from two points of view. In the first place it may be seen as a hypothesis of criminal policy concerning the effects of changed risks of discovery and terms of punishment on the crime rate. The object of such theory is to be able to predict what effects certain changes in judicial routines will have on the crime rate. In the second place general deterrence may be seen as a scientific theory. The object of such theory is to increase the understanding of the mechanism underlying control and the effects of control. May I first illustrate the first aspect. Here it is a question of studying whether certain types of action in the judicial system (independent variables) cause a reduction of the crime rate (dependent variable).

Like Andenaes, most theoreticians accept the basic hypothesis that general deterrence is neither a necessary or adequate premise for reduction of the crime rate (Zimring & Hawkins, 1973). Crime may diminish without change of the risk of discovery or penalty. In Stockholm, for example, in the period 1965-1970, the number of chequeforgeries increased by several hundred per cent although this type of crime resulted in fairly severe

penalties and the risk of its discovery was very high. After 1970 it fell from 16,000 to 3,000 cases through an alteration of the opportunity structure (the introduction of compulsory checking of identity and the abolishment of the bank guarantee) without increase of the risk of discovery or of penalties (Knutsson & Kühlhorn, 1980). Undesired forms of conduct may also be altered and acquire a morally negative stamp without being criminalized. An example is the change in smoking habits during the seventies in Sweden.

If general deterrence is efficacious only under certain conditions, and is also substitutable, it appears unstrategical to "lock" the independent variable and ask whether general deterrence is effective or ineffective. More reasonable is the following question: Under what conditions do different measures reduce the rate of certain crimes? One thus sets up a hypothetical system of crime prevention in which general deterrence is one of several subcomponents. The general deterrence component is then relevant particularly for crimes for which the risk of discovery is directly influenceable, for example drunken driving, disturbance of public order and certain drug offences. For such crimes the risks of discovery can also be acted upon through penalties or the decision to prosecute. For the punishment inflicted has the influence of a moral principle not only for potential lawbreakers, but also for the police in their efforts to proceed against crime. The police will hardly give priority to criminality which does not result in prosecution. At the beginning of 1980, for example, the Chief Public Prosecutor announced that the possession even of small quantities of drugs would be liable to prosecution. This resulted in the following dramatic increase of recorded drug crimes without any sign of any radical change in the drugs situation or that the police acquired new resources.

Year	Manufacture of drugs	Conveyance of and offer of drugs for sale	Possession of drugs	All offences against the Drugs Act
1978	120	10,758	9,769	20,647
1979	132	9,319	13,148	22,599
1980	203	31,309	27,913	59,425

For the majority of crimes, particularly crimes of larceny, however, the risk of discovery is only marginally, if at all, susceptible to increased police engagement. It is the victim's observations or suspicion of the criminal's identity that determine the clearance rate and not the police resources - i.e. for a large proportion of crime the general deterrence instruments cannot be put into effect.

May I finally bring up another problem which may arise in conjunction with a criminological fixation on general deterrence. Petty theft is a type of crime concerning which the general deterrence component can be reinforced by employing a greater number of shop watchmen and more consistent prosecution. But there are many examples of pilferers who, despite the fairly mild penalties, have undergone serious mental suffering, leading sometimes to attempted suicide. The pressure of temptation exercised by the large range of goods in shops appears to be too great for certain persons, among whom housewives. By an increase of sales over the counter and a different form of exposure of their range, shopkeepers can reduce pilfering. But these measures are far more expensive than carrying the loss of customer thefts (BRÅ, 1980). It is not surprising that shopkeepers are more interested in the use of the general deterrence instrument, financed out of public funds, despite its relative inefficiency and despite the experience that imposition of the penalty may lead to unreasonable consequences for the offender.

These remarks do not imply that the general deterrence hypothesis is unreasonable or false. It appears, on the contrary to be fruitful, but it is not generalizable and should be only one among several working hypotheses in the field of crime prevention.

### General deterrence in an empirical light among modern researchers

Viewed as scientific theory, knowledge is required of the mechanisms underlying general deterrence. In the last fifteen years empirical studies have extended our theoretical knowledge, but have also shown that altogether too many links in the chain are missing to justify speaking of theory.

The general deterrence hypothesis has mostly been studied by analysing the relation between, on the one hand, penalties, the relative proportion of persons convicted and the risk of discovery and, on the other, the crime level, keeping various social conditions constant.

May I first, in this context, give an account of the research into the effects of capital punishment. The first major study was made by Thorsten Sellin (1959). He came to the conclusion that capital punishment did not have a general deterrent effect on the frequency of murder and manslaughter. He compared the rates for these crimes in two types of American States, those which had abolished capital punishment and those which had not. In all other respects these states were as structurally alike as possible.

Sellin's study received much applaud, but also criticism. The most prominent critic was the economist Isaac Ehrlich, who was stimulated to make a similar study with the same ends but by different methods, namely time series analysis for the period 1932-1970 and econometrics with data for the whole of the USA.

Ehrlich's conclusions which, according to my knowledge, were presented for the first time by Johannes Andenaes to a Scandinavian audience (Andenaes, 1975), were the opposite of Sellin's: "In fact, the empirical analysis suggests that on the average the tradeoff between the execution of an offender and the lives of potential victims it might have saved was of the order of magnitude of 1 for 8 for the period 1933-1967 in the United States (Ehrlich, 1975, p 398).

Ehrlich's work was criticized as well by, among others, Pasell & Taylor (1976). The latter attempted to replicate Ehrlich's study as time series analysis with federal states as unit, i.e. they tried to combine Sellin's and Ehrlich's approaches. As they could not procure all data in Ehrlich's analysis at federal state level, their study is not directly comparable to Ehrlich's. Pasell & Taylor found a clearly negative relation, i.e. a deterrent effect of capital punishment when they used Ehrlich's (multiplicative) model and a weakly positive relation when they adopted an alternative assumption concerning the character of the model (additive model). The general deterrent effect, according to the first model, disappeared also when data after 1962 were eliminated (according to Klein et al, 1978). In a later econometric study at federal state level Pasell found a negative correlation between the murder and manslaughter rates with two general deterrent components (proposition of sentences for murder and manslaughter and average term of imprisonment for murderers), but not with the proposition of persons executed (Pasell, 1975). Klein et al - themselves econometricians - have tested Ehrlich's method. Apart from the defect characterizing all econometric studies of this type, namely the assumption that general deterrent factors affect criminality but that criminality does not affect risks of discovery and penalties, they found three vital factors where small random errors of measurement ( $\pm 2\%$ ) systematically create an apparent general deterrent effect (frequency



of manslaughter and murder, probability of arrest and probability of arrested persons being sentenced for manslaughter and murder). The authors state that decades of analytical development are necessary before definite conclusions can be drawn. They also doubt whether the central dogma underlying these models - of the criminal as rational person in a decision to commit manslaughter or murder - is applicable to this field of study.

General deterrence, however, is concerned not only with the effects of capital punishment but, in fact, with the effects of the entire legal apparatus on criminality. Daniel Nagin has summarized the empirical results, particularly on the basis of econometric models, covering 20 major studies (1978). As indicators of general deterrence (independent variables), there were the clearance rate, the proportion of arrests, the probability of imprisonment and the median term of imprisonment.

With the odd exception these studies revealed a negative relation between these independent variables and criminality, i.e. the more general deterrence, the lower the crime rate. Nagin's conclusions were nevertheless rather disheartening (p 135): "Yet, despite the intensity of research effort, the empirical evidence is still not sufficient for providing a rigorous confirmation of the existence of a deterrent effect. Perhaps more important, the evidence is woefully inadequate for providing a good estimate of the magnitude of whatever effect may exist."

Nagin arrived at his conclusions by reason of the following main objections to the studies and the models used.

1. A relation between general deterrence and criminality may be an artefact due to altered reporting systems.
2. According to economic theory a reverse relation should also be expected between general deterrence and criminality. The greater the amount of crime, the less is the legal system able to swallow, i.e. the proportion of

cleared-up crimes, of persons convicted and imprisoned diminishes with increased criminality. General deterrence is no independent variable, but both dependent and independent. If this is the case, the results of the econometric studies are misleading.

3. In these studies a distinction cannot be made between the effects of incapacitation and of general deterrence.

Let me illustrate Nagin's objections on the basis of a recently published econometric study by Harold Votey focussed on the Swedish rates of a) crimes against persons, b) crimes against property and c) severe and fatal traffic accidents (Votey, 1981). His finding was that 1 % of the increase of resources in the field of general deterrence leads to a reduction of 0.97 % in crimes against persons, alternatively to 2.11 % of crimes against property or 0.52 % of severe and fatal traffic accidents. It is, however, very uncertain whether the results really hold good. Votey himself makes a clear statement on this point (p 18): "The implications of these results for policy are that we still don't know enough about penalties to advocate a change one way or the other." That causality goes in the direction of general deterrence and not vice versa, i.e. that increased crime rates require increased resources in the judicial apparatus, rests in his model namely on the assumption that the average income affects the resources of the legal system but not the crime rate.

Since general deterrence, in general, is not open to experimentation, results of experiments are available only in peripheral fields, e. g. the care of car tyres (Buikhuisen, 1976), pedestrians' tendency to cross streets against red light (Leif G. W. Persson, 1980); or they reflect the situation under extraordinary conditions, such as Trolle's classical study of the crime trend in Denmark after internment of the Danish police in September 1943 by the German occupying power (Trolle

1945) or the police strike in Finland (Takala et al, 1979). The results of these experiments support, by and large, the thesis that general deterrence is effective (see Andenaes, 1976). But it is doubtful whether the general deterrence ambitions in these experiments always can be realized on a major scale. (e.g. by placing policemen at traffic signal crossings). Furthermore the criminality of a society seems to adapt itself after a time to a higher control level. H. L. Ross, found a deterrent effect after the tightening up of the drunken driving legislation in Great Britain in 1967. But after a time these effects disappeared almost entirely (Ross, H. L., 1973). Recently, however, it was demonstrated, that this conclusion of Ross is very doubtful (Phillips, L., et al, 1981). Modern American projects involving fundamental questions in the field of general deterrence are often evaluated in such a way that no conclusions can be drawn from them (Zimring, 1978).

The follow-up of natural or induced experiments in the field of general deterrence can be interpreted in the manner that general deterrence is effective, and so much so that only under extraordinary conditions is it nullified or that only in very peripheral spheres is it made the subject of controlled experiments. General deterrence appears to interact with so many factors that it is difficult to make use of it - for normally it is not only a cause of common morality but also a result of it. This means, too, that it is difficult, if not impossible, to observe it as an isolated phenomenon or scientifically to prove its existence. In particular it is difficult to study these effects outside experimental research, since there is no acceptable method of distinguishing between cause and effect outside that sphere.

The US National Academy of Sciences appointed a committee of nine reputed researchers in the field of general deterrence under the chairmanship of Alfred Blumstein.

The panel studied the existing research in the field - experimental and econometric - and came to the following conclusions (Blumstein et al, 1978, pp 3-14):

1. Errors exist in the data, which readily lead to systematic sources of error.
2. General deterrence and incapacitation are frequently confused.
3. Correct assumptions (so-called identification restrictions) must exist which make it possible to decide how the generally found negative relation between sanctions and criminality should be interpreted, whether the sanctions affect criminality, whether criminality affects sanctions, or whether criminality and sanctions affect one another.
4. In future research, time series analyses should be made at federal state level (or even lower levels), and of foreign data, and other research approaches should be adopted, e. g. observations of different individuals' reactions to threat of punishment.

## General deterrence and scientific theory

The third argument of the US panel emphasizes the need to integrate these research results with general sociological and socio-psychological problems, I shall summarize some of the assumptions and results which may conceivably be linked up with theoretical lines of thought.

### 1. Crime control affects and is affected by the crime level.

As already noted, it is necessary to count both on general deterrent effects and on effects of criminality on the control level. When the morally abnormal is of frequent occurrence and becomes statically normal, the

population also change their view of what is criminal and redefine criminal actions as acceptable or even normal. This then has consequences for the legislator. This theory was first elaborated and formulated by L. Wilkens (1964). Blumstein & Cohen (1973) attempted to illustrate this empirically. Originally these lines of thought came from Durkheim, a sociologist. Durkheim's opinion was that the simultaneous interplay between crime and crime control led to a reasonable and self-regulating crime level.

2. The social structure affects both criminality and the level of crime control.

Judging from various studies, a growth of urbanization leads to a greater social differentiation, an increased exchange of social contacts, and to increased crime. The same social differentiation leads to a weakening of the instruments for control of crime (Kühlhorn, 1981). Criminality and control not only have a reciprocal influence on one another, but are also influenced by similar components in the social structure.

3. The control of crime is exercised not only formally by the judicial system but also informally by the family, school, circle of friends, etc.

One of the chief premises for law-abidingness is that the norms become internalized in the parental home. Informal control is essential particularly for the second component in general deterrence. But this takes place in not only through influence of the law on the population; the population also influences the law. In the law the experience of many generations is codified. The interplay between formal and informal control is thus also simultaneous. A failure of informal control may in certain sectors be compensated for by increased formal control and even by terror, whereas a substitute for a failure of formal control may be increased informal control and even private justice.

4. Since general deterrence and criminality interact with one another and with many social factors, it is difficult to change the general deterrence level and, in cases when this is successful, to observe changes in the crime level.

As far as can be judged, informal control has the character of compensating for too low or counteracting too high a level of general deterrence.

5. Decisions to commit crime or to be law-abiding are not merely of a rational nature, even in cases of instrumental crime (with financial gain).

A central idea in general deterrence is that of man as a rational being. But certain circumstances must be taken into account in this respect. In the first place the notions of risk of discovery and punishment are fairly unrealistic. The risk of discovery is generally considered too high. As regards the penalties for crime, they are believed by the public to be the severity that the latitude of the law allows, i.e. the actual punishment awarded in legal practice is milder than the public believe (Lindén & Similä, 1979). In a recent study of components underlying drunken driving it appeared that there is no correlation between the actual and the perceived risk of discovery (T Nordström, 1981). A Swedish study indicates that persons with high self-reported criminality state that criminality leads to milder punishment than believed by their colleagues with a lower crime rate (Bondeson, 1975). Judging by these reports, it appears probably that groups with low criminality and punishment as an unspecific threat and overestimate both the risk of discovery and the severity of punishment. Groups with the experience of discovered crime and punishment, on the other hand, have more realistic notions. The fact that they nevertheless commit crime may then be due to a certain immunity to punishment. They already identified as criminals and a new discovery involves no great loss of status. Despite this their decision to commit crime can hardly be regarded as rational, particularly in the light of the modest financial yield from crime of tradi-

tional character. It is therefore doubtful whether these groups are susceptible to general deterrence, i.e. changes in risk of discovery and/or greater severity of punishment. It should be borne in mind that certain other non-criminalized forms of conduct, such as smoking and heavy consumption of alcohol, involve a threat of invalidism and even premature death, but that some people nevertheless continue these practices. It can thus not be ruled out that criminality as well, like alcohol, drugs and smoking, occasions certain elements which create a psychological dependence, i.e. a change of the perception of reality.

The research on perceptual deterrence shows in general a connection between the perception of punishment risk and the frequency of self-reported crime. The results have been recently summarized by Jensen et al, (1978 pp.74-75).

"Hence, it can be concluded with some confidence that there is a stable and persistent relation consistent with the deterrence doctrine. Thus, there is as much empirical support for including beliefs about punishment in theories of crime and delinquency as there is for including variables such as social class, age, gender, and ties to conventional or unconventional others".

It is, however, to be observed that the reliability and validity of interview surveys based on self-reported crimes are questionable. It is probably that the bias in interviews with regard to the frequency of deviant acts and to the perceived effects of sanctions has the same direction, which implies that at least a part of the correlation between these variables is spurious. In a recently published longitudinal study it could be demonstrated that the correlation between the perception of legal sanctions and the frequency of self-reported criminality as revealed by a later interview is significantly weaker than this correlation in cross-

sectional studies where reported behaviour and subsequent perceived sanctions are measured in the same interview (Saltzman, et al, 1981).

It is also questionable whether we really need sanctions in the criminal justice system if perceptual or real deterrent effects can be attained. In a recent article it is maintained that the reports about persons who get treatment for their criminal problems are so negative that they may deter from such measures (Toby J, 1981).

If we study deterrence by its consequences, it is obvious that it works for certain target groups in certain situations. The phenomenon itself, however, is until today the "black box" within a theoretical frame of the deterrence perspective.

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# Crime and its Control in Sweden

An Econometric Study of Causal  
and Deterrent Effects

*Harold L. Votey Jr*

## Introduction

Crime in Sweden and its control is a much investigated phenomenon. Nonetheless this study is somewhat unique because of its methodological approach. In this analysis, the determination of crime rates is viewed as the outcome of but one of a series of simultaneous and interacting relationships in which the levels of police effectiveness and the national resources devoted to the criminal justice system are also jointly determined. This approach has not been followed simply because it presents the analysis in a different and perhaps interesting perspective, but because to view the process of crime generation and control otherwise invites serious bias in statistical estimates of the impact of causal and deterrent forces.

The focus of this study is on crime across län for the four year period 1975-1979. Crime is viewed both in the aggregate and broken down among personal (violent) crimes, crimes against property, and motoring offenses. The investigation of motoring offenses provides some insights into accidents due, in part, to driving violations, but also to other forces as well. The results of this study compare favorably to a similar one by the author investigating crime for the country as a whole over the period 1954-1977. The basic econometric approach holds promise for ultimately yielding new

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insights with respect to the economic efficiency of alternative policies for dealing with crime.

### A systems modeling approach

The approach that has been followed is not new to the literature on crime analysis and, in fact, follows a methodology that has been developed over the last decade and a half, inspired by the seminar work of Gary Becker (1968), a University of Chicago economist who is well known for his rich and varied works on the economic analysis of human behavior. While the investigative methodology is new, based on the tools of econometric analysis and economic decision theory, the reasoning that underlies the methodology traces its roots to Beccaria, Bentham and others of the Utilitarian school from which both classical criminological theory and economic decision theory have evolved. Such theory with respect to crime has been much debated and for a time virtually rejected. The revitalization of that theory owes its success to the development of new tools and approaches to empirical investigation.

The Utilitarian approach is based on logical analysis that focuses on the individual. The analysis to be presented here focuses on the aggregate impact of the cumulation of individuals in the community. The reasons for this are at least twofold. The problem, as a social problem, first is to consider how the community can best use its resources to deal with a phenomenon that potentially has impact on us all. And secondly, even if one is concerned with the individuals behavior, even if one hopes to create some estimate of the level of crime that has been prevented, i.e., come to grip with the problem of evaluating general deterrence, studies focusing on individuals cannot reveal the answer.

The systems approach considers how the level of crimes enacted by individuals interacts with the social response through the criminal justice system. The process is illustrated in Figure 1. We see in that diagram what appear to be two black boxes that house production processes. While researches have tried with a multitude of micro-level studies to truly understand what goes on inside those black boxes, they remain an enigma to a greater degree than we care to admit. The systems approach, instead of focusing on the details of that enigma looks instead at what one can observe in order to impute relationships that may be useful for policy. The key is to look at what goes in and what comes out of the boxes.

The uppermost box is labeled CRIME GENERATION. The most obvious thing we observe is some level of offenses, in the aggregate, or broken down by class of crimes. In conducting empirical work, we may be able to obtain information from victims that even includes crimes not

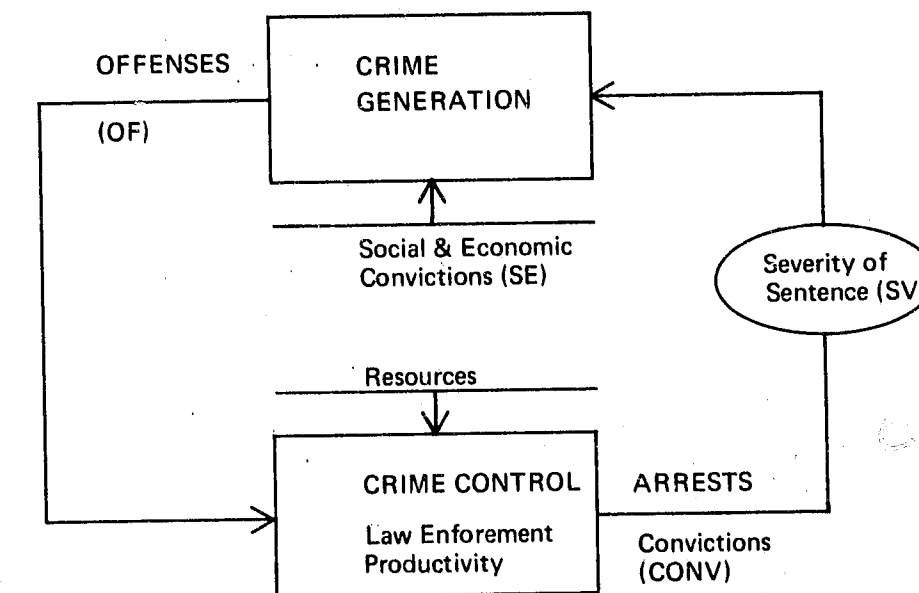


FIGURE 1 — The Interacting System of Crime Generation and Crime Control



reported to the police but for the most part we are limited to reported offenses. That output of crime generation provides the raw material input to the criminal justice system in the box labeled CRIME CONTROL. The production process contained here produces arrests, convictions, and sanctions involving fines, probation and imprisonment. Society gains from these outputs in two ways: first from retribution -- a sense of satisfaction that evil doers are punished, but also from a reduction in crime produced by rehabilitation, deterrence, and/or incapacitation. The latter three effects can thus be viewed as control effects that become inputs into the process of crime generation.<sup>1</sup>

As citizens we are more than academically interested in the flows around this circle. We want to be able to control the level of those flows. Our control is through the resources injected, and the body of law legislated to govern the process. If the body of law is taken as given, our concern is in using our resources to the greatest advantage. A point that is not incorporated in the diagram but nonetheless should be kept in mind is that resources can be used to modify crime generation in other ways than by injecting them into the criminal justice system. Expenditures on social programs may have measurable impacts on criminal behavior that ultimately should be evaluated within this general framework. For the moment, however, consider the problem from the perspective of evaluating the criminal justice system.

The relationship pictured can be noted more explicitly in terms of functional notation. Functional notation is a kind of shorthand that facilitates expressing ideas succinctly. It also, ultimately, provides the basis for formulating ideas in ways lending themselves to statistical evaluation. The two basic relationships are:

$$(1) OF = f(CR, SV, SE, \dots),$$

and

$$(2) CR = g(OF, L, \dots),$$

where,

$$CR = \frac{\text{CONVICTIONS}}{\text{OFFENSES}} = \text{probability of conviction,}$$

SV = severity of sentence, i.e., days in jail, size of fine, etc.

SE = social and economic factors conducive to crime,

and

L = law enforcement resources, as indexed perhaps by police manpower.

The first relation represents crime generation and the aggregate effect of the classical view of criminology. The second is simply an economic production process in which, with investigation, we can measure inputs and predict the levels of output.<sup>2</sup> The arrows indicate that the output of each relationship is an input into the other, illustrating the interdependence of the two processes. It is this interdependence that potentially creates problems for the statistician attempting to evaluate either relation independently.

## Challenges to the research methodology

A common early criticism of this adaption of the classical criminological approach is that it assumes criminals are rational actors. To many of us, much crime appears to be irrational. What is illogical to some may make perfect sense to others, however, and the crucial test is not what those of us who wouldn't commit crime believe, but how those persons behave who are on the margin between committing offenses and going straight. And for a theory to be useful, it doesn't have to explain how everyone behaves -- just how enough people behave to make a difference. Whether the approach is useful is an empirical question that can be answered by learning how well such models predict. The evidence thus far is that they appear to predict well.

By now, there have been a multitude of studies conducted in the U.S., England, and elsewhere using variants of this approach to evaluate crime. A representative list of articles would include Carr-Hill and Stern (1972), Ehrlich (1973, 1975) Phillips and Votey (1975)<sup>3</sup>.

There are other criticisms of such works that cannot be dismissed so easily as the rationality question, however. The most cogent criticisms are well documented in the volume Deterrence and Incapacitation: Estimating the Effects of Criminal Sanctions on Crime Rates, edited by Alfred Blumstein, Jacqueline Cohen, and Daniel Nagin for the (U.S.) National Academy of Sciences (1978). The writers in that volume don't establish that the approach is wrong. They do manage to cast a reasonable doubt in regard to the conclusions of many studies using it. Their conclusions are largely based upon theoretical arguments about the nature of the approach. They show that a number of theoretical concerns have not been dealt with adequately by many "deterrence" studies and therefore argue that the conclusions of those studies may be premature, and estimates of parameters may be invalid or misinterpreted. Therefore, it is useful to consider some of their arguments to the extent that they relate to this research.

The Deterrence-Incapacitation Question. Early studies found substantial reductions in crime associated with the imposition of sanctions and concluded that these could be credited to general deterrence. A point made most effectively by Cohen (1978) is that such studies were not designed to distinguish between the deterrence of potential criminals through threat of sanctions and the very likely reduction in crime that was a consequence of detention or incapacitation effects.<sup>4</sup> In the event that sentencing is mandatory without judicial discretion, such a distinction would make very little difference insofar as policy or its evaluation were concerned. On the other hand, if length of sentence is a policy variable,

then the question of how much of the control effect of an arrest, conviction and imprisonment policy is due to incapacitating career criminals and how much is due to deterring potential criminals is a very important issue for policy. Unfortunately, to date there have been no terribly convincing analyses of incapacitation effects to shed light on this dilemma. The very real difficulty is that there is no credible way to predict the number of crimes and individual would have committed while detained. Recorded criminal histories are always suspect and projections assume we can foretell a criminal's life cycle pattern of crime, a matter we know little about.

Identification. A question that has stirred much debate in regard to measuring the strength of control effects is that of identifying parameters of key relationships. The problem can be better understood if one refers back to relations (1) and (2). Note that in the crime generation relationship crime is a function, in part, of police effectiveness and in the police effectiveness relation, the latter is a function, in part, of the crime level.

The difficulty this presents can perhaps be understood by referring to Figure 2a. In it we show two relationships Crime Generation (CG) slopes downward to the right indicating that as the conviction ratio falls offense rate will tend to rise. Similarly, the Crime Control Function (LE) is shown also sloping downward to the right. As offenses rise, holding resources to the system constant, one would expect the ratio of police effectiveness, i.e., convictions to offenses, to fall. The intersection at P indicates the level of police effectiveness CR, and the offense rate OF, that would prevail if the system is in equilibrium. The trouble arises when one examines a typical data set representing levels of police effectiveness and crime rates for a number of years. Points representing the levels of CR and OF for each

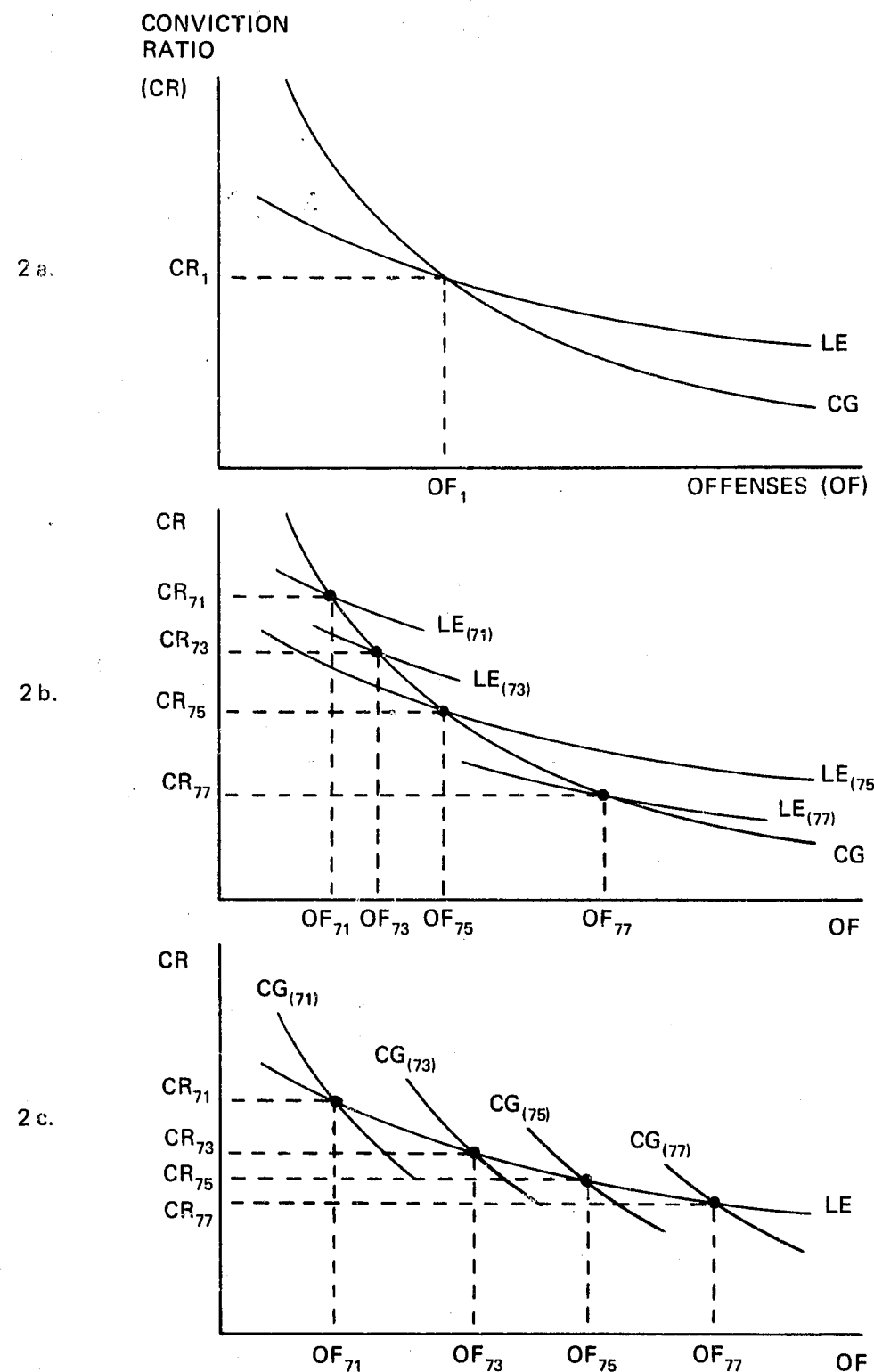


FIGURE 2 — The Identification Problem Depicted.

year might fall close to a line such as CG depicted in Figure 2b. One can statistically "identify" the relationship CG if one knows that that relationship has remained fixed over time, whereas police effectiveness has varied, perhaps because police manpower has been declining relative to the load on the system. The points represented by the intersection of CG with LE<sub>71</sub>, LE<sub>73</sub>,... LE<sub>77</sub> would depict such a shift as law enforcement effectiveness declines from 1971 to 1977. If, however, law enforcement manpower levels have been maintained and social conditions have deteriorated, the pattern would be as in Figure 2c and the police effectiveness relationship would be traced out.

The statistical technique to separate these countervailing effects is to include standardizing variables or identifiers in the estimation of each of the relations. For example, in our model of equations (1) and (2) the identifier would be some measure of social and/or economic conditions (in (1)) and law enforcement resources (in (2)). This approach works admirably so long as the identifying restrictions are appropriate and not arbitrarily selected to satisfy the technical requirements of identification. If, for example, a variable to include in equation (1) really should be included in equation (2) as well, then its deletion from (2) would cause an estimation bias in the parameter estimates that would invalidate their usefulness for inferring policy. It might be, for example, that some social or economic variable that influences the crime environment also affects the ability of the police to capture criminals. That would indeed lead to biased estimates if such a variable were excluded from relation (2).

More Complex Structures. Another criticism is found in the National Academy of Sciences study is that much of the modeling of the crime problem is overly simplified, overlooking important countervailing influences. This

is not simply the criticism often voiced against mathematical and econometric models of human behavior that life is much more complex than what they describe. The whole purpose of modeling, after all, is to reduce a complex world to a sufficient set of relations to adequately explain it and thus be able to predict outcomes. The criticism in this case, however, is that a key element of the process is simply excluded. This can be seen quite clearly if one refers to Figure 3. Note that in 3a, the two relations of equations (1) and (2) yield the two arrows showing (1) that police effectiveness has a negative impact on crime through deterrence and ultimately incapacitation, as indicated by the arrow pointing to the left with a negative sign. At the same time (2) we can see the influence of the load of crime on the system, indicated by the arrow in the opposite direction, also with a negative sign.

An effect that may be important that this simple structure ignores is shown in Figure 3b. It is quite likely that the level of crime leads to a demand on the part of the public for the tax monies to be allocated to law enforcement and the rest of the criminal justice system. This in turn leads to the supply of resources to fight crime being augmented. This requires a third arrow or pair of arrows to indirectly link crime rates and police effectiveness. Such a relationship, if strong, could confuse the estimation of the first two effects representing deterrence or incapacitation and law enforcement productivity.

