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Original Article

# Explaining and sustaining the crime drop: Clarifying the role of opportunity-related theories

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**Abstract** Western industrialised countries experienced major reductions in crime for a decade from the early to mid-1990s. The absence of adequate explanation identifies a failing of criminological theory and empirical study. More importantly, it means that none of the forces that reduced crime can confidently be harnessed for policy purposes. Existing hypotheses relating to the crime drops are reviewed and found generally wanting. Many do not stand up to empirical testing. Others do not seem able to explain crime increases (such as phone theft and robbery and internet-related crimes) that occurred alongside the crime drops. It is suggested that the set of opportunity-related theories, or the criminologies of everyday life, present a more promising line of research. The 'security hypothesis' is discussed wherein changes in the level and quality of security may have been a key driving force behind the crime drop, and an agenda of crime-specific research is proposed.

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**Keywords:** crime fall; crime drop; crime reduction; security hypothesis; situational crime prevention

## Introduction

Conspicuous by its absence in western criminology is a literature on why crime rates have fallen continuously in some countries and intermittently in others since the early to mid-1990s. (Tonry, 2005)

The question *Why have crime rates dropped in most developed countries for the best part of a decade?* is one of childlike simplicity but arguably the biggest unsolved puzzle of modern-day criminology. It is embarrassing to criminology that there is no adequate answer, and it implies a fundamental failing of theory and empirical study. In turn it means that none of the forces that reduced crime can be harnessed, or developed into lessons, for policy.

In what follows, a review of previous explanations for the crime drops is presented. Following a brief discussion of the breadth and depth of the crime drops, the various explanations that have been proposed are examined. Those hypotheses which have been subject to empirical study do not tend to provide convincing explanations. However, a range of hypotheses remain to be explored. It is proposed that, among these, the security hypothesis warrants serious consideration and could be approached via a crime-specific problem-solving approach. The security hypothesis proposes that changes in the quality and quantity of security have played an important role in the crime drop. This study concludes with a discussion of the need for further research.

## Background and Previous Studies of the Crime Drop

Until the 1990s, ever-increasing crime rates were the accepted norm for the post-World War II (WWII) period. Routine activity theory (Cohen and Felson, 1979; Felson, 2002) arose in the wake of exasperation at the failure of theory to adequately explain the dramatic post-WWII rise in crime in developed countries (Gurr *et al*, 1977; Eisner, 2001). Indeed, previous theories (Elias, 1978[1939]) largely suggested that, as socio-economic conditions improved, crime rates would fall. Routine activity theory provided a framework for understanding crime increases as the result of socio-economic, political, environmental and technological progress. The specific mechanism of change was the number and nature of interactions of suitable targets and potential offenders in contexts with varying degrees of capable guardianship. Progress brought more diverse and increasingly valuable goods to steal. Theories of target suitability were implicit to Cohen and Felson's VIVA hypothesis (Value, Inertia, Visibility, Accessibility) and Clarke's (1999) CRAVED hypothesis in which frequently stolen products are those which are Concealable, Removable, Available, Valuable, Enjoyable and Disposable (where disposable means easily re-sold). Vastly improved transportation, particularly the automobile, brought

greater mobility, with potential targets and/or offenders moving along paths to nodes. Environmental criminology, particularly Brantingham and Brantingham's (1993) crime pattern theory explain the geographical distribution of crime due to interactions in, between and at the edges of residential and commercial areas, schools and entertainment centres, transportation, business (and other) nodes. While offenders still tend not to travel particularly far, travel-to-crime distances can vary and change: One prominent study found them to be 2–3 miles for burglary and taking cars, and that the distances increased steadily across the post-WWII decades (Wiles and Costello, 2000). Hence we begin this study by noting that, while this set of opportunity-related theories, or criminologies of everyday life have been prominent in explaining post-war crime increases and crime patterns, they have received relatively short shrift in relation to drops in crime that emerged in the 1990s, though honourable exceptions are noted below.

