

THE EDINBURGH STUDY OF YOUTH
TRANSITIONS AND CRIME: KEY
FINDINGS AT AGES 12 AND 13

David J Smith, Susan McVie, Rona Woodward,
Jon Shute, John Flint and Lesley McAra

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CHAPTER 1: INTRODUCTION

Background to the Study

The rise in crime is one of the most striking social changes since the Second World War. Police recorded crime rose dramatically between 1950 and the mid 1990s in all developed countries (except Japan) and, because of the shape of the age-crime curve, this is to a large extent the result of an increase in misconduct and ordinary crimes committed by young people (Smith, 1995). This increase in problem behaviour among young people has also been paralleled by post-war increases in other psychosocial disorders during the teenage years, such as suicide, eating disorders and personality dysfunctions (Smith & Rutter, 1995). These major societal changes have meant that youth crime, and indeed issues in relation to young people in general, have become a salient political issue

As a result of these societal and political developments, studies into changes in criminal offending over the life course are critical to contemporary criminology. By far the most important previous British study in this field is the Cambridge Study of Delinquent Development, a major longitudinal study which continues to study the determinants and predictability of criminal offending among a group of people who were 8 years old in 1961 (Farrington and West, 1990). However, the origins of this study are somewhat outdated and contemporary studies are needed, combining both psychological and sociological approaches, to focus on a substantially different set of intellectual and policy questions.

Aims of the Edinburgh Study

The Edinburgh Study of Youth Transitions and Crime is a major longitudinal of around 4,300 young people who started their first year of secondary school in the City of Edinburgh in August 1998, when most of them were around 11½ and 12½ years of age. The study aims to further our understanding of criminal behaviour among young people by studying them over a key period of development. There are four key objectives underpinning the study:

- i. To investigate and identify the factors which impact on young people's offending behaviour and the processes which are involved.
- ii. To examine these factors and processes within 3 main contexts:
 - individual development through the life course;
 - the impact of interactions with formal agencies of social control and law enforcement;
 - the effect of the physical and social structure of the individual's neighbourhood.
- iii. Within each of the above three contexts, to examine the striking differences between the extent and patterns of criminal offending between males and females.

- iv. To contribute towards the development and empirical evaluation of theories which explain people's involvement in criminal offending behaviour, particularly those who go on to become serious and persistent offenders.

Design of the Study

Age of the cohort

The Edinburgh Study was not concerned with identifying the childhood origins of criminal offending. Instead, it aimed to explain why such inclinations among some were translated into serious, frequent and persistent offending and why some criminal careers end far sooner than others. For this reason, it was decided to start in early adolescence and continue on to around the age of 30. This is in marked contrast to other studies such as the Dunedin Study, which started at birth (Silva and Stanton, 1996) or the Cambridge Study which started in middle childhood (Farrington and West, 1990). These studies show that, although useful predictions of later delinquency can be made in childhood, there are many 'false positives': that is, many of those predicted to be delinquent turn out not to have serious criminal careers. This highlights the importance of influences during adolescence that 'convert' individuals at risk of offending into involvement in long-term criminal careers.

It was important to strike a careful balance between collecting data from as early an age as possible and ensuring that these data were reliable. The selected population was every pupil enrolled in the first year of secondary school in Edinburgh during the autumn of 1998, with an average age of approximately 12. There were two main reasons for this. From a practical point of view, it was easier to target secondary schools than primary schools, since there were far fewer of them. And from a methodological point of view, the majority of those at age 12 could be expected to cope with a self-completion questionnaire and give reliable information about themselves. In addition, available evidence suggested that very few children would have dropped out of the school system by this age.

Location of the study

As one of the main aims of the study was to compare the developmental paths of young people growing up in dissimilar neighborhoods, choosing the location of the study was important. One possibility would have been to draw a representative sample of Scottish youth from a variety of different geographical areas. This approach was rejected for two reasons. First, a truly representative sample would probably have yielded too small a number of young people within each neighbourhood to support analysis of community effects. Second, the organisational problems and the costs of a study dispersed across Scotland would have been far greater than those of a study concentrated in a single city. It was therefore decided to carry out the study within the City of Edinburgh alone and to cover a whole one year cohort of young people.