There is a straightforward answer to this problem. It is possible to specify the demand and supply relations for criminal justice resources.<sup>5</sup> Demand would be expected to be represented by a relation of the form

$$LD = m (OF, r, w, Y),$$

in which LD is the demand for criminal justice resources, being a function of the crime level OF, the social loss

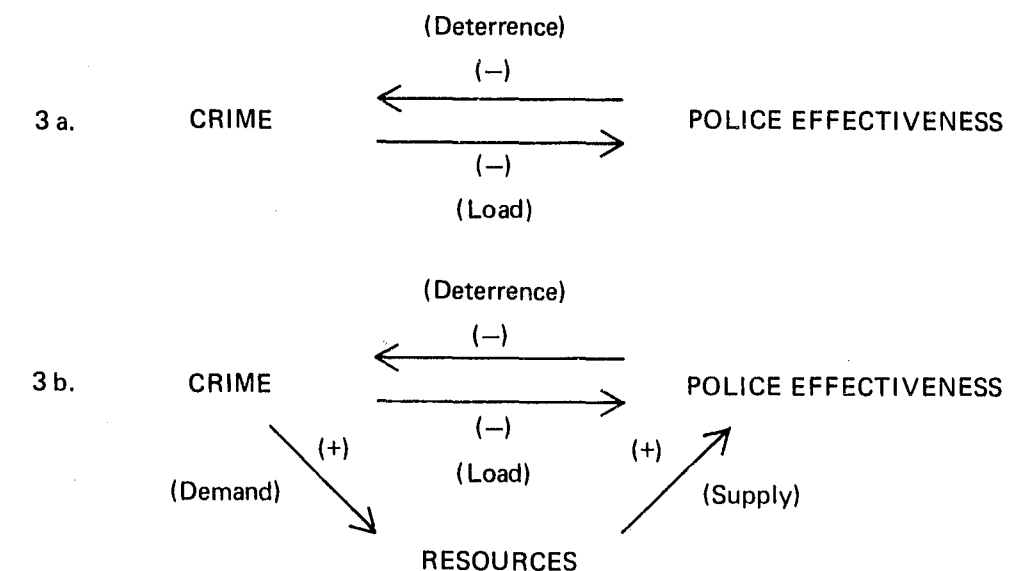


FIGURE 3 — Alternative Models of the System of Crime Generation and Control.

rate per crime  $r$ , the cost of the resources in demand  $w$ , and the level of the community's income  $Y$ . The supply of resources provided to the system will simply be a function of the amount society is willing to pay for them, i.e.,

$$LS = n(w).$$

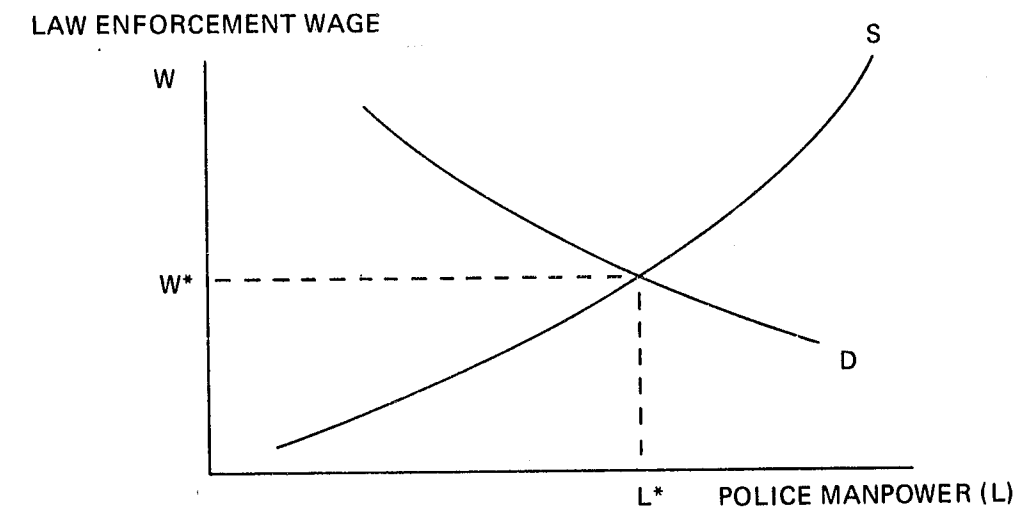
This can be described by conventional supply and demand relations as depicted in Figure 4 that yield a market wage  $w^*$  and an equilibrium level of resources going to criminal justice  $L^*$ . The solution to this pair of relations in functional terms, where supply is just equal to demand, is a relation of the form

$$L^* = h(OF, r, w^*, Y).$$

The inclusion of such relation in the model would effectively account for any causal links between the level of crime and police resources appropriated to combat it.

Causality Factor Differences. An obvious criticism regarding the question of whether mathematical models are adequate to capture key social relationships, particularly with respect to crime, relates to the observation that there are bound to be great differences in motivational factors across crime types. For example, we might expect that a severe lack of income on the part of many individuals might contribute to the incidence of crimes against property. It is less clear how such a lack of income might contribute to violent personal crimes. Along a different vein, we might expect the frustrations associated with family dissolution to be associated with crimes against persons, but might find less logic relating family breakup with theft and burglary. We might expect motoring offenses to be related to the general level of alcohol consumption, since it is usually not difficult to show strong relationships

between alcohol use and accidents both in micro and macro studies. Would we expect it to have an equivalent effect on personal or property crimes?



Labor Supply:	$LS = n(w)$
Labor Demand:	$LD = m(OF, r, w, Y)$
Market Equilibrium:	$LS = LD$

If $w^*$ is exogenous	$L^* = h(OF, r, w^*, Y)$
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FIGURE 4 — The Labor Market for Law Enforcement Manpower.

A simple answer from the modeling perspective is that one should specify separate relations for widely differing classes of crime. The study reported here does that in a limited way, specifying separate offense generating functions and criminal justice effectiveness functions for violent, property and motoring offenses. The addition of motoring offenses adds still a further set of complications, however, relating to the lack of observability of the offense.

Unobservable Elements of the Model. In cases in which some elements of a system of structural equations are unobservable, one must find techniques to circumvent the problem in ways leading to successful estimation of the key relationships. The way to do so in the case of dealing with motoring offenses is to focus not on the offense itself, but on the target for policy, the level of accidents. Our model in expanded form has a pair of relations in the form of equations (1) and (2) representing each class of offenses to be studied explicitly, in this case personal (violent) crimes, property crimes, and motoring offenses. To the latter pair of equations we add a third relation specifying the level of accidents, i.e.,

$$AC = a (OFM, KD, TD, VM, \dots),$$

in which AC represents the accident rate, OFM the offense rate for motoring offenses, KD distance (kilometers) driven, TD traffic density, VM vehicle mix (two wheeled to total vehicles). Other variables that further reflect the nature of the driving environment and the transportation technology might also be included.

If the two equations for motoring offenses and law enforcement effectiveness at their control looked like:

$$OFM = f (CRM, SVM, ALK, \dots),$$

and

$$CRM = g (OFM, LM, \dots),$$

where ALK represents alcohol consumption, a causal variable relating to motoring offenses, and LM is the resources devoted to control of motoring offenses, then the joint solution of these two relations and the substitution of the outcome with respect to OFM into equation (3) would yield the reduced form relation:

$$AC = a^* (LM, SVM, ALK, KD, TD, VM, \dots).^6$$

In this relation we would expect law enforcement resources LM and sanction levels SVM to be negatively related to accident levels, and alcohol consumption positively related to accidents. Not being able to observe the level of motoring offenses or the level of the conviction probability becomes irrelevant for the estimation problem even though it is not irrelevant to the underlying behavioral relationship. There is another question that relates to the general deterrence issue with respect to such probabilities, however.

Apprehension and Conviction. A concern of many persons who study the deterrence question is that in presuming people respond in rational ways to laws and their enforcement we seem to be assuming that the true probability of conviction is known by the general public. Their concern is that the subjective or perceived probability of apprehension and conviction is not very likely to reflect the true (objective) probability of conviction except with considerable error. Studies of populations by survey techniques certainly tend to bear out this allegation. The reader should be aware, however, that for the model to work, i.e., for us to find results consistent with our theoretical model it is not necessary that individuals know the true (objective) probability but only that over time or over the sample objective and subjective probabilities are monotonically related, i.e., they change roughly in the same proportions. The necessary relation is illustrated in

Figure 5. Our analysis gives us a test of that presumption to the extent that, if the hypothetical relationship between sanctions and law enforcement inputs are not found in the case of accidents, or the relations between objective probabilities observed and other offenses when considering personal and property crimes, a likely cause would be that potential offenders do not have sufficient perceptions of their true alternatives for the model to work.

### The model for testing

The model implied by our analysis and response to these concerns is depicted schematically in Figure 6. It was estimated as a system of five equations in which, for the four representing personal and property crimes, the outcomes were jointly determined. The results are presented in qualitative terms in Table 1, including an indication of the statistical significance of the estimates obtained.

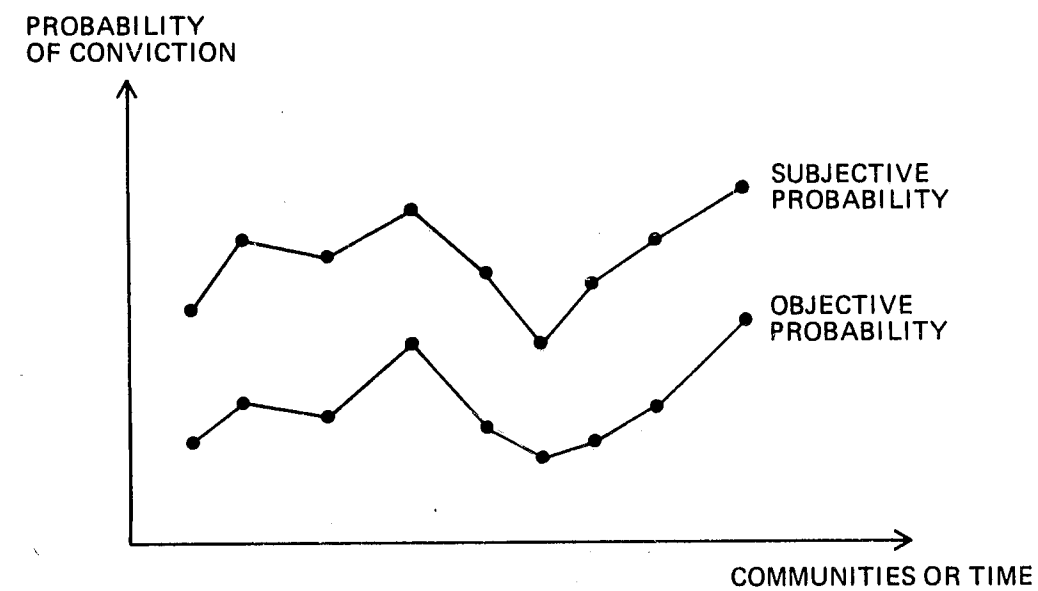


FIGURE 5 — A Monotonic Relationship between Objective and Subjective Conviction Probabilities across Communities or over Time.

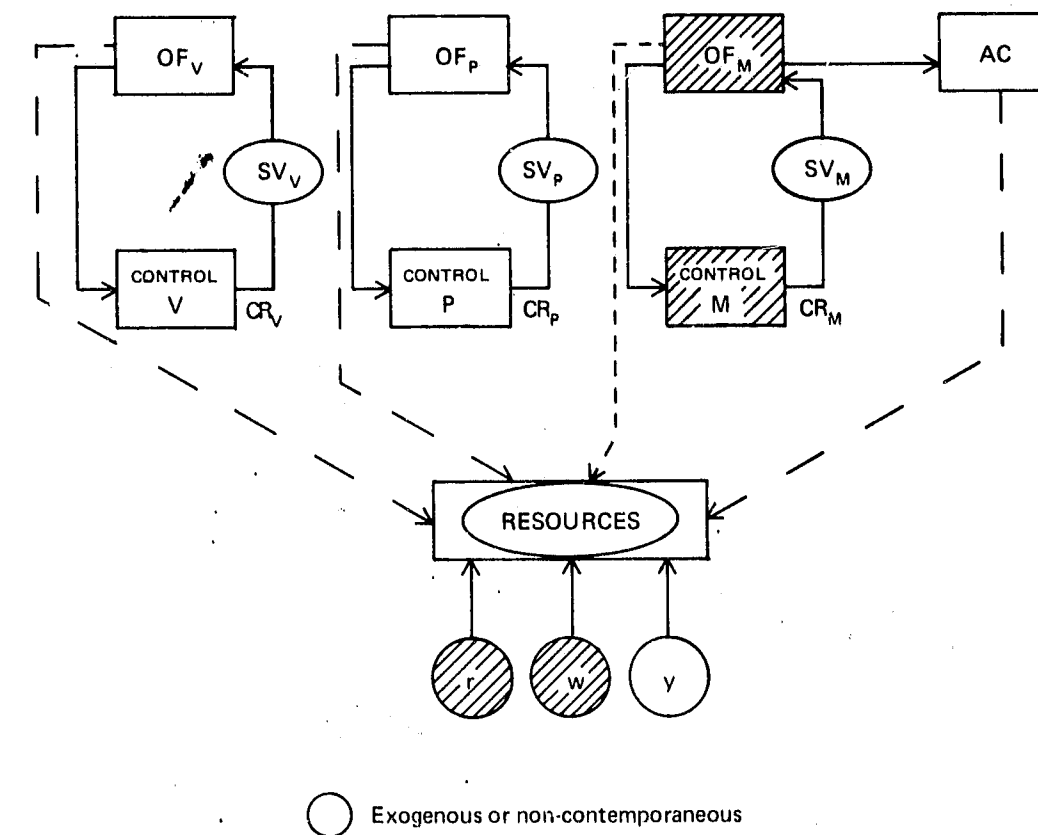


FIGURE 6 — Model of Offense and Accident Generation and Control.

A limitation that always affects empirical research is that there are always limited choices with regard to empirical measures for theoretical concepts. This is unquestionably true with this research. While it is possible to find recorded information on reported offense rates (OF), the proportion of offenses leading to conviction (CR), the average length of time served in jail (SV), and measures of law enforcement manpower inputs (L), the choices among social and economic causal forces are limited. There is some choice, however, that facilitates limited tests on causal forces on criminal behavior.

One relationship that the literature suggests may relate to criminal behavior is the extent of family dissolution. Family breakups may lead to violence on the part of spouses, and to crimes for economic gain when dissolutions affect income and living standards. Young people from broken homes may be more inclined to crime simply because they lack parental guidance, or they may simply be responding to frustration at lack of concern for their welfare in violent and antisocial ways. To attempt to capture this effect a variable measuring the proportion of the population newly divorced or separated (DIV) is included in the model.

Another factor that is frequently alleged to be a causal factor in crime is alcohol. It has been alleged that alcohol may be required to give potential criminals courage to commit acts of violence or social disrespect. Alcohol may reduce the ability to reason and thus avoid the threat of sanctions. On the other hand drinking and being loud in public may be the demonstrative behavior that is more common to criminals without any causal link between crimes committed and alcoholic behavior. The inclusion of a variable that measures the per capita level of alcohol consumption (ALC) can indicate that crime is associated with alcohol consumption when other factors are also accounted for, but its inclusion will

not guarantee us that we can separate the strengths and directions of causality should they be conflicting.

It is readily observed that crime rates among some groups of aliens tend to be higher than among the general population. The inclusion of a variable that measures the proportion of the population that are alien may help to shed light on this question. It can if the causal relationship is not from aliens to crime, but one that stems from other variables more associated with alien population than with the general public. For example, it might be true that the lack of economic opportunities was the real causal force and that aliens possess lower educational attainment on the average and are faced with the preference for non-aliens in many jobs. This could lead to an apparent link between aliens and crime when the causality runs from various aspects of lack of economic opportunities to crime and the alien relationship is simply observed but not causal. If the inclusion of economic opportunity variables in the statistical analysis caused the proportion of aliens to be unrelated to crime rates the hypothesis that it is lack of economic opportunities that leads to crime would be supported and aliens would tend to be exonerated. If the outcome should go the other way, however, it wouldn't prove that aliens are inherently more criminal but only that they are more than proportionately involved in crime as is the case with racial minorities in the U.S. To attempt to assess this link such a variable (ALIEN) is included in the model.

There is only limited information readily available to measure economic opportunities in an aggregate study across the U.S. A variable that tends to reflect lack of economic opportunities in the U.S. is the product of the labor force participation rate, i.e., the proportion of the population who are either employed or actively seeking work and the unemployment rate. The product of these two is simply the proportion of the population



that is unemployed. For the study at hand, both the rate for unemployed for the entire population (UP) and that only for males (UPM) were tried. It would make sense that the latter would be more strongly linked to crime based on the observation that males tend to be much more involved in crime than females.

Finally, in the accident relation, a measure of distance driven (KD), and the mix of two wheel to four wheel vehicles (VM), is used in the reduced form relation for accidents. The latter is the rate for total and serious injury accidents.

The formal specification of the model and the definitions of the variables included are detailed in the Appendix. Results of the statistical estimates follow.

## Empirical results

The results of estimation of the aggregate model are presented in Table 1, assuming law enforcement resource levels are exogenous as in Figure 3a and under the assumption that they are endogenous, i.e., determined jointly with offense levels and police effectiveness as in Figure 3b.

From these results, it can be readily observed that there are virtually no surprises from the estimation. Offense levels are significantly reduced by higher levels of probability of conviction (CR). The level of average time served in jail (ATS) is less significant, but of the expected sign and with substantial statistical significance at least in the case in which law enforcement resources are viewed as endogenous to the system. The proportion of broken homes (DIV) is very strongly linked to crime in the aggregate. The proportion of alien

Table 1. Estimation Results for the Aggregate Model<sup>7</sup>  
Exogenous Law Enforcement Resources

$$OF = f(CR, ATS, DIV, ALIEN, UPM, ALC)$$

-	-	+	+	NS	NS
***	*	***	*		

$$CR = g(OF, L)$$

-	+
***	***

Endogenous Law Enforcement Resources

$$OF = f(CR, ATS, DIV, ALIEN, UPM, ALC)$$

-	-	+	+	NS	-
***	**	***	*		**

$$L = h(OF, MEDY)$$

NS	+
	***

NS indicates Not Statistically Significant

\* significant at the 10% level (1-tailed test)

\*\* significant at the 5% level (2-tailed test)

\*\*\* significant at the .1% level (2-tailed test)

Table 2. Estimation Results for Estimates by Major Crime Classifications:

Violent Crime, Property Crimes, Motor Vehicle Offenses.

Exogenous Law Enforcement Resources

$$OFV = f(CRV, ATSV, DIV, ALIEN, UPM, ALC)$$

-	-	+	+	+	NS
***	*	**	***	**	

$$OFP = f(CRP, ATSP, DIV, ALIEN, UPM, ALC)$$

-	NS	+	+	NS	+
***		***	***		**

$$AC = f(ATS, L, ALC, KD, VM)$$

NS	-	+	+	+
	**	**	***	***

$$CRV = g(OFV, L)$$

-	+
***	***

$$CRP = g(OFP, L)$$

-	+
***	***

$$CRM = g(OFM, L)$$

-	+
***	***

#### Endogenous Law Enforcement Resources

$$OFV = f(CRV, ATSV, DIV, ALIEN, UPM, ALC)$$

-	NS	+	NS	NS	NS
***		**			

$$OFP = f(CRP, ATSP, DIV, ALIEN, UPM, ALC)$$

-	NS	+	+	+	+
***		***	**	*	*

$$AC = f(ATS, L, ALC, KD, VM)$$

NS	-	NS	+	+
	***		***	***

$$CRV = g(OFV, L)$$

-	+
***	***

$$CRP = g(OFP, L)$$

-	+
***	***

$$CRM = g(OFM, L)$$

-	+
***	***

$$L = h(OF, MEDY)$$

NS	+
	***

NS  
\*  
\*\* as in Table 1.  
\*\*\*

population (ALIEN) is weakly linked to crime, whereas the the lack of employment opportunities as measured by the proportion of males not employed (UPM) is not significantly linked to crime nor is the level of alcohol consumption (ALC). The exception is the level of alcohol consumption in the model in which law enforcement is viewed as exogenous, in which, surprisingly, alcohol consumption appears to be negatively related to crime, a result not predicted by theory or the conventional wisdom, suggesting there is more likely to be a problem with the model being specified in such a highly aggregate form rather than that this is a revelation of some unexpected truth.

When we consider the determination of law enforcement effectiveness as measured by the probability of conviction (CR), we find no surprises. As one would expect, an increase in the crimeload on the system (OF) tends to reduce police effectiveness, and the addition of law enforcement manpower (L) increases it.

One result that is surprising is that for the determination of the level of law enforcement manpower. In the aggregate model, the level of manpower across län is not significantly related to the level of offenses, although it is related to the level of the län income (MEDY).

The disaggregated model estimation provides an opportunity to test whether a specification that allows for different caused effects for different classes of crime makes a difference to parameter estimates. Results are spelled out in Table 2. Perhaps surprisingly, the differences between violent and property offenses appear to be small. The most noticeable difference is that the variable for average time served (ATS), while consistently having the correct sign tend to be insignificant in disaggregated formulations. The least affected by specification are the relationships for law enforcement

effectiveness (CR) which consistently turn out consistent with what production theory would predict. Of the causal variables the measure of broken homes (DIV) is the only one insensitive to variations in specification. The proportion of alien population (ALIEN) tends to have a positive relationship with crime levels for both property and personal crimes except for the estimate of personal crimes with law enforcement resources endogenous. Even in the latter case the sign was consistent and the t-statistic greater than one. The unemployment variable (UPM) gives mixed results and in no case overshadows the effect of aliens, as a result that deserves further investigation. The alcohol variable (ALC) is significant in explaining property crimes but not personal crimes. It is also significant in the determination of accidents but that significance disappears when law enforcement resources are considered to be endogenous to the model. Again, crime levels (OF) are shown to be unrelated to the level of law enforcement resources but income levels across län are related. The latter finding presumes that individual communities can exert some influence on authorities to determine the level of law enforcement manpower. The variation in concern may be related to the perceived loss rate per crime which would be expected to be higher in higher income areas. It is also consistent with a model in which wealthier citizens are perhaps more influential citizens when it comes to establishing levels of protection across län. It seems clear that relative differences in crime levels across communities are not viewed by authorities as a basis for differentials in protection levels. This was found to be true if the offense levels for violent and property crimes were entered separately as well as in the aggregate in the estimation process. It is also worth noting that when the previous years offenses levels incomes were used instead of contemporaneous values, on the presumption that this year's response levels are established in a budgetary procedure based on levels of crime and public concern known at the time of the budgetary

decision, the results didn't change with respect to the relative importance of offense rates and income levels.

The estimation results for this pooled time series cross-section data are remarkably consistent with earlier estimates of time series for the whole country for the years 1954 to 1977, in general.<sup>8</sup> While there were not similar estimation forms used for accidents, in almost all other respects results are not qualitatively different. The one difference worth noting is in regard to the effects of law enforcement manpower (L) in explaining police effectiveness. For the national time series study police members appeared to be unrelated to the probability of conviction. This difference is almost certain to be the result of the lack of a consistent data series for law enforcement manpower, since definitions and manpower assignment policies have varied over time in ways that appear to have confounded the data. This conclusion is certainly supported by the lack of sensitivity of the impact of law enforcement manpower to model specification for the more recent cross section data.

## Summary of results and final comments

These are some results of this analysis that appear to be unambiguous and others that merit further attention. Those that appear unambiguous are as follows:

- (1) Maintaining the level of the probability of conviction is a powerful control to crime levels.
- (2) That probability is largely a function of the level of police resources in the aggregate. This, of course, says nothing in regard to whether police manpower allocations are optional across alternative assignments or whether productivity improvements are possible. More detailed micro level studies would be needed

to deal with such questions. The production functions approach may be useful in conducting such analysis based on the results here, however.

- (3) The break-up of family relationships is clearly an important influence on crime levels after taking into account law enforcement efforts and sanctions and independently of other potential causal factors,
- (4) Law enforcement resources are shown to be a strong and significant factor in the control of accidents. This is true when standardizing for variations in alcohol consumption, traffic load and vehicle mix, the latter two of which are strongly and significantly related to accident levels as well.
- (5) Income levels have been shown to be strongly and significantly related to variations in law enforcement manpower across län, whereas offense levels appear to have no bearing on the response levels to crime across communities. This result is important in the sense that it responds to the Blumstein, et al concern that the determination of causal relationships may be confounded by ignoring such a possibility.
- (6) All of these results with the exception of the finding in regard to police manpower and police effectiveness are born out by time series analysis as well.

Results that are somewhat ambiguous are as follows:

- (1) Whereas the severity of jail sentences can be shown in the aggregate to be a strong control force for crime, the results in the more disaggregate estimates appear ambiguous. The result thus suggests that it may be inappropriate to eliminate jail sentences, but it provides no guidance in regard to determining sentence length questions in regard to the effects of sentence length could probably best be resolved by

an analysis conducted on a crime by crime basis for a data set in which there has been variation in sentence length either among jurisdictions or over time.

- (2) While the effects of unemployment on crime appear somewhat ambiguous, there may be better ways to investigate the problem of lack of economic opportunities on crime. One point that needs to be noted is that one would expect this effect to be most important for youths making decisions whether to follow crime careers. These persons will not show as statistics in the ranks of unemployed if they have never had employment.

A related effect of lack of economic opportunities may be expected for persons who hold inferior (very low paying) jobs who can thus expect to earn more from crime. One way to measure that possibility would be to obtain data on educational attainment which frequently provides an indication of the ability to obtain a higher vs; lower wage.

- (3) The results with respect to alcohol consumption in general are less strong than one might expect, in view of the results of other kinds of studies. One would certainly expect to find a strong relationship between drinking-driving; and accidents, since other types of evidence suggest that alcohol use is an important factor in accidents. One possible explanation for the lack of relationship is the likelihood that the true variation in alcohol consumption across län is not well measured by official statistics. At least two reasons why this may be true can be mentioned. First, much alcohol consumption is beer not sold through the Systembolaget. These sales may vary substantially across län. Secondly, in view of the very high prices on alcohol, it is likely that alcohol obtained by smuggling and/or

private production constitute a significant proportion of alcohol consumption. Certainly some areas of Sweden are in a better position to obtain alcoholic beverages by smuggling and it is likely that the same is true with respect to illegal production.

With respect to the relation between alcohol and other kinds of crimes causality is much more difficult question. Even if a strong link between alcohol consumption and offense rates can be established, it will not be clear whether alcohol is involved because criminals are irresponsible in their drinking habits as well as in their conformation to the law or whether alcohol is a facilitator of crimes, creating artificial courage as some who study the problem assert. It is even conceivable in view of the high price of alcohol and its capability of being addictive that persons who are addicted to it may commit crimes simply to obtain it, as has been shown to be the case with hard drugs. The latter effect might be determined by studying alcoholics in treatment programs in comparison with their behavior when not under the controls imposed by treatment.

These are two additional sets of questions that this study considers, but appears to shed little light upon that surely merit further research. One is the question of greater criminality among aliens. A similar case is that of blacks among U.S. crime statistics. In that case, it has been shown that at least a part of the differential in crime rates can be explained by lack of economic opportunities in terms of employment and education. One would expect that crimes for which the primary motive is economic gain would lead to similar evidence for the case of non-citizens in Sweden, were it possible to obtain adequate data to measure effects. The second question that bears further investigation is the relationship between the demand for law enforcement services

and crime levels. One could, of course, simply ask those who make such decisions in regard to deploying the police across communities how they make their decisions. It is often true, however, that policy makers don't make decisions in exactly the way they announce that they do, perhaps in part because they have good reason not to reveal the basis for their decisions, but also because often they cannot easily obtain or at least do not have at their disposal adequate data on which to base centralized decisions. So policy ends up being made at a variety of levels by different persons. It has been suggested by persons familiar with the process employed by the police that police authorities view the level of population and its concentration as the primary indices of the need to deploy police officers and these data provide the primary input for their decisions. One could, with the proper data, determine whether that is consistent with the evidence.

Should the latter turn out to be supported by empirical analysis, another question can be raised that it is in the public interest to pursue. Is the police algorithm for decision-making one that will lead to minimizing the social cost of crime across the nation? Since the social cost of crime is linked to the level of offenses and the values the community places upon the offenses committed, it is highly likely that it isn't. In view of the high costs to its victims and the alternative high costs of crime control, it would seem worth pursuing the kind of analysis that would permit more calculations on the direction crime control efforts should go to minimize the total (social) costs of crime.

Finally, there are some additional relationships that can be tested and further tests of the efficacy of the model that will be useful to pursue.<sup>9</sup> The notion that the concentration of population in urban areas may have an influence on the authorities decisions on manpower allocation will be tested, but at the same time there

is the possibility that population density remains a causal factor in crime even after other factors have been taken into account and that possibility should be tested as well. Another possibility that is worth investigating, and for which there is limited data for testing, is that the known presence of hard drug addicts, a presence that varies across län, may have a major influence on the level of property crimes committed as has been shown to be the case in the U.S.<sup>10</sup>

Finally, the ultimate test of any econometric model is its ability to forecast crime levels and police effectiveness beyond the period of parameter estimations. As annual data become available for more recent years such a test should be conducted in order to further validate the models that have been developed thus far.

Such analysis as have been outlined here for further testing can go far toward achieving refinements of the models developed and add to their usefulness as tools for policy analysis. This, after all, should be the ultimate objective of applied econometric research as it is the objective of those concerned with crime as a major social problem.

## Footnotes

- (1) This process of crime generation and control, viewed as an interacting system is the subject matter of the volume by Phillips and Votey (1981).
- (2) This production function approach is presented in detail in Votey and Phillips (1972) and analyzed for Sweden in Votey (1981a).
- (3) An excellent survey of this literature is Palmer (1977).
- (4) This is a chapter in Blumstein, et al (1978).
- (5) This approach is utilized in the study of "Crime in California" in Phillips and Votey (1975).
- (6) This approach to estimation is utilized for drunken driving in Sweden in Votey (1982).
- (7) The estimation results for this research are presented in greater detail in Votey (1981b).
- (8) Time series results are detailed in Votey (1980).
- (9) These latter suggestions owe much to the participation in a seminar at BRA of persons representing BRA, SCB, Rikspolisstyrelsen, and Stockholms Universitet who offered a number of constructive criticisms of the research.
- (10) Evidence for Santa Barbara, CA is found in Votey (1979).

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## Appendix

## Statistical Relationships Estimated:

Aggregate Model-Resources Exogenous

$$(1) \quad 1\eta OF = 1\eta\alpha_0 + \alpha_1 1\eta CR + \alpha_2 1\eta ATS + \alpha_3 1\eta DIV + \alpha_4 1\eta ALIEN + \alpha_5 1\eta UPM + \alpha_6 1\eta ALC$$

$$(2) \quad 1\eta CR = 1\eta b_0 + b_1 1\eta OF + b_2 1\eta L$$

-Resources Endogenous

$$(1) \quad 1\eta OF = 1\eta\alpha_0 + \alpha_1 1\eta CR + \alpha_2 1\eta ATS + \alpha_3 1\eta DIV + \alpha_4 1\eta ALIEN + \alpha_5 1\eta UPM + \alpha_6 1\eta ALC$$

$$(2) \quad 1\eta CR = 1\eta b_0 + b_1 1\eta OF + b_2 1\eta L$$

$$(3) \quad 1\eta L = 1\eta c_0 + c_2 1\eta OF + c_2 1\eta MEDY$$

Disaggregated Model-Resources Exogenous

$$(1) \quad 1\eta OFV = 1\eta\alpha_0 + \alpha_1 1\eta CRV + \alpha_2 1\eta ATSV + \alpha_3 1\eta DIV + \alpha_4 1\eta ALIEN + \alpha_5 1\eta UPM + \alpha_6 1\eta ALC$$

$$(2) \quad 1\eta CRV = 1\eta b_0 + b_1 1\eta OFV + b_2 1\eta LV$$

$$(3) \quad 1\eta OFP = 1\eta c_0 + c_1 1\eta CRP + \alpha_2 1\eta ATSP + \alpha_3 1\eta DIV + \alpha_4 1\eta ALIEN + \alpha_5 1\eta UPM + \alpha_6 1\eta ALC$$

$$(4) \quad 1\eta CRP = 1\eta d_0 + d_1 1\eta OFP + d_2 1\eta LP$$

$$(5) \quad 1\eta AC = 1\eta e_0 + e_1 1\eta ATSM + e_2 1\eta LA + e_3 1\eta ALC + e_4 1\eta KD + e_5 1\eta VM$$

Disaggregated Model-Resources Endogenous

$$(1) \quad 1\eta OFV = 1\eta\alpha_0 + \alpha_1 1\eta CRV + \alpha_2 1\eta ATSV + \alpha_3 1\eta DIV + \alpha_4 1\eta ALIEN + \alpha_5 1\eta UPM + \alpha_6 1\eta ALC$$

$$(2) \quad 1\eta CRV = 1\eta b_0 + b_1 1\eta OFV + b_2 1\eta LV$$

$$(3) \quad 1\eta OFP = 1\eta c_0 + c_1 1\eta CRP + \alpha_2 1\eta ATSP + \alpha_3 1\eta DIV + \alpha_4 1\eta ALIEN + \alpha_5 1\eta UPM + \alpha_6 1\eta ALC$$

$$(4) \quad 1\eta CRP = 1\eta d_0 + d_1 1\eta OFP + d_2 1\eta LP$$

$$(5) \quad 1\eta AC = 1\eta e_0 + e_1 1\eta ATSM + e_2 1\eta LA + e_3 1\eta ALC + e_4 1\eta KD + e_5 1\eta VM$$

$$(6) \quad 1\eta L = 1\eta f_0 + f_1 1\eta OF + f_2 1\eta MEDY$$



## Definitions of variables

OF	= offenses, per capita
OFV	= personal (violent) crime offenses, per capita
OFP	= property crime offenses, per capita
CR	= conviction ratio (convictions/offenses)
CRV	= conviction ratio for personal crimes
CRP	= conviction ratio for property crimes
AC	= fatal and serious injury accidents, per capita
ATS	= average length of sentence (days) in jail
ATSV	= average length of sentence for personal crimes
ATSP	= average length of sentence for property crimes
ATSM	= average length of sentence for motoring offenses
DIV	= legal separations and divorces for the year
ALIEN	= proportion of non-Swedish residents in the population
UPM	= unemployed males as a percent of total population
ALC	= consumption of pure alcohol, per capita
L	= police manpower, län, per capita
LV	= imputed police manpower devoted to personal crimes
LP	= imputed police manpower devoted to property crimes
LM	= imputed police manpower devoted to motoring offenses
L	= LV + LP + LM
MEDY	= median family income
VM	= ratio of 2-wheel to 4-wheel vehicles in use
KD	= index of estimated kilometers driven

Note: Details of the econometric analysis and estimation procedure can be found in Votey (1981a), (1981b).