The last decade has seen the most major drops in crime ever witnessed in industrialised nations, whether measured by recorded crimes or victimisation surveys (Lamon, 2002; Barclay and Tavares, 2003; Tonry and Farrington, 2005; Van Dijk, 2006a, b; Walker *et al*, 2006). The most comprehensive set of cross-national analyses of crime trends covering the period 1980–1999 was compiled by Tonry and Farrington (2005). Their edited volume included primarily descriptive analyses relating to England and Wales, Scotland, the United States, the Netherlands, Switzerland, Canada and Australia. The work establishes the existence of the crime drop in different countries.

The crime drop in the United States preceded that in the United Kingdom and elsewhere and has prompted the bulk of research. Langan and Farrington (1998) examined the different trajectories for crime in the United States and England and Wales from 1981 to 1996, but their work preceded the long-term decline in crime levels in England and Wales specifically, and in industrial societies more generally. Langan and Farrington refer to the higher risks of criminal punishment in the United States compared to England and Wales as a key factor in explaining the different crime patterns in the period they cover. Blumstein and Wallman (2000) produced a landmark collection of US studies focusing on the drop in violence, now in its second edition (2006). To cut a long story short, their edited volume, while immensely stimulating and innovative, offered relatively little by way of convincing explanations even for the United States. In particular, the most lauded hypotheses – demographic change reducing the population of offenders, increased prison populations, changes in police numbers and strategies, and changes in the cocaine drug market – proved partial at best. Levitt (2004) summarised the existing literature on the causes of the US crime drop and concluded that four factors were important. These were the increased number of police, the prison population, the decline of crack markets and legalised abortion. As US-specific explanations, however, these explanations do not appear to have external validity.<sup>1</sup> That is, they

appear far less applicable to the crime falls experienced in other industrialised countries. This general concern is captured well by Van Dijk *et al*'s (2005) critique of the imprisonment hypothesis:

Prison populations have since the early nineties gone up in many EU countries but not consistently so. Between 1995 and 2000 rates went down, for example, in Sweden, France, Poland and Finland (European Sourcebook, 2003). Sentencing policies in Europe as a whole are considerably less punitive than in the USA (Farrington, Langlan Tonry, 2004) and yet crime is falling just as steeply in Europe as it is in the USA. No relationship between the severity of sentencing of countries and trends in national levels of crime is therefore in evidence. (Van Dijk *et al*, 2005, p. 23)

More recently, Quimet (2004) examined the drop in crime in Canada. He speculated that the explanations were demographic change, improved employment opportunities and 'changes in collective values', although the latter of these seems rather vague in terms of its explanatory mechanism. The following section discusses other hypotheses and empirical tests. The reader should note that, although the evidence suggests most of these hypotheses do not provide adequate explanations of the crime drop, the present authors acknowledge the tremendous contribution of this pioneering, often imaginative and creative, set of studies. We hope our present work appears as constructive criticism that builds on the shoulders of giants, and we know full well that other researchers will follow who are likely to question our own work in a similar fashion. That is, we acknowledge the incremental nature of research progress and the fact that the best we can hope for is to be criticised and superseded because the alternative – that nobody pays any attention – is far less attractive.

## Hypothesis Testing

There are a range of possible explanations for the crime drop. Here we group them into the following categories:

- (a) Partially tested hypotheses. These are hypotheses that have been tested to a degree, usually with data for the United States. Some of them, such as increased use of imprisonment and the legalisation of abortion, may appear to provide part of the explanation in the US context but have little external validity when applied to other countries.
- (b) Partly developed or tentative hypotheses that remain largely untested, particularly those relating to changed lifestyles and routine activities, as well as increased security.
- (c) Additional hypotheses that, to our knowledge, have not been previously proposed and which may warrant testing.

We can only hope to cover most of the hypotheses briefly here, and readers are referred to the original sources for more definitive statements. We are also conscious of the fact that, despite our opening quote suggesting a paucity of research in this area, there are other scholars working in parallel on the issue and that it is addressed in a diverse literature. Hence if we have omitted any key hypotheses or studies we offer our apologies and would enjoy hearing from scholars who have developed work in this area.

