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# Introduction

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by

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Criminologists have long been familiar with designing out crime from buildings, but few are familiar with the idea of designing out crime from products, even though it is not a new idea. From at least the end of the 17th century, when the edges of silver coins were milled to stop people from clipping them to make new coins, hundreds of products have been modified at manufacture to make them less readily exploited by criminals. Two criminologists with a long-standing interest in designing out crime from products are Paul Ekblom and Ken Pease, both of whom have produced important reviews (Pease, 2001; Ekblom, 2005) and who helped to make this first book on the topic possible. They each played an important part in two complementary British government initiatives to focus policy attention on the topic: the Home Office "Design against Crime" research and development program, and the Department of Trade and Industry's Foresight Crime Prevention Panel.<sup>1</sup> Four of the six chapters in this volume were prepared under these initiatives, but by the time the reports were complete, government interest in the subject had waned under pressure of more urgent matters, and the reports were not published. The two remaining chapters of the six (by Hardie and Hobbs of IPPR, the Institute

for Public Policy Research, and Laycock and Webb of the Jill Dando Institute of Crime Science, University College London) were prepared by researchers closely in touch with the government work.

This is a lengthy and detailed book, and we have decided to keep the introduction brief by attempting to summarize only the most important conclusions of the book under the seven headings below.

### *1. Products Play an Important Part in Crime*

A wide variety of manufactured products (though only a small proportion of all those produced) promote many different kinds of crime from theft and fraud to robbery, violence and vandalism. In general, products can serve as *tools* for crime or as *targets* for crime. Guns and spray-paint cans are tools (for violence and vandalism, respectively), while cash, cars, jewelry and VCRs are popular targets for theft. The advent of new products, such as laptop computers or ATM machines, can produce mini crime waves, or "crime harvests." Increasingly, electronic products, such as cell phones and credit cards, and the systems on which they depend for their use, are being targeted by thieves and fraudsters. But not just electronic products depend upon associated systems that can be attacked by fraudsters. For example, vehicle license documents and license plates depend on elaborate record-keeping systems for their effectiveness. These systems can be highly vulnerable to crime, as is shown in Chapter 5 on the U.K. vehicle licensing system.

### *2. Modifying Criminogenic Products Can Be Highly Effective*

Relatively few product changes have been evaluated, but some act so directly to reduce crime opportunities that their impact is self-evident. For example, few thieves seeking cash would break into public phones that could only be operated by prepayment cards. In other cases, it would be obvious if changes had not worked. For example, there would have been a media outcry if the widespread introduction of tamper-proof seals had not stemmed further poisonings of the Tylenol variety. In fact, most of the published evaluations of product changes show positive results, sometimes quite spectacular effects. For example, as discussed in the next chapter, U.S. cell phone companies virtually eliminated "cloning," which had cost them more than \$800 million in 1995, by extensive modifications made to their software systems. There was little evidence of displacement

as a result of these modifications because other forms of cell phone fraud showed only modest rises when the cloning epidemic was eliminated. Despite these successes, those seeking to prevent crime through modifying products can expect to be engaged in a perpetual "arms race" with criminals, who will continually seek new product vulnerabilities. However, *not* to do so could leave opportunities wide open as existing means of prevention lose their potency.

### ***3. Most Products Have Been Modified for Commercial Reasons***

Of the many hundreds of products that have been modified at manufacture, most are *business* products modified for commercial reasons. These include: park furniture, bus shelters and railway carriages that have been modified to prevent vandalism; cell phones, cable TV boxes and parking meters that have been modified to prevent theft of service; credit cards and ATMs modified to prevent fraud; shopping carts and gas pumps modified to prevent theft; buses and taxis to prevent robberies of drivers; and banknotes, postage stamps and vehicle license documents to prevent fraud.

### ***4. Manufacturers Have Been Reluctant to Change Products in the Public Interest***

Manufacturers have resisted changing products when they are not directly harmed by the crime. For example, manufacturers have until recently resisted calls for improving the security of cars in order to reduce car thefts. Since vehicle-related thefts comprise a large proportion of all crime, this means that the crime rates of many countries have been much higher for decades than they might have been had manufacturers acted faster.