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## External Effects of a Crime Prevention Program in the Hague

Experiences and opinions of the inhabitants; with a comparison of the effects of similar programs in the Netherlands

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### Introduction

#### *Background of the experiment*

In 1978 the Prosecutors General of The Netherlands agreed upon a series of local experiments with alternative methods of crime control. These experiments are to be carried out by local police forces under the joint responsibility of the local prosecutor, the chief of police and the mayor (the so-called triangle platform). The Research and Documentation Centre has been invited to guide these experiments and to evaluate them.

The RDC has presented a list of proposals for crime control experiments to several "triangle platforms". The discussions on these proposals have resulted in the implementation of seven projects in 1980 and 1981. The majority of these projects can be characterized as crime prevention programs. The basic concept behind most of these programs is a combination of face-to-face crime prevention instructions and foot patrol.

Organizationally unrelated to these projects, the municipal police force of The Hague decided in 1977 to carry out a crime control experiment of its own. Since the RDC was invited to assist in the design and evaluation of this project too, it could serve as a "try out" for the other experiments. The experiences gained in The Hague have been used to improve the design of similar programs to be implemented in Amsterdam and Hoogeveen in 1980. Discussions have been organized between the police officers involved in the Amsterdam project and their colleagues of The Hague police, who had personal experience with a similar program.

In this article we will report the key findings of the evaluation of The Hague program. In the last section a brief comparison of these results with the preliminary findings concerning the second-generation programs implemented in Amsterdam and Hoogeveen will be given. This comparison has yielded strong indications that the adaptation of the design of the program induced by the findings at The Hague have indeed produced much better results. In a historical perspective these more favourable results can be seen as an off-shoot of the pilot program of The Hague.

### *What effects are to be expected?*

This report is part of the full report on the "Moerwijk" project of the Hague Municipal Police<sup>\*)</sup>. It deals with the question as to what external effects the various approaches adopted by the burglary control team between March 1979 and October 1979 had had. In order to enable this section of the report to be read independently, the objectives and activities of the burglary control team are briefly summarized in the introduction.

<sup>\*)</sup> Een onderzoek naar de bestrijding van diefstal door middel van braak, Gemeentepolitie van 's-Gravenhage, maart 1981.

The main object facing the team was to control and reduce burglary in private dwellings in Moerwijk and to remove the feelings of insecurity felt by the local residents with regard to that crime. A secondary object was to improve relations with the local residents.

The means chosen to achieve these aims was the formation of a team assigned the following duties: intensive patrolling on foot and by bicycle, providing information on crime prevention (both by patrolling officers and on "community evenings" etc) and receiving, dealing with and clearing up reports of burglary.

The team consisted of a Judicial Branch Sergeant (the team coordinator), two detectives and eight uniformed Branch Constables. In some of its work the team was assisted by an Information Officer and by the Moerwijk Home-Beat Officer.

When the project was started, the hope was expressed that the work of the team would soon result in a drop in the number of burglaries (particularly by opportunity thieves). Such a drop would have to be achieved through intensive patrolling and more effective use of anti-intruder devices by local residents. Publicity given to the project - made inevitable by the publication of an article on the district in a local newspaper - may also have played a part in deterring potential offenders. The special way in which reports of burglary were dealt with and cleared up was not expected to have any immediate effect on burglary. After all, a deterrent effect produced by increased likelihood of detection would only emerge after some time. The effect of using anti-intruder devices may be expected to become apparent both in the short term and the long term. In order to identify the long-term effects, it was agreed that additional figures might possibly be obtained at a later date, e.g. in January 1981. Only the short-term effects are discussed in the present report.

Besides the overall effect of the team's work on burglary, the existence of the team may have had an effect on the feelings of insecurity already felt by local residents. On 25 January 1971, a local newspaper distributed from door to door contained a disturbing article reporting the fact that inhabitants of Moerwijk felt threatened by the large number of burglaries in their area. For instance, the article described how some local residents were endeavouring to protect themselves against intruders by keeping a number of milk bottles behind their front door. Although the article greatly exaggerated the seriousness of the situation, it is certain that when the project began, feelings of insecurity with regard to burglary had reached an unprecedentedly high level. It is highly probable that the appearance of the articles stimulated such feelings. During the preparatory discussions it was stated that it was not expected that the frequently deep-rooted ideas that people had about crime would be easily influenced in a short space of time. However, it might be possible to do something about the extreme anxiety of the local residents and their correspondingly extreme security measures.

The various activities of the team may have had further independent effects, such as:

- 1) increasing the willingness of local residents to report burglary as a result of improved accessibility to the police (receiving of reports by the team) and of goodwill created;
- 2) improving the opinion of local residents regarding the effectiveness and the performance of the police;
- 3) increasing the use of normal anti-intruder measures;
- 4) increasing the clearance rate for burglaries.

Finally, account must be taken of possible side-effects, such as the deflection of burglary to other districts. Another side-effect might be that patrolling and/or the publicity surrounding the team might lead to a drop in other types of crime. The same might also be true as regards increased willingness to report crimes.

The following diagram summarizes the tasks of the team and the external effects anticipated at the time of its formation.

Figure 1. Anticipated effects of the "Moerwijk" burglary control team

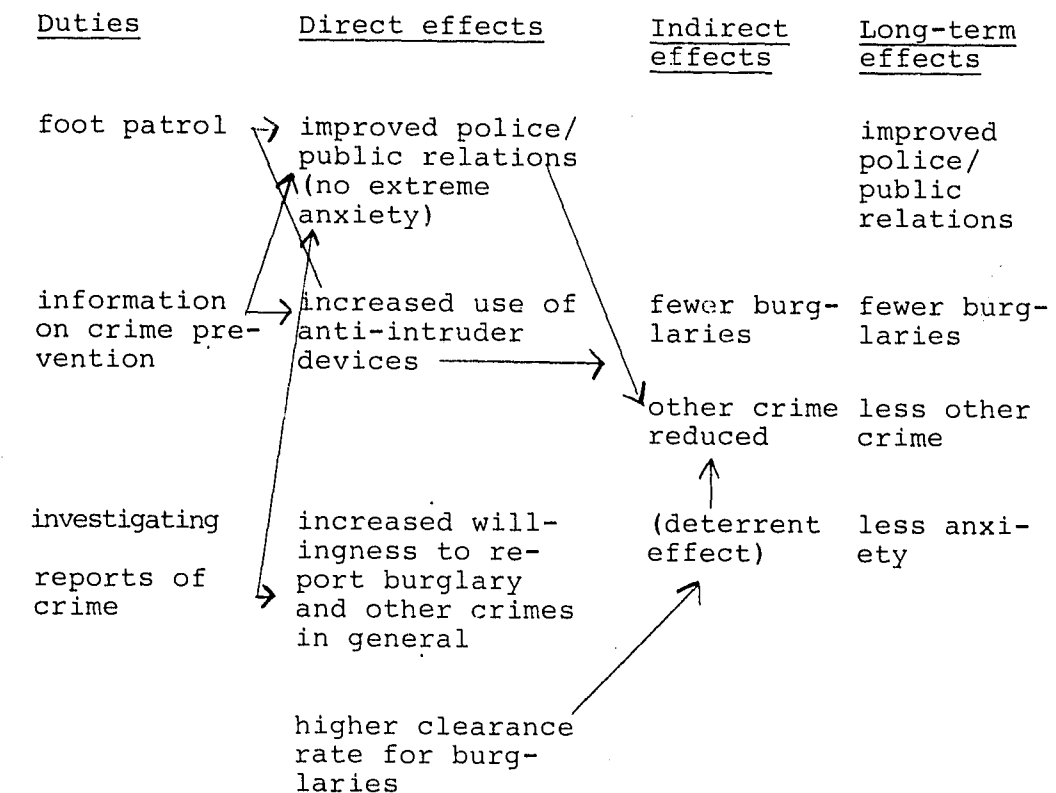


Figure 1 shows that a one-to-one relationship was not assumed to exist between the various duties of the team and the possible effects. In particular, the improved relations between the police and the public may be promoted through all three tasks. It is not possible either to ascribe any drop in burglary to any one of the tasks in particular. It must be regarded as a result of the combination of all three tasks. From the scientific point of view, such uncertainty with regard to the precise effects of the various tasks is without doubt a serious drawback in the approach chosen. The supervisory committee felt, however, that in the present circumstances any

attempt to experiment in a laboratory-like manner with new types of approach within a police force was unfeasible. The new approach should be both meaningful and practicable from the point of view of the police officers involved.

Many participating police officers will fail to see the value of an experiment in which their customary procedure is only slightly changed. Moreover, a slight change in the customary procedure may evoke reactions from the public, to which the police will wish, and frequently will have to, respond by adapting the procedure they follow in some other area. In our view all this means that, in mounting police experiments, the police must be offered a more or less complete set of tasks which appeal to them and in which allowance has been made for interactions in their relations with the public. Our research strategy implies the repeated implementation of similar "package-programs" with small adaptations in various cities. We hope the possession of extensive data on a series of similar but distinct experiments will enable us to draw conclusions about the value of its main components in the long run.

### *How were the anticipated effects measured?*

The data on the effects of the burglary control team were obtained mainly through the surveys which were conducted among the local residents of Moerwijk and of a control district (Rustenburg/Oostbroek) before and after the experiment. The pre-experiment figures were obtained between 24 January and 16 February 1979 and involved 826 respondents from Moerwijk and 300 from Rustenburg/Oostbroek.<sup>(1)</sup>

- 1) NIPO, A-392, Slachtofferenquêtes, The Hague, 13 February 1980 (2 parts).  
NIPO, A-824, Slachtofferenquêtes, The Hague 3 July 1980

Additional surveys were made involving 880 respondents from other parts of The Hague. The post-experiment figures were obtained in the period from 21 January 1980 to 13 February 1980, when a questionnaire was addressed to 749 respondents in Moerwijk and 654 in Rustenburg/Oostbroek. The results of a partly identical survey involving 397 respondents in The Hague were also available.

As regards the anticipated direct effects, the level of preventive measures taken and the increase in willingness to inform the police were measured by means of specific questions in both the pre- and the post-experiment surveys. Relations with the public and acquaintance with the team were improved for the first time in the second survey. The effect of higher clearance rates was studied by analysing the data that the police themselves are accustomed to collect.<sup>(1)</sup> The anticipated indirect effects of the lower crime figures were examined both on the basis of the survey findings and with the aid of the official police figures. Finally, in both surveys, fear of crime was dealt with.

### *Structure of the report*

The burglary control team's arrival on the scene can only be expected to have had visible effects on the local residents insofar as they noticed something of the team's activities. For this reason, Chapter 2 first provides a synopsis of the external contacts which the team had and then examines the extent and type of impression the team made on the local residents of Moerwijk. Chapter 3 deals with the anticipated direct effects of the various

- 1) The data taken from the administrative statistics of the Force itself were collected and analysed for the purpose of evaluating the external effects by R.J.M. de Graaf and E. Koppelaar of the Policy Development Department.

activities of the team on the local residents' willingness to inform the police and willingness to take preventive measures, and also with the effects on the local residents' opinion of the police. At the close of the chapter, the developments in the clearance rate are discussed.

Chapter 4 deals with the overall effect of the team's activities on the development of the figures for burglary and other offences, and on feelings of insecurity. The final verdict of the local residents with regard to the burglary control team is also discussed in that chapter.

Chapter 5 contains a brief summary and evaluation of the external effects of the experiment that have been established and a discussion on the finding of similar program in Amsterdam and Hoogeveen.

## Acquaintance with the existence of the burglary control team

### *The inhabitants of Moerwijk, Rustenburg and the Hague*

Before dealing with the extent to which the inhabitants of Moerwijk and the control district Rustenburg/Oostbroek were aware of the existence of the burglary control team, we shall first give a sketch of the population of these districts.

In 1979, Moerwijk had some 19,000 inhabitants, Rustenburg some 16,000. The population of Moerwijk differs markedly from that of The Hague in two respects. Moerwijk's inhabitants include a large percentage of old people and a relatively small percentage of the more well-to-do professional and managerial classes.

All in all, Moerwijk may be classed, from the point of view of its population, as a lower-middle class district with a high proportion of elderly people. Rustenburg/Oostbroek presents much the same profile, but has a less

pronounced over-representation of elderly people. The district itself may be classed as a typical residential area with very few offices or factories. The housing consists mainly of postwar "portiekwoningen", i.e. blocks of flats with a limited number of storeys and a central communal garden (tenement-houses).

### *Provision of information and advice to the public*

Before attempting to establish the percentage of the inhabitants who came to know of the existence of the team in some way or other, we shall first summarize that part of the team's work that concerned the supplying of information to the public. Here, a distinction will be made between the exchange of information at macro level (municipal authorities etc), at meso level (district organization, associations, shopkeepers) and at micro level (individual citizens).

#### At macro level

The Moerwijk home-beat officer and an officer responsible for several districts held consultations at regular intervals. The burglary control team also participated in these discussions. In addition, the team was free to establish contact with various local authorities such as Public Works, Building and Housing Inspection, and Housing. In the majority of cases it was a question of passing on suggestions relating to crime prevention measures.

#### At meso level

At the outset of the project one of the detectives visited all shopkeepers in the neighbourhood and gave them advice on crime prevention. The project was introduced to the public at a meeting held in the Moerwijk local community centre, run by the W.O.M. (Wijk-Organ-Moerwijk). Close consultation was maintained with the W.O.M. throughout the duration of the project. The team appointed two of

their members to represent them in such consultation. In cooperation with the W.O.M., three meetings were organized to provide information on burglary and burglary prevention. Leaflets etc. on burglary prevention were available at the community centre and at the local library. In addition, in collaboration with an ironmonger's shop that sells crime prevention articles, the team twice occupied a stall at a "braderie" (a festive street market, usually organized by the local shopkeepers).

#### At micro level

As stated earlier, the team directed their efforts to patrolling as far as possible on foot or by bicycle in view of the greater opportunities for contact with the local residents. Of the 228 patrols carried out by the members of the team, 54% took place on foot in combination with the use of a police car, 10% on foot in combination with the use of a bicycle, 11% by bicycle and 10% by police car.<sup>1)</sup>

During a total of 218 man hours (2.1% of the total time-expenditure by the team) the patrolling officers provided information in some form or other.

The information related mainly to the technical state of locks (52%), but also to open windows or doors (22%). In 57% of the cases an information leaflet was issued. Information was also given to all persons reporting burglary or attempted burglary.

During the summer months the local paper carried an announcement that cards were available for informing the team when people would be away from home. The team kept an especially close eye on the addresses brought to their attention by this means. They received 144 such cards.

1) These figures are taken from the structured patrol records kept by the members of the team for the purpose of the investigation.

In many cases the team personally visited the senders of these cards in order to find out where keys would be available and what security measures were practised.

In addition to the permanent manning of their office by one of their members, the team introduced a special consulting hour for local residents. Only sporadic use was made of this opportunity, however, probably because knowledge of it was not sufficiently widespread.

As a result of notified crimes or tip-offs the team carried out several investigations in the neighbourhood relating to matters of burglary. In all, 87 man-hours (1.0% of the total time-expenditure of the team) were involved and some 50 private individuals were contacted. A total of 131 (2.8%) man-hours was spent on receiving reports of crime, 89 of which other than at the police station. In all, over 50 different reports of crime were received (not only burglary).

In the last stage of the project the team listed the weak points in the district which would be susceptible to burglary because of the features or lay-out of the buildings. For this purpose one resident in each block of dwellings was consulted.

#### ***Actual awareness of the existence of the burglary control team***

In the January 1980 survey, carried out three months after the conclusions of the experiment, respondents were asked whether they were aware of the fact that a burglary control team had been operating in Moerwijk. Of those questioned in Moerwijk itself, 41% replied in the affirmative. In the control district the figure was 17%. Such results show clearly that the burglary control team was recognized as such by only a minority of the local residents. This does not necessarily mean that the other residents noticed nothing of the activities of the team.

Of interest, furthermore, is the fairly high percentage of residents in Rustenburg/Oostbroek (control district) who had heard about the Moerwijk team. In the survey, respondents were also asked how they had come to know of the team's existence (see Table 3).

Table 3. Way in which respondents learned of the existence of the burglary control team

	Moerwijk		Rustenburg/Oostbroek	
	N	%	N	%
Local paper "Moerwijk"	147	47.9	6	5.3
Haagsche Courant	64	20.8	56	49.6
Extra notice in "Posthoorn"	51	16.6	22	19.5
Contact with the police	7	2.3	5	4.4
Publicity evening or "braderie" stall	29	9.4	1	0.9
Neighbours	25	8.1	11	9.7
Family/acquaintances	3	1.0	3	2.7
Leaflet	4	1.3	-	-
Other	14	4.6	4	3.5
Can't remember	5	1.6	3	2.7
No reply	3	1.0	7	6.2
Total number of replies	352	114.7	118	104.4
Total number of respondents	307	100.0	113	100.0

Table 3 shows that the team chiefly became known through the media. The inhabitants of Rustenburg read the articles on the team in the Haagsche Courant and the Posthoorn.

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The percentage of Moerwijkers on the other hand who came to know the team through personal contact does appear to us to be strikingly low (some 5%, or some 1,000 inhabitants). Even so, most of these contacts were made at the public information evenings and at the "braderie" stalls. Evidently, only about a hundred local residents first came into contact with the team when information on crime prevention was distributed from door to door. This finding is broadly in keeping with that referred to in the previous section, that information was given by officers on patrol in some 200 cases. It is most likely that the small percentage of local residents who said they had learned about the team through a leaflet, were referring to the information leaflets containing advice on crime prevention in connection with absence on holiday. These leaflets were not systematically distributed by the team throughout the neighbourhood, but were issued on request.

From the foregoing it is evident that the team by no means succeeded in "covering" the whole district through the supply of crime-prevention information.

As already stated, 41% of the Moerwijkers knew about the burglary control team. That does not mean, however, that they had a correct notion of the duties of the team.

First of all, it could be seen from the replies that one quarter of the Moerwijkers who said they knew of the team had in fact no idea of its duties. This means that the percentage of persons knowing about the team was not in fact approximately 40%, but approximately 30%. It is also noticeable that one quarter stated its task to be patrolling the neighbourhood in police cars.

Motorized patrol was not emphatically not a part of the team's duties. In practice, however, as has been stated, a fair amount of use was made of cars. As might be expected, this practice was responsible for giving local residents an idea of the team that was not fully in keeping with the aims of the project.

The comparison with Rustenburg/Oostbroek shows that the Moerwijkers who knew of the team more often had a correct understanding of its main duties. Moreover, the limited amount of detective work done by the team - which, according to the second interviews, the members of the team themselves regarded as most important - were almost unnoticed by the local residents.

### *Awareness of existence of the team according to sex, age and social class*

The team, or at least its existence, was known to about 40% of the Moerwijkers. It is interesting to study whether this level of acquaintance was equally great among the various population groups. It turns out, in fact, that 46.7% of the men and 41.6% of the women knew of the team. <sup>1)</sup> The difference can most probably be accounted for by the slightly wider circulation of news papers etc among men.

Furthermore, acquaintance with the team was highest among the 40-65 age group (50.9%) and lowest among under 25 age group (36.2%).

The differences in the level of acquaintance were also noticeable within the social classes. The team was known to 40% and 47% of the upper-middle and lower-middle classes respectively, but to only 25 % of the working class.

The relatively low level of acquaintance with the team in the case of women, young people and, in particular, unskilled workers is intirely in keeping with what has already been found elsewhere with regards to mass media

1) In these analyses the percentage of all local residents who knew of the team is 44.2%, since the category "No reply" has been omitted.

familiarization of the various population groups with the holding of crime prevention campaigns.<sup>1)</sup> There it has also been shown that young people in large cities and unskilled workers - two population groups with relatively high victimization risks - are least affected by crime prevention publicity. It has now further been established, therefore, that this is true also with regard to information and advice given by the police personally.

1) J.J.M. van Dijk and C.H.D. Steinmetz, Crime Prevention, An evaluation of the National publicity campaigns, Tijdschrift voor Criminologie, October 1980; The unequal distribution of mass media messages seems to be a general rule (P. Tichenor et al, Mass Media Flow and Differential Growth in Knowledge, Public Opinion Quarterly, 1970, p. 159.

## The direct external effects of the burglary team

### *Public willingness to report crime*

R.D.C. victim surveys have revealed that people's willingness to report minor offences to the police has declined since 1973, particularly in the major population centres. One of the secondary aims of the burglary control team was to stimulate such willingness. No deliberate publicity campaign was mounted, but rather an attempt was made to bring about a marked improvement in the assistance given to persons reporting crime. To this end, a member of the team was present at all times between 8 a.m. and 11 p.m. (including weekends) to receive reports of crime. Persons making such reports were kept informed of further developments in investigations and, in the case of burglary, visited in their homes to discuss further the reported burglary and ways of preventing any re-occurrence.

Since no explicit appeal was made to the local residents to report crime, no sudden marked increase in such reporting was likely. Nevertheless, the improved assistance offered, along with the higher profile of the police in the neighbourhood and the general publicity, may well have had a favourable effect - even in the short term - on willingness to report crime.

Where the presence of the team had a positive influence on willingness to report crime, we may expect to find that victims who knew the team would reveal a higher reporting rate than victims who did not. In Moerwijk, this was in fact true in the case of burglary, although the numbers involved were very small. The same differences were encountered in the case of bicycle theft, pickpocketing etc. The percentage of persons reporting

crime was always higher among those who knew the team than among those who did not. In the case of offences against property as a whole, 74% of the 47 victims who the team reported the offences concerned, as against 56% of those who did not know the team ( $\chi^2 = 3.77$ ;  $df=1$ ;  $p < 0.06$ ). In the case of crimes of violence no differences were found. In the control district Rustenburg/Oostbroek, such differences were totally absent.

Such data provide a preliminary indication that the team had a favourable effect on the local residents' willingness to report burglary and other offences against property.

The 1979 reporting rates for crimes against property as a whole (including burglary) and for crimes of violence in Moerwijk and Rustenburg/Oostbroek were then compared with the 1978 figures to see if there had been any increase. The relevant data are shown in Table 5.

Table 5. Percentage of victims who reported crimes against property or crimes of violence to the police in 1978 and 1979 in the districts Moerwijk and Rustenburg/Oostbroek

	Moerwijk		Rustenburg/Oostbroek	
	1978	1979	1978	1979
Crimes against property	55.6% N = 99	64.2% N = 109	75.0% N = 32	71.8% N = 71
Crimes of violence	16.7% N = 138	18.6% N = 129	11.1% N = 54	19.4% N = 124
Overall reporting rate (based on 10 offences, incl. "hit-and-run" cases, excl. crimes of violence in the home)	32.9% N = 237	39.5% N = 238	34.9% N = 86	38.5% N = 195

Table 5 provides an indication that willingness to report crimes against property increased in Moerwijk, but not in Rustenburg/Oostbroek. The likelihood that the rise in the reporting rate for all offences in Moerwijk is due to a chance finding is less than 15% ( $\chi^2 = 2.22$ ;  $df = 1$ ;  $p < 0.15$ ). Statistically, such a rise is not significant. However, the rise established in the case of Moerwijk gains significance through the fact that, compared with 1978, in 1979 there was probably a drop, but certainly no rise, in willingness to report crimes against property both in the control district and in The Hague as a whole (figures for The Hague: 62.5% in 1978 and 55.6% in 1979)<sup>1</sup>).

Where there is an increase in the willingness of the public to report crime, the result is always an increase in the number of less serious offences with which the police are confronted, since offences which previously went unreported owing to their relatively non-serious nature are then reported. The analyses of official police reports on burglaries committed in Moerwijk and Rustenburg/Oostbroek reveal a sharp rise in both districts in the number of attempts at house-breaking recorded by the police. This finding, therefore, is also in keeping with the assumption that there was an increase in willingness to report crime in Moerwijk, even though there was also a similar increase in the number of such attempts in the control district.

1) These percentages were calculated on a basis of N = 136 and N = 124 victims of crime against property respectively.

### *Public willingness to take precautionary measures*

One of the special duties of the team was to inform the public about precautionary measures against burglary (and, where appropriate, measures to prevent other forms of crime against property). This information was given both to groups of local residents at local community meetings etc. and to private individuals.

In the second survey, respondents who knew the team were asked whether they had begun to take precautionary measures against burglary as a result of the team's activities. Of the 40% of local residents who said they knew the team, 20% replied that they had been persuaded to implement such crime prevention devices. In other words, as a result of the existence of the team, 8% of the inhabitants of Moerwijk took steps or additional steps to prevent burglary.

In both surveys, respondents were asked what preventive measures they were accustomed to take with regard to each type of offence. An attempt was then made to ascertain whether those who knew the team evinced greater willingness to take preventive measures than those who did not. Table 6 sets out the relevant data with regard to burglary.

Table 6. Number of precautionary measures against burglary claimed to be normally taken in Moerwijk in 1979, with breakdown according to respondents' acquaintance or non-acquaintance with the burglary team

Acquaint- ance with the team	No measures	One measure	Two or more measures	Total
Yes	20 ( 6.6)	128 (42.1)	156 (53.3)	304 (44.1)
No	41 (10.9) <sup>x)</sup>	175 (45.3)	169 (43.8) <sup>xx)</sup>	386 (55.9)

x) ( $\chi^2 = 3.48$ ; df = 1; p < .06

xx) ( $\chi^2 = 3.75$ ; df = 1; p < .05

Table 6 shows that those persons who knew the team were significantly more willing to take precautionary measures than those who did not. In Rustenburg/Oostbroek any such difference was entirely absent. In Rustenburg/Oostbroek it was even the case that those who knew the team took relatively few measures. Nevertheless both results indicate that contact with the team did result in increased willingness to apply precautionary measures. The data on measures taken when going on holiday point to the same conclusion. In the case of Moerwijk, 46% of those who knew the team claimed to take two or more preventive measures, as against 40% of those who did not know the team.

As was established with regard to willingness to report crime, it seems that, as regards willingness to apply precautionary measures too, the influence of the team was not confined to the offence of burglary. The Moerwijkers who knew the team also take significantly more measures to prevent bicycle theft, moped theft and car

theft. No such correlation exists in the case of Rustenburg/Ooestbroek.

Finally, an attempt was made to ascertain whether willingness to take precautionary measures in Moerwijk and in the control district had reached a higher level in 1979 than in 1978 (Table 7).

Table 7. Willingness to take precautionary measures against burglary in Moerwijk and Rustenburg/Oostbroek in 1978 and 1979.

	Moerwijk 1978	1979	Rustenburg/Oostbroek 1978	1979
No measure	50 ( 6.1)	66 ( 8.9)	26 ( 8.7)	45 ( 6.9)
One measure	288 (35.2)	321 (43.3)	153 (51.2)	266 (40.9)
Two or more measures	480 (58.7)	355 (47.8)	120 (40.1)	339 (52.2)
Total	818 (100%)	742 (100%)	299 (100%)	650 (100%)

The results show that, contrary to expectation, the average willingness to apply measures in Moerwijk actually dropped. In Rustenburg/Oostbroek such willingness increased. No simple explanation is available. If one looks at the various measures referred to in the survey, it is clear that in Moerwijk there was a decline particularly in the use of extra locks and bolts and the securing of doors and windows. The data on willingness to apply precautionary measures when going on holiday and with regard to other forms of crime against property reveal the same picture. The results indicate that in Moerwijk the willingness to take precautionary measures declined generally. In the control district the willingness to apply precautionary measures either rose or remained the same.

It is noticeable that in 1978 the willingness to take preventive measures was considerably greater in Moerwijk than in Rustenburg. Comparison with the 1978 data for The Hague as a whole reveals that Rustenburg showed an average willingness to take precautionary measures, while willingness in Moerwijk was exceptionally great (the percentage of persons who took two or more burglary prevention measures in The Hague in 1978 was also 40). Such a high level of willingness may be ascribed in part to the relatively small number of young people in Moerwijk, since they are generally less willing to apply precautionary measures. We take the view, however, that the high level of willingness found in Moerwijk in 1978 is partly the result of the extreme feelings of insecurity which were present in the district at the time of the survey. The disturbing article on the subject in the weekly "De Posthoorn" must also be borne in mind. It is likely that, partly as a result of this article on crime in Moerwijk, many local residents became temporarily more willing to apply precautionary measures (or at least claimed to be so). This anxiety effect will have gradually died away in the course of 1979, with the result that the average level of willingness to apply precautionary measures, as measured at the beginning of 1980, was lower. It is most probable, therefore, that the positive effect generated by the information and advice given by the burglary team was more than offset as people began to forget their earlier fears. On balance then, the average level of willingness dropped.

In short, the overall decline in the neighbourhood of the willingness to take preventive measures is interpreted by us not as an effect of the burglary team (which has reinforced this willingness among those who knew about the team) but as an effect of an external factor. Whether this interpretation is justified will be discussed again on the basis of the findings of two similar programs in the last section.

### *The local residents' opinion of the police*

One of the secondary aims of the project was to improve relations with the public. By improving these relations it was hoped to secure more public cooperation with the police (higher reporting rates etc). The first survey contained hardly any questions relating to the performance of the police. Comparison between opinions of the police before and after the experiment was only possible in one respect, viz. the way in which reports of crime were dealt with.

The reason for this was that in the regular RDC national victim survey, which was used as a measure before the experiment, persons who had reported an offence to the police were always asked whether they were satisfied with the police response. The number of respondents to whom this question could be put was small. Of the 77 persons who reported an offence to the police in Moerwijk in 1978, 51 (66%) were satisfied with the way the police dealt with the information they received. In 1979, 68 of the 93 persons who reported an offence (73%) were satisfied. In the control district, the figure was 60% in both years ( $N = 30$  and  $N = 73$ ). These figures may indicate that the involvement of the burglary control team with receiving reports of burglary etc. led to a somewhat more positive opinion of police work. That apart, the relevant data show that the number of satisfied reporters of offences among the Moerwijkers who knew the team was only marginally higher than among those who did not.

In the second survey, respondents were asked several questions about their opinion of the police. In order to trace possible effects of the setting up of the burglary control team, an interesting question was whether those who knew the team had a different opinion of the police

compared to other Moerwijkers. In addition, a comparison was made with the opinion of the Rustenburgers.

In the survey, respondents were asked whether they had had any form of contact with the police in the preceding year. Those who replied affirmatively were then asked several questions about what they thought of their most recent contact with the police. The analyses reveal that only just over a hundred respondents from Moerwijk had contact with the police in Moerwijk in 1979, and just over 60 Rustenburgers with the police in Rustenburg. Those who knew the team had a slightly higher opinion of such contact than the others. However, in view of the small numbers involved, the differences are too marginal to be regarded as an indication that the team had won goodwill from the public.

Comparison of the opinions of all Moerwijkers (including those who did not know the team) with the opinions of the Rustenburgers on their recent contacts with the police is based on larger numbers of respondents and, in addition, reveals more differences. It turns out that of the Moerwijkers who had had recent contact with the police, 71% thought that the police had been helpful, as against 60% in Rustenburg; 17% of the Moerwijkers felt that their contact had been unsatisfactory, while in Rustenburg the proportion was 26% ( $N = 116$  and  $N = 61$ ). Generally speaking, we may conclude that the local residents of Moerwijk had a higher opinion of police-public contact than those of Rustenburg. The difference indicates, we believe, that the arrival of the burglary control team was well received by the inhabitants of Moerwijk.

### *The development of the clearance rates*

The team also tried to solve cases of burglary reported in Moerwijk. Using administrative data from the police, an attempt was made to gain some idea of how successful they were in this.

The clearance rate was calculated by comparing the number of official police reports on unsolved burglaries - recorded on what are known as "burglary cards" - with the number of reports or notifications of burglary, as recorded by the C.I.D.'s Technical and Identification Division (T.O.H.D. - Technische Opsporings - en Herkenings Dienst). The latter figure also included notifications which were not made the subject of official police reports.

Table 9 shows the data calculated in this way with regard to burglaries in dwellings.

Table 9. Number of burglaries in dwellings reported to the police and the number of unsolved cases in Moerwijk and Rustenburg/Oostbroek in the years 1976-1979 on the basis of police administrative data.

	1976			1977			1978			1979		
	reported	solved	( % )	reported	solved	( % )	reported	solved	( % )	reported	solved	( % )
Moerwijk	79	40	(50.6)	86	12	(13.9)	114	38	(33.3)	69	8	(11.6)
Rustenburg/ Oostbroek	43	29	(67.4)	88	12	(13.6)	57	27	(47.4)	110	22	(20.0)



Table 9 reveals considerable fluctuation in the clearance rates. There is no doubt that this can be put down in part to the small numbers involved.

There is also the fact that sometimes a gang of criminals is arrested that confesses to a series of burglaries. This happened, for example, in 1976 in both districts. With regard to the clearance rates for 1979, it should also be noted that data ceased to be collected in mid-December 1979: No allowance is made therefore for cases solved after that date.

The approximate clearance rates shown here can only provide a rough indication of success in the solving of cases. Consideration must also be given to the fact, for instance, that in the course of 1979, as we have already seen, the number of notifications of attempted burglary rose relatively steeply. It is obvious that attempted crime is more difficult to solve than actual crime. However, none of this alters the fact that the available evidence affords few grounds for believing that the activities of the burglary control team in the field of criminal investigation resulted in increased effectiveness in investigating burglaries committed in Moerwijk.

