CHAPTER 3

# Criminal Careers and Young People

# Susan McVie

#### Introduction

In recent years we have seen a radical shift in both political and public discourses about youth offending and anti-social behaviour in Britain, as evidenced elsewhere in this volume. One of the main consequences of this shift has been an explosion in the number of policies, initiatives and crackdowns targeted at young people perceived to be at risk of offending and an increasing tendency to responsibilise young children in a seemingly desperate search for the solutions to the problem of crime (Muncie and Goldson 2006). Much Government policy has been based on evidence emerging from the field of developmental criminology and the argument that the propensity to become involved in criminal offending in adulthood is apparent from the earliest years of childhood (Farrington 2003; Loeber 1991; West and Farrington 1977). This chapter considers the relationship between age and crime, known universally as the 'age-crime curve' (Farrington 1986) and the emerging concept of the 'criminal career' (Blumstein et al. 1986).

The chapter starts with a review of the age-crime curve and highlights one of the biggest debates within the discipline of criminology. It then considers key dimensions of the criminal careers paradigm and summarises some of the research evidence contributing to this important field, paying particular attention to gender differences. The chapter concludes with some

implications for policy and practice and argues that there is considerable evidence to support the criminal careers paradigm and good reasons for adopting a life-course approach to the study of crime. However, it is crucial not to overestimate the promise of prediction since anti-social tendencies in early childhood do not inevitably lead to criminal offending in adulthood and policy responses that target young children run the risk of irreversibly stigmatising and criminalising them.

### The nature of the age-crime curve

The term 'age-crime curve' is used to describe a characteristic peak found in aggregate crime data when it is plotted against age. The first recorded example of such a curve was published in 1831 and since then the phenomenon has been replicated numerous times using various sources of data, making it one of the most studied aspects of criminology (Tittle and Grasmick 1997). Early studies focused largely on data collected by official criminal justice organisations (such as numbers of cautions, arrests or convictions), although the explosion of social surveys in the latter half of the last century has also provided strong substantiating evidence for this unimodal pattern using self-reported offending data (see Blumstein *et al.* 1986; Farrington 1986).

An illustration of the age-crime curve using recent official crime data is given in Figure 3.1. This graph is replicated from the most recently published data on criminal proceedings in Scottish courts (Scottish Government 2008) and shows the rate per 10,000 of the population, for males and females, against whom a charge was proved in Scotland in the year 2006/7 by age. These data are typical of a characteristic age-crime curve based on official convictions data and reveal a clear distinction between the sexes.

Figure 3.1 shows a sharp rise in the proportion of the male population convicted of a crime or offence in the Scottish courts between ages of 15 and 18, followed by a steep decline to about the mid 20s and a steadier decline thereafter. The pattern for females is similar, but the extent of the rise and decline in convictions amongst the female population is far less substantial than for the males. There is a rise in the proportion of the female population convicted between age 15 and 17, peaking at age 18, followed by a slowly tapering decline into late adulthood. The scale of the difference between

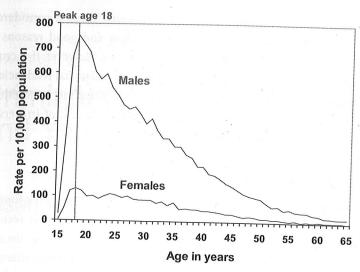


Figure 3.1: Rate of males and females per 10,000 population convicted in Scottish courts for a crime or offence in 2006/7

Source: Scottish Government (2008)

males and females appears greatest at age 18, the peak age for both sexes, when the ratio between the sexes in terms of proportion of the population with a conviction is around 6:1.

The exact ages at which these changes occur and the nature of the curve are subject to considerable variation over time and depending on what source of data is used. For example, an age-crime curve based on self-report offending data would be expected to display a similar profile, although the peak age of offending is generally younger than for convictions data and the scale of the difference between males and females is usually less extensive (see Farrington et al. 2003; Weis 1986).