## **(1) Partially tested hypotheses**

### *1. Demographic change*

This hypothesis proposed that reductions in the offending and/or target populations have resulted in less crime being committed overall. There was little conclusive evidence that demographic change could explain the change in the overall rate of violence (Blumstein, 2000) or the homicide rate (Fox, 2000) (see also Levitt, 2004).

### *2. Prison populations*

Has increased incarceration, particularly of prolific offenders, had a disproportionate impact upon the crime rate? Have larger prison populations and longer sentences reduced crime? Langan and Farrington (1998) and Levitt (2004) suggested that imprisonment may be a factor. However, Spelman (2000) concluded that only a relatively small fraction of the drop in US violence could be attributed to increased imprisonment. Apparent substantial differences in cross-national punitiveness and imprisonment rates cast further doubt on the validity of this hypothesis.

### *3. Policing strategies*

This hypothesis proposes that innovations such as ‘zero tolerance’ policing and Compstat (information and analysis-driven policing combined with highly motivating management styles), targeting key areas and types of crime and disorder, have had a significant impact on crime. Eck and Maguire (2000) found little support for a range of potential explanations that together form this hypothesis.

### *4. More police*

Hiring more police officers arguably reduces future crime rates (Marvell and Moody, 1996). Levitt (2004) suggests more policing is a likely source of the US crime drop but, as such, it seems unlikely to prove a key explanatory variable outside of the US context.

### *5. Gun control and concealed weapons laws*

Declining homicide rates have been attributed to gun control interventions, such as buy-back programmes, and laws allowing carrying concealed

weapons. Evidence about the former link is inconclusive (Rosenfeld, 1996; Levitt, 2004) while the latter has even been found to increase robbery (Ayres and Donohue, 2003). These hypotheses are also limited to US homicide rates and so would not seem applicable for understanding more widespread cross-national crime drops.

### 6. *Changing drug markets*

It has been proposed that reductions in street drug markets, a shift to indoor markets and decline in use of some drugs have led to reductions in related crimes. Levitt (2004) concludes that the receding crack epidemic is responsible for part of the declines in homicides and violence in the United States but, as he admits, the evidence is limited. Johnson *et al* (2000) were unable to attribute significant changes in the crime rates to changing drug markets.

### 7. *Increased abortion*

This hypothesis proposes that, after the legalisation of abortion in the United States in 1973, there were fewer males born in the groups most at risk of offending as teenagers (the peak offending years for many crimes) in the 1990s. Initial research by Donohue and Levitt (2001) (see also Levitt, 2004, Levitt and Dubner, 2005) suggested this was a strong explanatory factor. However, the hypothesis is unlikely to explain crime drops in other countries, because the legislative change was particular to the United States. The lack of transferability of the hypothesis was addressed by Zimring who compared crime and abortion rates in Australia, Canada, France, Ireland, Italy, Spain, Sweden and the United Kingdom to those in the United States. He finds distinctly dissimilar patterns in different countries, offering no evidence that the abortion hypothesis is more widely applicable (Zimring, 2007, particularly Appendix 1, pp. 211–221).<sup>2</sup>

### 8. *Stronger economies*

Economic growth and its impact upon unemployment and other factors has been proposed as a key explanatory variable. However, other than via employment rates that could influence the demand for offences by some offenders, the general term 'economic growth' would need unpacking to identify specific mechanisms by which specific crime types would be reduced. For example, Field's classic (1990) study showed that economic prosperity impacted upon personal and property crimes in different directions, with personal crime increasing and property crime decreasing during short-run cyclical upturns in the economy. Other econometric analyses have explored the connection using variables relating to the criminal justice system, such as detection rates and sentence severity, linked to the economy via consumption and unemployment levels (see, for example, Pyle and Deadman 1994; Hale, 1998; Osborn, 2000; Pudney *et al*, 2001). These studies have not yet offered a compelling

explanation of the crime falls although this could be owing to their timing – they seemed to be conducted before crime decreases that persisted beyond the economic cycle. Hale (1998), using UK data, contended that increased unemployment is related to short-run property crime increases, while rising consumption is linked to longer-run property crime increases but short-run decreases. In the United States, no strong direct connection between the economy and crime seems to have been found although an indirect one – occurring via increased spending on criminal justice – has been proposed (for an overview, see Levitt, 2004).