## The indirect external effects of the burglary control team

### *Effects on the crime rate*

One of the main aims of the project was improved control of the offence "burglary in a private dwelling". Of the various means employed for this purpose, those that may in principle be expected to have a short-term positive effect on crime control are patrol on foot and by bicycle and the provision of information and advice on crime prevention. The same is true of the publicity which surrounded the setting up of the burglary control team. As already stated, the criminal investigation activities of the team were probably not very effective, with the result that we may expect to see little change on those grounds.

In police literature it is generally assumed that preventive measures and the like may be especially effective in combating what is referred to as "opportunity crime" (crime committed by non-professionals). This raises the initial question of the extent to which the burglaries committed in Moerwijk can be placed in the category "opportunity crime".

In the analysis of the data relating to those persons who were suspected of having committed burglary in Moerwijk or Rustenburg/Oostbroek since 1976 it is noticeable that a relatively small number of suspects were involved in a large number of burglaries.

In the years 1976-1979, some 11 suspects were involved in a total of 109 burglaries which became the subject of official police reports. The average age of this group of suspects was 22.

In addition, there was a much larger group comprising some 134 suspects who were involved in 152 burglaries in these four years. The average age of this group was 19. The group included quite a number of 17- and 18-year-olds.

Such data on the perpetrators would suggest that about half the burglaries in this part of The Hague are committed by young opportunity criminals. The other half would appear to be accounted for by criminals who operate more professionally or at any rate in a more organized manner. The latter group will probably have paid but scant attention to the slightly higher patrol frequency or to increased use of anti-intruder devices. It is quite possible however that, as a result of the publicity given to the burglary control team, this group will have temporarily selected targets in other districts or in other neighbouring cities.

The development in the burglary figures was measured first of all on the basis of the victim surveys. Table 10 shows the development of the victim rates in Moerwijk, Rustenburg/Oostbroek, The Hague and the Netherlands in 1978 and 1979.

Table 10. Proportion of persons over 15 years of age who were burglary victims in Moerwijk, Rustenburg/Oostbroek, The Hague and the Netherlands in 1978 and 1979 on the base of victim surveys.

	Moerwijk	Rustenburg/ Oostbroek	The Hague	The Netherlands
1978	1.9 N = 826	1.5 N = 300	1.3 N = 1,002	1.2 N = 9,999
1979	1.8 N = 749	1.4 N = 654	2.2 N = 782	1.7 N = 10,002

Table 10 shows that the victim rates for Moerwijk and for Rustenburg/Oostbroek remained the same or dropped slightly, while in both The Hague and the rest of the Netherlands the burglary victim rates rose - quite significantly in the case of the Netherlands as a whole ( $\chi^2 = 8.73$ ;  $df = 1$ ;  $p < 0.01$ ). These figures are estimates. No definite conclusions can be drawn. The development in burglaries was also studied, however, using police administrative data on the reporting of burglary. Table 11 sets out the relevant data.

Table 11. Development in the numbers of reported burglaries in dwellings in Moerwijk (M) and Rustenburg/Oostbroek (R) in the years 1976-1979 on the basis of police administrative data.

	1976 N (%)	1977 N (%)	1978 N (%)	1979 N (%)	Total N (%)
M	79 (22.7)	86 (24.7)	114 (32.8)	69 (19.8)	348 (100.0)
R	43 (14.5)	88 (29.5)	57 (19.1)	110 (36.9)	298 (100.0)

Table 11 shows that the number of reports of burglary in Moerwijk dropped in 1979, while there was actually a rise in Rustenburg/Oostbroek. We have already established that it was precisely in Moerwijk that willingness to report crime probably increased, and at any rate did not decline. This means that the drop in the number of burglaries recorded must be the result of a true drop in the number of burglaries committed. In Rustenburg/Oostbroek the number of burglaries recorded rose, while there is nothing to indicate an increase in willingness to report crime (Table 5), with the result that we are forced to conclude that the rise was a true one. The survey further

revealed that both in The Hague and in the Netherlands as a whole there were also rises in the number of burglaries committed. Taken together, then, the survey findings and the administrative data clearly indicate that the number of burglaries in Moerwijk declined during the time the burglary control team existed, whereas elsewhere the incidence of burglary actually rose.

The surveys also included questions relating to other types of offence. The overall crime rate can be expressed as the percentage of respondents who were the victims of one or another offence. In 1978 and 1979, the total victim rates for Moerwijk were 23% and 25% respectively, those for Rustenburg/Oostbroek 24% in both years, and those for The Hague 30% and 28.5%. In the country as a whole, the overall rate rose from 19% to 23%. These figures provide no evidence that the burglary team had any deterrent effect with regard to other types of crime.

If the deterrent effect on burglary exercised by the team was the result of the patrols it carried out, we might expect to find that other types of offence would also show a drop, or at any rate no rise. No such general effect, however, could be found. This may indicate that the deterrent effect must rather be sought in the information and advice given on crime prevention or in the publicity surrounding the team, which after all were both specifically concerned with burglary.

### *Effects on fear of crime*

In a way we should be deceiving ourselves if we were to expect that the often deep-seated feelings of insecurity that exist with regard to crime could be removed at short notice by anything that the police might do. However, when the project began, a very high percentage of the inhabitants of Moerwijk were apprehensive about the risk of being burgled. We shall now consider whether, despite this, some things may have changed in this respect.

In order to gain some idea of the extent to which the subject of crime occupies people, respondents were asked in the surveys whether they had spoken to anyone recently on this subject. It transpired that both in Moerwijk and in Rustenburg/Oostbroek the percentage of people who had had such conversations had risen slightly (from 22% to 28% in Moerwijk and from 22% to 26% in Rustenburg/Oostbroek). There seemed to be a shift in the type of crime discussed. In 1978, 33% of Moerwijkers' conversations were about burglary (N = 183), while in 1979 the figures was only 21 % (N = 209).

Such a difference may indicate that the special concern about burglary which was the subject of the Posthoorn article referred to earlier died down again in the course of 1979. The replies given to the question of how often respondents considered the possibility that they themselves might become victims of an offence also point, on the one hand, to increased fear with regard to crime in general and, on the other, to a drop in fear with regard to burglary. The number of Moerwijkers who frequently consider this possibility has in fact risen slightly. In 1978, however, 26% thought about burglary (N = 361), while in 1979 the figure was only 17% (N = 341). These findings are an indication, therefore, that in the case of the inhabitants of Moerwijk who were concerned about crime, burglary receded from the forefront of attention.

The surveys included five questions about fear of crime in general. Respondents were divided into three groups according to the replies they gave to these questions (not afraid, a little afraid, very afraid). The first survey revealed that 18.4% of the Moerwijkers fell into the category "very afraid" (N = 826). The percentages for Rustenburg/Oostbroek and The Hague were 10.3 and 16.1 (N = 300 and N = 1,002).

Clearly, then, feelings of insecurity were more widespread in Moerwijk than elsewhere. For 1979, figures are only available for Moerwijk and Rustenburg/Oostbroek.

In Moerwijk, the percentage of "very afrails" remained exactly the same (18.4%; N = 749), while Rustenburg/Oostbroek showed a rise from 10.3 up to 18.8% (N = 654). No clear conclusion can be drawn from this, of course. The setting up of the burglary team may, however, have helped to prevent any further rise in feelings of insecurity in Moerwijk.<sup>1)</sup>

In order to examine the tenability of the above hypothesis, a look was taken to see whether those persons who knew the team evinced fewer feelings of insecurity than the others. The differences proved to be marginal and, in the case of some of the questions, even to go the other way. However, previous RDC research has adequately demonstrated that feelings of insecurity are highly correlated with age and sex. For that reason the relationship between knowledge of the team and feelings of insecurity was studied separately in relation to the various age groups. The results are shown in Table 12.

1) The belief referred to elsewhere in this report that in 1978 Moerwijk experienced an upsurge of feelings of insecurity with regard to burglary which then gradually died away finds some support in the findings as to the strength of feelings of insecurity experienced in 1978 and 1979. In 1978 the feelings of insecurity in Moerwijk were much higher than in Rustenburg, while in 1979 the extreme insecurity feelings were on the same level both in Moerwijk and Rustenburg.

Table 12. Extent of fear of crime for the Moejwijkers who knew and Moerwijkers who did not know the burglary control team, according to age and sex.

Age	Males				Females			
	55 and under		Over 55		55 and under		Over 55	
Knowing the team	Yes	No	Yes	No	Yes	No	Yes	No
Not affraid	49%	55%	38%	35%	21%	29%	16%	17%
A little afraid	51%	38%	50%	58%	49%	43%	43%	57%
Very afraid	-	7%	12%	7%	30%	28%	41%	26%
	N=59	N=76	N=104	N=110	N=76	N=80	N=68	N=122

Table 12 reveals some interesting facts. In the case of the males, those who knew of the team's existence experienced roughly just as many - or fewer - feelings of insecurity as the rest. In the case of four out of the five questions relating to fear, those who knew the team revealed fewer feelings of insecurity. In the case of the (older) women, however, we see a clear inverted relationship between knowledge of the team and feelings of insecurity, in the sense that fear was greater where there was awareness of the tem. It seems that the older female inhabitants of Moerwijk often regarded the establishment of the team as a confirmation of their suspicion that the district was unsafe. In this respect, then, the setting up of the team evidently had an adverse effect.

**CONTINUED**

**2 OF 4**

In the case of the male inhabitants and, in particular, the young people, on the other hand, the team probably helped to remove the exceptional fear of burglary and other forms of crime. The setting up of the team probably gave a reassuring feeling that something was now being done about the situation.

### *The local residents' opinion of the burglary control team*

Over 40% of the Moerwijkers and 20% of the Rustenburgers indicated that they knew the team. These persons were asked a few questions concerning their opinion of the team.

Firstly, they were asked how they thought the team had discharged their duties. The majority of the inhabitants of both districts preferred to make no comment. Of those who did comment, nearly all expressed a favourable opinion. Only 5% rated the team's performance as "poor" or "not good".

As already related in Chapter 2, those who said they knew the team were further asked to say what they thought the specific tasks of the team had been. An analysis was made to see how those persons who mentioned specific duties rated the team (Table 14).

Table 14. Rating of the burglary team's performance by respondents in Moerwijk who ascribed specific tasks to the team.

	Uniformed patrol of district on foot		Patrol of district in police car		Giving information and advice to public		Warning residents about habits likely to attract criminals		Keeping an eye on homes when asked to do so	
Very good/good	26	35.1%	39	51.3%	54	52.9%	16	40.0%	9	37.5%
Moderately good	2	2.7%	1	1.3%	5	4.9%	-	-	-	-
Fair/Poor	3	4.1%	4	5.3%	1	1.0%	-	-	-	-
No opinion/no reply	43	58.1%	32	42.1%	42	41.2%	24	60.0%	15	62.5%
Total	74	100.0%	76	100.0%	102	100.0%	40	100.0%	24	100.0%

The most noticeable finding in Table 14 is the relatively unfavourable opinion of slow patrolling. It is noticeable because the frequency of foot patrols in the district was more than doubled. Evidently, the greatly increased police presence in the neighbourhood was still not enough to reassure the inhabitant in this respect.

Finally, the respondents were asked whether they thought it desirable that the burglary control team should be made permanent. An affirmative answer was received from 77% of the Moerwijkers and 56% of the Rustenburgers. There can be no doubt, therefore, that the setting up of such teams would be greatly appreciated by local residents: as far as Moerwijk is concerned, the burglary control team must stay.

## Summary and discussion

The burglary control team of two detectives and eight constables of The Hague Municipal Police Force which operated in Moerwijk in 1979 directed its efforts mainly at patrol on foot and by bicycle, the provision of information and advice on crime prevention, and dealing with and settling reports of burglary originating in the district.

The direct and indirect short-term effects of these activities on the inhabitants of Moerwijk were investigated by means of surveys carried out in Moerwijk and in the control district Rustenburg/Oostbroek before and after the experiment with the team in 1979. In addition, several data bases held by The Hague Municipal Police were analysed.

As far as the direct, external effects are concerned, attention was given to four possible effects. Each of these effects will be described briefly. Then the more indirect possible effects on the development of crime and feelings of insecurity will be examined. Prior to this, however, we shall first consider the extent to which the activities of the team affected the inhabitants.

Forty per cent of the Moerwijkers knew of the burglary team's existence in January 1980. Roughly a third of the Moerwijkers were aware of the special duties of the team.

On the other hand the work of the team evidently went practically unnoticed by some two thirds of the inhabitants. The percentage of inhabitants who knew about the team is fairly low, particularly if one considers that the setting up of the team received quite a lot of publicity - not intentional - but enforced by the



appearance of a disturbing article in a local newspaper distributed from door to door. Such a low percentage means that the effects that the team had on the whole community may also have fallen far short of what they might have been. Where definite effects are found, we may be justified in assuming that a team that managed to cover larger areas of a district - by working more intensively or for longer hours - might produce more tangible results. The fact that the experiment was limited to the offence of burglary also affected the results: a team commissioned to deal with more forms of crime might possibly be more effective. Such a conclusion receives support from the finding that even in the case of the present organizational approach, many of the external effects extended to other types of offence.

#### *Four direct effects*

##### Willingness to report crime

The results show that the Moerwijkers who knew the burglary control team and had been victims of a crime against property more often reported such crime to the police than the others. Moreover, the percentage of all victims in Moerwijk who reported crime was slightly higher in 1979 than in 1978, while the reporting rates for Rustenburg/Oostbroek and the rest of The Hague remained the same. Although small figures are involved, the available data do indicate that the existence of the team had a stimulating effect on willingness to report crime. Such a stimulus would not appear to have been restricted to the offence of burglary but to have extended to all crimes against property.

##### Willingness to apply precautionary measures

On average, the Moerwijkers who knew the team claimed more often than the others that they were in the habit of taking specific steps to prevent burglary and various other types of crime against property. In 1978, at the time of the first survey, the average "prevention level" in Moerwijk was much higher than in Rustenburg/Oostbroek. Oddly enough, however, it actually dropped slightly in 1979. The explanation of such a drop probably lies in the fact that it was precisely at the time of the first survey that a sort of collective panic broke out in the district with regard to the high number of burglaries. It is likely that, as a result of the emotions generated and the way in which the weekly "De Posthoorn" cashed in on the situation, the level of alleged willingness to take preventive measures in the district rose sharply for a time. In the course of 1979, this emotional involvement on the part of many Moerwijkers with the offence of burglary probably died down again, with the result that the average willingness to take preventive measures also fell.

These findings suggest that information and advice on crime prevention given by a team of police officers personally exert a favourable influence on the people's willingness to take such measures. It remains to be seen from the results of comparable projects carried out by the police forces of Amsterdam and Hoogeveen whether such a conclusion - with all its implications for policy development - is correct or not.

##### Public good will towards the police

Sections of the public had contact with the team by reporting crime or when communication information; apart from that, they may have observed the extra patrols.

The question now is whether such contacts resulted in a more favourable opinion of the police. The results show that the inhabitants of Moerwijk who reported an offence in 1979 were slightly more satisfied with the way the matter was settled than those who did so in 1978, while in Rustenburg/Oostbroek there was no difference. In general terms, too, it turns out that the Moerwijkers who had contact with the police in 1979 held a somewhat more favourable opinion of them than the Rustenburgers (for example, the police were judged to be more helpful). On the other hand, the findings show that the number of times the police were seen in Moerwijk was scarcely, if at all, greater than in the case of Rustenburg/Oostbroek. Such findings may indicate that the team's duties relating to criminal investigation and the provision of information and advice were successfully put across to the public, while this was scarcely, if at all, true with regard to their slow patrolling.

#### Clearance rates

According to police statistics, there was actually a drop, not a rise, in 1979, as compared with previous years, in the percentage of reported burglaries in dwellings that could be cleared up. The drop may have been the result of the increased willingness to report crime. The police figures show, in fact, that the number of attempted crimes reported rose relatively sharply.

### *Indirect effects*

#### Victimization and registered crime rates

Of all the indirect short-term effects, the effect on the crime rate is, of course, the most relevant. The surveys show that in 1979 the incidence of burglary (for our present purposes, the victim rates) in Moerwijk and Rustenburg/Oostbroek remained the same or dropped slightly, while elsewhere in The Hague and in the rest of the Netherlands sharp rises occurred. Records of the number of crimes coming to the knowledge of the police reveal a sharp drop in the number of burglaries in Moerwijk, and rises in Rustenburg/Oostbroek, the rest of The Hague and the rest of the Netherlands. In Moerwijk, people's willingness to report crime would appear to have increased slightly; this was not the case elsewhere. The available data would appear to indicate, therefore, that the activities of the burglary control team resulted in a drop in the incidence of burglary, at any rate in the short term. The surveys show no indication of a drop or levelling off in the case of other forms of crime in Moerwijk.

The drop in the incidence of burglary may, in principle, be a result of any of a number of the team's duties or of any combination of these. In view of the other findings, however, the possible causes are limited. If the drop resulted from the more widespread use of precautionary measures, we would expect to find a drop in the overall level of crime against property. However, the surveys do not appear to indicate any such drop, with the result that this factor would not seem to have been a major one. By the same argument, it is improbable that the extra patrols were responsible for the drop. In our view,

the most likely cause of the drop was the publicity given to the team's efforts to concentrate more on burglary. Certain potential criminals will have been deterred by such publicity. Police data provide no evidence of any increase of burglary in surrounding districts. There is some indication, however, that the level of burglary began to rise again in 1980, after the disbanding of the team. At present, it is still not possible to say whether the team's work in giving information and advice and the resulting rise in the level of actual crime prevention will have made a more lasting contribution to burglary control.

#### Feelings of insecurity

There is no indication that feelings of insecurity in Moerwijk altered in any way during 1979. In Rustenburg/Oostbroek such feelings increased. More detailed figures show that the existence of the team in general, and the extra patrols in particular, certainly did not stop the development of feelings of insecurity among the female inhabitants of the district and, more particularly, among the older female population. It would seem that the setting up of a special burglary control team had rather the effect of strengthening the feelings of insecurity felt by this section of the population. Particularly in the case of the male inhabitants under 55, however, the team does appear to have moderated somewhat the concern about the rise in crime.

#### Public relations

The Moerwijkers who knew the team were asked what they thought of it. Many of these respondents were unwilling or unable to give any judgement as to how far the team succeeded in discharging its duties. Of those who did respond, the overwhelming majority expressed a decided-

ly favourable opinion. Significantly, it was precisely the team's duties of patrolling on foot and by bicycle which scored relatively poorly in their replies. Some inhabitants had evidently expected better results from these patrols. The question whether the burglary control team should be made permanent was answered unanimously: 77% of those who knew about the team thought that it should stay.

The experiment with a "burglary control team" was unprecedented in the Netherlands. In part on the basis of the above discussed findings a new design for such a program has been developed by the RDC. This design has been implemented by means of an experiment by the municipal police forces of Amsterdam and Hoogeveen. In the next paragraph we shall compare the external effects of the latter programs with the above discussed effects and try to formulate some preliminary conclusions concerning the validity of the design.

#### Comparisons with similar projects in the Netherlands

The design of the The Hague program seemed to have had the following shortcomings. The team's impact on the perceptions and attitudes of the neighbourhood is probably marginal. The main reason for this marginal influence is the weakness of the stimuli of foot patrol and face-to-face instruction about crime prevention. Stronger stimuli could possibly be administered by eliminating the team's investigation task altogether and by limiting its use of police cars more strictly. It would be advisable in general to select a somewhat smaller neighbourhood, to develop more detailed guidelines for the team's activities and to organize more extensive training of the police officers. The advisability of enlarging the scope of the program to other crimes besides burglary was, on the other hand, a conclusion drawn by the Moerwijk police team members.

In Amsterdam the municipal police agreed upon a replication of the The Hague experiment. All of the above mentioned suggestions were incorporated in the design. In 1980 a team of eight patrol officers, a senior officer and a detective covered a neighbourhood of 0.9 km<sup>2</sup> with about 10,000 inhabitants by means of foot and bicycle patrols and various kinds of prevention instructions concerning property crimes. The selected neighbourhood was Osdorp. The establishment of this special team implied no extension of available manpower but only a reassignment.

The experiment in Hoogeveen cannot be characterized as a replication of the The Hague experiment. It consisted of an increased effort by a special team to patrol high crime areas in the city (by car and foot patrols). Unconnected with this team the force appointed a full time crime prevention instructor. The city of Hoogeveen consists of 35,000 inhabitants.

Both the Amsterdam and the Hoogeveen experiment have been evaluated by means of population surveys before and after the experiment. In Amsterdam a control neighbourhood has been interviewed as well.

The results of the Amsterdam police experiment were superior to those of both the The Hague and the Hoogeveen experiment. In Osdorp (Amsterdam) 66% of the inhabitants said they were aware of the special efforts of the police (44% in the Hague, 54% in Hoogeveen). More than half of the latter Amsterdam respondents had become personally acquainted with the team and only one quarter were familiar with the team by means of media reports. Both the Hague and Hoogeveen have shown an opposite result (mainly media-mediated awareness of the team). As a result of the face-to-face contacts, the Amsterdam project has been particularly successful in reaching the female, the elderly and low socio-economic status groups in the district. Foot and bicycle patrols seem to be the main contributors to this achievement.

The public willingness to report crimes has increased significantly during the Amsterdam/Osdorp project in the experimental neighbourhood and not in the control area (especially crimes of violence). The results in Hoogeveen are less positive. The non-integrated efforts of more surveillance and crime prevention instruction appear to have had no impact at all in this respect.

The findings in Hoogeveen show a significant increase of the willingness to apply more than two precautionary measures against burglary in private dwellings. In Amsterdam/Osdorp the percentage of persons who take no measure at all has decreased significantly. The latter impact is probably due to the personal contacts of the team with elderly and the lower social class. The Hoogeveen results are, according to the analysis, largely media-mediated. These support the prior interpretation of the results of the police experiment in The Hague. The level of precautionary measures in order to prevent other types of crime has not been influenced markedly either in The Hague or in Hoogeveen. The marginal influence on the level of these precautionary measures is probably the result of less concrete availability of prevention devices for other crimes than burglary.

The general opinions on the police of the inhabitants of both Amsterdam/Osdorp and Hoogeveen show significant improvements after the programs. Foot patrol and crime prevention instruction in Amsterdam and crime prevention instruction in Hoogeveen are in particular welcomed. Improvements of police-community relations can apparently be achieved both by a media-mediated approach and a direct approach to the public by the police.

Two indirect effects have been distinguished in this report, the effects on crime rates and the effects on feelings of insecurity. In order to conclude this summary with good news, we shall discuss the crime rates first. Neither in Amsterdam/Osdorp nor in Hoogeveen have significant decreases of victimization rates (or

registered crime rates) in comparison to the control areas been found. These present police experiments apparently do not bring about observable decreases of actual crime rates in the short run. The small decrease that has been observed after the The Hague experiment should probably be interpreted as an effect of the large media coverage of the experiment. This media coverage may have deterred local gangs or recidivists from "scoring" in this particular neighbourhood during the experiment.

In all three cities the crime consciousness of the target population has been raised (more conversations on the subject of crime). However, only the Amsterdam/Osdrorp program has been successful in reducing the feelings of insecurity significantly. The percentage of respondents in Amsterdam/Osdrorp who stated they feel safe in their neighbourhood showed a remarkably significant 10% rise ( $\chi^2=35$ ;  $df=1$ ;  $p\ 0,001$ ), while the control neighbourhood showed stable percentages. Again, these findings suggest a high impact of the Amsterdam police experiment due to its higher and more concrete visibility for females, the elderly and the lower social class.

To sum up, the Amsterdam program, consisting of foot and bicycle patrols combined with face-to-face crime prevention instruction, reached large sections of all population groups in the neighbourhood. This impact has resulted in an increased willingness to report crimes to the police, an increased willingness to apply at least one anti-burglary device, and a much better judgement on general police performance. The program has also been successful in reducing feelings of insecurity. No immediate reduction of crime rates has been found, however.\*) The increased willingness to report crimes

\*) This result is in entire agreement with the outcomes of the Newark Foot Patrol, (George L. Kelling e.a., The Newark Foot Patrol Experiment, Police Foundation, Washington, USA, 1981).

to the police, and especially the increased prevention-mindedness of the neighbourhood, however, will probably have enlarged the controllability of local crime in the long run.

The The Hague and Hoogeveen programs have consisted of a more global effort to increase neighbourhood surveillance by car or foot patrol, together with the introduction of crime prevention instruction. Both programs seem to have reached their target groups mainly by means of media reports, which has severely limited their impact among females, the elderly and persons with a low socio-economic status. As a consequence of this they have been less successful in increasing the willingness to report crimes, to apply crime prevention techniques, and not successful at all in reducing feelings of insecurity. Like the more concentrated program of the Amsterdam/Osdrorp experiment they, too, have been effective in improving crime consciousness and the general image of the police. Presumably because of its extraordinary press coverage the The Hague program has also been instrumental in reducing (temporarily) local burglary rates.

# Juggling with Housing Allowances

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An example of prevention of  
crime against the welfare society

*Eckart Kühlhorn*

## Housing allowances

In a modern welfare society the state and the local authorities have an important role as redistributors of economic resources. People who have high incomes and/or are at the peak of their productive career have to pay fairly high taxes and charges, which are then distributed to low-income earners and persons in unproductive phases. This redistribution function creates a tempting opportunity structure for white collar crime; a person who conceals his financial assets avoids payment of taxes and can benefit by various forms of allowances provided by the Welfare State.

This paper will deal with one type of such crime against the Welfare State, namely the extent of juggling with housing allowances and the effect of preventive measures.

The Swedish system of housing allowances covers 472,000, i.e. 14 per cent of all, households (1). The intention is that housing allowances shall provide support especially for families with children having low incomes and high housing cost. There are accordingly three significant criteria for obtaining a housing allowance, namely

- high housing costs
- large household, particularly with children
- low income

The housing allowance differs for small and large households. The information to households about housing allowances contains tables which present standard figures for the size of households (2). The table for single, childless persons is as follows.

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Extract from table for single, childless persons; housing allowance per month

Quali- fying annu- al income Skr	Rent/housing cost Skr per month					
	525- 549	575- 599	625- 649	675- 699	725- 749	750 and over
29,000	20	60	100	140	180	200
31,000		35	75	115	155	175
33,000			50	90	130	150
35,000			25	65	105	125
37,000				40	80	100
39,000					55	75
41,000					30	50
43,000						25

The income of a single person may not be above Skr 43,000 if he or she is to be entitled to a housing allowance, even if the rent is very high.

For a family with two children the situation is different. This is shown by an extract from the table for a family with two children.

Extract from table for married/unmarried couple with 2 children; housing allowance, kr per month

Quali- fying annu- al income Skr	Rent/housing Skr per month					
	0- 524	625- 649	775- 799	875- 899	1025- 1049	1250 and over
0 - 38,000	310	410	530	610	730	910
42,000	260	360	480	560	680	860
46,000	210	310	430	510	630	810
50,000	160	260	380	460	580	760
54,000	110	210	330	410	530	710
58,000	60	160	280	360	480	660
62,000		88	208	288	408	588

cont.

cont.

Quali- fying annu- al income Skr	Rent/housing cost per month					
	0- 524	625- 649	775- 799	875- 899	1025- 1049	1250 and over
66,000			128	208	328	508
70,000			48	128	248	428
74,000				48	168	348
78,000					88	268
82,000						188
86,000						108
90,000						28

The housing allowance system thus has a fairly limited significance for single persons and childless households, but extends to more than one-third of families with children. Table 1 shows the extent to which different types of household received housing allowances in May 1980 (3).

Table 1. The extent of housing allowances, 1980

Type of household	Number of households with housing allowance	In relation to all households in Sweden
Households with one person	65,153	6 %
Households without children	73,475	3 %
Households with children	394,853	34 %
of which		
with 1 child	130,024	25 %
with 2 children	168,933	37 %
with >3 children	95,896	54 %
all households	472,009	14 %

Of interest, too, is to see the economic significance of housing allowances for the recipients. Table 2 shows for

the households which receive housing allowances both the mean housing cost (e.g. rent) and the mean allowance. In total, housing allowances covered a good third of the housing costs (May 1980).

Table 2. Average rent/housing costs and housing allowance, monthly in Sw crowns 1980

Type of household	Rent/housing costs (mean)	Housing allowance (mean)	Allowance in relation to costs
Households without children	850	146	17 %
Households with children	1,299	483	37 %
All households	1,229	430	35 %

### The temptation situation

Housing allowances are calculated on the basis of the applicant's statement of taxable income in the calendar year for which an allowance is requested. This means that the applicant must make a forecast. The recipient of an allowance must also submit a statement of his property as recorded in his last income tax return, and of the size and type of his household. A pessimistic forecast thus has certain effects - low income gives a high housing allowance.

A similar statement of income and of changes in income must, in addition, be submitted to the social insurance officies by practically all income-earners in Sweden, since all must be registered with them. Here, however, the situation is the reverse of that for housing allowances - high income gives a high sickness allowance.

In such situations there is a great temptation for a person to be considerably more pessimistic when estimating

his income as basis för calculation for housing allowance than as basis for sickness insurance. As these two income statements are based on somewhat different income concepts - for housing allowances, for example, on income during a calendar year and for sickness insurance on income during a twelve-month period - there is presumably an increased risk that some persons will consciously or unconsciously fall for the temptation to report too low an income when applying for a housing allowance. They are also more likely to forget to report an increase than a decrease of income for adjustment of their housing allowance.

### Control and its legitimacy

Since statements of income both for housing allowance and sickness benefit are data-processed, an eldorado exists for the crime preventor. By linked processing of the data media for housing allowances and sickness insurance it is possible to identify households which have reported different incomes. But no eldorado is without limit. In the first place there is an administrative limitation. Whereas the income statements for sickness insurance are collected centrally for all citizens at the National Social Insurance Board, the housing allowances are administered by the local authorities. Each of Sweden's 277 local authorities thus has its own file with data of incomes for housing allowances. The second limitation is juridical. As it is not the intention that the use of computers shall encroach upon citizens' personal privacy, Sweden has a fairly rigorous data legislation. Linked processing of files containing data submitted by citizens to different authorities for different purposes is, on the one hand, a very delicate matter. On the other hand it may be considered legitimate that authorities check up on economically important data submitted by citizens on their faith and honour. The Government has consequently given permission during a trial period for linked processing of data media for this purpose.



Of importance for crime prevention, however, is not only how the formal questions are solved, but also how citizens look upon the legitimacy of such measures. In 1979, therefore, the National Housing Board instituted a public opinion poll comprising a nationally representative sample of 1000 persons aged 16 - 69 years.

The responses were as follows:

1. 94 per cent thought it proper that local authorities should make these checks of statements of income.
2. 87 per cent of the recipients of household allowances (24 per cent of the sample were recipients of household allowances) thought it wholly or partly proper that such checks should be made.
3. 91 per cent thought that such checks had at least a fairly great significance for the scrupulousness with which people report changes of income to the local authorities.

The first occasions on which linked processing of data media took place were in the course of 1979. These operations were extensively discussed in the press and other mass media. In that way many people got the chance to notify local authorities of any mistakes in their statements of income. Linked processing operations continued in 1980. The criterion adopted was that all households whose statement of annual income exceeded the statement to the Social Insurance Office by at least Skr 1000 were selected by the computer. These households then received a letter and were asked to state the reasons for the difference. It should be mentioned that the probability of reporting too high an income to the Social Insurance Office is fairly low, since these statements of income are later compared with and corrected with respect to the annual income tax return.

## Results of the check

A large number of local authorities employ the services of a company, Kommun Data AB, which performs computer runs for them and has also performed the linked processing operations. As appears from Table 3, a large majority of local authorities using Kommun Data AB's Computer Service System have made such checks (4). Practically all households with housing allowance have been checked, usually once in each year. The local authorities spread these checks over several points of time during the year, i.e. the first check comprised certain households selected at random, the second other households, until all households had been checked. The results are shown in Table 4.

Table 3. The scope of the check

Local authorities (Swedish 'kommun')	1979	1980
Number of Swedish local authorities	277	277
Local authorities using the Computer Service System*	248	251
Local authorities which checked their housing allowances by means of the Computer Service System*	218	225
Percentage of checking local authorities in relation to all local authorities using the Computer Service System*	88 %	90 %

\* Kommun Data AB

Table 4. Results of the checks in 1979 and 1980

	1979	1980
Households with housing allowance	512,644	472,009
Such households in local authorities using the Computer Service System	496,040	462,000
Households checked	340,577	314,683
Such households in relation to households registered in the Computer Service System	69 %	68 %
Households which reported an income at least 1,000 crowns a year too low	64,710	58,487
In per cent of checked households	19 %	19 %
Households which lost their allowance or got it diminished because of the check	9,179	3,649
Such households in relation to checked households	2.7 %	1.2 %
Households registered in the Computer Service System which got their allowance diminished or lost it because they spontaneously reported changes in income (June-December)	30,238	52,753
Such households in relation to all households registered in the Computer Service System	6.1 %	11.4 %

Before discussing the results I should like to comment upon the material. In this case as well the authorities have instituted a major action without making a professional evaluation in advance or at least simultaneously. I have only later been able to get hold of certain statistics. The results are, however, so striking that in all probability they would hold good even after thorough examination of the primary material. The tragedy of this type of subsequent analysis of secondary material lies rather in the great losses of precision. For example the preventive effect cannot be precisely defined, the costs

of control in relation to the gain cannot be calculated and, in particular, the effect of the data control on the local authorities' administrative routines cannot be determined. The sorrow over a missed chance for professional evaluation of results of great interest for prevention theory must, however, not be allowed to constitute a hindrance to illustration of the results actually obtained:

1. The extent of this type of welfare criminality - 2.7 per cent in the first year and 1.2 per cent in the second - is considerably less than asserted in the debate on economic crime or on the demoralized Swedish society. (I do not believe, however, that certain debaters will yield and accept a basic assumption of a law-abiding society with, despite all, a limited mass economic criminality. They will undoubtedly maintain that the rest of the recipients of housing allowances are not so stupid as to get caught in data controls - they would instead report to all bodies a lower income than they have in reality, they would be consistent in their errors).

