

# The Crime Drop and the Security Hypothesis

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*It is pretty embarrassing* to criminology as a profession that nobody has come close to explaining the huge drops in crime experienced in industrialised countries in the last decade or so. There have been some fascinating attempts and much imaginative scholarship (since at least the set of studies in Blumstein and Wallman, 2000), but ultimately nothing convincing. One thinks of the insight and analytic skill underpinning work to date, such as Donahue and Levitt's (2001) hypothesis that legalised abortion reduced the number of high-risk offenders in the US a generation later. But, due to the wide international variation in abortion law it simply cannot be true more generally, as Zimring (2007) points out. Likewise, incarceration and sentencing may have some initial plausibility in the US context, but do not hold water elsewhere due to enormous cross-national variation in prison populations and punitiveness (however measured). And so it is across the board of explanations, from police tactics and strength, through demographic change, gun control, and illicit drug markets, to the quirkiest suggestions such as increased creationism/religiosity or 'cultural change' (which, without evidence or specific mechanism of change are sufficiently vague as to be meaningless). We examine previous work elsewhere (Farrell et al., 2008) and will not rehearse it here. But we recognise that this body of work was frequently pioneering and that any work we are able to develop stands *on the shoulders of giants*.

In short, however, the overall effect of the many absorbing efforts to explain the crime drop has been that they tend to cancel each other out. The result is criminology's dirty little secret: we do not really know what happened. Yet it is important to find out what the major mechanisms of change have been, in the interests of harnessing, maintaining or replicating them for the betterment of society.

Our main source of theoretical inspiration for what follows is the perspectives of environmental criminology, situational crime prevention and rational choice (one thinks of the work of Ron Clark, Ken Pease, Gloria Laycock, the Brantinghams, *et al.*) plus routine activity theory (led by Marcus Felson). A crime-specific approach underpins most of this work. It is well established that there are different motivations and opportunities for different crime types. Surely then, any explanations for crime drops must also be sought by examining specific crime types (or sub-types since legal categories are often behaviourally amorphous)? It was with this assumption that we began our research.

## The security hypothesis

Simply put, our hypothesis is that *change in the level and quality of security has been a key driving force behind the crime drop*. But do not be fooled. Thus formulated it is a deceptively simple hypothesis that belies the set of more specific interlocking and interacting hypotheses relating to particular crime types and routine activities, some of which are outlined below. At the outset we acknowledge that the security hypothesis draws on suggestions in the work of Jan van Dijk, Marcus Felson, Ron Clarke and Graeme Newman, and probably others as well. Our main aim is to lay a preliminary empirical foundation and set of hypotheses for further exploration.

Consequently we hereby open up our ongoing work to criticism and falsification, but this is part of the thrill of the honest research chase. We acknowledge that the work in the present note is preliminary.

Just as analysis needs to be crime-specific, so it needs to be context specific. For England and Wales we are fortunate in having one of the best national crime datasets, the British Crime Survey (BCS). As a research team, once we had, with kind assistance from John van Kesteren, replicated some cross-national trends from the International Crime Victims Survey (and, to cut a long story short, the crime drop varies quite widely by country and crime-type), the BCS was a natural starting point for country-level crime-specific analysis. We identified car theft because it was an area where previous work, particularly that by Rick Brown and Barry Webb, had laid a foundation. So we took the path of least resistance and elected for the best data and the 'easiest' crime-type and propose to work outwards from there. This is what we have found so far.

## **Car theft**

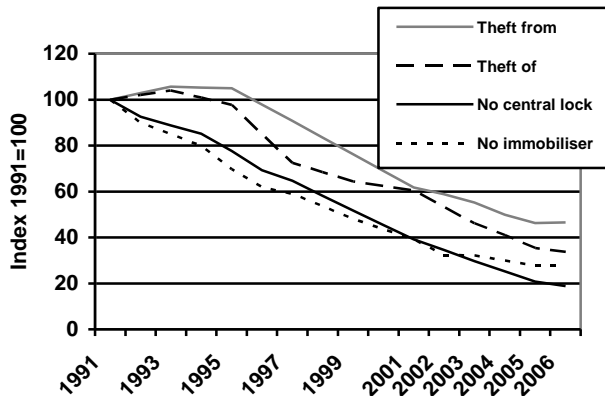
The proportion of cars in England and Wales *without* immobilisers fell from 77% to 22% between 1991 and 2006, and those without central locking from 60% to 12%. The number of stolen cars fell around two-thirds from half a million to around 175,000 per year and theft from vehicles from 2.4 to 1.1 million (Figure 1). These declines are robust whether BCS or recorded crime is examined. The correlation is imperfect but may well improve when only electronic immobilisers are considered. But still, of course, any simple correlation between crime and security does not establish causation. Triangulation from other indicators was therefore required.