# The 'great debate' about the age-crime curve

Following a systematic review of the evidence, Hirschi and Gottfredson concluded that the form of the age-crime curve had remained so stable over different time periods, between different jurisdictions and within different demographic groups that it was one of the 'brute facts of criminology' (1983, p.552). However, the nature of the curve and its theoretical meaning has

been subject to some of the most heated arguments in the discipline, described by Vold, Bernard and Snipes (1998) as the 'Great Debate'. The debate essentially centres around whether or not the aggregate age-crime curve accurately reflects individual patterns of behaviour, and whether the decline in offending after mid to late adolescence reflects a reduction in the *prevalence* or the *frequency* of offending. Before discussing the nature of the debate, it is useful to review what these two terms mean.

### Prevalence of offending

The prevalence of offending is a macro-level measure of the proportion of the population that is involved in offending behavior, or the participation rate, usually expressed as a proportionate unit of the population. Prevalence rates tend to be highest during the mid to late teenage years and lower at other ages (Farrington 1986). This general pattern tends to be repeated for both males and females; however, participation in offending is almost always greater amongst males than amongst females (Junger-Tas, Terlouw and Klein 1994; Moffitt et al. 2001; Rutter, Giller and Hagel 1998). Research has indicated that sex differences in prevalence rates appear greater in official data sources because males are likely to be involved in more frequent and serious offending, resulting in greater likelihood of contact with criminal justice agencies (Hindelang, Hirschi and Weis 1979). There is also some evidence that selection effects within official systems may be gender biased, however, which means that males who offend in their teenage years are more likely to be drawn into youth justice services than females, even when the extent of their involvement in serious offending is controlled for (McAra and McVie 2005).

## Frequency of offending

Also referred to as *incidence*, the frequency of offending is used to describe the total number of offences committed amongst those individuals who are active offenders, usually defined in terms of a certain time period. There are considerable practical problems associated with collecting reliable information on frequency of offending (Blumstein *et al.* 1986). Self-report data are subject to response bias, errors in recall, under or over-reporting and imprecise measurement tools. On the other hand, official data are likely to

represent a relatively small proportion of the total number of offences committed since most crime never comes to the attention of the police (Weis 1986). Research indicates that there is a narrower difference between the sexes in terms of frequency of offending compared to prevalence (Blumstein et al. 1986), although evidence suggests that this varies by crime type. The greatest sex differences in frequency of offending tend to be found for violent crimes, while there are far smaller differences for drug and alcohol related crimes (Junger-Tas et al. 1994; Moffitt et al. 2001).

### Prevalence versus frequency

Hirschi and Gottfredson (1983, see also Gottfredson and Hirschi 1990) argued that the relationship between age and crime was invariant; in other words all people, everywhere, increased their offending sharply during adolescence and then committed less crime as they grew older. They did not propose that individual propensity to offend was the same in all individuals: rather they argued that the relationship between age and crime was the same for all individuals. Thus, the decline in the age-crime curve following mid to late adolescence was explained by a reduction in the frequency of offending amongst offenders, rather than a reduction in the prevalence of offenders within the population. This has been fiercely contested by Farrington (1986) and Blumstein et al. (1986, 1988a, 1988b) who argued that the frequency of offending amongst offenders remained relatively constant over time, and that the shape of the age-crime curve was a manifestation of a change in the prevalence of offending within the population at different ages. In other words, the characteristic peak was caused by an increase in the number of people within the population starting to offend in early to mid adolescence. followed by an increase in the number of people stopping offending in mid to late adolescence.

Hirschi and Gottfredson's theory that age itself is somehow a causal factor in criminal offending has been criticised on the basis that age is not a personal characteristic but rather a stage of development, in which case it is important to study processes of development and their associated social meanings (Rutter 1989). However, arguments that the age-crime curve reflects change in prevalence of offending rather than frequency are also disputed (Nagin and Land 1993). Even amongst the most serious and chronic

offenders, research has shown that frequency does tend to decline with age (Ezell and Cohen 2005; Laub and Sampson 2003). Hence, it is now commonly acknowledged that 'it is important to recognize that the aggregate crime rate is the result of the combined effect of participation and frequency' (Blumstein 1994, p.402).