2. As far as can be judged, a preventive effect exists. The frequency of fraud fell from 2.7 per cent in the first year to 1.2 per cent in the second. The preventive effect may be expected to be rather higher in reality as the check in the first year was discussed in the mass media and thus gave recipients of housing allowances a chance to notify wrong or obsolete statements of income before the check was made.

3. After the control of the opportunity structure was changed, the morals of recipients of allowances improved. The number of spontaneous report of changed income increased considerably from the first to the second year. This lends support to the marxist thesis that changes of attitude are conditional upon changes of realities, and opposes the socio-psychological thesis that the attitude to crime must change before criminality can be reduced. But it should be emphasized that this result

was attained in a sphere where a large majority of recipients of allowances considered the control to be legitimate. It is by no means certain that the same result would be attained in a sphere where the legitimacy of control was questioned.

4. The number of persons with legitimate differences of income is very much greater than the number with illegitimate. During the two experimental years 19 per cent of the households were found to have a difference of income of at least Skr 1000. Some of them had notified differences of income before the check, some had de facto differences which entitled to housing allowance or sickness benefit, and only a minority (14 per cent in 1979 and 6 per cent in 1980) had reported wrong income figures. From the calculation made by some local authorities of reduction in housing allowances after the check it is apparent that the local authorities make quite considerable gains through their improved administrative routines for housing allowances.

To sum up, it may be said that the linked processing of data files opens up great and interesting possibilities of crime prevention.

In this concrete case it is apparent that the great gains to be made lie in a direct change of the crime opportunity structure - namely that, on the basis of a common income concept for sickness insurance and housing allowances, people submit a single statement and so avoid making mistakes or being subjected to too great a pressure of temptation.

## Notes

1. Bostadsbidrag för december 1980 (Housing allowances for December 1980). National Housing Board, No 1981:22. June 16, 1981.

2. Information published by the National Housing Board: Housing allowances 1981.

3. The figures of households with housing allowance are taken from a statistical investigation entitled 'Hushåll med bostadsbidrag för maj 1980' (Households with housing allowance, May 1980), National Housing Board, Dec 23, 1980. The figures of households, households with children, etc, have been estimated on the basis of the 1975 population and housing census and on the change of population since then.

4. Some of the figures are taken from "Utvärdering av samkörning av kommunernas bostadsbidragsregister under bidragsåret 1979 med riksförsäkringsverkets register över sjukpenninggrundande inkomst" (Evaluation of linked processing of local authorities' housing allowance files for 1979 with the National Social Insurance Board's file of sick-benefitcarrying income), National Housing Board (Dnr 99-1691 u) May 29, 1980; some directly from the National Housing Board and Kommun Data AB.

# Frauen bei Nacht — Women by Night

Analysis of a warning-leaflet campaign

*Herbert Schäfer*

## The situation

Warning leaflets issued by the criminal police do not have an easy time of it. If they assume prior knowledge of the state of affairs as regards criminality and of the phenotype of the individual offences against which they set out to warn people, they run the risk of falling into an information gap where they will perish unnoticed by uninterested readers. Conversely, if they present a bold picture of the danger as it is known to those whose expertise is not confined to the statistics alone, there is a fair certainty that they will fall foul of the Cassandra effect, whereby warnings of evil are so easily dissipated by the balmy breezes of everyday ease. If the leaflet manages to overcome the Cassandra effect, then in consequence of the warning there may set in a tranquillisation and a detraction from the subjective feeling of security, which is not what the politicians would like to see. Prevention, then, is expected to wash the laundry without getting it wet. It is supposed to operate without any need for others - especially sufferers - to co-operate. In a word, it is supposed to square the circle .....

Would the squaring of the social circle succeed in an ideal society, bringing a condition of freedom from criminality within reach? At this point the full (fearsome) Utopia of such a notion will become apparent to any socially well-adjusted, non-criminal body of citizens (including the non-mathematicians among them). Despite all the prophylaxis and all the prevention, criminality remains ineradicable. That is the premiss from which we have to start.

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This insight does not absolve the citizen- nor the police who act on his behalf - from the need to take action against burgeoning tendencies towards criminality. The priority accorded to action derives not only from the objective dangerousness of the offence but also from the effect that this offence has upon the subjective feeling of security on the part of the population.

In the years 1977 to 1980, stepped-up preventive and detective efforts had to be undertaken against the rising number of rapes in Bremen, both because of their objective dangerousness and because of the subjective damage they did to the feeling of security. The criminal statistics kept by the police showed that reported rapes in Bremen were in a rising trend.

This situation compelled the police to issue prevention-oriented warnings to the public to avoid rape situations liable to spark off the offence, to the extent that there is any point at all in warnings of this kind.

### The warning leaflet

The preventive warnings could have been aimed at the everyone, i.e. at the public at large, or at the potential offenders (i.e. at every man), or at the possible victims (i.e. at every woman). By the strategic principle of the direct line, which appeared to be applicable in this context, the immediate warning to the victims ought to achieve the greatest warning effect. A warning leaflet was to give the victims information and urge them to take care.

In the conception of the warning leaflet, criminological and criminalistic findings from the literature and from the police of other cities were brought to bear. In November 1978, 21,000 copies of this leaflet were distributed in the city of Bremen through official

agencies, trade unions, the state sports association and the sports clubs, through the schools, the university, hospitals, nurses' hostels, churches, police stations and so on.

### The psychological concept of the warning leaflet

In the development of the warning leaflet the police officers taking part based their thinking on the following considerations:

Information on the reason for issuing the warning leaflet was given in a single, forceful opening sentence as an "appetizer". From then on the leaflet concentrated on other information of a preventive content which was cast in the form of questions or recommendations.

In the wake of the basic information, the leaflet invites the participation of its readers, conditioned as they are by their acquaintance with illustrated weeklies and housewives' magazines, by presenting a questionnaire to be filled in. The completion of this questionnaire is facilitated in the familiar manner by providing "Yes" and "No" boxes in which to put crosses. The warning information is conveyed and made accessible subliminally in the formulation of the actual questions. With a wink of the eye, the questionnaire does not make it particularly difficult for the responding reader to answer most of the questions with a "yes", so that by the time she has finished it she will feel good, successful, savvy and experienced. In so doing she can pull the wool over her own eyes a little and thereby end up looking better and warier than in point of fact she is. The aim of this was to create a benevolent attitude towards the leaflet and to promote the subliminal absorption of the information. One this point is reached, the "successful" reader is congratulated. She

is good! And from there it is not far to the emergency of an analogous sentiment towards the leaflet whereby the warning information it contains will be perceived as good, well-founded and correct and the tendencies that are aimed at by the leaflet will be reinforced.

If the reader has been piloted to this point, a certain curiosity will remain to her, which induces her to continue reading the leaflet. Every reader wants to see how the text ends, after reading so far and getting on so well. The curiosity will persist even if the leaflet now begins to hand out some solid pieces of advice.

### The advice

It is of course possible to quarrel with the advice that is given. In police circles there is a longstanding and still unsettled debate on the question of whether it is permissible to advise a woman to put up a resistance when she finds herself in a rape situation. Many a criminalist counsels prudent submission, adopting the slogan: "Better be raped for five minutes than dead for the rest of your life." They can undeniably rest their case on numerous instances of rape in which the rapist made up his mind to kill the victim just because of her attempts to defend herself. On the other hand, going along with being raped does not carry any guarantee that the rapist, after the deed is done, will spare the victim's life.

There have been cases in which determined resistance by the woman who was attacked, combined with loud screaming, in a populated area, was at once successful, either putting the offender to flight or bringing people to her aid. On these grounds, offering resistance to the rapist can in principle be recommended as the correct initial reaction. Only when the victim realises that resistance could be pointless or dangerous should she turn to cunning as her defensive weapon. No examples

of artful distracting behaviour were given in the warning leaflet, even though innumerable tricks are known from police records. They range from the simulation of a venereal disease or of menstruation through an invitation to have sex at some better time in some better place to (artificially produced) vomiting of the stomach contents accompanied by soiling of the woman's clothing.

Out of consideration for the sensibilities of a public that is not accustomed to swallowing such rough fare, these and other effective but in greater or lesser degree nauseating recommendations were not specifically mentioned. That may have been a deficiency in the warning leaflet. It may be that these drastic resorts could have brought the earnestness of the situation under notice more forcefully before the mind's eye of the readers.

Surprisingly, the general recommendation to use cunning is followed by the endorsement of "loud prayer" as a further defensive method. "If you're at a disadvantage .... distract him from his intention by praying out loud" says the leaflet. This passage therein sparked off a heated public debate. The reservations and objections that were raised against the advice ranged all according to standpoint and philosophy from the reproach of blasphemy by way of the question "Just who knows how to pray these days?" and on to a good laugh over the gag and even as far as the assertion that the author of the warning leaflet wanted "to get people praying" - an accusation which in a secularised, indeed atheistic age is not to be taken lightly. The reaction of a high-ranking Evangelical churchman would appear to be typical: on being asked about his reactions to the warning leaflet he declared: "At first I was taken aback. Then I was outraged. Finally I said to myself; When you come to think of it - why not?"

Information from Bremen State Bureau of Criminal Investigation

Women by Night – think and act right!

Every other day during the year 1979, a woman was raped. No police in the world can guarantee absolute safety. That's why we're asking you to take steps to protect yourself and to help us in our work of solving cases.

Please take a few minutes to answer the following questions:

- |  | Yes                      | No                       |
|--|--------------------------|--------------------------|
| 1. Do you know the man who is escorting you and whose car you are entering?  | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Do you know the man who is bringing you home to your door or whose invitation you have accepted to go with him to another restaurant or dance hall or night club, or to his home? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Do you know what his name is, and where he lives?   | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. When you're out at night, do you avoid dark routes where you can't see far ahead?   | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Do you know whom your daughter meets, and with whom she goes out?   | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Do you and your daughter dress and behave so that a man doesn't feel he's "being given the green light"?  | <input type="checkbox"/> | <input type="checkbox"/> |

7. Have you ever given a thought to the idea of protecting yourself by self-defence or the use of appropriate technical means? ☐ ☐

If you've answered all these questions with a "Yes" then all that remains is to congratulate you and say:

A DANGER RECOGNISED IS A DANGER (ALMOST) NEUTRALISED

But if you do find yourself in a tight corner:

KEEP COOL!

If you have the advantage over your assailant

put up a resistance and at the same time scream out loud for help.

If you're at a disadvantage

- try to trick the attacker by an invitation (not a threat!)
- or distract him from his intention by praying out loud.

Take note of the attacker's personal appearance and give his description to the police as soon as possible. In these ways you can help us and protect yourself.

Many thanks!

THE STATE BUREAU OF CRIMINAL INVESTIGATION  
BREMEN

Tel. (0421) 362-6025

### Three considerations

In incorporating this recommendation into their warning leaflet the authors based themselves on three considerations, (a) a metaphysical, (b) a psychological and (c) a publicistic purpose.

Prayer, though it may be no more than gabbling, still retains its significance for a great many people even in times that are largely wanting in faith. To refer this section of the public to prayer as a means of assistance, without getting oneself entangled in explanatory arguments involving the psychology of religion, must surely be a legitimate thing to do - and a thing from which the criminal police is not debarred.

The question - which is not to be answered in this context - as to whether a prayer is capable of producing effects and of helping, can in the last analysis be answered only in the religious conviction of the person praying, unless, as third parties, we care to draw upon the witty anecdote that is told of the famous nuclear physicist and Nobel prizewinner Niels Bohr. Bohr had set up a horseshoe over the door of his summer-house in Denmark. One day he was asked by journalists whether he believed in the effectiveness of the horseshoe as a bringer of good luck. Bohr is said to have replied that of course he did not believe in the effectiveness of the horseshoe, although (he added as an afterthought) he had heard that it worked even you didn't believe in it.

The psychological effect of loud prayer on the part of the woman being attacked is pitched acoustically, psychologically, suggestively to the assailant. It may be that words, gestures and intonations will activate recollections within him that are capable of dissuading him from further violent actions. The calm voice of the victim, as also the air of humility that is in-

herent in the position adopted for praying, may be enough to restrain the assailant from putting his intentions into effect. It gives the woman a chance - perhaps her last chance. (Plenty of cases are known in which a woman under attack succeeded at the last moment in bringing the assailant to his senses and getting him to change his mind by carrying on a calm and overtly passive conversation with him.)

The publicistic consideration - which prompted the inclusion of the prayer recommendation in the warning leaflet - took account of the provocative character that a piece of advice like that would have in an official publication. Sure enough, part of the daily press seized upon it as a point at which to hook into the story of the leaflet and the warning campaign. By this very circumstance, the warning operation - and above all the reason for it - was thrust into the awareness of many readers more intensively and more penetratingly than is usually the case when a warning leaflet is distributed (1).

The rule that may be deduced from these findings for the internal structure of warning leaflets is therefore: work into the text - preferably towards the end - a provocation, a challenge of an unusual kind, which will incite people to take sides and will get the leaflet talked about.

In the present case, the calculated provocation is followed by the request to help the police particularly by the personal description of the assailant and to co-operate with the police as a general proposition. The assumption was that the theme and content of the leaflet would direct attention onto the work of the police and that collaboration would thereby in fact be brought about.



## Anti-preventionistic reactions

Amazingly, this warning leaflet apparently had not the slightest effect; the number of rape cases rose in Bremen during the year 1979 to 113 (of which 44.2% were attempted crimes)!

In view of this, the warning leaflet was put out again in May 1980, 243,000 copies being distributed to Bremen households through the medium of a Sunday newspaper of local standing that is sent out free of charge. Printing and distribution cost around 17,000 marks. Some brutal and ruthless rapes that had occurred in Bremen were quite enough by themselves to justify this expenditure.

The reactions produced by this second round of distribution were remarkable: in addition to a dozen or so calls that were no different in content from similar protests and questions that came in after the first distribution, organised women this time rose in protest against the leaflet.

The first manifestation was the appearance of a travesty of the warning leaflet (under the letterhead of the State Bureau of Criminal Investigation) which carried the headline "MEN BY NIGHT! - THINK AND ACT RIGHT!" In a mocking tone ("Do you know the woman who is accompanying you and getting into your car?"), but not without skill, the thrust of the warning was reversed and the man was addressed as a potential rapist and warned - against himself. Towards the end of the leaflet this was done in the following terms:

"When you find that you are still in a condition to help yourself, clamp down on your urges and run away fast (a cold shower has often proved useful in such cases).

But if you find that you can't clamp down on your urges, scream for help or pray out loud so that the woman will be duly warned."

A variant on this handbill carried the trade-mark of militant women's-libbers - a laughing witch chaking her fist as she rides a broomstick. Here, too, the male/female roles in rape were interchanged, with the woman cast in the active role and able to force herself on the man while the male party was warned against her - a line obviously not meant to be taken quite seriously. The fiercest assault on the Bureau's warning leaflet was a scorning leaflet that circulated in the University of Bremen. Under the keynote superscription "I'm My Own Woman" - a translation which claims to be no more than approximate - it had the following to say:

### I'M MY OWN WOMAN

Information for Women from the General Students' Committee (published on the responsibility of Chr. Schneider)

Information from the Bremen State Bureau of Criminal Investigation

### WOMEN BY NIGHT! - THINK AND ACT RIGHT!

Last week, a handbill went the rounds of the University that must surely have left most women feeling outraged. The reference is to a leaflet published by the State Bureau of Criminal Investigation in Bremen on the subject of how women can avoid getting raped. Soul-searching is the first thing demanded of us women in this context - among other things we're supposed to answer the following questions:

1. Do you know the man who is escorting  
you and whose car you are entering?      yes/no

2. When you're out at night, do you avoid dark routes where you can't see far ahead? yes/no
3. Do you and your daughter dress and behave so that a man doesn't feel he's "being given the green light"? yes/no

YOU CAN ALWAYS TRY PRAYING - YOU JUST NEED FAITH IN IT

Once these questions are answered, the leaflet serves up hints on how to behave if you "still" get into a tight corner. Here's one of them: "Distract the attacker from his intention by praying out loud!"

A handbill like that is enough to throw you into a cold rage. By what right does this Bureau of Criminal Investigation subject women to a self-critical cross-examination and throw onto them the blame for getting raped? How are you supposed to dress, how are you supposed to behave, so that you don't flash a "green light"? -- bearing in mind that this runs directly counter to what fashion demands of us women. What good does it do you to know the man who's escorting you, when you know (just as well as the Criminal Investigators know) that much of the violence against women is perpetrated by men who belong to their circle of acquaintances and relatives?

SELF-DENIAL AS A WAY OUT?

Just what do they really expect of you? Are you supposed to treat all males - half the human race - with suspicion? just because you're a woman? Are you supposed to remain aloof, to deny yourself all conversation, all easy-going conviviality, and to clamp drastic restrictions on your freedom of movement? Is fearfulness to be the normal state of mind for women?

WHAT ABOUT THE UNDERLYING CAUSES!?

The leaflet has nothing to say about the background to violence against women. The marketing of women as sex-objects, their treatment as second-class humans and repressive family conditions are things of no interest to the Bureau of Criminal Investigation.

The most infuriating feature of the handbill is the impudence with which the Bureau dishes up advice that stands the facts on their head; before all else it is an attempt to depict women not as the victims but as the perpetrators of rape. This is in line with the humiliating treatment accorded to women who bring charges of rape. It still calls for a lot of courage for a woman to face the suspicions that she must have brought it on herself, that she enjoyed it. The affront to human dignity, the degradation attendant upon rape has to be gone through again before the court. The rapists usually get off pretty cheaply, excuses are still sought for them, rape is portrayed as a peccadillo.

WE WON'T BE DONE OUT OF OUR RIGHTS!

We just aren't prepared to stand still for all this. We mean to stick up for our rights. Repeatedly, on Walpurgis Night, the women of the Federal Republic have demanded and asserted the right to walk unmolested along dark streets by night. And for that reason, the handbill of the State Bureau of Criminal Investigation is not going to find us short of an answer either.

We refuse to be cast as the guilty party!

No longer must women be subjected to degrading treatment because they have been the victims of rape!

The sociological causes must be identified and computed.

What concrete action we can take against the handbill is something we can talk over together next Tuesday at the Peace Celebration in the Women's Corner. Some ideas already exist.

In 1979, following a number of rapes (committed by a serial rapist, an alien, who was caught in due course), "a group of affected women" raised the following complaint in a public handbill: "The police were called, they arrived to collect clues, and a few days later they interrogated the woman. It then emerged that these cases have been piling up for the last six months in the Steintor district. Our question; why have the police so far taken no steps to warn us women?" (2)

Now, when the police sought to get their warnings across to the people with the widest possible coverage, these warnings were perceived as "discrimination against women", because the behaviour of women was seen in the role of victim and recommendations as to their "stage direction" in this role were given, which also took account of some of the objective factors (such as clothing, behaviour, circumstances of time and place, etc.).

### The radical women against lust-pigs

An association was formed, calling itself the "Friends of the Radical Women against Lust-Pigs" (and describing itself for the sake of decorum as a registered society). Borrowing from anarchist jargon, the cry was raised; "We are many - we are everywhere!"

On 12 June 1980, towards 6 p.m., and after appropriate advance notice by telephone and in person, members of

this group irrupted into the offices of a Bremen lawyer. The Women against Lust-Pigs, more than ten in number, addressed the lawyer as "Schwein", vilified him as a "Lust-Pig Defender", and pelted him, his papers and his carpets with tampons and sanitary towels (3) after which they promptly fled the scene (4).

Some two weeks prior to this invasion by the Women's-Libbers the lawyer had defended a man who was accused of having raped a prostitute. Since the offender had no previous convictions he was given a six-month suspended prison sentence. While the trial was still in progress certain women present in the courtroom had created disturbances and let their displeasure be known. The "unduly mild sentence" provided in due course the grounds for the attack on the defence lawyer (5) and for the threat - so far not translated into action - that in the future all defenders of lust-pigs would be dealt with in the same way (6).

### The happening in the State Bureau of Criminal Investigation

On 23 May 1980, around 11.30 in the forenoon, some thirty young women aged between 19 and 25, taking advantage of favourable circumstances, burst right into the office of the head of the State Bureau of Criminal Investigation, who happened at the time to be on the telephone. This go-in had been decided upon at the College of Social Pedagogics and Social Economics. The participants were students, evidently under the direction of a female tutor. Not all of her charges felt comfortable in their role of collective trespassers and were obviously taking part in this happening in spite of their good upbringing.

After some back-and-forth exchanges there began a sort of discussion on the warning leaflet against rape and its discriminatory effect against women. A particular

point of attack was that the leaflet had had nothing to say about rape within marriage. The B.C.I. chief requested the women to give him a concrete example on which a discussion could then be based, but this elicited no response. Instead, discussion stereotypes and fragmentary opinions were served up in disjointed fashion and without any meaningful pattern, being merely declaimed or read out by the excited women.

Some of the young women had painted their faces like clowns, others had donned plastic garbage sacks with holes cut for their arms. They asked whether this clothing was sufficiently decent and unostentatious to save them from getting raped. Because of the paucity of arguments and the over-excited tone of the meeting, no normal discussion emerged from it. When the oldest of the visitors, obviously the spokeswoman-tutor, began taking photographs of the B.C.I. chief, the latter came up with the idea that an official of the criminal identification department, who had got the alarm over the telephone receiver that had been laid down on the table and had hurried to the scene, might be asked to take some photographs of his own as a permanent record of the memorable occasion. Upon this, the ring of faces began to snuggle further down into their Bedouin kerchiefs and their shawls and a slow retreat commenced, although not before a whistle had been left behind /"in case you ever find yourself getting raped and you can't call for help loudly enough") and a Catholic hymn-book had been handed over /"as an aid to you in your prayers").

The student organisations at the University issued a statement on this progressive event which made it all sound a good deal more rugged. According to this source, the "protesting women" found it "outrageous" that the head of the B.C.I. and another detective officer had passed "ribald remarks" and had "made a mockery of their concerns".

## Afterwards

In the meantime, the number of rape cases has continued to rise through 1980. To that extent, the preventive warnings failed of success. According to what emerged in the questioning of the rape victims of 1980 (82 adults, 37 "young persons" and 22 juveniles were questioned), only 12 (out of 141 women attacked) knew of the warning leaflet. 94 victims had defended themselves against their assailant. Of these, only twelve had read the warning leaflet; in two cases their resistance was successful.

How difficult it is to get across to potential victims with the gist of warnings against thoughtlessly getting into victim situations was shown by a broadcast over Radio Bremen in May 1980, in which a woman who had been raped stormed against the "useless" warning leaflet issued by the B.C.I. She had herself been raped after getting into the car of an unknown man (!) as a hitchhiker (!). ("Do you know the man ... whose car you are entering?")

No further warning operation was laid on for 1981. Instead, aspirants studying at the College of Public Administration for promotion to police and detective superintendents were given extra-mural assignments dealing with rape problems, among other things through the follow-up questioning of rape victims (in cases that had been cleared up). It is to be expected that this work will open up new approaches in prevention work.

Since December 1980 there has been a "Rape Emergency Line" on the Bremen telephone exchange. This self-organised aid service is staffed by women citizens who seek to catch the victim as she plunges into despair after the deed. In so doing they have provided the initial impulse towards a system of succouring the victims in the aftermath of rape - something which is completely lacking in Bremen.

## Notes

- 1) The news magazine "Der Spiegel" sliced the truth very fine when, mistaking the aim of this recommendation, it wrote; "In all seriousness, the German police recommend women to follow in the footsteps of Maria Goretti, who in 1902 prayed and died rather than submitting to rape, and was in due course canonised. 'Distract your assailant from his intention,' advises the Bremen State Bureau of Criminal Investigation, 'by praying out loud, '" (Spiegel No. 36/1981, p.50 ff (54/55), Rape; The Murder of the Soul.)
- 2) This was followed by some prevention recommendations. In view of the particular pattern on which this one rapist operated, women were urged not to leave windows open any more on basement and mezzanine floors. There were to watch out where there was scaffolding. To this was added; "Think over - together with other women if you like - how we can effectively protect ourselves against rape and defend ourselves."
- 3) Examination in the forensic laboratory revealed that some of these cellulose products were soiled with menstrual blood, while others were marked with perfume and lipstick.
- 4) Efforts to trace the offenders were in vain.
- 5) "Der Spiegel" carried a report on a similar occurrence in a Berlin law office (Spiegel No. 32/1981, p. 50 ff).
- 6) The following appeared some days later in a local anarchist sheet:

## WOMEN IN BREMEN

Violence against women is an everyday occurrence, rape is on the agenda as much as ever. Arrogant studs lord it over our bodies, subjugate them and ravish them. Rapists inflict wounds or fatal injuries on us. Judges, lawyers, barristers legitimate these crimes as being in the "instinctive nature" of men. What difference does it make if a man rapes a woman or if he glorifies this violence in the act of legitimating it.

H. is one of the all too many lawyers who have defended a rapist with the argument of the ("scientifically", in H.'s own word) proven male drive, which is supposed to be stronger than that of women! That is why blood-stained sanitary towels, tampons and intimate odours flew about the ears of the Bremen lawyer H. in his office in Bremen on 12 June 1980!

We are employing these means because our monthly bleeding is laid under a taboo, our natural odours are masked by intimate spray and they thereby seek to alienate our bodies from us - we are supposed to feel disgust at ourselves - in order to satisfy their lust for power.

By this operation, some thirty women have made their opinion known. With the following press release and the designation "Lust-Pig", they took their leave!

The press release was sent to all Bremen lawyers.

Statement by the Friends of the Radical Women against Lust-Pigs:

We have paid Lawyer H. a visit, for the reason that we are no longer prepared to stand by while women in rape cases are not the victims of crimes of violence, being instead treated as accused persons who provoked the crime that was committed against them!

We protest against antifeminist male justice, conducting trials in which we are defamed as expendable goods and objects of lust.

We protest against the patriarchal ideology of the male sexual urge, which forbids us to move about and to dress as we ourselves wish ... forbids us in fact to live at all, since at all times and in all places we must reckon on being attacked by male lust-pigs!

From now on we shall proceed with the utmost severity against the exercise of violence, the glorification of violence and the legitimization of violence, in whatever form.

We are many, we are everywhere.

The Friends of the Radical Women against Lust-Pigs  
(reg.)

## A Crime-Prevention Car

Bo Svensson

86463

There are few things so characteristic of our culture as the motor-car. For the Swede of today life would often be unreasonably complicated if he no longer had a car. Criminality in Sweden also bears the stamp of the automobile culture. Statistics of reported crimes, i.e. crimes which have been brought to the notice of the police, would have a very different look if, for example, an oil crisis meant that cars no longer run.

To start with, the number of thefts of motor vehicles would then almost cease. In 1979 the number of such reported thefts was 49,265, of which 34,162 cars, 1,804 motor cycles and 10,965 mopeds.

If cars were to remain standing for a lengthy period, it is probable that their owners would remove any valuables from them. The number of thefts from motor-driven vehicles, which in 1980 numbered 96,909, would then presumably be greatly reduced.

It is obvious that, when traffic comes to a standstill, the offences against the Road Traffic Offences Act fall away. In 1979 altogether 70,796 such offences were reported, excluding simple careless driving and obstruction of traffic. To these must be added all traffic offences under other traffic legislation, for which the penalties are breach-of-regulations fine and order of summary punishment by fine. As suggested in the sequel, the dark figure for traffic offences may be assumed to be particularly high. Against the figure of 21,701 police reports of drunken driving and driving while under the influence of alcohol, for example, may be set an estimate by a criminologist, Leif Persson<sup>1)</sup>, of over 3 million such offences a year.

1) Hidden Criminality, Appendix 4, p. 112, Stockholm 1980.

I have hitherto confined my remarks to offences which, by definition, presuppose a motor vehicle. There is, however, extensive criminality which, purely factually, presupposes a motor vehicle but is not legally associated with the possession of a vehicle. One such crime is burglaries in weekend cottages. In 1979 there were 10,316 such crimes reported to the police. There is reason to presume that in the majority of cases the criminal has come to the place by car and carried off the loot in it. When cars stand still, secondary residences are to a greater extent left in peace. At the same time burglaries in permanent residences would be likely to diminish. For when their cars stand still, many owners of weekend cottages cannot get to them but stay at home and keep a watch on their town flat. And at the times when they nevertheless leave it, the risk of burglary is at all events less during an oil crisis. The theft of large objects requires a car. A person would hardly sit in the underground with a newly stolen TV set on his knee. Nor do I expect that armed robberies of banks and post offices would be committed unless the hold-up man had a car to get away in. Other examples could be given which show that the car has virtually the same significance for criminality in Sweden today as has the sea for shipping.

But it is hardly possible, of course, to bring about an oil crisis in Sweden by artificial means. "Without cars Sweden comes to a halt", the posters say, and that is undoubtedly true. The crime prevention interests must bow before economic and other more overriding interests.

But it should nevertheless be possible to make use of some effects that an oil crisis might create. Modern technology, especially computers, opens up new means for preventing crime by reducing the importance of the car as crime-generating factor in our culture.

Car-thefts can, to start with, be reduced by better locks. The present quality of locks differs very greatly between different makes of car and models. This is apparent from the following table, which was produced by analysis of the National Police Board's computer-generated list of cars stolen in 1980. Figures are also given of the theft rate per 1,000 cars in use. The latter figures are based on the model code list of the National Road Safety Office. The models used by the National Police Board and the National Road Safety Office are not identical and the model concept is, in general, difficult to handle. But, on the whole, the table should give a fair picture of the situation in 1980.

Table 1.

Make/model	Car-thefts reported	
	Absolute figures	per 1000 cars in use
Opel	5,108	18.5
of which Opel Rekord	3,325	27.9
Opel Kadett	505	5.9
Opel Manta	137	13.7
Opel Ascona	429	9.1
BMW	659	15.3
of which BMW 2000	130	10.0
BMW 2500	29	1.8
BMW 30	56	4.0
BMW 320	61	6.1
Ford	3,255	13.7
of which Ford Granada	872	12.4
Ford Taunus (17M)	1,378	13.3
Ford Fiesta	52	2.6
Volvo	6,163	7.2
of which 142/144/145	1,290	4.4
164	156	14.1
242/244/245	1,229	4.3
364/265	148	21.1
343/345	56	1.4
Amazon	2,048	16.9
VW	1,939	5.9
of which 1200	623	5.0
Golf	769	12.2
Passat	125	2.0

Table 1 (cont.)

Make/model	Car-thefts reported	
	Absolute figures	per 1000 cars in use
Mercedes	610	5.9
Mazda	157	3.2
Citroen	88	3.2
Audi	189	3.2
Toyota	178	3.1
Datsun	101	3.1
Peugot	200	2.9
Renault	258	2.9
Simca	82	2.6
Fiat	200	2.2
Saab	768	1.9
of which Saab 900	72	2.2
Saab 99	385	2.1

Opel, BMW and Ford were in 1980 the makes for which most thefts per 1000 cars were reported. The Swedish makes, Volvo and Saab, came fourth and sixteenth respectively. The placing of the Saab models is remarkable. Saab has a gear-box lock, which is rare in other makes. In absolute figures Volvo is first with 6,163 reports, followed by Opel with 5,108 and Ford with 3,255.

As regard models, Opel Rekord stands in a class of its own, 3,325 being reported stolen in 1980. The rumour of ease of access to Volvo Amazon is confirmed, 2,048 thefts in 1980. Other popular makes, as seen, are Ford Taunus, 1,378 reports, Ford Granada 872, and VW Golf 769.

Of interest in this context is also to see whether any particular year's model is subject to more thefts than others. During 1980 the Stockholm Police District kept internal statistics of reported car-thefts. These show for which models there were most reports. The 1972 - 1975 German Ford models were popular objects for theft.

The table below shows the variations in the report rate by year's models in the Stockholm Police District in 1980.

Table 2

Year's model	Number of cars stolen Absolute figures Stockholm Police District	Per 1000 cars in use in Stock- holm County
1979	257	6.4
1978	163	5.2
1977	274	5.6
1976	194	5.7
1975	393	7.5
1974	218	6.6
1973	237	7.4
1972	235	8.4
1971	206	8.2
1966-1970	856	9.3
-1965	359	11.2

The figures must be regarded as approximate. The number of reported car-thefts in the Stockholm Police District has been compared with the number of cars in Stockholm County. Furthermore a vehicle reported stolen in the Stockholm Police District may be registered in another district (county).

It will be seen from the table that the models from the early seventies have been reported stolen to a greater extent than later models. It is conceivable that the locks of cars have been improved in the course of the years. But there are no major differences.

Opel Rekord is the model that occurs most frequently in the statistics of reported thefts. The table below shows the figures for Opel Rekord in 1980.

Table 3

Opel Rekord	Number of thefts reported Absolute figures	Number per 1000 cars in use
1965	32	6.6
1966	47	7.8
1967	45	8.2
1968	142	14.2
1969	327	25.1
1970	348	28.8
1971	332	37.5
1972	112	25.7
1973	195	18.7
1974	222	23.1
1975	252	20.3
1976	230	23.9
1977	261	24.4
1978	113	32.3
1979	298	13.5



The 1971 Opel Rekord is the Opel model reported stolen most frequently in 1980. The greater number of thefts of models from the early seventies applies also to Opel Rekord.