The bulk of the decline in car thefts was accounted for by a decline in the forcing of door locks. Other entry methods declined but to a lesser extent with no evidence of tactical displacement to use of keys (Figure 2). This is consistent with central locking as the cause of the decline because better locks would reduce door-forcing more than window-breaking. The obvious question is whether it was the cars with the security that were less prone, and we hope to undertake this further step of analysis.

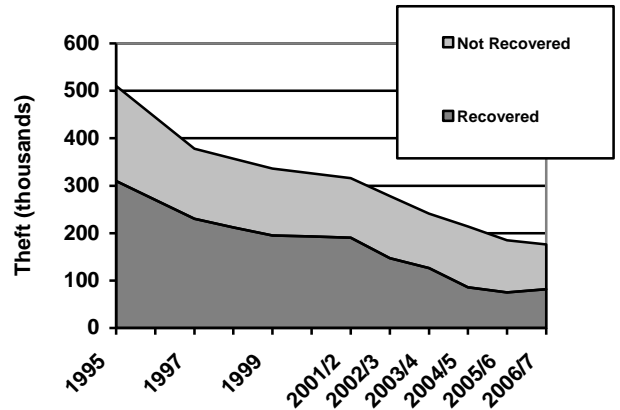
Temporary theft, after which vehicles are recovered, accounted for two thirds of the observed crime drop (Figure 3). That is, the decline was disproportionately in joyriding and theft for transportation such as taking a car to get home at night, which declined by three-quarters. This is because more opportunistic and amateur car thieves were driven out of the market by better locks and immobilisers.

Permanent theft, presumably for parts or re-sale, also experienced a decline of over 50%. This is remarkable and not to be sniffed at. It suggests that even so-called professional car thieves can be stopped by designing-out crime efforts. Rick Brown (Brown and Thomas, 2003, Brown, 2004; see also Webb, 2005) developed this indicator of the differential effect of security upon car theft and also suggested that there has been a shift towards the theft of older vehicles. This is what would be expected if, due to better security on new cars, offending is reduced overall and that which remains shifts to older less valuable vehicles.

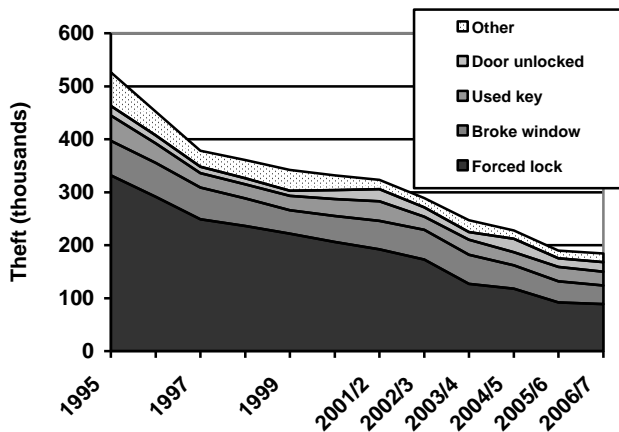
**Figure 1. Car insecurity and car crime trends (BCS, England and Wales)**



**Figure 3. Temporary/permanent car theft (BCS, England and Wales)**



**Figure 2. Entry method for car theft (BCS, England and Wales)**



For attempted car thefts, lock-forcing decreased at the same time that window-breaking and other entry methods increased. This is consistent with stronger locks causing a shift to other entry methods, with completion of the endeavour then thwarted by an immobiliser (Table 1). Only four indicators have been presented here (perhaps more depending on how they are counted). But each has a signature consistent with the security hypothesis.

There are, of course, many other issues to consider and much more analysis to undertake to pin the security hypothesis down even just for car theft in England and Wales. But triangulation is an excellent evaluation tool. Analysis of car theft in Australia, where immobilisers were mandated later than in England and Wales, shows the drop in Australian car theft also occurred later and produced a similarly more dramatic reduction in temporary theft (Kriven and Ziersch, 2007). This looks like confirmatory evidence of the external validity (to the extent that term is appropriate here) of a car security hypothesis. Data for other countries may settle the issue unequivocally. Multiple replications would put the issue beyond reasonable doubt.