Important implications emerge from this debate in terms of sentencing policy. If the age-crime curve is due to a change in frequency of offending, then increasing the prison rate will not necessarily reduce crime as the rate of crime should drop inevitably. Whereas, if change in prevalence of offending explains the age-crime curve, then an increase in the prison rate should reduce crime as long as the system targets the correct offenders. Arguably, however, it is futile to try to explain the aggregate pattern of the age-crime curve because it is essentially an amalgam of underlying micro-crime curves for different offence types that vary widely in shape, and may represent quite different combinations of change in terms of prevalence and frequency (Brame and Piquero 2003; McVie 2006).

### The 'criminal careers' approach

Criminologists who adhere to the criminal careers perspective take a developmental or life-course approach to the study of criminal offending, which implies that changes in behaviour are related to age in an orderly or sequential way (Patterson 1993). Hence, criminal careers are conceived of as sequences of delinquent or criminal acts committed by individuals over the course of their lifespan, from childhood through adolescence and into adulthood. Exploring within-individual changes over time involves studying the trajectory or pathway of a person's criminal activity from their first offence through to their last, based either on their officially recorded criminal histories or their own self-reported offending (Piquero, Farrington and Blumstein 2007). This approach recognises that pathways may vary between individuals and that such variations may be caused by a range of different influences, from birth to old age. The focus on trajectories implies a strong connection between childhood and adulthood, although developmental criminologists do accept that life events may alter trajectories. In other words, it is not inevitable that the antisocial child will become an antisocial adult.

The notion of a 'criminal career' is a useful conceptual mechanism for considering an individual's offending history as a longitudinal sequence of criminal acts characterised by a variety of structural dimensions (Piquero, Farrington and Blumstein 2007). Most traditional theories are insufficient to explain crime, according to this perspective, because they are too 'static' and don't take account of developmental considerations or fully explain the various dimensions of the criminal career, such as when it starts, when it stops and how long it lasts. Blumstein et al. (1986) argued that it was vital to study these different components of an individual's criminal career in order to build up a bigger picture of individual offending trajectories and to properly understand how various factors and government policies could be adapted to prevent or reduce offending behaviour. Below are noted some of the dimensions of criminal careers typically studied by developmental criminologists and a summary of the research evidence underlying each. There are also other dimensions that could be included, such as seriousness, escalation and de-escalation (see Blumstein et al. 1986).

#### Age of onset

The age at which an individual commits their first criminal offence is often described as their age of onset or career initiation. This varies for different types of crime, so that forms of anti-social behaviour (such as minor property damage and generally disruptive behaviour) tend to have an earlier age of onset than more serious forms of criminal offending (including hard drug use). This pattern can vary, however, depending on the source of the data used to study career initiation. Self-report data tend to show an earlier age of onset than official data, and indicate a progression in the offence onset sequence from minor to more serious offences, as described above; whereas official records tend to show a later age of onset and indicate that serious offences tend to occur first and more minor offences are recorded later. The difference between data sources in the age of onset is most probably due to the fact that offenders are actively involved in crime for several years prior to their first conviction (Blumstein et al. 1986). The ambiguity in the sequencing of minor and more serious offences is probably an artefact caused by the greater likelihood of detection and conviction for serious crimes compared to minor crimes in the early career stages. Piquero et al. (2007) also

note that the reliability of both prospective and retrospective self-reports of age of onset can be poor.

Individuals who exhibit an earlier age of criminal career initiation (under the age of 14) tend to get involved in more serious forms of offending and to accumulate many more convictions than those who start offending later (age 14 or over) (Piquero et al. 2007). Offenders with an early age of onset also tend to garner convictions for a wider variety of offence types, although evidence shows that one of the main factors that characterises the most frequent offenders is early onset of offending in childhood (Blumstein et al. 1986). On average, males tend to be more likely than females to start offending at an earlier age (Moffitt et al. 2001). However, like the research evidence on frequency, the difference in age of onset appears to be greatest for offences such as violence and theft (for which males start earlier), but far less for drug or alcohol related crimes.