These statistics, as earlier noted, must be used with some caution. For one thing a particular brand of car may be most popular in cities, where the risk of theft is greatest. In general, however, there seems to be justification for the suspicion that certain models have altogether too defective locks, and a thorough effort to improve car-locks appears urgent from the crime prevention aspect.

No corresponding statistics can be presented for thefts from motor vehicles. But it is well known by the police, insurance companies and others that certain models are more subject to such thefts than others. Here, too, improved theft prevention should lead to lower criminality. This should comprise an arrangement by which, when the driver locks one car-door, he also locks the others. For experience shows that car-drivers often neglect to lock all doors and it has proved very difficult to remedy this situation by means, for example, of campaigns on the theme "Lock your car!".

In Sweden the improved road network and the successively better cars have led to a reduction in the number of road deaths. Speed limits, compulsory safety belts and compulsory annual inspection of motor vehicles have also, undoubtedly, contributed to this favourable trend. But it is doubtful to what extent improved driver training and the campaigns of the National Road Safety Office may be said to have had any effect<sup>1</sup>. The main importance of the campaigns has probably been the understand-

1) Tore Nordström, Studies in the causation and prevention of traffic crime. Stockholm 1981.

ding they have created in people's minds for traffic safety measures which restrict traditional freedoms. Additional restrictions of such kind may be warranted in view of the interest in greater road safety and prevention of crime.

It is accordingly manifest that the traffic regulations are poorly respected in our country. The clearest instance perhaps is with regard to speed limits. Let me give an example from my own experience. When my children were small, we lived in a small terrace-house area. The inhabitants in the area decided almost immediately to set up the usual signs "Children at play" and "Max 10 km/hour". But car-drivers did not respect the signs, although they ran the risk of knocking into and injuring their own children. After a time, therefore, we were forced to place road humps in the carriageway so as to compel drivers to respect the speed limit. That drivers do not respect traffic signs is a fact that traffic planners have learnt all over the country, and now they are making widespread use of such devices as road humps, concrete road blocks and other arrangements in or on the carriageway which obstruct speeding, forbidden entry and other similar traffic offences.

Cars as well can be designed so as to maintain respect for traffic regulations. My Volvo gives a lamp signal and acoustic signal if I drive without the safety belt being fastened. The same applies to the lamp which lights when a brake circuit has failed. It is not unreasonable to imagine some technical arrangement by which the car would then be stopped or could be driven only at low speed in first gear. Similar arrangements can be made for other vital parts of vehicles so as to guarantee that Swedish vehicles are safe to drive not only immediately after the compulsory annual inspection, but all round the year. The automobile industry foresees in a few years' time computerized diagnosis systems which continuously test the function of vital parts of a car. Such systems can be used by the legislator for road safety measures of the kind indicated.

Before going on to the uses to which computer technology can be put in other respects, I should like to mention some technically unsophisticated, yet probably effective measures for increasing the respect for speed limits. There would hardly be any difficulty in coupling the horn to the speedometer so that it would sound when the absolute maximum limit, 110 km/hour, is exceeded. In practice this would probably make higher speeds impossible but would permit brief exceeding of the speed limit, e.g. for overtaking.

This arrangement would not guarantee respect also for the lower speed limits. A better effect would probably be achieved with a speedometer placed so that others can read it. In Japan a system has been tried with a lamp on the top of the car which is connected to the speedometer. The lamp changes colour according to the speed of the car.

A lamp of this kind has certain advantages for road safety. For example it is easy to see the speed of oncoming traffic when deciding whether to overtake. But, above all, drivers would be subjected to a stricter social control. Home-and-school associations which are irritated by the failure to respect the 30 km limit at a school can let one of their members with a colour-film polaroid camera obtain proof of drivers who exceed the speed limit. And the police radar installations can be replaced by simple colour-film cameras. Nor would manipulation of the lamp by car-owners be of much use, since this would inevitably be noticed in traffic queues where all maintain the same speed and a deviating colour would draw attention.

As I have indicated, it is in computer technology that the great possibilities of crime prevention measures lie. The automobile industry is now going fully ahead on planning the car of tomorrow, which is expected to be equipped with one or more microprocessors to permit

more convenient driving and with lower fuel consumption. Such processors, however, can be used for many other purposes as well.

The new electronics is noticed already in the 1980 model of Ford Lincoln. On the outside of the driver's door, at the edge of the window, there are five keys. They form an electric code lock. To enter his car the driver must key his secret code. A microprocessor checks that it is correct. At the third wrong attempt flashing lamps or the horn issue an alarm.

Once in the driver's seat the driver of a Lincoln today has merely to press a key on the dashboard for the engine to start. But for future models Ford are considering an electronic alcometer to prevent drunken persons from driving their cars. In the early seventies an apparatus was developed in the USA which read the alcohol concentration in the expired air in the car. Too high a concentration caused a lamp to flash on the roof. On the other hand there may be legitimate reasons to have drunken passengers in a car; and an apparatus to prevent drunken driving and driving under the influence of alcohol should therefore perhaps be designed as an alcometer into which the driver must breathe, with alcohol-negative result, to start the car. If it is remembered that the number of cases of drunken driving has been estimated at over 3 million a year, whereas in traffic round-ups and in other ways the police discover only about 23,000, a technical solution to the drunken driving problem would obviously be altogether superior to police action.

There are no figures of cases of unlawful driving, but the number is undoubtedly far greater than the roughly 37,000 which come to the knowledge of the police. Driving licences might well be designed like Bankomat cards and have to be approved by the car's computer for it to be started.

A drunken person is unfitted to drive a car. An unconcentrated driver may also be a danger in traffic. A Home Office article<sup>1</sup> points to an aptitude test in the form of a car computer which displays a random series of numbers or the like which must be correctly reproduced by the driver within a certain limited time, otherwise the car does not start.

There is much fiddling with the road traffic tax and a committee has recently proposed that it be replaced by a raised petrol tax. This would have certain negative consequences for regional policy. Another solution may be a "road tax card" which entitles to, say, 10,000 km driving. The card would be connected to the car computer and after the permitted mileage the car would stop.

I have previously mentioned a few comparatively unsophisticated measures for getting to grips with the problem of speeding. Modern technology offers other solutions. A so-called electronic car pilot, for instance, can be built into the car. This consists of a radio receiver in the car which picks up continuous microwave signals from small identification transmitters placed at road and street crossings. The receiver is combined with a microprocessor which gives indications of the route to be followed to arrive at a given destination.

An electronic car pilot can also be combined with direct information on the dashboard about special road signs, e.g. speed limits, and with arrangements which ensure that the road signs are respected. At a 50 km road sign, for instance, there could be a small microwave transmitter which transmits a signal to the information panel in the car, indicating that the speed

1) "A Crime-free car?", Research Bulletin 7/1979, Home Office Research Unit.

limit is 50 km/hour. If the speed limit is exceeded, the electronics system in the car issues an alarm. The system can store in its memory all exceeded speed limits and at a subsequent police control the stored data can be used as basis for imposition of a breach-of-regulations fine or an order of summary punishment by fine. The same principle can be adopted, for instance, for failure to stop at red light.

Mechanical recording of traffic offences is no new phenomenon. Tachographs are in general use in commercial vehicles. But one may foresee objections to such arrangements covering all car-drivers in the country. "1984" comes to mind. A system which makes it technically difficult or impossible to break the law would then be preferable. In this context I may recall that mopeds in Sweden must be so designed that they cannot be driven at a speed of more than 30 km an hour.

For my part I am convinced that technical solutions of the kind I have indicated are by far the most effective means available to us today to counteract transgressions of the law committed with the help of or directed against motor vehicles.

# Crime Prevention: an evaluation of the national publicity campaigns

Jan J. M. van Dijk  
Carl H. D. Steinmetz

## Introduction

A few years ago, the Department of Justice of the Netherlands initiated the establishment of a national organization for the Prevention of Crime. In 1980, this organization was officially established to promote, among other objectives, the avoidance by Dutch citizens and the authorities of unnecessary facilitation of committing crimes (Vader, 1980). This was done in cooperation with the police.

To prepare the founding of this organization, nationwide media campaigns were carried out on the general population in 1977 and 1978. The main objective of these campaigns was to increase the precaution preparedness of individual citizens concerning certain frequently occurring crimes. Design and evaluation of these campaigns were handled by the Dutch Government Information Services (R.V.D., 1977). However, the W.O.D.C. (The Research and Documentation Centre of the Dutch Ministry of Justice) had the opportunity to include a few questions about taking precautionary measures in the annual victim survey (Van Dijk and Steinmetz, 1980). These questions were drafted in consultation with the Crime Prevention Organization and added to the victim surveys carried out in 1978 and 1979. In this article the survey data will be used to evaluate selected issues in the national media campaigns: we will

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discuss the coverage of the campaigns, the precaution preparedness of the population and the effect of the campaigns on precaution preparedness (precaution preparedness is the general intention to use for instance fasteners or bicycle locks). But first of all relationships between the preparedness to take precautions and other attitudes concerning crime will be discussed. Like Van Dijk (1978) and Schwind and others (1978), precaution preparedness is considered as a component part of the action component of a general set of attitudes concerning crime ("fear of crimes"). The approach in this article considers the attitude theory of Fischbein and Azjen (1975) as a premises. Fishbein and Azen's attitude theory emphasis that action preparedness is a function of cognitive judgements and affects within the limits of the relevant social norms.

#### Precaution preparedness and the fear of crimes

Earlier Dutch studies found a positive correlation between fear of crime and the preparedness to take precautions (Cozijn and Van Dijk, 1976; Fiselier, 1978). In other foreign studies this relationship was less distinct (Peyrefitte, 1977; Fürstenberg, 1974; Courtis, 1970 and Schwind, 1978). The victim survey in 1979 focussed on five types of crime - theft of bicycle, moped theft, theft out of a car, car theft and residential burglary. At that time respondents were asked which practical measures they took in general to prevent crimes (locks and such). General precaution preparedness<sup>(1)</sup> was constructed by means of a scale developed as a result from a latent structure analysis (Mooyaart, 1979) of replies on precaution preparedness items of the

five aforementioned types of crime. Subsequently, this scale of general precaution preparedness was correlated with five other attitudes concerning crime. These data<sup>(2)</sup> showed, that precaution preparedness is strongly correlated with cognitive opinions concerning crime: for example, the opinion that one's personal chance to become a victim increased during the past two years correlates with taking more precautions. Prevention preparedness is also correlated with not opening the door for strangers in the evening hours. Not opening the door for strangers in the evening hours is another form of action preparedness. However, precaution preparedness is not correlated with the more emotionally charged attitudes concerning crime, such as fear of strangers in the street and being afraid alone at home at night.

These results differ somewhat from the results of other studies. For example, Schwind (1978) reports finding a correlation with the affective component in Bochum. If we look closely at the survey questions<sup>(3)</sup> used by him, we note that his operationalization of the affective component was less fortunate. The preparedness to apply measures in order to prevent property crimes is in the Netherlands according to the presented results mainly based on cognitive judgements and to a lesser extent on emotional feelings concerning crime. This conclusion supports the view that the cognitive component of "fear of crime" mainly focusses on crimes against property, while the affective component is oriented to in particular (sexual) violent crimes (Van Dijk, 1978). Because precaution preparedness was focussed on property crimes, it can be stated - in the terminology of Fischbein and Azjen - that precaution

preparedness is an attitude with a strong cognitive component.

Precaution preparedness, victim experiences and objective risks

The cognitive component of "fear of crime" is strongly related to potential victim experiences and objective risk of victimization. The research by Schwind (1978) as well as our own research has clearly shown this too<sup>(4)</sup>. The conclusion that precaution preparedness is cognitively strongly determined leads to the proposition that attitudes concerning crime prevention will also be closely correlated with personal experiences of crime as well as with the extent of the objective risks. Actual experiences with crime were operationalized by checking whether or not one has ever been the victim of the five property crimes concerned. We have elsewhere shown (Van Dijk, Steinmetz, 1979), that objective risk of these crimes is higher than average when one is young and living in a big city. Table 1 shows how the characteristics of being/not being a victim, age and size of community of residence are correlated with precaution preparedness. Precaution preparedness has been dichotomized into a weak and strong preparedness.

Table 1 shows that within all four population groups distinguished in accordance with the hypothesis, the victim category shows a greater precaution preparedness: that is the percentage of people with a strong preparedness is in victim category approximately 10 % higher (which is in addition statistically significant at  $p = < .01$ ). Furstenberg (1974) as well Schwind (1978) found a positive relationship

between earlier experiences (victimizations) and precaution preparedness. The Dutch research by Smale (1980) supports this hypothesis. Smale interviewed recent victims of break and entry and found that they frequently take extra precautions after the event. More evidence for this hypothesis can be found in Waller and Okihiro (1978).

TABLE 1 Percentage of respondents with a strong precaution preparedness per age group, subdivided by small or large communities, with a further dichotomy into the categories of having/not ever having been a victim (survey 1977).

Percentage with strong precaution preparedness				
			never a victim	been a victim
smaller cities <50,000	old	(over 40 years)	26% (N=1827)	39% (N=366)
	young	(less than 40 years)	31% (N=2534)	41% (N=635)
bigger cities >50,000	old	(over 40 years)	41% (N=2127)	52% (N=488)
	young	(less than 40 years)	35% (N=1624)	48% (N=831)

On the average inhabitants of larger cities (where crime does occur more often) have a relatively greater precaution preparedness as shown in Table 1. Therefore, the taking of preventive measures does indeed appear to be partly based on a realistic estimation of the risks one is running. However, this relationship is partly an artefact of age. The correlation between size of community and precaution preparedness is greater among older people than among younger ones: younger persons in big cities who have not yet been victimized, show little precaution preparedness. The precaution preparedness of these young people is a remarkable phenomenon, because younger people in bigger cities are twice as likely as older persons to become victims (Van Dijk, Steinmetz, 1979). The data would appear to indicate that younger people in big

cities become conscious of their high victimization risks only after they have been victimized. This interpretation is confirmed by the data from cities with more than 100,000 inhabitants for 1978: of young persons under 25, who had never yet been victimized, only 24% had a high precaution preparedness (N=501), while for other age groups more than 50% had this preparedness. However, if one looks at the respondents who had been victims, the differences disappear: for both younger and older persons approximately 60% do have a high precaution preparedness. A final conclusion is that with the exception of younger persons in the big cities individual citizens tune their precaution preparedness to a fairly realistic estimate of their risks. The age group under 25 in the big cities begins to adjust to the high risk only after they have been victimized.

Besides being under 40 and living in a big city, membership of a higher social class and being male also entail somewhat higher risks (Van Dijk, Steinmetz, 1979). Men are somewhat more inclined toward crime prevention than women, but the difference is very slight and is therefore not tabulated. Table 2 shows for 1977 that the highest social class displays a considerably greater prevention preparedness than the lower levels. (The data for 1978 show the same picture.) This difference applies to the big cities as well as to rural areas. Schwind (1978) in Germany and Boggs (1971) in the United States found a similar relationship. The difference in prevention preparedness among the higher levels and the lowest level (unskilled workers) is so great, that the difference in risk does not appear to provide a sufficient explanation. Further, the lowest level runs a somewhat higher risk than the middle level. It may be assumed that the higher precaution preparedness of the highest

level is partly caused by their stronger economic position: technical means of prevention are relatively cheap for the higher income groups. In addition, a difference in lifestyle could also play a part. Especially the higher and middle levels are possibly more attached to their property and are therefore more interested in preventing theft. It seems that persons belonging to the lowest social level only adjust themselves to the risk they run after they have been victimized, like young people in big cities.

Table 2 The percentages of respondents with high precaution preparedness per social class, with a further dichotomy into the categories of having/having not been a victim (survey 1977)

	never a victim	victimized
high	49% (N=1147)	52% (N=474)
medium	32% (N=6430)	43% (N=1593)
low	26% (N=1257)	44% (N=243)

In summary preparedness to take crime precautionary measures is a reaction to a fairly realistic assessment of one's own risks. The experience of being a victim plays an important role in their assessment, especially for younger people in big cities, who require a concrete victimization experience before they take action more consistent with the others in the higher risk groups.

The higher social class shows relatively high preparedness, and the lowest level shows relatively little preparedness to take measures.

These results can be interpreted very well within the framework of the attitude-theory of Fishbein and Ajzen (1977). Prevention preparedness appears to be a function of a particular cognitive attitude-component

on the one hand, and of certain internalized, social norms on the other hand. We have already discussed in detail the close relationship to cognitions. Precaution preparedness is partly a positive function of earlier victimizations and higher objective risks. The disturbing effect of the social norms becomes evident in the first place in the irrational carelessness displayed by younger people in big cities, who themselves have never yet been victimized. The effect of certain social norms is moreover visible in the remarkable differences in precaution preparedness among the social levels.

The aforementioned developed insights seem to offer a good perspective for crime prevention campaigns, who aim at increasing the precaution preparedness of the individual citizen. A strongly cognitively determined action-preparedness, however, appears to be the main concern. Attempts to increase this action preparedness by influencing the "true" perception of risk of victimation (cognitions) would definitely have a chance. A precaution preparedness on the other hand which is mainly determined by feelings or social norms, would not leave that much room for a change of the preparedness by means of a publicity campaign.

#### The coverage of the campaign

A publicity campaign in 1977 and 1978 was organized through the mass-media and posters to encourage the general public to take certain precautionary measures in order to prevent specific crimes. In January 1979, a victim survey was carried out covering all of 1978. As a final question in this survey respondents were asked to recall specific information of the crime prevention campaigns. The campaigns reached a large part of the population. Sixty-eight percent of the

population was able to recall one or more of the information campaigns. Recalling percentages of the population for specific items in the crime-prevention campaign show the following pattern:

pickpocketing:	47%
theft out of a car:	39%
burglary (residential):	37%

Among those who mentioned the campaign items, by far the greater part (82%) mentioned television as one of their sources of information. Newspapers (37%), posters (9%), radio (8%) and weeklies (8%) turned out to have played a less important role.

The coverage of the campaigns was not the same for all population groups. The percentage of respondents who could not recall any of the campaigns was greater among the aged, women, inhabitants of smaller cities and among the lower social levels. In an earlier investigation (Van Dijk and Coenen, 1978), these same groups showed to have fewer conversations in general after watching T.V. or reading the papers. Evidently, the average frequency and/or intensity with which these population groups assimilate media reports is generally somewhat lower. A lower assimilation will probably have had an adverse effect on the coverage of these groups by the campaigns. In addition, probably the interest in the subject in question will also differ from group to group.

After identifying those who were able to remember one or more of the campaigns - two thirds of the population - the interviewer asked them subsequently whether the campaigns had precipitated their use of more precautionary measures, and if so, which. 17% gave an affirmative reply, of whom 38% paid more attention to



locking doors, 14% had bought better locks and 22% had marked down the frame number of one's bike.

If one converts these figures to the total population, one in every ten (12%) Dutch people over 15 started to do more in the way of crime prevention because of the campaigns.

Taking measures on behalf of the campaigns did not take place to the same extent in all subgroups of the population. When one traces who knew of the campaigns and took a measure for that reason, the following picture emerges. Compared to the average of 12% for the population as a whole, higher percentages were found for inhabitants of big cities (13%), among the highest social class (16%) and for the group under 55 (13%). Exceptional low percentages are found among the inhabitants of small cities (10%), among the lower social class (7%) and among the aged (8%).

These results confirm once again that taking precautionary measures is a rational matter. Exactly those population groups with the highest objective risks took the campaigns most to heart. Here too, however, upon closer consideration the same earlier mentioned two exceptions to precaution preparedness are applicable to the rationality rule. The very youngest ones in the big cities have reacted to a lesser extent to the campaigns than the group from 25 to 35 (respectively 15% and 17%), although their risk is significantly greater. The campaign has had less effect on the lower social class (7%) than on the middle level (14%), although the risk of the former is greater. Therefore, the difference between the precautions taken, based on what we could expect (objective risk) and then actually practised by the younger people in the big cities and especially by the lower social class has not been reduced by the campaigns.

The precaution preparedness in 1977 and 1978

On the basis of the aforementioned survey results, it may be assumed that the average precaution preparedness level in 1978 has to be at a higher level than in 1977. The two victim surveys asked which precautionary measures one is in the habit of taking for the five types of crime, in order to check the correctness of this assumption. Table 3 gives the precaution preparedness in 1977 and 1978 for the three crimes most involved.

TABLE 3 The percentage of relevant (owners of a bicycle and/or car) respondents stating they take no, one, or more than one measure to prevent bicycle theft, theft out of a car or breaking and entering in 1977 and 1978 respectively.

		no measures	one measure	two or more measures
bicycle theft	1977(N=8215)	8%	66%	25%
	1978(N=7445)	8%	63%	28%
$\chi^2=19, df=2(s)$				
theft from car	1977(N=6735)	2%	76%	20%
	1978(N=5982)	2%	44%	53%
$\chi^2=1502, df=2(s)$				
break and enter	1977(N=11099)	13%	55%	32%
	1978(N= 9956)	12%	52%	36%
$\chi^2=38, df=2(s)$				

Table 3 shows that the general precautionary preparedness has indeed increased significantly for the three types of crime. The increase is most clear for precaution of theft out of cars. Also, the respondents with a moped - not reflected here - showed a small increase in the category "two or more measures" (from 28% to 31%). For the car owners an increase in precautionary measures in order to prevent car theft was

also found in the two or more measures category (from 70% to 75%).

In short, the readiness to take one or two measures has become greater from 1977 to 1978. For the crimes of moped theft and break and enter, the principal measures taken were better locks and for theft out of cars, they avoided leaving expensive items in the car. The percentage of car owners stating that they took this latter precaution rose from 5% in 1977 to 49% in 1978. One of the campaigns recommended this measure strongly especially for car theft, and considerable increases occurred in locking the steering column: from 35% to 45%; and carefully locking doors/windows: from 83% to 93%. Naturally these increases cannot be completely attributed to the campaigns. Most probably private crime prevention has been showing a rising trend for several years. Some of the noticeable increases in 1978 - a year in which the percentage of victims of theft and such did not show an increase (Van Dijk, Steinmetz, 1979) - do appear to be at least partly an effect of the campaigns directed at those specific measures. This is very plausible, because as mentioned above, 12% of the respondents themselves stated at the end of the survey that for reason of the campaign they had started to take more measures<sup>(5)</sup>.

#### What people say and what they do

In earlier research, good consistency was demonstrated between what respondents say they do and what they actually do. This was investigated for opening the door to strangers at night (Van Dijk, Nijenhuis, 1979). As was done in the survey just mentioned, observation studies were carried out in England also concerning the locking of cars (Burrows, Heal, 1979). Does the public actually take more practical preventive measures, when they say they do? For a definitive answer one

should observe actual behaviour. How far do the victim survey data available to us help us to answer this question?

Those who state that they have become the victim of a crime were always asked which preventive measures they had taken on that occasion. Since earlier in the survey respondents already have been asked about the usual precautionary measure, a comparison can be made between the (verbal) precaution preparedness and actual behaviour for the group of respondents who have been victimized. As elucidated above, on the basis of the number of precautionary measures concerning the five types of crime the respondents state to take usually, respondents have been divided into three groups (low, average and high precaution preparedness). The victims in each of these groups too are classified in the same manner. Observing the average number of measures victims actually have taken per preparedness category, shows a clear positive correlation between preparedness and behaviour. The victims in the low preparedness category, on the average, practised in 1977 only 0.6 measures, the victims with a modal preventive preparedness 0.8, and those with a high prevention preparedness 0.9<sup>(6)</sup>. Consequently, with regard to this aspect of target hardening behaviour a positive attitude definitely appears to have an effect on actual behaviour.

For a more precise comparison between attitude and behaviour, one should consider the number of measures victims ordinarily take and the number which actually have been taken when victimization occurred. Both number of measures have to be placed beside each other for every type of crime. In this manner, it can be determined how great (per incident category) the gap is between the measures one states to take and the

measures actually taken in practice. There is however an interpretation problem in comparing levels of intentional and actual measures. A certain number of the victims probably developed on behalf of their victimization experience a greater precaution preparedness than before vicimization occurred. Consequently taking fewer measures than one states doing as a rule, does not necessarily mean that the good intentions were not carried out in practice. The intention however to take certain (extra) measures could date from after the victimization.

To get around this problem, we decided to compare the measures actually taken by victims with a low, average or high precaution preparedness with the measures whom average Dutch people with a low, average or high prevention preparedness state to take usually.

The average number of measures for those with a low, average or high general prevention preparedness are in Table 4 presented per type of crime. The same table includes also the average number of measures actually practised by victims with the same low, average and high general precaution preparedness.

TABLE 4 Average number of measures per crime that Dutch people state they take and the average number, victims have actually taken, per category of general prevention preparedness. The intended measures are indicated with an I and the actual ones with an A.

	low prevention preparedness		modal prevention preparedness		high prevention preparedness	
	I	A	I	A	I	A
bicycle theft	.9	0.6	1.1	0.7	1.7	0.8
moped theft	1.0	0.6	1.0	0.7	2.0	1.0
theft out of cars	1.0	0.7	1.3	0.9	1.3	0.9
car theft	1.3	0.9	2.0	1.5	1.9	1.3
break and enter	1.0	x)	1.5	x)	1.4	x)

Table 4 shows, as one can expect, that the crime-specific precaution preparedness (A) follows the same pattern as the general precaution preparedness (I). It is further evident, that for the four types of crime separately as well, actual precaution increases in accordance with displaying a greater verbal preparedness. It is also noteworthy, that on the whole the gap between intentions and behaviour is greater for those with a high precaution preparedness. However, the data in Table 4 are particularly interesting because they render it possible to compare the gap between verbal preparedness and actual behaviour for the various types of crime. The table shows that the difference between the preparedness level and the application level for the crimes of car theft and theft out of cars is much smaller than for the crimes of bicycle theft and moped theft. It is noticeable concerning these crimes, that those who are precaution-prepared, also very consistently convert this preparedness into deeds.

The words-deeds consistency of prevention for these crimes seems to be hardly less than the very high consistency found earlier concerning the behavioral intention not to open the door to strangers ringing the doorbell after 10.

According to the theories of Fishbein and Ajzen (1975) the consistency between behavioural intentions and actual behaviour is determined by the extent of specificity of the intention, by its stability and by the practical and social opportunities for this behaviour. In our opinion, the relatively high consistency in the intention to take measures to prevent theft of cars and theft out of cars is mainly a result of the ease of executing the intentions concerned. For it takes less time and energy for example to use a steering lock or to lock a car door than bringing

along and using a chain lock. In addition for many people the possible loss of a car will weigh more heavily than the loss of a bicycle: the intention to prevent a car theft will therefore in general be stronger and therefore more stable than the intention to prevent a bicycle theft. The relatively great inconsistencies among those with high precautionary preparedness would appear to indicate that the intention to take extraordinary measures is less stable than the intention to observe the normal precautionary measures.

Actual precautionary behaviour in 1977 and 1978

The finding that a considerable gap exists between the number of measures one says to take and actual precautionary behaviour gives rise to the question, how the media campaigns influences the actual application level. The campaigns have caused the precautionary preparedness to increase.

A possible effect of the campaigns could have been a smaller words-deeds inconsistency as a result of an intensification of the precautionary preparedness. Another campaign effect might have been, however, a verbal increase of the precautionary preparedness. The latter case will actually result in an increased words-deeds inconsistency. The survey data concerning 1977 and 1978 showed that both effects occurred. The gap between the precaution preparedness and actual behaviour of the victims of a bicycle theft was in 1978 clearly smaller than in 1977 (see Fig.1). The same applies to moped theft. However, for victims of theft out of a car the gap is somewhat greater in 1978 than in 1977 (1977: 40%; 1978: 65% not consistent). Those who formed on behalf of the campaigns the intention not to leave expensive items in their cars anymore, do not always fulfill this intention in practice.<sup>x)</sup>

<sup>x)</sup> No information was gathered about actual taken measures by victims of break and entry.

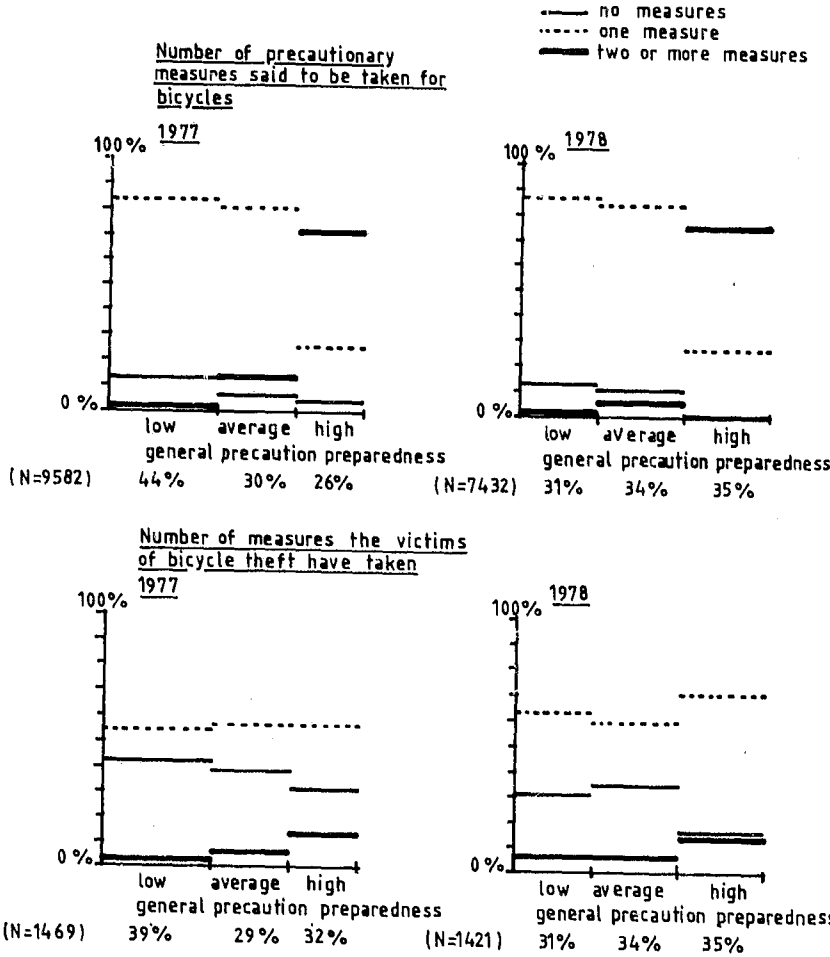


Figure 1. Visual reproduction (trace-lines) of the numbers of persons in 1977 and 1978 stating they take no, one or two or more precautionary measures to prevent bicycle theft and of the numbers of victims who actually have taken no, one or two or more measures, subdivided according to their general precaution preparedness (low, average, high). The number of measures per precautionary, preparedness classification has been shown by means of percentages.

Finally, for three crimes<sup>(7)</sup> one might wonder whether the actual application of precautionary measures in 1978 by victims was at a higher level than in 1977. This turned out to be so in all cases. The increase was statistically significant ( $\chi^2=9.97$ ;  $df=2$ ,  $p<.01$  for victims of bicycle theft). Particularly the percentage of victims which had not taken one single measure decreased (from 30% to 22%). The increases for moped theft and theft of cars were less great and concerned in addition a smaller number of observations<sup>(8)</sup>. However, in their mutual coherence the available data allow the conclusion that the campaigns have had a positive effect on the actual precautionary behaviour as well.

The discussion of the data concerning the differences between the number of measures the respondents mentioned to take in both years and the number of measures victims actually practised, have been visualised for bicycle theft in the following figure (Fig.1). This figure shows the increase in 1978 of both the intended as well as the actual prevention for this type of crime.

#### Discussion

In the Netherlands, the decision to take practical precautionary measures turns out to be based on a more or less realistic assessment of the objective risks one runs. There are no indications that this behaviour flows from a strongly emotionally coloured attitude of fear concerning offenders as for some other forms of precautionary behaviour (not opening the door to strangers, no longer walking along the streets at night). The finding that more practical precautionary behaviour has a fairly rational basis up to a certain extent offers the opportunity for the government to have a guiding part in this area by means of information services.

The survey has provided some indications that the national information service campaigns concerning the occurrence of crimes in 1977 and 1978 have had a positive effect on the preparedness to take precautionary measures as well as on their actual level of application. In this respect, it would appear that the campaign has certainly not been without success. However, the campaigns did not contribute to a more balanced distribution of the precautionary measures for the population as a whole. Specific groups belonging to the lowest social class as well as specific groups of younger people in the big cities do not pay attention to crime prevention which would be applicable in the light of their objective risks. Since the publication campaigns on crime prevention did not reach these population groups in particular, their arrearage has consequently sooner been increased by these campaigns than decreased.

Campaigns concerning crime prevention can only be called a success if application of the preventive measures recommended has resulted in decreased objective risks for those applying them as well as in a decrease or stabilization of "petty crime".

Although the literature on this subject is yet very limited, it contains already some indications that the application of certain practical precautionary measures lead to a slight decrease in individual risks (Repetto, 1974; Waller, Okihiro, 1978; Mayhew, 1976). However, well-executed semi-experimental evaluation studies - for example with the help of a panel of those who apply measures and those do not apply them - are still completely lacking.

The survey gathered by us do allow to check whether those with a strong precaution preparedness during the past year have or have not become the victim of a crime. In doing so, the (verbal) appliers and non-appliers can be rendered mutually equal concerning typical risk-determining characteristics such as age and place of residence. A complication in this analysis, however, is that a number of the respondents with a high precaution preparedness probably developed this preparedness after their victimization experience. This effect has a consequence that the percentage of victims among the group with high precaution preparedness is being pushed up, which complicates a comparison with the group with a low precaution preparedness. The impact of this effect cannot be determined. However, the investigation by Smale (1980) concerning the reactions of victims of break and enter renders it acceptable that there is a considerable effect.