### *9. Lead exposure*

Wolpaw Reyes (2007) concluded that 59 per cent of the 1990s' drop of violent crime in the United States was due to reductions in childhood lead exposure since the late 1970s when lead was removed from gasoline following the introduction of the Clean Air Act. The reasoning behind this is that childhood lead exposure is linked to behavioural traits such as aggression and impulsivity, which are in their turn related to criminality. The hypothesis was tested via panel data regression, controlling for competing explanations of the crime drop such as abortion and concealed weapons laws, unemployment and poverty. Unless all industrialised countries introduced unleaded petrol at about the same time, childhood lead exposure seems limited to explaining US violent crime trends. Car ownership and age, urbanisation and population density are also likely to moderate the lead exposure effect cross-nationally. Although not claiming expertise in this field, an intuitive reaction is that anything that explained such a massive change in violent behaviour would almost certainly have manifest itself in many other ways in society. It also does not appear sufficiently nuanced to explain falls in property crime or instances (such as theft and robbery of phone handsets) in which crime has increased.

## **(2) Untested hypotheses**

### *10. Increasing levels of security*

Van Dijk (2006b) and Clarke and Newman (2006) have proposed that an increased level of security is the common factor in industrial societies that is likely to explain their common downward crime trajectories. The meaning of 'security' is discussed further below.

### *11. Changing lifestyles and routine activities*

Have the work and leisure routines of individuals changed in ways that could significantly affect crime patterns? This could include house ownership, technological change that leads to new fashions and lifestyle changes, income related to drug markets; home working (telecommuting) and domestic surveillance. Felson (1998) suggested routine activity-based explanations but otherwise the theory seems to have been largely overlooked. There is also likely to

be some crossover between this and the security hypothesis. As probably the most compelling theory of crime trends, it is remarkable that routine activity theory has received relatively short shrift in relation to crime drop. There is likely to be significant mileage in further exploration of routine activity variables relating to socio-economic, technological, environmental and political change. Some of the additional hypotheses set out later in this article are compatible with a routine activity approach.

### *12. Increased religiosity*

Tonry (2005) suggested that increased religiosity should be considered as a potential explanation of the fall in crime. Although it is possible that there has been an increase in some places or population subgroups, it seems unlikely that this explanation is applicable in many industrialised countries where creationism is generally believed to be on the decline. Further, the mechanism of change seems at best uncertain.

### *13. Cultural change*

Both Quimet (2004) and Tonry (2005) have proposed that cultural change could underpin changes in the crime rate. However, it is not clear that this can be considered a hypothesis because it amounts to a broad assertion that 'something changed' without specifying a source or mechanism for that change. A vague notion of cultural change could mean almost anything and could be used to try to explain almost anything.

### *14. Immigration*

Sampson (2006), finding an inverse relationship between immigration rates and homicide rates for the United States, argued that increased immigration may have reduced crime in the United States. He argued that immigrants commit less crime than non-immigrant groups, particularly when they live in concentrated enclaves as found in many major cities. The hypothesis was not explored in-depth in the short news article in which it was proposed, and would require further testing in the United States and other contexts.

### *15. Repeat victimisation*

This is perhaps not so much a hypothesis as a potentially key mediating variable and an empirical issue warranting further attention. A Home Office report suggests that a decade of crime falls in the United Kingdom were disproportionately driven by reductions in repeat victimisation (Jansson *et al*, 2007). That is, crime incidence rates fell far more than crime prevalence rates because the number of crimes fell more than the number of victimised targets. It is possible, though seems unlikely, that this pattern of crime reduction could be due to efforts to reduce repeat victimisation. Further, while repeat victimisation has been found in all countries studied to date (see, for example, Bouloukos

and Farrell, 2001), it is not yet known if disproportionate reductions in repeat victimisation occurred in non-UK contexts.