### Career length

There is strong evidence that age of onset is directly related to the career length or duration of an individual's criminal career, as studies have shown that the earlier the age of onset, the greater the probability of recidivism and, consequently, the longer the span of the criminal career (Blumstein et al. 1986). The duration of criminal careers varies widely according to different studies, especially since research tends to focus on a range of different populations at different ages and stages of their careers. The research literature in this area is sparse, but a summary of the evidence by Piquero et al. (2007) indicates that career lengths tend to be relatively short, ranging between 5 and 12 years. Research which has focused on more serious offenders, or has tracked people over a longer period of time, not surprisingly reveals that career length is more extensive. A recent study of serious offenders on parole in the US found that criminal careers ranged from 4 to 30 years, with an average of 17 years, although those with the earliest career initiation did have the lengthiest criminal careers (Piquero, Brame and Lynam 2004). Another US study which tracked a group of delinquent males into their 70s found that the average criminal career was around 26 years, although lower for violent offences than for property crimes (Laub and Sampson 2003). Studying the nuances of criminal career length is obviously important from a policy perspective, since

criminal justice policies that encourage lengthy sentences of imprisonment for those with long prior histories of offending may neglect to take account of the diminishing trajectory in an individual's offending behaviour and, hence, waste time and resources (Piquero et al. 2004).

#### Persistence

The tendency for individual offenders to continue offending over a defined period of time is known as persistence or chronicity. Alongside the existence of the age-crime curve, another well known 'fact' within criminology is that a small proportion of the population (particularly young people) tend to be responsible for a disproportionately large number of criminal offences and are, therefore, a particularly problematic group (Laub 2004). Data from the Cambridge Study in Delinquent Development supports this proposition. Piquero et al. (2007) found that, compared to other offenders, chronic offenders (those who had been convicted five times or more) had the longest criminal careers, the greatest number of convictions, the highest level of involvement in violent offending and the broadest range of offending repertoires. Once again, however, it is important to consider age in the equation. Moffitt (1993, 2004) developed a taxonomy of offending, and identified two groups of offenders: a large 'adolescence-limited' group and a much smaller 'life-course persistent' group. Moffitt argues that the life-course persistent group are the most problematic offenders as they display a pattern of anti-social behaviour which is continuous throughout their lives, although it manifests itself in different ways at different ages. Conversely, the adolescence-limited group get involved in offending only for a relatively short period during the teenage years. According to this taxonomy, the two groups are difficult to distinguish around the peak age of offending, as they may be involved in similar levels of serious or frequent offending; however, the adolescence-limited group do not display persistent anti-social behaviour over the life-course. This theory has significant implications for policy, as it suggests that a 'one size fits all' approach to dealing with offenders during the peak offending years of the age-crime curve is neither necessary nor appropriate.

The issue of 'persistent young offenders' has been particularly high on the policy agenda under New Labour, and has formed the basis for a large raft

of new legislative measures in recent years (see Chapters 2 and 4 in this volume). However, official records on offending represent only a fraction of the offences committed by many individuals, therefore official measures of persistence are generally crude and unreliable (Weis 1986). Equally, comparative measures of persistence are hugely problematic because criminal justice systems vary between jurisdictions and definitions of persistence may also differ. The UK is a case in point. Between 2003 and 2006 the Scottish Executive defined persistent young offenders as children aged between 8 and 15 with five or more offence referrals to the Children's Reporter within a six-month period (Scottish Children's Reporters Administration 2007). During the same time period, the official Home Office definition of a persistent young offender within England and Wales was a young person aged between 10 and 17 who was sentenced by a criminal court on three or more occasions for one or more recordable offences (Perrett and Bari 2006). Clearly, it is problematic from a practical perspective to label people according to arbitrary definitions of persistence, as sentencing policies based on such definitions may lead to unequal treatment in the criminal justice system (see Hagell and Newburn 1994).

#### Degree of specialisation

An important aspect of criminal careers research is the study of crime-type sequences to determine whether an offender specialises in one particular type of offending, such as particular types of property crime or sexual offending, or whether they are more versatile offenders who have a wide repertoire of offending. Research suggests that while some offenders do specialise in one particular type of offending, the majority of offenders – particularly young offenders – engage in a range of different types of offending behaviour (Farrington 1999; Farrington, Snyder and Finnegan 1988). Recent analysis of the 1953 birth cohort from the Offenders Index, containing data on offenders up to age 40 who were convicted of a crime in England and Wales, identified particular 'clusters' of offenders based on their patterns of offending (Francis, Soothill and Fligelstone 2004). Nine clusters were observed for males including six versatile groups and three specialised groups (vehicle theft, wounding and shoplifting). This compared to only three groups in total for females, only one of which was specialised

(shoplifting). Patterns of offending varied markedly between males and females, with a much more coherent age profile and greater diversity in offending for male offenders compared to females.