Manufacturers have been particularly reluctant to act in the public interest when: (1) they profit from the crime (for example, by the sale of replacement items for ones stolen); (2) they are scrambling to develop new products; (3) changes are costly, inconvenient or of unproven value; (4) the crimes are considered trivial and public concern is not high; and, (5) solutions are controversial (as in the case of "safer" handguns). It must also be said that many manufacturers remain unconvinced of the case for product change. Like the rest of the public, many of them believe that the best way to deal with crime is to beef-up enforcement and punishment, a view consistently reinforced by the rhetoric of politicians appealing to the popular vote. This makes it easy for businesses to argue (even when

not cynically pursuing their own interests) that it is not their products and practices that need to be changed, but the police and the criminal justice system. This means that if product change is to become an established part of government crime control policy, businesses (and people in general) need to be educated about the limited capacity of the criminal justice system to deal with crime. They need also to accept some responsibility for controlling crime as is discussed in Chapter 2.

### ***5. Design Professionals Have an Unexploited Role in Product Change***

With some notable exceptions, such as the work done by Lorraine Gamman and her colleagues at the London Central St Martins College of Art and Design on *Karrysafe* bags and *ThiefProof chairs* ([www.designagainstcrime.com](http://www.designagainstcrime.com)), designers have shown little interest in designing out crime from products. This may be because they too believe that the solution to crime lies in a more effective criminal justice system. However, Chapters 3 and 4 in this volume (by Simon Learmount and by Rachel Cooper and her colleagues) suggest that designers may be open to greater involvement in design against crime, if given a lead by their professional associations and provided with appropriate design models to follow.

### ***6. Governments Have Rarely Taken the Initiative in Promoting Product Change***

To date, governments have taken a largely reactive role in product change, designed to solve specific problems connected with particular classes of products, rather than to develop a longer-term policy position. For example, in the wake of the 1982 Tylenol poisonings in Chicago, the U.S. government acted quickly to mandate standards for tamper-proof packaging. In many cases, governments have been pressed to act by the media, the police, and a variety of pressure groups, which have sometimes been motivated by crusading politicians and even researchers. In the United Kingdom, governments have generally sought to achieve change through behind-the-scenes discussions with industry, but in recent years they have shown more inclination to stir up the media and the public. For example, as mentioned in Chapter 1, a few years ago the government used the media to pressure phone companies to disable stolen cell phones in order to reduce muggings. In the United States, governments have shown greater

willingness to force change through legislation and, very recently, even through litigation (more than 30 city and county governments have sued the gun industry to recover the costs of dealing with gun violence). Governments everywhere have been reluctant to offer subsidies or tax exemptions to manufacturers who make changes, or to tax or fine those who do not.

***7. Governments Must Develop Research and Development Capacities in Order to Take a More Active Role in Modifying Criminogenic Products***

There is a clear case for governments becoming more proactive in regard to product change. They should seek to predict and prevent "crime harvests" resulting from the introduction of new products and should find ways to exploit the crime prevention potential of biometric recognition, source tagging, smart cards and a host of other new technologies. However, governments will face many difficulties in becoming more proactive, including the reluctance of business and industry to accept their roles in causing (and preventing) crime, pressures to avoid business regulation, difficulties of obtaining proprietary information needed to make the case for product change, difficulties of obtaining international cooperation in changing products, and difficulties of limiting information about their criminal misuse in the age of the Internet. Greater than any of these difficulties, however, is the size and complexity of the undertaking resulting from the variety of industries and businesses involved, the sheer number of criminogenic products, the bewildering speed of their development, their technical nature and the complexity of the information and service-delivery systems of which many are a part. To overcome these difficulties governments must develop research and development capacities focused on designing out crime from products. It is worth remembering that all these difficulties have been sufficiently overcome in the field of product safety to make a significant difference to people's lives.

In summary, certain products increase crime by serving as tools or as attractive targets, and sometimes their introduction can cause small crime waves. Modifying products can reduce and even eliminate specific categories of crime. Manufacturers have sometimes been reluctant to act in the public interest when they are not commercially harmed by the crime. Governments therefore have the right, if not the responsibility, to take a more active role in modifying criminogenic products. In order to do this

effectively they must establish small research and development capacities to promote product change and work cooperatively with business.



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## NOTES

'The Foresight Crime Prevention Panel was charged by the government with looking "up to 20 years ahead, at how new technology might impact upon crime and crime prevention. As part of this it sought to consider the social changes which might occur, and how these might influence both crime and the use of technology" (Davis & Pease, 2000, p. 59).

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