### **(3) Additional plausible hypotheses**

Among the alternative explanations for the crime drop that have not, to the knowledge of the authors, been adequately explored are:

#### *16. Crime-specific explanations*

Has the drop in crime been largely due to changes relating to particular types of volume crime? In England and Wales, in the 1980s and 1990s, a quarter of recorded crimes related to theft of and theft from motor vehicles. They now account for only around one in eight. Reductions in car theft are arguably attributable to innovations in anti-theft designs such as vehicle immobilisers (Laycock, 2004): What has happened in relation to other volume crimes such as burglary? Are key targets such as VCRs and portable TVs no longer highly desirable targets (though newer plasma screen TVs may change this again)? Changes in volume crimes can significantly affect the overall level of crime and so would make a good starting point for an information-led parsing of the relevant data sets.

#### *17. Debut crime inhibition*

It appears that occasional crime is very common especially among young men, but that participation in certain offence types often acts as a prelude to prolific crime careers (Svensson, 2002). Is it the case that these crimes have been inhibited by upgrades in security or police activity and that this has had a subsequent multiplier effect on rates of other offence types too? If car crime is a key debut crime but becomes more difficult, could improved car security have a knock-on effect that has inhibited criminal careers more generally? A starting point here would be to determine how crime falls are constituted. Are fewer people embarking on a crime career? Are crime careers starting later, following a changed course, or coming to a close earlier? Do fewer offenders go on to become prolific? Are offenders, in the course of their crime careers, committing fewer offences than their counterparts did previously?

#### *18. Crime scene investigation techniques*

Significant improvements in forensic and other crime scene investigation techniques and record keeping, such as fingerprinting and DNA testing, may have induced a fall in crime. Given the prominence of these issues in the mass media, perceived risk to offenders may have increased far more than actual risk, inducing a more widespread deterrent effect. A content analysis of media coverage of such issues over time, and perhaps interviews with offenders who were active in the early to mid-1990s, might shed light on these issues. The mechanism by which this would change crime might be expected to impact

some crime types more than others and would therefore be detectable by crime analysis, although a diffusion of deterrent effects is also a possibility (see Clarke and Weisburd (1994) on the diffusion of crime control benefits).

### *19. Technological change*

Has there been an actual or perceived impact of recent technological innovations such as CCTV and mobile cell phones? The perceived prevalence of CCTV surveillance in particular may have been influential. Major television programmes, which heightened the profile of CCTV and its ability to detect criminals, could have induced a deterrence effect. Again, the key variable to measure would be perceived rather than actual increase in risk. It seems likely that crime falls preceded widespread adoption of CCTV and mobile phones in the United States, but it is also possible that there may have been 'anticipatory benefits' (Smith *et al*, 2002) if emerging technologies were known to offenders who thereby were deterred from offending. This raises a further set of empirical questions.

### *20. The emergence of crime forms*

It is possible that crime has not dropped overall but that it has changed form in ways that current indicators have not adequately captured. Current indicators – police recorded crimes and victim surveys – are oriented towards 'traditional' street and common crimes such as burglary, personal theft, street robbery and vehicle crimes. The 'new crime wave' of internet-related crime including e-commerce (Newman and Clarke, 2003) may have become the crimes of choice of new offenders. The perceived reduced risk and increased rewards of these crimes could have effectively priced other crime types out of the offending market.

### *21. The obsolescence of crime forms*

Dermot Walsh (1994) examined crimes that have become extinct. He examined 24 crime types and offered six categories of explanation for their declines: legal abolition, court action, action by the police and court officials, economic change, social change and population density. Theft of work animals became far less prevalent with the shift to motor vehicle crime. Poisoning became far less prevalent owing to improved detection. Piracy became less prevalent (though it still exists in some areas) with more advanced nautical communications and technology. Is it possible that some of the post-WWII crime forms are entering the first stages of obsolescence? Car crime, as noted above, is one possibility. Perhaps street crimes – with the rise of CCTV and 24/7 monitoring – could be another? Clearly this type of explanation may also be linked to the emergence of crime forms suggested above, and there could be interaction between the two explanations.