Research in this area indicates that it is important to take both a short and a long-term approach to the study of criminal careers in order to understand continuity and change (Ezell and Cohen 2005). Offenders do not necessarily stick to the same patterns of offending across their life-course and, in fact, many tend to display 'switching' from one pattern of offending to another over time (Soothill, Francis and Fligelstone 2002). A focus on short-term patterns of offending has shown that offenders often specialise in certain types of offences for a period of time but, in the longer term, they shift in their preferences to other crime types, thus presenting a broader picture of versatility over the course of the criminal career (McGloin, Sullivan and Piquero 2009). Such research is important to policy as it highlights the importance of teasing out and studying changing sequences of behaviour over time, rather than simply treating offence histories as an aggregate measure. There also appears to be secular change in patterns of specialisation, as Soothill et al. (2008) indicate that, for males, versatile clusters of offending have increased over time while specialist clusters have declined. For females there has also been an increase in versatility and an increase in violence specialisation, but a decrease for those who specialise in shoplifting.

## Co-offending

The tendency for young people to commit crimes together has long been recognised, and yet relatively little research has been carried out on this element of offending compared to some of the other dimensions listed here (Warr 1993). Understanding more about the reasons why young people offend together is important in both theoretical and policy terms, since it allows us to understand intersections in the criminal careers of different individuals and explore the consequences of criminal justice interventions on individuals operating within the same networks (Reiss 1986). A recent study found that co-offending was related to three key facets of the individual offender: their age, their recidivism rate and their propensity to be involved in violence (McCord and Conway 2005). These authors found that around 40 per cent of offenders committed most of their crimes with others,

reduction in time spent with peers, less exposure to delinquent peers and weakened loyalty to peers in later adolescence (Graham and Bowling 1995; Warr 1993). Much of this research has focused on desistance during the teenage years; however, Sampson and Laub (1993, also Laub and Sampson 2003) have taken a longer term approach to the study of desistance. They argue that desistance from offending in adulthood is the result of personal transformation and engagement with conventional social roles. They take a dynamic approach to explaining desistance, and argue that it coincides with key turning points in people's lives which involve the strengthening of social bonds between offenders and their families (partners and children), work colleagues (particularly for those who enter the military) and the wider community. Their research strongly supports policy initiatives that promote transitions into employment and provide support to strengthen family relationships, whereas punitive responses to crime are seen as creating social and structural barriers to desistance.

Broadly, the desistance literature indicates that most young people will 'mature' out of crime, although both social structure and social context play some role in whether young people successfully make this transition or not. Analysis of data from the Edinburgh Study of Youth Transitions and Crime by Smith (2006) showed that young people's ability to reduce their involvement in offending was inhibited by living in neighbourhoods contexualised by deprivation, disorder, social instability and high crime rates. It is likely that such contextual difficulties have a similar influence on the formation of social bonds, and hence the ability to desist, in adulthood. There is also evidence that desistance is greater amongst young people who manage to avoid the stigmatisation of intervention by the formal agencies of social control. Using the same Edinburgh Study data, McAra and McVie (2007) found that young people were subject to labelling processes which resulted in certain categories of young people being repeatedly recycled by the youth justice system, whereas other serious offenders escape such tutelage. Quasi-experimental analysis showed that the deeper a young person penetrated the formal system, the less likely they were to desist from offending. These findings have poignant policy implications, as those with responsibility for dealing with the 'problem' of youth crime must balance the needs of the young people (including their natural inclination to desist versus

the contextual and structural barriers that may prevent such desistance) against the needs of the wider public.

### Implications for policy and practice

The development of the criminal careers approach to the study of criminal offending has been of immense importance to the discipline of criminology and has already had a profound impact on both policy and practice in the UK. Over the last ten years or so Government policies have been driven by an evidence-based approach which is underpinned to a significant extent by research on criminal careers. Such policies are strongly committed to the Risk Factor Prevention Paradigm and are based on those risk factors identified as being the main causes, correlates and predictors of childhood offending and anti-social behaviour. In fact, developmental prevention forms one of the core strategic approaches to preventing and reducing crime in the UK (see Farrington 2007).