**Table 1. BCS Trend in method of entry for attempted car theft**

	1995	1997	1999	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07
% Forced lock	76	80	68	61	66	61	67	64	61
% Broke window	10	12	18	27	21	22	22	25	26
% Other	8	5	11	4	9	14	8	7	6
% Door unlocked	2	2	2	6	3	3	2	4	5
% Used key	4	1	1	2	1	1	1	0	1
% Window open	0	0	0	0	0	0	0	0	0
<b>Total</b>	100	100	100	100	100	100	100	100	100

Note: Where columns do not sum to 100 this is due to rounding

### Other crime types and the ‘Debut Crime’, ‘Keystone Crime’ and ‘Prosperity’ hypotheses

The BCS can be similarly used to determine whether the drop in domestic burglary coincides with an increase in household security. If two key volume crimes, car crime and domestic burglary, are explained by security, then what of other crime types? One conjecture is that the mechanism of change is rather different. Burglary and car crime are debut crimes (Svensson, 2002) that novices commit as a low rung on the offending ladder. If they are more difficult to commit then perhaps novices do not progress to other crime types. We term this the *debut crime hypothesis*. Measures of the prevalence and frequency of offending would be appropriate to develop relevant indicators.

A further conjecture relates to the role of car crime in particular as a facilitator of other crime types. Stolen cars make offenders more mobile, are used in burglaries and to transport stolen goods. Offenders without cars are far more limited in geographical scope. Likewise, when offenders cannot commit burglary they do not go to fences, do not have cash to buy drugs, and do not interact with other offenders to the same extent in other contexts. Hence car crime and burglary may be ‘keystone’ crimes which facilitate and encourage other crime types. Their prevention may have a knock-on effect to other crime types. We term this the *keystone crime hypothesis*.

It also seems reasonable to expect that economic development will increase the supply both of frequently stolen goods and of security devices to protect them from theft. Security thrives with economic growth. Many security aids begin by being luxury items but, as with most products, eventually become cheaper and hence more widely used. At the same time the availability of frequently stolen goods reflects national variations in purchasing power. For example, countries with lower rates of car ownership will have fewer targets for car theft, but also a lower take-up of immobilisers in new cars. Moreover, economic development alters everyday life in ways that influence exposure to crime risks, for example through visits to shops, car parks and entertainment venues. Likewise, aggregate crime drops will mask rises in some crime sub-types such as mobile phone theft, though this would also be consistent with opportunity theory. Hence we anticipate that economic variables may influence crime rates indirectly via security and target availability, and term this the *prosperity hypothesis*.

This is a brief summary of the type of hypotheses we intend to investigate further, but you get the idea. There is potentially much more to understanding widespread falls in crime than a simple security hypothesis, or its slight elaboration here. Lifestyle and routine activity changes, plus perceptions, may have a larger explanatory role in relation to other crime types. The rise of the Internet has roughly

coincided with the declines in crimes that get measured in traditional victimisation surveys, and took place sooner in the US. Coincidence? Perhaps the huge criminal opportunities presented by the Internet sucked some offenders away from traditional street crimes into online offending that is less routinely or easily recorded. Likewise, we need to explore the role of perceptions. Did new forensic techniques, widely promoted in the media, generate significant uncertainty and hence honesty among offenders, even if actual risk increased only marginally? There are almost certainly many other lifestyle, routine and perception changes, as Marcus Felson (1998) noted a decade ago, although the baton does not appear to have been taken up.

### **Endnote**

We have tried to set out the security hypothesis, some preliminary analysis, next steps and additional hypotheses. There is much work to do. But we are happy to present our hypothesis and preliminary findings because we hope it inspires others to empirical examination and efforts at falsification using other data, crime types, and settings. There is unlikely ever to be consensus on the crime drop and its causes, but the security hypothesis warrants serious consideration. And we recognise that the security hypothesis stands on the shoulders of giants. It would not have been realised without the work of many previous authors examining different policy areas and factors. But even the test of the security hypothesis for England and Wales for car theft is important because, if the evidence supports it unequivocally, then by a process of elimination it tends to rule out alternative explanations.

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