On the other hand a higher percentage of recent victims among the group with a high precaution preparedness than among the group with a low prevention preparedness, can be expected, if a high precautionary preparedness would not have a mitigating effect on victimization risk. This is certainly not the case according to our analyses, in particular not among the high risk groups (big city, young). Respondents with a high precautionary preparedness became, for most of the distinguished risk categories, just as frequently as respondents with a low precautionary preparedness or even less frequently the victim of a crime<sup>(9)</sup> during 1977 or 1978 (in spite of the influx of an unknown number of recent victims into the group with a high prevention preparedness).

There is, meanwhile, no other possibility to interpret this analysis result otherwise than as an indication,

that a high precaution preparedness leads to a smaller risk of becoming a victim. Our analyses did also provide the information that the (verbal) intention to take certain precautionary measures does not mean at all that deeds will also follow words. The latter can be conceived in addition as a fairly strong indication that actual application of certain precautionary measures provides a certain protection from the crimes concerned.

Whether the smaller victimization risks of the actual appliers of preventive measures can also contribute to the control of crime on a national or regional scale is the final question which has to be commented upon. Elsewhere we have advanced a few theoretical arguments which plead for a moderately positive reply to this question (Van Dijk, Steinmetz, 1980). A related discussion to the same effect can be found in Clarke (1979). In our opinion, a necessary condition for the occurrence of a criminality-dampening effect is the attaining of a fairly high general level of precautionary measures among the target population. If only a minority of the citizens observes certain precautionary measures, a diversion of the risks will lead towards the non-preventers and so one cannot speak of a dampening effect on criminality. Like Block (1980) we have the impression that the degree of coverage by crime prevention among the Dutch population is still relatively low, so that certainly in The Netherlands no dampening effects may be expected for the time being.

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Prevention preparedness classes

N=10.002  
percentage of population      low      average      high  
   (31%)      (34%)      (35%)

Distribution prevention preparedness classes over anxiety questions

evaluation of chance of becoming victimized

greater	33%	37%	45%	$\chi^2=392$ df=6 $c(\text{ram}\bar{e}r)=.11$ (2x3 table)
remained the same	47%	53%	49%	
smaller	5%	2%	1%	
don't know	15%	8%	5%	

thinking of possible personal victimization

never	66%	56%	48%	$\chi^2=245$ df=8
rarely	17%	24%	26%	
sometimes	13%	16%	20%	$c(\text{ram}\bar{e}r)=.15$ (2x3 table)
regularly	3%	3%	4%	
frequently	1%	1%	2%	

reaction to doorbell after 10 at night

opening acquaintances only	62%	53%	50%	$\chi^2=104$ df=6
trustworthy impression	23%	27%	30%	
do not open	10%	15%	15%	$c(\text{ram}\bar{e}r)=.09$ (2x3 table)

not daring to go out on street alone at night

no	74%	81%	68%	no correlation curvi-linear
yes	26%	19%	32%	

sometimes afraid when alone at home at night

no	87%	85%	89%	negative correlation
yes	13%	15%	11%	

Notes

1. Latent structure analysis is based on the principle of local stochastic independence. This principle contains that the algorithm searches for an optimal classification of Dutch inhabitants. A classification of persons who say to do little, medium or much on precautionary measures. The classification was done on the basis of their replies concerning their intention to take precautionary measures in order to protect themselves from theft of or out of a vehicle and/or breaking and entering. The persons were then classified on the basis of a latent common pattern of taken measures. This common latent pattern emanates from all the possible preparedness questions answered by them. It should be remembered here, that each respondent can answer a minimum of two and a maximum of five preparedness questions. This is taken into account during the classification. In scaling the preparedness questions, use is made of a special option of the program, namely order restrictions on the parameters (Mooijaart, 1980). For technical reasons, in carrying out the LSA-analyses, a weighted B.C.D.-file was used, for which reason the totals per table differ somewhat.
2. Distribution of the replies to the fear of crime items per precaution preparedness class.



3. Schwind, Ahlhorn, Weiss (1978) did operationalize the affective component by means of the question whether one does or does not feel (un) safe at home, in the neighbourhood, etc. They themselves remark in their explanation that this item also measures a cognitive attitude component. We suppose that the cognitive aspect dominates. Besides practical measures, the aforementioned authors also counted the no-longer-going-out-onto-the-street among the protective measures to be taken. After Conklin (1975) we are of the opinion that a distinction must be made among avoidance behaviour and mobilization measures (i.e. practical prevention). Our data support this theoretical opinion (see Table in footnote 2). The prevention preparedness scale of Schwind a.o. has in this vision a too heterogeneous character.
4. Among those who state that they never think of the possibility of becoming a victim 14% has been a victim, while among those who state that they personally think of victimization 26% has been a victim. Dutch people in the bigger cities and in addition younger people think more often of the personal chance to become a victim of crime than those in the rural areas and particularly older rural inhabitants. Among the younger people in the big cities for example, 56% sometimes thought about becoming victimized, while among the older people in the big cities 34% sometimes thought of the chance of victimization. Among the older people in rural areas only 26% sometimes think of the possibility of victimization.

5. Not all effects of the campaign are expressed in the amount of precautionary measures in the survey. The publicly best known campaign component concerned pickpockets. No questions concerning this had been included in the survey.

Registration of frame numbers and luxury goods is not covered by the precautionary measures asked about in the survey (in a strict sense, this is not really a means of prevention).

6. Comparing of the amount of intentional and actual measures was based on the distinction between no measures, one measure and two or more measures. Also, in interpreting Table 4 the possibility should be taken into account that at the very moment victimization occurred one had omitted to take certain measures, as well as the possibility that victims as a group do act somewhat less consistently than the others by which they would not be completely representative.
7. In the survey questionnaire in 1978 the question about actual precautionary behaviour of the victims of car thefts and break and entries was omitted because of the very small number of victims to be expected.
8. The number of victims of moped theft who took two or more measures increased from 12% in 1977 (N=66) to 20% (N=55) in 1978. The percentage of victims of theft out of a car who had not taken a single measure decreased from 36% in 1977 (N=163) to 21% (N=145) in 1978.

9. Victim percentages per combined risk group for two intentional precaution classes (high preparedness - low preparedness). Risk groups are constructed on the basis of municipality size, precaution classes and age groups.

Victim percentages have been given in the Table for victims in 1977 and for victims in 1978.

Victims in 1977

Municipality size	40 years old or younger intentional precaution		More than 40 years old intentional precaution	
	Low	High	Low	High
The three big cities	26%(434)	24%(397)	8%(471)	5%(555)
50,000 - 400,000 inhabitants	10%(1048)	16%(576)	5%(1001)	5%(588)
20,000 - 50,000 inhabitants	10%(842)	9%(517)	-	-
Less than 20,000 inhabitants	5%(1253)	5%(597)	2%(1332)	7%(404)

Victims in 1978

Municipality size	35 years old or younger intentional precaution		More than 35 years old intentional precaution	
	Few	Many	Few	Many
Over 100,000 inhabitants	16%(738)	18%(619)	8%(804)	6%(1015)
20,000 - 100,000 inhabitants	8%(1039)	14%(535)	5%(1318)	2%(777)
Less than 20,000 inhabitants	5%(1061)	5%(278)	3%(1469)	5%(350)

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# Controlling the Opportunity Structure

An example of effective crime prevention

Johannes Knutsson

Eckart K hlhorn

## Introduction

With the changed society there has followed a rising criminality. Many have seen the industrial society in itself as a criminogenic society. The situation is, however, perhaps rather more complicated. There are data which indicate that it is rather the industrial society in a certain phase, or under certain conditions, that reveals a greater criminality. In Sweden, for example, a fall in theft was observable during the period when the industrialization process began to have a pronounced effect on people's living conditions. With the advance of the industrial society, it is said, there came a mitigation of the material need underlying crimes of theft in the 19th century (Knutsson, 1978).

It is not until some time after the 1920s to 1930s that a distinct upward trend in property crimes becomes noticeable. The increase was especially marked in the 1950s and 1960s (Carlsson, 1969). Compared with the criminality of the 19th century, which is best described as based on destitution, crimes against property have a different character and may be denoted as based on superfluity.

Two factors, in particular, have been pointed to in this context. One is an increasingly weaker informal social control (Christie, 1975). The second is changes in the opportunity structure (Cohen & Felson, 1979). With the growth of mass consumption some time in the fifties, this becomes increasingly richer. Manifest examples are in the introduction of the self-service principle in shops, the expansion

of motorism, etc.

In general it may be said that society's struggle against the rising criminality has been little successful. It has relied, roughly speaking, on formal control applied on an individual level. The attempt has been made to eliminate criminality by penalties or treatment measures for offenders caught in the act. Numerous research results, however, have shown that this can hardly be the correct medicine (see e.g. Lipton et al., 1975; Kühlhorn, 1979).

In this paper we shall give an account of one of the few successful examples of measures which have led to a reduction of crime. They brought about changes at the macro level, since they affected both the opportunity structure and the social control. And it is these factors which, in general, are seen as the causes of criminality in the highly industrialized society. The type of crime that was successfully brought under control was cheque forgeries.

### *The crime trend 1965–1970*

Since the fifties, as already noted, a very great increase in the number of property crimes reported to the police has been recorded. The main rise was in the latter half of the sixties (BRÅ report 1978:2). It was most marked in the cities, and particularly in Stockholm. One of the most rapidly increasing crimes was cheque forgeries. Between 1965 and 1970 the number of cheque forgeries reported in Stockholm rose nearly sixfold, from 2 663 to 15 817. Per 1 000 inhabitants the increase was from 3.4 to 21.2. In the remainder of the country (including Malmö and Gothenburg) the increase was less marked, from about 7 000 to around 24 000. Although Stockholm has only about

6 % of Sweden's population, about one-third or more of all cheque forgeries were reported in Stockholm.

The quick growth of this crime tallies closely in time with the introduction of the cheque as general instrument of payment, i.e. the development points to a change in the opportunity structure.

### *Case studies*

To illustrate the nature of these crimes some representative cases will be presented. These are taken from investigations made by the Stockholm police in 1970.

#### *Case 1*

By means of fingerprints found on illegally used cheques a woman was suspected of cheque forgery. On being questioned she acknowledged her guilt, namely that she had illegally used 11 cheques. The investigation comprised two reports, one of theft of the cheque-book from which the cheques were taken, the other a report from the drawee bank that 11 cheques from that book had been improperly used. The amounts of the cheques varied between 50 and 320 kronor, the total amount being 1 078 kronor. The suspect maintained that she could not exactly state how the cheques came into her possession. She thinks that she received, bought or got them by barter from some unknown person in the centre of Stockholm. She had used them as means of payment in shops. Since she was under the influence of drugs, she has no exact memory of what happened. She was prosecuted for fraud.

#### *Case 2*

At the end of October one year a theft of a cheque-book containing 15 cheques was reported. The aggrieved

party believed that someone among his circle of acquaintances had stolen it. From the bank a report was received at the beginning of November that 6 cheques from the stolen book had been drawn in different banks for amounts of 175 - 465 kronor, the total amount being 2 690 kronor.

Through notes concerning a passport used as proof of identity on presentation of the cheques, suspicion was directed to a particular person. A warrant of arrest was issued in his absence on the ground of reasonable suspicion of fraud. He was apprehended at the beginning of December for another crime. On the following day he was questioned about the cheque forgeries and admitted to them.

He gave the following account of the course of events. He had come into contact with a woman at a notorious meeting-place in the inner part of Stockholm. There the woman and he were invited to the home of the man who was later robbed. The suspect believed that the woman, whose name he said he did not know, had taken the cheque-book from the man since, when they left his home, the suspect received from her a small sum in cash and six cheques. These he cashed on the following day in different banks.

The aggrieved party stated, in a further conversation with the police, that he had run across a woman and a man at the meeting-place in question. He had agreed with her that for a sum of 100 kronor she would offer her services for sexual intercourse. Both the man and the woman accompanied him home. They first had a drink or two. After a minor tumult the man and the woman went off with, as it later proved, 100 kronor for the promised but unfulfilled sexual intercourse, a wallet containing 1 400 kronor in cash, and a cheque-book.

The suspect was prosecuted for fraud.

#### Case 3

The investigation covered seven reports of cheque forgeries, comprising altogether 25 cheques. The amounts varied between 20 and 300 kronor, totalling 4 990 kronor. The cheques had been used for payment in restaurants, wines-and-spirits and other shops. They came from burglaries from homes and firms. Fingerprints found on the cheques directed suspicion to a particular person. In an inquiry held in a prison the suspect denied both the burglaries and the forgeries. He explained the fingerprints by the fact that he had probably handled the cheques when he was temporarily out of prison. Numerous persons had offered him cheques for drugs. An expert opinion from the National Laboratory of Forensic Science stated that "strong confirmation existed that the disputed handwriting was that of the suspect". He was thus bound to the cheque forgeries through technical evidence, both through his fingerprints and his signature on the cheques. For these crimes and a number of others he was sentenced to six months' imprisonment. At the time of the trial his previous term of imprisonment had come to an end.

#### Case 4

A police patrol was called to a bank in central Stockholm. The bank manager pointed out a suspected person. The latter had presented a cheque for 230 kronor which, according to the bank records, belonged to a series which had been stolen. The person was apprehended. The cheque came from a cheque-book that had been stolen from a parson in a burglary in his home. Several cheques which had been used from it had been reported to the police at different times. Some of these

crimes had been cleared up. The purloined cheques had been distributed to several persons.

The suspect, who was a known drug addict, denied the charge. He said that he had received the cheque in payment for a car battery. It could not be confirmed in the investigation that he had been guilty of criminal conduct.

#### Case 5

Two persons were arrested for crime in Denmark. In the possession of one person the Danish police found a cheque-book. At the subsequent inquiry made by the Swedish police it proved that the cheque-book had been reported stolen at a burglary in a workshop in the Stockholm area 10 days before the arrest in Denmark. The person possessing the cheque-book was then questioned, after being returned to Sweden, and informed that he was under suspicion of burglary and of attempted fraud. He denied the burglary but said that he had bought the cheque-book for 100 kronor from a "junkie" unknown to him in Stockholm. He understood that it had been stolen and acknowledged receiving. In the course of the inquiry the Fraud Division received from a bank a report of cheque forgery. The cheques derived from the book in question. The suspect acknowledged receiving as well as the forgery of which he was also suspected. He was prosecuted for these crimes.

#### Case 6

The police were called by an observant person to a place where the latter suspected that a stolen car was parked. A policeman went to the site and found a sleeping man in the car. He discovered suspected stolen goods and drugs in the car. The man had in

his possession a forged driving licence. At the Fraud Division there were six reports of altogether 47 cheques made out in the name appearing on the forged driving licence. The total amount was 5 995 kronor and the individual amounts varied between 10 and 375 kronor. The cheque-books had originally been acquired in a burglary of a firm's safe. The perpetrator of this crime is unknown.

The apprehended man was suspected of forgery of documents and fraud. He acknowledged the cheque offences and stated that he had bought the cheques from a person for altogether 450 kronor. He understood that they had been dishonestly come by, but did not know that they had been procured by burglary of a safe. As regards the forged driving licence he stated that, as he was wanted by the police, he had needed to be able to conceal his identity. He had entered into contact with a person unknown to him who, for 150 kronor, had undertaken to help him with the problem of identity. The suspect could not state where the forgery took place nor by whom. He guessed, however, that the driving licence had been stolen.

At the time of commission of these crimes he was already under correctional treatment. The probation to which he had earlier been sentenced was now set aside and he was sentenced to nine months' imprisonment for these and some other crimes.

#### *The crime situation in the sixties*

In quite general terms the situation at the end of the sixties may be described as follows. Cheque-books and cheques came into circulation in various ways, usually through criminal procedures. Common procedures were burglary in homes and firms or theft at places of work.

**CONTINUED**

**3 OF 4**

Sometimes the thieves made use of the cheques themselves. A large proportion of these cheques, however, changed hands before use in an extremely lively commerce in the "underworld". This commerce was closely associated with the drugs traffic in the centre of Stockholm. The cheques were used to a large extent as instruments of payment in transactions between drug addicts. They could be used in exchange for drugs, money, or all kinds of services. The cheques, however, did not have a fixed rate; their value was determined from case to case. One reason for this was the very complicated friendship and/or indebtedness relationships between the parties involved.

The cheques were then used as means of payment in shops, restaurants, etc, and for cashing in banks.

If they were to be cashed in banks, the criminals had to act quickly after procuring the cheques, since the person to whom they were issued generally reported the loss immediately to the bank and the police. The amounts involved were usually of an order of 300 - 400 kronor. For purchase of goods or services in shops, restaurants, etc, the sum per cheque seldom exceeded 300 kronor. This was due to the fundamental condition for this criminality.

This condition was the so-called bank guarantee. This implied that a person who received false cheques was indemnified by the drawee bank up to an amount of 500 kronor per cheque if proof of identity had been asked for. For amounts below 300 kronor no proof of identity was required. For sums below 300 kronor, accordingly, there was no interest in a control as to whether the cheques were false, since the payee incurred no loss. The banks collected together the false cheques and then reported them to the police.

The police often had whole series of crimes to work upon since every false cheque was counted as one crime. A cheque-book that had gone astray could thus result in numerous crimes. Purely from the investigational point of view the crimes were an easy matter for the police. There was often one or another pointer. Different clues in the form of fingerprints, signatures or records of identity documents were an important aid. One criminal often had all cheques in a cheque-book. If he could be bound to one of them, the police could clear up all crimes associated with that cheque-book. Clearances of series of crimes were thus common. These factors probably explained the high clearance rate. In 1970, the year in which most cheque crimes were reported, the rate was 60 %. Of the nearly 40 000 crimes reported in the whole country about 24 000 were cleared up.

### *The reaction*

The police reacted quickly to the crime trend. The Chief of the Fraud Division in Stockholm contacted the National Police Board at an early stage in an attempt to get to grips with the problem. It was soon realized that the basic assumptions for this kind of criminality existed in the bank guarantee and in the inferior identity documents that were then in circulation. The driving licence of that time, for example, was very popular in the forgery business.

As early as 1964 a working group was formed in which the police and the banking association were represented. The police considered that the banks' assumption of risk vis-à-vis tradesmen should be withdrawn, as this would be of great significance for the prevention of crime. The banks were very opposed to this proposal. It would undermine the popularity of cheques, they said, since tradesmen would no longer be willing to accept them to the same extent. The banks' cash

balances from the cheque account system would then be reduced.

There was, however, agreement on the importance of information and that propaganda and information to the public and to bank personnel were of great significance for the prevention of crime. Information sometimes took a somewhat unhappy turn. One cheque forger procured a set of crime prevention brochures, cut out a number of the cheques reproduced in them and used them for numerous fraudulent transactions.

Another important theme in the discussions was identity documents. The police put forward the proposal of compulsory proof of identity when using cheques. Tradesmen opposed this solution. They did not wish to burden their staff with such a task.

After a number of meetings the time became ripe for coming to a decision in the autumn of 1970. The police made it clear that they were no longer able to tie up resources for investigation of these crimes. It was therefore necessary quickly to do something about the whole business. The banks wished to bagatellize the problem. In purely financial terms the loss was not substantial. In 1970 it was estimated at 2.5 - 3 million kronor. It was thought that the police were exaggerating the seriousness of the situation. Admittedly something must be done about the problem, but the main point of attack should be against "people's carelessness" with cheques. The banks were initially firmly opposed to abolishing the bank guarantee, the ultimate reason for the quickly accelerating cheque forgeries. The police were, however, prepared to take the legislative path to get to grips with the problem if a voluntary solution could not be found.

At a meeting at the end of 1970, at which the National Police Commissioner of that time, Carl Persson, presided, the resistance principally from banking quarters was overcome. A programme of action was decided upon, under which the bank guarantee was to cease as from July 1, 1971, and shopkeepers were to be recommended to require proof of identity from unknown customers.

### *Effects of criminal measures*

We shall discuss, to start with, what may be the effects in general of crime prevention measures of this kind. The main object of the measures in this case was to make it more difficult to commit crimes. The primary condition for achieving a crime prevention effect at all is that the measures are relevant, i.e. if they are taken they must make crime impossible or very much more difficult. They must also be taken on so large a scale that sufficiently many objects are protected or that the overall opportunity structure is greatly changed (Knutsson, 1979).

A problem with such crime prevention measures is that they may have crime-switch effects. Criminals who no longer have the same means to commit a certain crime, or to assign their activities to a given locality, may start to commit other crimes or commit them at other places. The reduction of one form of crime would then be set off by an increase of others, or a reduction in one area by an increase in others.

Kühlhorn (1978), for example, demonstrated that massive police action against disturbances of order had to some extent a crime-switch effect. The disturbances as a whole decreased after the action, but some were transferred to other places. One gain,



however, was a reduction of the contextual factor. Instead of large groups gathering at a central point, to which others were readily attracted, the groups divided up and directed their activities to more peripheral localities.

In an experiment with police supervision directed against thefts in a specific area, these crimes decreased in that area but instead increased in neighbouring areas (Sjöberg, 1979).

How and whether crime-switch effects will occur when, as in this case, the overall opportunity structure is changed is a matter about which very little is actually known.

Purely theoretically it may be expected that the risk of crime-switch is great if, on the one hand, the criminals have a great "need" of crime owing, for example, to drug abuse and, on the other, if the prevented crimes are vital for the criminals' "subsistence". If the "criminal need" varies in strength and the crime is of a "peripheral" nature, the risk of crime-switch effects is less.

As regards the measures against cheque forgeries, their result was that cheques more or less disappeared as means of payment in trade in the years following upon the abolishment of the bank guarantee. When they later came into more general use again, there were identity cards which fulfilled reasonable security requirements. Proof of identity was also required in conjunction with the use of cheques, since the payee suffered a direct loss if the cheque was false.

The result was a radical change of the opportunity structure since, for a time, cheques fell almost entirely out of use as means of payment to shopkeepers.

When they later came into use again, the social control situation had changed character. Earlier there had been reliance on formal control. Those who were caught met with reaction from the judicial system. Now, instead, practically all persons who presented cheques were required to prove their identity. A control measure which concerned all who used cheques was thus put into effect in the actual situation by the person who received the cheque. The positions were advanced from a formal social control after the event to a situational control.

These measures must be characterized as relevant, so that they could be expected to have a crime prevention effect on cheque forgeries.

In conjunction with the implementation of these measures there was a lively debate about the consequences they might have. Many feared that these would be negative. It was thought that cheque forgers would now be "forced" to commit other, more serious crimes such as home burglaries. Some were afraid even that bank robberies would increase. No serious attempt to investigate the situation was, however, made.

### *The crime trend after the countermeasures*

What were the effects of the countermeasures against cheque forgeries? In this section we shall study the development of cheque forgeries and see whether any switch to other types of crime is traceable. The analysis is made on aggregated level on the basis of the crime statistics. Investigations have shown that the reliability of the crime statistics is such that for many categories of crime they are usable as indicator of the actual criminality (Persson, 1977).

The course we have chosen is to analyse the trends in cheque forgeries and in some of the theft crimes

which might be conceivable alternatives for cheque forgers. We have recorded the trends for three periods. The first, period I, is the two years before the countermeasures started, i.e. 1969 and 1970. The year 1971 is excluded in order to allow time for the measures to take effect. Period II is the years 1972 - 1973 and period III the years 1974 - 1975.

These three periods were chosen in part because of the variations displayed in the crimes against property. In period I there was an increase in the total number of reported property crimes, in period II a reduction is noticeable, and in period III they increased again.

In the light of this general pattern we shall show the changes in cheque forgeries and the variation in the selected theft crimes in the three periods.

The crimes we have selected for analysis are household burglaries, burglaries in basements and attics, and thefts from vehicles. These are some of the commonest "income-bringing" crimes and may be said to be possible alternatives for the group of criminals who had been engaged in cheque forgeries. The trends are based on quarterly figures for the crimes and have been recorded for Stockholm and for the whole country. With few exceptions the compatibility with the regression lines is satisfactory. Owing to the strong concentration of cheque crimes to Stockholm, the analysis for Stockholm alone is presented in this context. But the general trend was the same in the country as a whole (Knutsson & Kühlhorn, 1980).

In period I all crimes showed a rising trend. For cheque forgeries the level fell very sharply in period II, i.e. after the institution of the countermeasures. In 1972, compared with 1970,

cheque forgeries had fallen by about 85 % in Stockholm, from about 16 000 to just over 2 000.

In the following year the reduction was about 90 %. In period III there was a very slight increase. In 1975 the reported crimes amounted to 12 % of the 1970 figure. In periods II and III, accordingly, the number of reported cheque forgeries had fallen by about 90 % in comparison with the year prior to institution of the countermeasures. In the years 1976 - 1978 as well the level for these crimes was very much lower than in the "golden" years at the end of the sixties. The countermeasures against cheque forgeries may therefore be denoted as very successful.

What, then, was the effect on the other crimes? As appears from diagram 1, there were falling trends in period II. From the point of view of a simple conception of switching to other crimes this is a surprising result. An increase would have been more in line with expectations.

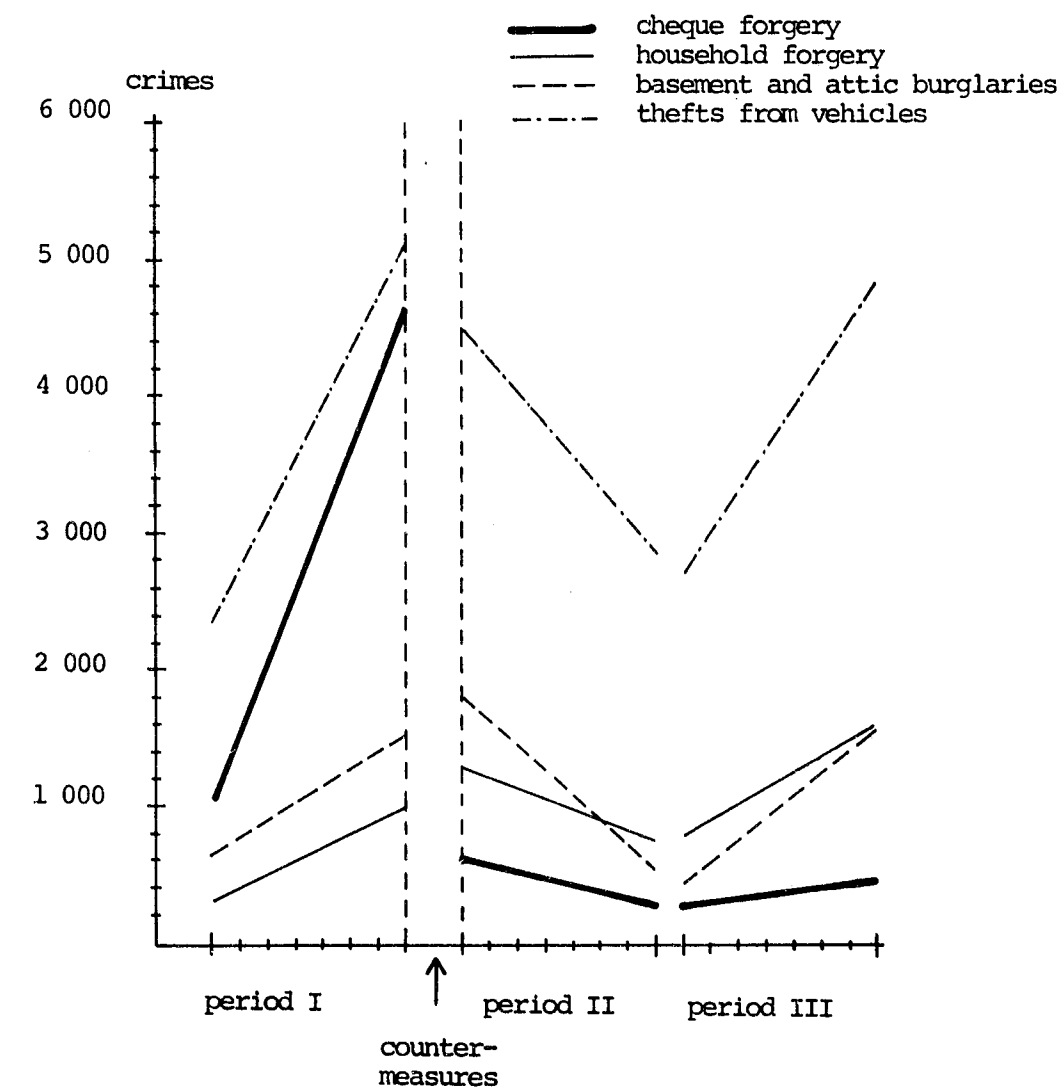
It may be maintained, however, that the number of crimes would have fallen more markedly if the criminals had still had the opportunity to commit cheque forgeries, i.e. the switch might be "concealed".

In period III the crime trends rose. For some of the categories the rise was rather greater than in period I. It is possible that it would not have been so great if the criminals had had cheque forgery as an alternative course. It should perhaps be mentioned that the number of reported crimes in 1971, with the exception of basement and attic burglaries, was below that which would have resulted if the trend from 1969 and 1970 had continued.

The variations in the trends in periods I, II and III apply, for that matter, also to all crimes of theft

(chapter 8 of the Penal Code).

Diagram 1. The trends for cheque forgeries, household burglaries, burglaries in basements and attics, and thefts from motor vehicles, reported to the police in period I (1969-1970), period II (1972-1973) and period III (1974-1975) in Stockholm



This reasoning shows that the problem of switching effects cannot be solved with data of this kind. To do so, one must look at the criminality of cheque forgers and see to what extent their repertoire of crimes has changed since the countermeasures were taken. This very central question is dealt with in section 2.

What, then, can be the reason for the variation in these crimes?

As regards the cheque crimes, it is quite obvious that the very considerable reduction in their number must be ascribed to the crime prevention measures. The variations for the other crimes, however, are more difficult to explain.

It is not reasonable to suppose that criminal circles became so shocked when an opportunity for crime entirely disappeared that they were more or less paralysed for a couple of years and only thereafter could pull themselves together and start to commit crimes with renewed energy.

A conceivable explanation is that these changes in reported criminality do not reflect a change in the actual criminality. It might be a matter primarily of changes in the dark figure owing to variations in the proneness to report crimes. Certain changes in insurance conditions in 1972 and 1973 might have resulted in a lesser inclination to report crimes. According to this reasoning, accordingly, the reduced number of basement and attic burglaries, for example, in period II may not have been a real reduction. An objection to this premise, however, is that there was a reduction also of crimes for which no alteration of insurance conditions had occurred. This would suggest that the reduction of

criminality was a real one. It is also possible that the reduction embraced both real and fictive elements (BRÅ report 1977:8, pp. 19-21).

And as regards the rise in period II there is nothing to suggest that it was due to a greater inclination to report crimes. (The reasoning has been based on the assumption of a constant real criminality. Other assumptions are, of course, possible.) No changes occurred in 1974 or 1975 which might lead to such a tendency. The most probable conclusion is that the variations in the reported criminality in those periods do reflect changes in actual criminality.

Another, perhaps more probable explanation is based on the assumption of a criminality-generating factor, the influence of which varied during those periods. One such factor might be drugs.

There might thus be a common background to the fluctuations of criminality. It should be pointed out that, within the framework of these fluctuations, there may have been changes in the relations between the crimes as a result of switching to other crimes.

### *Coupling between drugsituation and crime trend*

May changes in the drug situation have lain behind the variations in criminality? The idea that the extent of drug abuse might affect the crime level has not seldom been put forward. The question was considered by, for example, Lenke (1978). But it is difficult to get a good indicator of the extent of drug abuse and, particularly, of the drug market.

There are, however, certain facts which suggest a correlation. At the individual level it is a fact that a large majority of criminals are drug addicts

(Bejerot, 1975); Persson, 1976). Drug addicts are also to a large extent criminal (Bejerot, 1975; Inciardi, 1979). There is thus a large overlap between the two.

Drug-addicted criminals, compared with non-addicted criminals, have a higher crime rate. In this study the cheque forgers who were drug addicts had, for example, a considerably higher crime rate than the non-addicted forgers (see section 2). McGlothlin et al. (1978) found that abuse leads to a higher level of criminal activity and that the level of criminal activity varies with the intensity of abuse. The more intense the abuse, the higher is the crime rate of drug addicts.

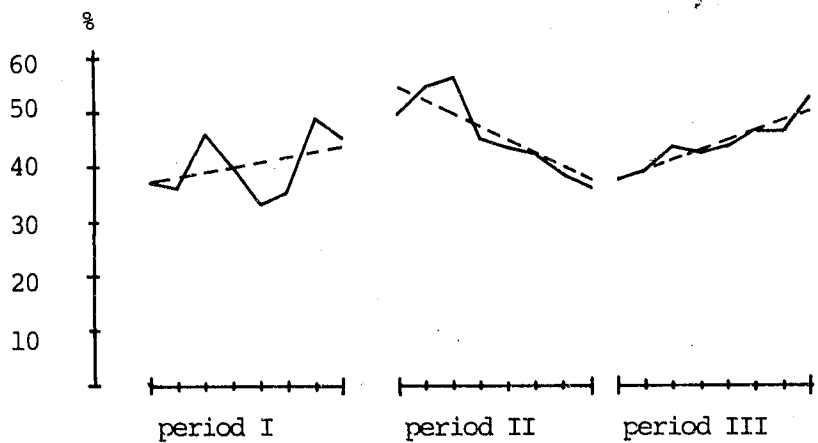
The situation reported above may partly be due to the fact that these behaviours reinforce one another. The chief reason, however, is that drugs are expensive. Drug-addicted criminals therefore have a greater "need for crime".