While the criminal careers approach offers much in the way of theoretical enlightenment and practical suggestions for intervention, there is an inherent danger that pre-emptive initiatives may be targeted at particular individuals early in life simply on the basis of a condition, a character or a mode of life, rather than on the basis of an offence that such individuals may have committed. Much light has been shed on criminal offending by developmental criminologists over the last 30 or so years, but much also remains to be explained (see Piquero et al. 2007). Haines and Case (2008) warn against the Risk Factor Prevention approach on the basis that defining and measuring risk factors is problematic, interpreting risk factor evidence is very difficult, early intervention programmes are not easy to implement in practice and there is little consensus about 'what works' in risk-focused crime prevention in any case. In addition, the accuracy of early childhood prediction leaves much room for improvement. For example, White et al. (1990) looked at how accurately they could predict anti-social behaviour at ages 11 and 15 from risk factors identified at ages 3 and 5. They correctly predicted 81 per cent of those at age 11 as anti-social or not, but by age 15 only 66 per cent of the children were correctly classified as delinquent or not. A much wider review of prediction models concluded that: 'the prediction literature that we have reviewed leads inescapably to the conclusion noted

above: predictive accuracy is rather low' (Gottfredson and Gottfredson 1986, p.274).

To conclude, the relationship between age and crime is complex and there are many factors underlying the characteristic age-crime curve. Criminal careers research presents a valuable opportunity to understand the dynamics of this relationship as it takes into consideration the many dimensions of individual offending, including both stability and change over the life-course. Such an approach has the potential to contribute widely to the planning and development of robust and effective youth crime prevention policies. However, the potentially stigmatising and criminalising effect of youth justice interventions, highlighted by authors such as McAra and McVie (2007), make it imperative that policymakers and practitioners remain wary of the false promise of prediction.

#### References

- Blumstein, A. (1994) 'Next Steps in Criminal Career Research.' In E.G.M. Weitekamp and H.-J. Kerner (eds) Cross-National Longitudinal Research on Human Development and Criminal Behaviour. Dordrecht, The Netherlands: NATO ASI Series D: Behavioural and Social Sciences Volume 76.
- Blumstein, A., Cohen, J., Roth, J.A. and Visher, C.A. (1986) Criminal Careers and 'Career Criminals': Volume 1. Washington: National Academy Press.
- Blumstein, A., Cohen, J. and Farrington, D.P. (1988a) 'Criminal career research: It's value for criminology.' *Criminology 26*, 1–36.
- Blumstein, A., Cohen, J. and Farrington, D.P. (1988b) 'Longitudinal and criminal career research: Further clarifications.' *Criminology 26*, 57–74.
- Brame, R. and Piquero, A.R. (2003) 'Selective attrition and the age-crime relationship.' *Journal of Quantitative Criminology 19*, 107–127.
- Ezell, M.E. and Cohen, L.E. (2005) Desisting from Crime: Continuity and Change in Long-term Crime Patterns of Serious Chronic Offenders. Oxford: Oxford University Press.
- Farrington, D.P. (1986) 'Age and Crime.' In M. Tonry and N. Morris (eds) *Crime and Justice: An Annual Review of Research*, Vol. 7, 189–250. Oxford: Clarendon Press.
- Farrington, D.P. (1997) 'Human Development and Criminal Careers.' In M. Maguire, R. Morgan and R. Reiner (eds) *The Oxford Handbook of Criminology*, 2nd edn. Oxford: Oxford University Press.
- Farrington, D.P. (1999) 'A criminological research agenda for the next millennium.'

  International Journal of Offender Therapy and Comparative Criminology 43, 154–167.
- Farrington, D.P. (2003) 'Advancing Knowledge about the Early Prevention of Adult Antisocial Behaviour.' In D.P. Farrington and J.W. Coid (eds) *Early Prevention of Adult Antisocial Behaviour*. Cambridge: Cambridge University Press.