This section has outlined hypotheses that are summarised in Table 1. Some are overlapping, such as routine activity, increased security, new technologies, property crime-specific explanations such as vehicle immobilisers, debut crimes and the obsolescence of crime forms, while others are impossible to test, such as increased religiosity and cultural change, owing to lack of satisfactory constructs and data. However, research into the falls in crime need not necessarily advance purely by hypothesis testing. The following section proposes that a data-driven crime-specific problem-solving methodology should also be pursued to investigate the issues, and may have some benefits that are not found in a hypothesis-testing approach.

### **Where Many Hypotheses Stumble: Crime Increases and 'The Phone Test'**

The review above was brief and we hope it did not do too much injustice to the authors whose work was addressed. But to cut a long story short, most hypotheses were found wanting for various reasons. While some seem to provide partial explanation, they tend to be far less convincing in a cross-national context. That is, they do not appear transferable, which itself could question their validity. For the present authors, however, a key area in which such theories fail tends to be in accounting for exceptions to the crime drop rule. In particular, we are most concerned about instances in which crime did not fall or increased.

Many, perhaps most, of the existing hypothesis for the crime drop fail to accommodate exceptions to the crime drop. This means they fail to account for discrepancies. The present authors use 'the phone test' as a rule of thumb, asking whether a hypothesis can account for increased theft of phone handsets, MP3 players and other expensive electronic goods (see, for example, Harrington and Mayhew, 2001 in relation to phones), which occurred within the context of overall falling crime rates. The problem, we propose, is that many of the existing hypotheses originate from perspectives concerned almost solely with offenders – their numbers and availability or motivation – or with one other variable (policing, for instance). Such a narrow orientation may be unduly restrictive, while theory that incorporates an understanding of variation in target availability and vulnerability, (particularly Clarke's 1999 theory of CRAVED product theft) as well as variations in routine activities and the environment, seems more appropriate to this task. So, particular types of theft and robbery increased because of increases in the availability and attractiveness of particular types of new and expensive consumer goods – particularly phones, laptops, SatNavs and their ilk. Other examples to consider along these lines are the slew of crimes that have expanded or emerged relating to the internet. When variations in target availability and suitability are considered, plus crime facilitators such as the internet, the deviations from the crime drop

**Table 1:** Crime falls hypotheses

<i>Hypothesis name (Authors)</i>	<i>Explanation</i>	<i>Tested?</i>	<i>Validity?</i>
1. Demographic change (Blumstein, 2000; Fox, 2000)	Fewer youths in offending-prone age cohorts.	US only	Little explanatory power (Levitt, 2004)
2. Imprisonment (Langan and Farrington, 1998; Spelman, 2000)	Incapacitation and deterrence	US only	Partial explanation for the US (Spelman, 2000). Unlikely to have external validity
3-4. Policing (Eck and Maguire, 2000)	More and better policing	US only	Eck and Maguire found no validity
5. Gun policies (Duggan, 2001)	Fewer guns or deterred perpetrators	US only	No evidence (Rosenfeld, 1996) or counter-effect (Ayres and Donohue, 2003)
6. Changing drug markets (Johnson <i>et al.</i> , 2000)	Shift away from crack cocaine	US only	No clear evidence. Unlikely to have external validity
7. Abortion availability (Donohue and Levitt, 2001)	Fewer high-risk youths in age-prone cohorts	US only	Unlikely to have external validity
8. Stronger economies (Hale, 1998; Donohue and Levitt, 2001)	Less unemployment, more pay, reduces offending. More consumption increases targets	US and UK Sweden? Switzerland?	Economy impacts property and violence differently (Field, 1990). Economic growth varied between countries, so unlikely to have external validity
9. Childhood lead exposure (Wolpaw Reyes, 2007)	Lack of childhood lead exposure reduces aggression and violent crime	US	Untested
10. Increased private security (Clarke and Newman, 2006; Van Dijk, 2006b)	More and better public and private security, and increased perceived risk for offenders	No	Untested
11. Changing lifestyles and routine activities	Social change creates less criminal opportunities	No	Largely untested. This is a general theory linked to other hypotheses listed here