Under those conditions it may be reasonable to assume that changes in the drug situation may affect the crime level, in that the more widespread the use of drugs, the higher does the crime level become.

As pointed out earlier, it is difficult to find good indicators of the extent of drug abuse. For Stockholm, however, it is possible to follow the development by means of Professor Nils Bejerot's injection-marks investigation. Since 1965 a check has been made of injections among persons under arrest in Stockholm. The best measure of the drug situation has proved to be the proportion of arrested persons who were drug addicts, recorded quarterly (Bejerot, 1975).

In period I there were rapid fluctuations in the proportion of drug addicts, but the overall trend was upwards. In period II, as from the 3rd quarter of 1972, the proportion was clearly diminishing. In period III there was a distinctly rising trend.

Diagram 2. Proportion of arrested persons who were drug addicts, quarterly in period I (1969-1970), period II (1972-1973) and period III (1974-1975) in Stockholm



Source: Bejerot, 1979

The variations, as will be seen from the diagram, are large. The lowest figure is just over 30 % (1st quarter 1970) and the highest about 55 % (2nd quarter 1972).

For all these periods there is a correlation between the number of arrested persons who were drug addicts and the number of crimes reported in the different categories. When the proportion of drug addicts falls, the crimes are fewer, and vice versa.

Table 1. Correlation coefficients between proportion of arrested persons with injection marks and crimes in period I (1969-1970), II (1972-1973) and III (1974-1975) in Stockholm

Crime	Period I		Period II		Period III	
	r	r <sup>2</sup>	r	r <sup>2</sup>	r	r <sup>2</sup>
Chap. 8	+0.75	0.56	+0.94	0.88	+0.89	0.79
Thefts from motor vehicles	+0.77	0.59	+0.80	0.64	+0.80	0.63
Basement and attic burglaries	+0.33	0.11	+0.52	0.27	+0.88	0.77
Household burglaries	+0.37	0.13	+0.91	0.82	+0.76	0.58
Cheque forgery	+0.30	0.09	+0.23	0.05	+0.47	0.22

For period I the correlations are not so strong as for the other periods.

These data, however, support the view that the extent of drug abuse may have affected criminality. The variations in criminality during the three periods might therefore be explained by changes in the extent of drug abuse. But it must be emphasized that this premise is of a speculative nature. We have, for example, only studied the trend for altogether six years and, moreover, have demonstrated a correlation only between these two variables. There may be other explanations. A third factor might, for example, have affected the extent both of drug abuse and of criminality. A projected study of drug abuse and criminality in a dynamic perspective (Bejerot, Knutsson and K  hlhorn) will, however, deal with this very essential question among others and, it is hoped, will give a more exhaustive answer.

The cheque forgers

Design of the study

In order to learn how the countermeasures against cheque forgeries have affected this form of criminality, the switching effects must be studied with regard both to the total criminality and to the careers of the criminals. It is natural to believe that the switching effect comes most into evidence among habitual offenders, i.e. persons who live on crime and have limited means for legitimate alternatives.

The basis for this part of the study was therefore a group of cheque forgers who in 1970, in the heydays of cheque forgeries, committed a forgery and soon thereafter had their opportunities for cheque forgeries blocked. The careers of this group will then be compared with those of a group of cheque forgers who committed forgeries in 1975 when it was difficult to do so.

For practical reasons we have limited the study to Stockholm. The differences between the numbers of cheque forgeries in those two years are very considerable.

Year	Stockholm		Whole country	
	Number of crimes	Per 1000 inhabitants	Number of crimes	Per 1000 inhabitants
1970	15 817	21.2	39 337	4.9
1975	1 867	2.8	7 069	0.8

The target population is thus the cheque forgers in Stockholm in 1970, while those in 1975 constitute a comparison group. It is, however, difficult to decide whether any differences between the 1970 and 1975 populations can be ascribed to the blocking of opportunities for cheque forgery. They may derive also from changed police routines, changed judicial practice, etc. To gain control over these factors we have chosen two additional comparison populations, namely persons sentenced in 1970 and 1975 for crimes of larceny (all crimes had not undergone the same dramatic development between 1970 and 1975 (see table below).

Year	Stockholm		Whole country	
	Number of crimes	Per 1000 inhabitants	Number of crimes	Per 1000 inhabitants
1970	81 826	110	392 034	48.7
1975	68 866	103	467 732	57.1

The basis for this study was thus the crimes reported in Stockholm during those two years, namely cheque forgeries and cases of larceny as specified in chapter 8 of the Penal Code. These crimes are recorded in a data file at the National Police Board.

The reports are listed in this file in units called records. A record is a collection of data relating to a crime which can be traced to a suspected offender whose identity (national registration number) is obtainable. Our findings were as follows:

Units	Cheque forgery		Crimes of larceny	
	1970	1975	1970	1975
Number of records in the file	1 113	464	9 400	12 126
Number of individuals concerned in the records	370	232	5 151	6 932

It will be seen that the number of crimes per suspect is greatest for cheque forgers in 1970.

In the case of the cheque forgers we decided to investigate all the 370 individuals from 1970 and the 232 from 1975. We wished to have groups of roughly equal size from the two comparison populations of larceners. We therefore took a 1/17 sample from the 5 151 individuals in the 1970 population and a 1/23 sample from the 6 932 individuals from 1975.

Target population in file RI-70	Cheque forgers		Larceners	
	1970 <sup>1</sup>	1975 <sup>1</sup>	1970 <sup>2</sup>	1975 <sup>3</sup>
n	370	232	303	302
<sup>1</sup> All	<sup>2</sup> 1/17 sample	<sup>3</sup> 1/23 sample		

Data of earlier and later criminality exist in another file, the Register of Persons with Recorded Crimes, at the National Police Board. There are, however, certain problems attaching to this file. For a person is "rehabilitated" for serious crimes (resulting in imprisonment, probation, conditional sentence, etc), i.e. is struck out of the criminal record file,

when he dies, emigrates, becomes 85 years of age, or when 10 years have elapsed without a second offence. For minor crimes (resulting in a fine, etc) a person is struck out after a period of only five years without second offence.

We have therefore been able to investigate only persons sentenced for serious crimes; otherwise there would have been a distortion between the 1970 and 1975 populations. It should also be mentioned that cheque forgeries of this type are punished by deprivation of liberty, probation and the like - it is generally only overdrawing of one's own cheque account that is punished by fines.

Our findings were as follows:

Category	Cheque forgers		Larceners	
	1970	1975	1970	1975
Not in Register of Persons with Recorded Crimes 1)	58	55	66	93
In the Register but not for serious crime during the observation period	19	25	57	82
In the Register for serious crime during the observation period	293	152	180	127
Total (All identified persons suspected of crime)	370	232	303	302

1) Usually owing to negative decision to prosecute for the suspected crime

Furthermore we could not identify the specific crime in the Register. We could only discover whether a cheque forgery or larceny had been committed in 1970 or 1975. Therefore, on the basis of the data of recording of the crime by the police, we have defined a period of crime as a period of one year extending from six months prior to six months subsequent to the recording.

Apart from these sources of error owing to technical deficiencies, general limitations should not be disregarded. The crimes of relevance in this context were only those for which the subjects had been sentenced. This is a poor measure of the true crime rate. All of these data, moreover, are very rough. In such files, admittedly, we can distinguish between different types of crime and numbers of crimes, but the finer distinctions are lost, e.g. cheque forgeries after 1971 may have been for larger amounts, burglaries may have been more unscrupulous, etc. But it must be recognized that it is impossible, in empirical studies, to illustrate all conceivable hypotheses about the crime-switch problem.

*The studied criminality and its antecedents*

It is of great interest for this study to discover to what extent the cheque forgers constitute a group with a heavy record of crime. This is illustrated in table 2, which shows how often in each year the subjects had been under reasonable suspicion or had been prosecuted for crimes.

Table 2. Number of recordings per individual during a one-year period

Recordings	Cheque forgers		Larceners	
	1970	1975	1970	1975
1	218	145	3 561	4 962
2	44	35	786	946
3	33	29	336	392
4	27	6	169	228
5	15	4	97	134
6	5	2	44	67
7	5	5	40	52
8	3	0	35	42
9	2	2	11	21
At least 10	18	3	72	88
Total, persons	370	231	5 151	6 932
Total, recordings	1 113	446	9 400	12 126

The table indicates that there are great differences in this respect between the four populations studied. The 1 113 suspected cheque forgeries were attributed to 370 persons in 1970, the 446 in 1975 to 231 persons. Thus the number of suspected cases had diminished very much more between the two points in time (60 %) than had the number of persons (38 %). For the larceny crimes the same concentration is not observable during those years. Furthermore, both the number of individuals and the number of crimes increased at roughly the same rate between the two years. The distribution of the number of recordings is shown in the figure below.



Furthermore we could not identify the specific crime in the Register. We could only discover whether a cheque forgery or larceny had been committed in 1970 or 1975. Therefore, on the basis of the data of recording of the crime by the police, we have defined a period of crime as a period of one year extending from six months prior to six months subsequent to the recording.

Apart from these sources of error owing to technical deficiencies, general limitations should not be disregarded. The crimes of relevance in this context were only those for which the subjects had been sentenced. This is a poor measure of the true crime rate. All of these data, moreover, are very rough. In such files, admittedly, we can distinguish between different types of crime and numbers of crimes, but the finer distinctions are lost, e.g. cheque forgeries after 1971 may have been for larger amounts, burglaries may have been more unscrupulous, etc. But it must be recognized that it is impossible, in empirical studies, to illustrate all conceivable hypotheses about the crime-switch problem.

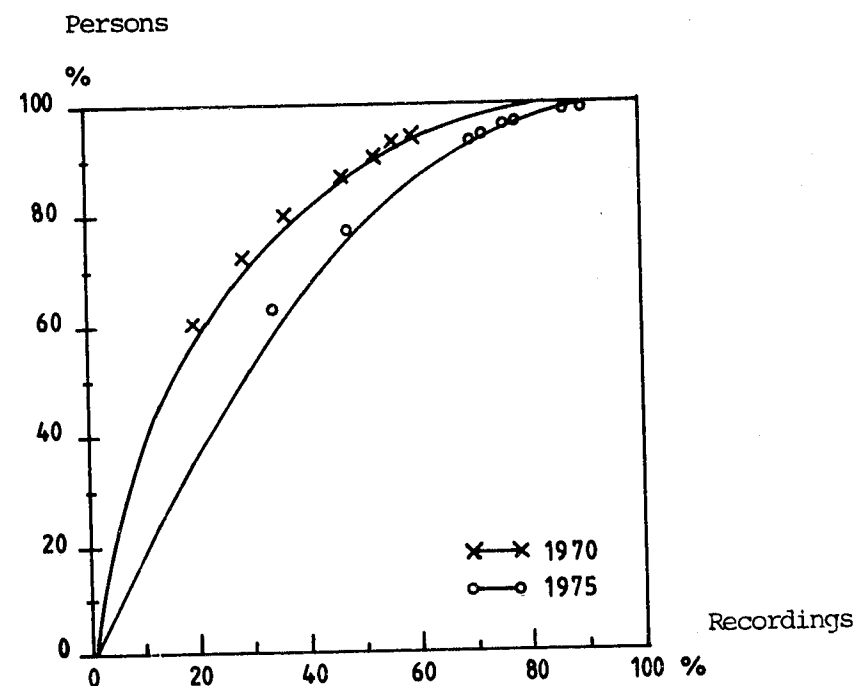
*The studied criminality and its antecedents*

It is of great interest for this study to discover to what extent the cheque forgers constitute a group with a heavy record of crime. This is illustrated in table 2, which shows how often in each year the subjects had been under reasonable suspicion or had been prosecuted for crimes.

Table 2. Number of recordings per individual during a one-year period

Recordings	Cheque forgers		Larceners	
	1970	1975	1970	1975
1	218	145	3 561	4 962
2	44	35	786	946
3	33	29	336	392
4	27	6	169	228
5	15	4	97	134
6	5	2	44	67
7	5	5	40	52
8	3	0	35	42
9	2	2	11	21
At least 10	18	3	72	88
Total, persons	370	231	5 151	6 932
Total, recordings	1 113	446	9 400	12 126

The table indicates that there are great differences in this respect between the four populations studied. The 1 113 suspected cheque forgeries were attributed to 370 persons in 1970, the 446 in 1975 to 231 persons. Thus the number of suspected cases had diminished very much more between the two points in time (60 %) than had the number of persons (38 %). For the larceny crimes the same concentration is not observable during those years. Furthermore, both the number of individuals and the number of crimes increased at roughly the same rate between the two years. The distribution of the number of recordings is shown in the figure below.



Cheque forgers from 1970 and 1975 and the numbers of recordings in the same year

It can be calculated from the figure that approximately 10 % of the cheque forgers from 1970 accounted for about 50 % of the recordings in that year. Five years later the ratio had changed: 20 % of the cheque forgers accounted for half of the recordings. For larceny the situation was roughly the same as for cheque forgers in 1975. Similar concentrations of crime among relatively few individuals have been reported in other criminological studies, one of which of burglars in Stockholm (Persson, 1976).

As regards types of sentence during the period, i.e. six months prior and six months subsequent to the date of recording of the crimes, it is found that

the 1970 cheque forgers more often suffered deprivation of liberty than those in 1975. The trend was, however, similar for the larceny cases (table 3). This suggests a change of sanctions between 1970 and 1975.

Table 3. Most severe sanctions during the period (%)

Most severe sanction	Cheque forgers		Larceners	
	1970	1975	1970	1975
Internment, youth prison, closed psych. care	20	15	13	6
Imprisonment	47	30	47	41
Probation	24	40	25	32
Conditional sentence <sup>1)</sup>	9	15	15	21
Total	100	100	100	100
	(293)	(152)	(180)	(127)

1) Incl. conditional conversion to fine, open psychiatric care and waiver of prosecution in certain cases

We have also examined to what extent these four groups differ in number of earlier records of crime (largely sentences). As table 4 shows, the cheque forgers have a heavier record than the larceners, and the 1975 forgers heavier than those in 1970. This indicates that a relatively simple opportunity structure as in 1970 attracts criminals with a milder record.

Table 4. Earlier records of crime

Earlier record	Cheque forgers		Larceners		F	P
	1970	1975	1970	1975		
Earlier record of serious crimes 3 years previously	1.22	1.36	0.93	0.94	3.96	0.008
All earlier records 3 years previously	1.88	1.98	1.74	1.73	0.46	0.710
Earlier record of serious crimes	3.92	5.27	2.82	2.79	8.30	0.000
All earlier records	4.75	6.70	3.83	4.48	8.09	0.000

As regards the proportion of persons with earlier record of crime, the cheque forgers also have the heaviest record:

Record of crime	Cheque forgers		Larceners	
	1970	1975	1970	1975
Percentage with crime record before the observation period	78	78	69	68

The cheque forgers are, on average, rather over 30 years of age, thus two years older than the larceners. There are also fewer aliens among them, and the proportion of women is rather greater.

Recidivism

About half of all criminals investigated in the four groups relapsed in the year following the period studied (see table below).

Record of crime	Cheque forgers		Larceners	
	1970 n=293	1975 n=152	1970 n=180	1975 n=127
Recidivism after 1 year	54.9	59.5	49.4	53.5
Recidivism after 2 years (%)	71.7	71.7	66.1	66.1
Recidivism after 3 years (%)	77.1	80.3	69.4	70.9

To decide whether the 1970 cheque forgers relapsed to a smaller extent than might normally be expected, their recidivism rate must be viewed in relation to the three comparison groups. But it has already been shown that our four groups had a varying criminal past. The career pattern affects the recidivism structure - quite regardless of whether the opportunities for misuse of cheques had changed or not. This means that our four groups must be divided into subcategories. These subcategories contain individuals with similar careers.

This was done as follows. First we used all the information available about the client up to the end of the year of observation and decided whether it was relevant to recidivism during the observation period or not. The information so acquired was then compiled into different prognostic categories. Finally we decided whether the 1970 cheque forgers in relation to the 1975

cheque forgers and the 1970 and 1975 larceny cases in similar prognostic categories differed in respect of recidivism rate.

The technique used is based on the least squares method. The method itself is called multiple regression analysis. First we examined which of the client's career variables (age, sex, etc, and criminality during the prior period and during the year of observation) were significant for explaining the variation in recidivism during a three-year period. There were altogether 16 variables which yielded a statistically significant contribution. Together they explained 38 % of the variation in the recidivism rate. It is squared multiple regression coefficient ( $R^2$ ) that informs about the explained proportion of the variance in the recidivism rate. The relative significance of each of the background variables in this prognosis is found also in the form of so-called beta coefficients. If each of these relevant variables (after standardization to variable with the mean value 0 and standard deviation 1) is then multiplied by the respective weight (i.e. the beta coefficient) and these products are added together, each of the individuals acquires a prognostic score. Individuals with low prognostic score have a low recidivism risk and those with high a high risk.

The disadvantage of the method is that the random variation of the variables becomes systematically utilized to make the prognosis more effective. To avoid this source of error, which in the worst case may lead to a vicious circle in our analysis, we have divided the material into two random subgroups (odd and even last digits in randomly allotted registration numbers). For each of these two populations we have calculated the beta coefficients. The variables of the odd population have then been weighted with the beta coefficients found

in the analysis of the even population, and vice versa. In this way the risks of a vicious circle have been eliminated and the explanatory power (the squared correlation coefficient between the prognostic score and the recidivism rate -  $r^2$ ) has fallen to a realistic level. This procedure is called cross-validation.

The results of this analysis are shown in the table below. In the first column are the results of the multiple regression analyses, first for all individuals and then for the odd and the even groups. The explanatory power varies between 37.5 and 41.7 %. In the second column the concrete prognostic scores are correlated to the number of relapses into crime during a three-year period. The scores have been calculated for the odd on the basis of the even weights, and vice versa. The explanatory power varies between 28.8. and 33.1 %.

Populations	Non-validated $R^2$	Cross-validated $r^2$
All (n=752)	0.375	0.298
Odd (n=368)	0.417	0.331
Even (n=384)	0.376	0.288

We then formed four categories, one containing all law-breakers with a good prognosis, one with medium-good, one with medium-poor, and one with poor prognosis. This categorization was based on the prognostic scores obtained after the cross-validation.

This procedure has thus provided a means to discover to what extent the 1970 cheque forgers relapse into crime more often than the other three groups, taking the prognosis into consideration. Such systematic

differences in recidivism we found in only one category, namely criminals with the worst prognosis. The analysis showed that the 1970 cheque forgers had a lower recidivism rate in the three years after the observation period than the other three categories.

	Cheque forgers		Larceners	
	1970	1975	1970	1975
Number of relapses	3.08	4.23	4.46	4.43
n	53	30	52	33
F = 2.94      P = 0.03				

The thesis that blocking of the opportunities for cheque forgery had no effect on the total criminality rate thus does not hold for the law-breakers with high rate of criminality. A certain decline in the level of crime in that category was noticeable. But there is all reason to be cautious in drawing these conclusions. The data available to us are very rough mechanisms may have had effect which are concealed behind the available data. The 1970 cheque forgers, for example, may have compensated themselves for their diminished crime rate by stealing things of greater value.

Viewed as a whole, however, it may be recognized that no data indicate an escalation of criminality through the crime prevention measures, either quantitatively or qualitatively. The trend we have found points in the other direction - there was some reduction among criminals with a heavy record of crime.

These results accord largely with the time series

analyses in the introductory section of criminality reported to the police.

Crime-switch

To study the crime-switch effects we first investigated to what extent the four groups had been sentenced for different types of crime prior to the present crime. As appears from table 5, the cheque forgers had been sentenced for larceny to the same extent as the larceners.

Table 5. Proportion of law-breakers having committed crimes of larceny prior to the present crime (%)

Crimes of larceny <sup>1</sup> during the prior period	Cheque forgers		Larceners	
	1970 n=293	1975 n=152	1970 n=180	1975 n=127
Theft	50	60	49	47
Grand theft	49	51	51	47
Other thefts and larcenies	38	51	36	42
Larceny of means of transport	23	26	26	30
With at least one of these crimes	70	73	73	71

<sup>1</sup> Excluding robbery

On the other hand the cheque forgers had been sentenced for fraud considerably more often than the larceners (table 6).

Table 6. Proportion of law-breakers having committed crimes of fraud prior to the present crime (%)

Crimes of fraud during the prior period	Cheque forgers		Larceners	
	1970 n=293	1975 n=152	1970 n=180	1975 n=127
Receiving	40	41	34	32
Fraud, forgery	71	71	30	29
Forgery	28	32	8	8
Embezzlement, debtor offences	26	28	14	14
With at least one of these crimes	76	74	48	44

Bearing in mind that cheque forgers are a group with a heavy record of crime, the cheque forgeries during the period must be seen as additional criminality which flourished when it was easy to cash forged cheques. The forgers were engaged in different types of fraud. When an illegitimate market with stolen cheques arose, they added cheque forgeries to their criminal activity.

During the prior period about one-quarter to one-third of the individuals in the four groups had committed crimes of violence (table 7). It will be seen from the table that this type of prior crime occurred mostly among those sentenced in 1975, in the case both of cheque forgers and larceners. This is because their exposure time for prior crime was longest, since

the differences disappear when one takes a two-year exposure time for all groups.

Table 7. Proportion of law-breakers having committed crimes of violence prior to the present crime (%)

Crimes of violence <sup>1</sup> during the prior period	Cheque forgers		Larceners	
	1970 n=293	1975 n=152	1970 n=180	1975 n=127
Robbery, aggravated robbery	5	7	3	6
Murder, manslaughter, assault and battery, homicide	16	29	21	24
Other crimes against persons	10	16	13	14
With at least one of these crimes	24	34	29	28

<sup>1</sup> Incl. robbery

As regards the other types of crime it may be stated that the differences between these two types of criminals exist in principle only in respect of drug offences/smuggling of goods when the investigation is based on a two-year period of exposure. This is so both for the 1970 and 1975 cheque forgers, who have been sentenced to a greater extent for such crimes.

Having regard to the assumptions of crime-switch, it is of great interest to study the recidivism structure according to the type of crime. We have done this for a two-year period subsequent to the period of observation.

As already noted, it has been maintained that the cheque forgers may have compensated themselves for the blocking of opportunities for cheque forgeries through different

forms or robbery: bank robberies, robberies from elderly persons, etc. The trend of this type of relapse into crime is shown in table 8. In the first place it may be stated that none of the 1970 cheque forgers appears to have compensated for the loss of income from cheque forgeries by recourse to robbery. During the two-year subsequent period only 8 % of the 1970 cheque forgers committed any prosecuted crime of violence. The corresponding figure for the equally long prior period - the heyday of cheque forgeries - was 10 %.

Table 8. Proportion of law-breakers having committed crimes of violence during a two-year subsequent period (%)

Crimes of violence <sup>1)</sup> during a two-year subsequent period	Cheque forgers		Larceners	
	1970	1975	1970	1975
	n=293	n=152	n=180	n=127
Robbery, aggravated robbery	0	2	1	2
Murder, manslaughter, assault and battery, homicide	5	8	8	9
Other crimes against persons	4	7	4	4
With at least one of these crimes	8	12	11	12

<sup>1</sup>Including robbery

For the 1970 cheque forgers we have been able to study the recidivism structure up to 1979 and found only 4 % cases of recidivism with robbery in their crime panorama. On the other hand the repertoire included many individuals who had committed crimes of fraud and larceny. The cheque forgers did not differ appreciably from the larceners during the subsequent period (table 9).

Table 9. Proportion of law-breakers having committed crimes of larceny during a subsequent two-year period (%)

Crimes of larceny <sup>1</sup> during a subsequent period	Cheque forgers		Larceners	
	1970	1975	1970	1975
	n=293	n=152	n=180	n=127
Theft	21	28	26	24
Grand theft	18	9	24	11
Other thefts and larcenies	11	12	15	13
Larceny of means of transport	9	11	16	13
With at least one of these crimes	35	35	40	35

<sup>1</sup>Excluding robbery

We found the same situation when we studied the other types of crime. This emphasized the already expressed conclusion that the cheque forgeries must be seen as additional criminality on the part of rather older and experienced criminals whose activities were directed against property. It must not be forgotten that the cheques were often acquired through burglary.

We have furthermore made a number of factorial analyses of the crime panorama during the prior, the present and the subsequent period. In all of these cases it was found that crimes of violence and crimes against property formed factors of their own, i.e. it should not be taken for granted that persons who have committed crimes against property compensate

for blocking the opportunity structure by crimes of violence.

Drugs as generator of crime

In view of the relatively high crime of the groups studied we have examined to what extent drug abuse might be one of the explanations. For different reasons, however, we have been able to make this analysis only for the cheque forgers, but both for the 1970 and 1975 populations of cheque forgers.

The data for this analysis were taken from a survey comprising all of the roughly 7 500 persons admitted on some occasion between April 1965 and December 1979 to the Stockholm Central Gaol and exhibiting injection marks. Data concerning this population were collected by Nils Bejerot. They include, among other items, the times of commencement of drug abuse. Bejerot's population probably includes practically all injection drug addicts in Stockholm. For, in the first place, it is only a few injection drug addicts who do not fairly soon land up in the Stockholm Central Gaol on a suspicion of crime, at all events those who acquire drugs by illegal means. In the second place the great majority have been incarcerated more than once and have again exhibited injection marks. This makes it probable that the proportion of wrongly classified persons, i.e. with fresh marks from injection of other substances than drugs, is negligible.

Although only 0.5 % of the Stockholm population at any time belong to the group of injection drug addicts (Ds S 1980:5), we found almost half of both the 1970 and 1975 cheque forgers among Bejerot's population of injection drug addicts. Almost all had commenced drug abuse before or at least during the observation period. These drug addicts accounted for two-thirds of the crime records of the two cheque forgery populations

during a three-year follow-up period. Table 10 shows the relapse into crime for drug addicts and non-addicts (the five individuals who started after the observation period have been counted as non-addicts). Of interest, too, are the differences in recidivism rate. Among the non-addicts 35 % had not relapsed within three years after the observation period. The figure for drug addicts was 6 %. The proportions with more than three records were, respectively, 5 and 33 %. It should be remembered that the recorded crime ratio for drug addicts in comparison with non-addicts is greater in reality.

Table 10. Relapse into crime in the three years subsequent to the observation period

Criminal records during three-year subsequent period	Non-addicts		Drug addicts		Total	
	n	%	n	%	n	%
None	84	35	13	6	97	22
One record	72	30	30	15	102	23
Two records	48	20	45	22	93	21
Three records	23	10	50	24	73	16
Four records	5	2	24	12	29	7
Five records	5	2	22	11	27	6
At least six records	3	1	21	10	24	5
Total	240	100	205	100	445	100

In the first place only those persons are included who were alive at the time of the study in 1979. Drug addicts have a heavy over-mortality and their death risks are directly linked to the intensity of abuse. This would imply that a larger number of drug addicts with the heaviest record of crime than of criminals with a similar record of crime but without drug addiction



had died by 1979. In the second place, the heavier the record of crime, the greater the chance of benefiting by the judicial "rebate" system pursuant to the Code of Judicial Procedure, 20:7, p. 2. For persons undergoing a sanction for crime may have a prosecution waived if a newly discovered crime would not affect their sanction situation. In these cases the crime is struck out of the police register. According to a special study, about half of the detected crimes committed by persons with a heavy record of crime therefore leave no trace in the Register of Persons with Recorded Crimes (Persson, 1980). It is the drug addict population, in particular, which benefits by this type of waiver of prosecutor.

Although we have particulars of the dates both of the first injection and of the first crime, we have not made an investigation of whether "drug abuse leads to criminality" or "criminality leads to drug abuse". In the first place our data are too approximate. The crimes of persons under 15 years of age are not entered in the Register of Persons with Recorded Crimes and, furthermore, the first crime detected by the police is often the visible sign of an iceberg of undetected crimes. It is also manifest that drug abuse does not start with frequent injections but with a more or less lengthy period of abuse of other forms of drug or other methods of intake. Therefore our particulars concerning the start of drug abuse are also too approximate. In the second place, this investigated form of drug abuse is hardly possible unless coupled to criminal activity.

An analysis of drugs as cause of criminality is therefore theoretically fruitful only in social systems in which the trade in drugs is legal, i.e. when drug addiction is not a crime.

Theoretically fruitful, on the other hand, is the question of the extent to which dependence on drugs accelerates the criminal career. Our main conclusion is that drug abuse weighs roughly as heavily in its effects on recidivism as all other factors if earlier criminality is taken as a whole (prognostic score). A comparison of crime rate before and after the commencement of drug injection in relation to normal cases, furthermore, shows that the commencement of drug abuse leads to a more than doubling of the crime rate. This effect, the multiplicator of drug abuse, is in reality greater than two, since the most confirmed drug addicts have already died, have been granted waiver of prosecution, etc. According to studies abroad, with data of distortion tendencies unknown to us, the multiplicator effect for recorded criminality is about three, and considerably greater for the actual criminality (McGlothlin et al., 1979).

Seen as a whole, our analysis of the significance of drug addiction for the more serious cheque forgeries shows that the changes in the trend of forgeries in Stockholm can be largely ascribed to changed activities and conditions among our drug addicts.

We have also compared the crime panorama of the drug addicts and non-addicts over the subsequent two-year period and found the drug addicts to be over-represented in practically every type of crime.

## Concluding comments

There would appear to be no doubt that the counter-measures adopted - the abolishment of the bank guarantee and the introduction of proof of identity - were effective.

The traditional measures adopted by society, namely judicial reactions against persons convicted of cheque forgeries, were not successful in combating this crime despite the relatively high clearance rate. This was never less than 50 %, which may be compared with household burglaries, for which the clearance rate in Stockholm in the seventies was 6 - 8 % (Knutsson, 1980). Where the traditional policy failed, these countermeasures achieved success. The control exercised by the judicial system was supplemented by an inexpensive and effective situational control. The result was that these greatly increasing crimes quickly fell to a low level.

It is important to remember that the measures were taken on the macro level and not, as is customary, on the individual level. They entailed that all users of cheques were affected in order to get to grips with the havoc created by a relatively small group of people. The use of cheques in general diminished and greater care and attention were paid to the cheque market.

It should be remembered that the offenders were highly active criminals, including a large number of drug addicts. They were more or less continuously subjected to measures of various kinds in the interest of justice. Through their high crime level they had placed themselves in a situation of "legal immunity". The detection of new crimes involved no major change

for them, although the sanction for such crimes is fairly severe.

In recent years a similar type of fraud has arisen. Account and credit card frauds have started to grow up in their wake. There are many parallels with the cheque forgeries both as regards the manner of committing the crime and the characteristics of the criminals (Knutsson, 1980 b). The police have initiated discussions with the account and credit card enterprises in order to decide on measures for suppressing this new criminality. The object is that the police wish as far as possible to avoid contact with account and credit card swindlers, i.e. to be spared the trouble of ineffective micro measures of the traditional kind. It remains to see whether regulative action of the type studied can be brought about.

The problem with macro measures, judging from this study, is to be able to implement them and to anchor such restrictions in the population and in the interest groups concerned.

The banks' reason for opposing a better controlled use of cheques was, above all, a financial one. They were prepared to accept the losses arising through cheque forgeries. The cheque system manifestly brought them so much business that this cost was negligible. The fact that the police were overburdened with crime investigations and that the judicial apparatus had extra work imposed upon it through prosecutions of cheque forgers did not worry the banks. The costs for the defects in the cheque system did not fall to their lot but to the public sector, i.e. in the ultimate resort the individual taxpayer. As long as they could, they opposed the police proposals for countermeasures. Only when faced with the threat of legislation did they give up.

The findings from this study do not confirm certain notions in the criminological literature.

According to one notion, which might be called "the lacquey perspective", the police should not have acted in that way: their course should be to avoid conflicts with the privileged and the powerful, to act, rather, as their servants and to direct their action against the weak in the society (Chambliss & Seidman, 1969). In this case, however, the police entered into conflict with one of the most powerful institutions in the society and induced it to alter its practice. The hope of the police was that they would then be spared all too many contacts with the less powerful cheque forgers.

Nor does the course of events accord with a thesis that can be derived from this school of thought - the thesis of the "objective interests". This thesis is that social, established institutions have an interest in maintaining certain types of crime in order to legitimate their existence and/or to make financial gains. It has been thought that the police actually wish for a continuance of such "underdog" crimes in order that they may acquire greater resources and power. This was manifestly not the case in this instance. The true explanation was, rather, that no one wanted to pay the cost of the criminality.

As regards the cost of crime, a point of principle may be considered. Much of the criminality in the modern industrial society may be seen as the result of a growing opportunity structure. A manifest example is thefts from shops. Those who have the command over the structures (chiefly the corporations) naturally prefer, from their narrow economic perspective, that the control of crime should be a matter for the state. But this control is very expensive and, usually, not

particularly effective. Both from a moral point of view and from the taxpayer's - it is he who pays for the formal control - it must be more reasonable to demand that those who command the opportunity structure should shape it so as to prevent crime, e.g. by adopting different kinds of macro measures.

One of the chief arguments in this struggle to avoid paying the costs of crime is - and will continue to be - the thesis of crime-switch effects. The banks, in particular, appeared to be adherents of this thesis. They advanced with great intentness the argument that the cheque forgers would be "forced" to commit other crimes, e.g. bank robberies, if the possibilities of cheque forgery were blocked.

The result shows that the thesis does not hold, at all events for the example with the cheque forgeries. We could not discover that the forgers switched to other, more serious crimes, at all events not robbery. Those with the heaviest record of crime appear, instead, to have diminished their criminal activity. But we do not wish to assert, naturally, that crime switch can never occur in other sectors.

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