- Farrington, D.P. (2007) 'Childhood Risk Factors and Risk-focused Prevention.' In M. Maguire, R. Morgan R. and Reiner (eds) *The Oxford Handbook of Criminology*, 4th edn. Oxford: Oxford University Press.
- Farrington, D.P., Jolliffe, D., Hawkins, J.D., Catalano, R.F., Hill, K.G. and Kosterman, R. (2003) 'Comparing delinquency careers in court records and self reports.' *Criminology 41*, 933–958.
- Farrington, D.P., Snyder, H.N. and Finnegan, T.A. (1988) 'Specialization in juvenile court careers.' *Criminology 26*, 461–487.
- Francis, B., Soothill, K. and Fligelstone, R. (2004) 'Identifying patterns and pathways of offending behaviour: A new approach to typologies of crime.' *European Journal of Criminology 1*, 1, 47–87.
- Gottfredson, S.D. and Gottfredson, D.M. (1986) 'Accuracy of Prediction Models.' In A. Blumstein, J. Cohen, J.A. Roth and C.A. Visher (eds) (1986) Criminal Careers and 'Career Criminals': Volume 2. Washington: National Academy Press.
- Gottfredson, M.R. and Hirschi, T. (1990) A General Theory of Crime. Stanford, Calif.: Stanford University Press.
- Graham, J. and Bowling, B. (1995) Young People and Crime. London: Home Office Research Study 145.
- Hagell, A. and Newburn, T. (1994) Persistent Young Offenders. London: Policy Studies Institute.
- Haines, K. and Case, S. (2008) 'The rhetoric and reality of the "Risk Factor Prevention Paradigm" approach to crime prevention.' *Youth Justice 8*, 5–20.
- Hindelang, M.J., Hirschi, T. and Weis, J.G. (1979) 'Correlates of delinquency: The illusion of discrepancy between self-report and official measures.' *American Sociological Review 44*, 995–1014.
- Hirschi, T. and Gottfredson, M. (1983) 'Age and the explanation of crime.' *American Journal of Sociology* 89, 552–584.
- Junger-Tas, J., Terlouw, G-J. and Klein, M.W. (1994) Delinquent Behaviour among Young People in the Western World: First Results of the International Self-report Delinquency Study. Amsterdam: Kugler Publications.
- Laub, J.H. (2004) 'The life-course of criminology in the United States: The American Society of Criminology 2003 Presidential Address.' *Criminology 42*, 1–26.
- Laub, J.H. and Sampson, R.J. (2003) Shared Beginnings: Divergent Lives: Delinquent Boys to Age 70. Cambridge, Mass.: Harvard University Press.
- Loeber, R. (1991) 'Antisocial behavior: More enduring than changeable?' Journal of the American Academy of Child and Adolescent Psychiatry 30, 3, 393–397.
- McAra, L. and McVie, S. (2005) 'The Usual Suspects? Street-life, young offenders and the police.' *Criminology and Criminal Justice* 5, 1, 5–36.
- McAra, L. and McVie, S. (2007) 'Youth justice? The impact of system contact on patterns of desistance from offending.' *European Journal of Criminology 4*, 3, 315–345.
- McCord, J. and Conway, K.P. (2005) Co-offending and Patterns of Juvenile Crime. National Institute of Justice Research in Brief. Washington: US Department of Justice.

- McGloin, J.M., Sullivan, C.J. and Piquero, A.R. (2009) 'Aggregating to versatility?: Transitions among offender types in the short term.' *British Journal of Criminology* 49, 2, 243–264.
- McVie, S. (2006) 'Patterns of deviance underlying the age-crime curve: The long term evidence.' *British Society of Criminology E-Journal 7*. Available at www.britsoccrim.org/volume7/007.pdf (accessed 11 March 2009).

Moffitt, T.E. (1993) "Life-course persistent" and "adolescent-limited" anti-social behaviour: A developmental taxonomy. *Psychological Review 100*, 674–701.

Moffitt, T.E. (2004) 'Adolescence-limited and Life-course Persistent Offending: A Complementary Pair of Developmental Theories.' In T.P. Thornberry (ed.) Advances in Criminological Theory Volume 7: Developmental Theories of Crime and Delinquency. New Brunswick, NJ, and London: Transaction.