Table 1 continued

<i>Hypothesis name (Authors)</i>	<i>Explanation</i>	<i>Tested?</i>	<i>Validity?</i>
12. Increased religiosity (Tonry, 2005)	Increased religion causes decreased offending?	No	Lacks clear explanatory mechanism. Not clear religion increased in many countries
13. Cultural change civilising process (Quimet, 2004; Tonry, 2005)	Friendlier people	No	Lacks explanatory mechanism. Arguably too general to count as a hypothesis
14. Migration reduces crime (Sampson, 2006)	Less crime among cohesive migrant communities	No	Simple inverse correlation between migration and crime rates
15. Repeat victimisation (Jansson <i>et al</i> , 2007)	Less repeats and lack of counteracting increases of single incidents reduce overall rates	No	Untested
16. Crime-specific explanations	Currently unknown	No	Untested
17. Debut crime inhibition	Car crime security has diffused benefits, inhibiting criminal career development	No	Untested
18. Improved crime scene investigation	Increased perceived risk, induced deterrence	No	Untested
19. New technologies and routine activities	Increased perceived risk induced deterrence	—	Untested
20. The emergence of crime forms	New crime forms (internet crime, transnational crime) emerged, displacing existing crimes	No	Untested
21. The obsolescence of crime forms	Some crimes, perhaps car crimes, are becoming obsolete.	No	Untested

are, at least in theory, relatively easy to understand. One cannot see how the abortion hypothesis or the childhood lead hypothesis, for examples, can also explain these increases in crime. Hence, it is the set of opportunity theories, incorporating routine activity theory, situational crime prevention and rational choice, crime pattern theory and environmental criminology, that seem better suited as a starting point from which to develop an understanding of crime drops and variations from it. It is not a coincidence that this is also the set of theories that, as we discussed earlier, provide the most compelling explanation of the major post-WWII increases in crime that dominated trends before the 1990s.

## Discussion and Conclusion

There appears to be substantial scope for further research into the most significant and widespread falls in crime of recent times. Research should proceed with additional hypothesis. In particular, the set of opportunity theories incorporating routine activity theory, situational crime prevention and environmental criminology warrant far more serious consideration than they have received to date. To that end, we propose that research should also adopt a crime analysis or problem-solving approach, allowing evidence to drive the development of additional hypotheses. The default orientation of such work should be a focus on particular crime types or crime sub-types in order to have a chance of teasing out the role of variations within and across crime types.

A promising line of research is further examination of the security hypothesis and related areas. Elsewhere we have triangulated indicators from the British Crime Survey, which suggest the two-thirds drop in UK car theft was caused largely by improvements in central locking and immobilisation systems (Farrell *et al*, 2008). Car theft may prove a key case study in promoting corporate social responsibility that addresses crime – as it took many years to prompt the car industry into improving car security. If lessons can be learned that accelerate the process relating to other crime types, then an important area of policy may develop. Imagine if, say, the phone industry can be encouraged to develop better responses to theft and robbery. The role of the electronics industry in preventing theft of many new electronic products is a potentially important area. Likewise, the role of Internet Service Providers and other businesses with influence in areas relating to internet-related crime could be informed by lessons learned from further examination of the security hypothesis.

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## Notes

- 1 External validity usually refers to whether a hypothesis is valid in other settings, and is here used to refer to whether or not a hypothesis is valid in other countries.
- 2 Elsewhere in his book, however, Zimring seems to dismiss the need for cross-national validation of US-based hypotheses by arguing that US crime falls were wholly different to those in other countries. He examined reported crime in Canada, France, Italy, Japan and the United Kingdom, but only does so for aggregate data from 1990 to 2000 (Zimring, 2007, pp. 15–16). This could obscure the fact that the crime fell at different times in different countries. In the United Kingdom, for example, the crime fall clearly came after that in the United States (see Walker *et al*, 2006). This may mean that Zimring compared the wrong time periods, and a recent international study would suggest that is the case:

According to ICVS data, the level of common crime in Europe reached a plateau around 1995 and has shown a steady decline over the past ten years. The level of crime in Europe has now fallen back to the levels of 1990. Although this report focuses on crime within the EU, it seems worth mentioning here that levels of common crime have recently shown declining trends in the United States, Canada, Australia and other industrialised countries as well (van Kesteren *et al*, 2000). (van Dijk *et al*, 2005, p. 21)

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