Moffitt, T.E., Caspi, A., Rutter, M. and Silva, P.A. (2001) Sex Differences in Antisocial Behaviour: Conduct Disorder, Delinquency and Violence in the Dunedin Longitudinal Study. Cambridge: Cambridge University Press.

Muncie, J. and Goldson, B. (2006) 'England and Wales: The New Correctionalism.' In J. Muncie and B. Goldson (eds) *Comparative Youth Justice: Critical Issues.* London: Pine Forge Press.

Nagin, D.S. and Land, K.C. (1993) 'Age, criminal careers and population heterogeneity: specification and estimation of a non-parametric, mixed poisson model.' *Criminology 31*, 3, 327–362.

Patterson, G.R. (1993) 'Orderly change in a stable world: the antisocial trait as a chimera.' *Journal of Consulting and Clinical Psychology 61*, 329–335.

Perrett, J. and Bari, F. (2006) Statistics on Persistent Young Offenders. National Statistics: Department of Constitutional Affairs Statistical Bulletin 03/2006. London: Ministry of Justice Statistical Bulletin.

Piquero, A.R., Brame, R and Lynam, D. (2004) 'Studying criminal career length through early adulthood among serious offenders.' *Crime and Delinquency 50*, 412.

Piquero, A.R., Farrington, D.P. and Blumstein, A.(2007) Key Issues in Criminal Career Research: New Analyses of the Cambridge Study in Delinquent Development. Cambridge: Cambridge University Press.

Reiss, A.J. (1986) 'Co-offender Influences on Criminal Careers.' In A. Blumstein, J. Cohen, J.A. Roth and C.A. Visher (eds) (1986) Criminal Careers and 'Career Criminals': Volume 2. Washington: National Academy Press.

Rutter, M. (1989) 'Age as an ambiguous variable in developmental research: Some epidemiological considerations from developmental psychopathology.'

International Journal of Behavioural Development 12, 1–24.

Rutter, M., Giller, H. and Hagell, A. (1998) Antisocial Behaviour by Young People. Cambridge: Cambridge University Press.

Sampson, R.J. and Laub, J.H. (1993) Crime in the Making: Pathways and Turning Points through Life. Cambridge, Mass.: Harvard University Press.

Sarnecki, J. (2001) Delinquent Networks: Youth Co-offending in Stockholm. Cambridge: Cambridge University Press.

- Scottish Government (2008) Criminal Proceedings in Scottish Courts 2006/07. Edinburgh: Scottish Government.
- Scottish Children's Reporters Administration (2007) Persistent Young Offenders: A Study of Children Identified as Persistent Young Offenders in Scotland (2003–04, 2004–05 and 2005–06). Stirling: SCRA.
- Smith, D.J. (2006) Social Inclusion and Early Desistance from Crime. Edinburgh: Edinburgh Study of Youth Transitions and Crime, Research Digest No. 12.
- Soothill, K., Francis, B., Ackerley, E. and Humphries, L. (2008) 'Changing patterns of offending behaviour among young adults.' *British Journal of Criminology 48*, 75–95.
- Soothill, K., Francis, B. and Fligelstone, R. (2002) *Patterns of Offending Behaviour: A New Approach*. London: Home Office Research Study 171.
- Tittle, C.R. and Grasmick, H.G. (1997) 'Criminal behaviour and age.' *Journal of Criminal Law and Criminology 81*, 309–342.
- Vold, G.B., Bernard, T.J. and Snipes, J.B. (1998) *Theoretical Criminology*. New York: Oxford University Press.
- Warr, M. (1993) 'Age, peers and delinquency.' Criminology 31, 17-40.
- Weis, J.G. (1986) 'Issues in the Measurement of Criminal Careers.' In A. Blumstein, J. Cohen, J.A. Roth and C.A. Visher (eds) (1986) *Criminal Careers and 'Career Criminals': Volume 2.* Washington: National Academy Press.
- West, D.J. and Farrington, D.P. (1977) The Delinquent Way of Life. London: Heinemann. White, J.L., Moffitt, T.E., Earls, F., Robins, L. and Silva, P.A (1990) 'How early can we
  - tell? Predictors of childhood conduct disorder and adolescent delinquency.'

    Criminology 28, 507-533.