This focus on the city of Edinburgh has the slight disadvantage that the subjects are not truly representative of the youth of Scotland. However, this is easily outweighed by the enormous advantages in terms of efficiency and cost-effectiveness. In particular, it greatly reduces the number of organisations involved in the study. Yet at the same time, the city of Edinburgh comprises enormous diversity, including all the extremes of poverty and wealth, high and low crime areas, high and low incidence of drug abuse, that are contained within urban areas of Britain as a whole. There were also substantial advantages to linking the University's research to its local community, such as enhancing the likelihood of support and benefiting the local community from the results.

The large, single-cohort design

The simplicity of this design is very different from the accelerated longitudinal design promoted by Tonry, Ohlin and Farrington (1991). Starting with a cohort aged around 12 meant the single cohort design was more efficient, in terms of the number of subjects who could be covered within the budget by concentrating on a single year group during fieldwork. In addition, studying a single school year would be less disruptive to schools, achieving higher level of school participation and better response rates.

Further, it was judged that statistical complications in analysis of multiple cohorts would substantially offset any gain and there would be a considerable advantage in having continuous life histories over the whole period from age 12 to 30 for the same individuals instead of pasting together the time segments covered by separate cohorts. Finally, the purity of the design, which attempts to follow all young people in Edinburgh within one age group, means it is easier to estimate response rates, to collect information about the whole target population (i.e. non-respondents) and therefore to estimate sample bias.

The size of the cohort was estimated to be around 3,500 to 4,000 at the outset, but later turned out to be around 4,300. The scale of the sample size had particular advantages. First, the importance of studying gender differences meant that a large enough sample had to be achieved to conduct detailed, disaggregate analysis on delinquency and then subject this to further analysis by gender. In particular, the sample had to be large enough to capture a significant number of persistent and serious offenders, who would not become apparent until several years into the study, allowing for some level of attrition.

The multiple methods approach

A unique feature of the Edinburgh Study is the complexity of its design which involves a large, single-cohort longitudinal study incorporating multiple methods of data collection. The objectives underpinning the study determined that both a mixed methodology and a variety of different data sources would be required in order that young people's offending behaviour could be examined on a number of levels. At a primary level, quantitative self report data was required to estimate the extent and nature of youth offending, while qualitative information was needed to contextualise

this. At a secondary level, quantitative and qualitative data were required from the perspective of those responsible for exerting social controls over young people: namely parents, schools and formal agencies of control. While, at a tertiary level, social and geographical data were required to examine patterns of offending within the young people's neighbourhoods and possible neighbourhood effects on offending.

In order to target a large cohort of young people, the most feasible and cost effective method of data collection was to administer a self-completion questionnaire in schools. Annual sweeps of data collection were planned to build up a continuous picture of young people's offending, thereby providing an accurate and detailed description of individual offending levels over time, which often take place in bursts. To supplement this large-scale quantitative element of the study, it was necessary to add contextual detail about the nature and meaning of offending behaviour for young people. Therefore, semi-structured interviews with a sample of the cohort were incorporated into the design, to be conducted on a periodic basis.

One of the main concerns about the self-report methodology is that respondents may exaggerate or under-report their own offending behaviour – whether intended or accidental. Criminologists who have reviewed the extensive evidence on the validity and reliability of self-reports have generally come up with fairly optimistic conclusions (e.g. Huizinga, 1991). And it is clear from comparisons with official records and the reports of parents, teachers and peers that respondents do reveal much of their offending, although it is difficult in principle to establish how many of them exaggerate and to what extent.

Although the failings of self-reports should not be minimised, there is no alternative method of describing most offending, and other measures (such as convictions) are even more unreliable. This emphasises the importance of using other measures, and a central feature of the Edinburgh Study is the range of rich secondary data sources being used to provide information about the cohort, adding a whole extra dimension to the data provided by individuals about their own behaviour.

Parents are the most important source of informal social control, therefore, a survey of family functioning was planned with the main parent or carer of every cohort member. As well as providing a certain level of validation about self-reported offending, this survey will provide data on family background, significant life events during childhood and assess the extent to which offending behaviour may be linked to factors within the home environment¹.

Schools also play an important role in controlling the activities of young people, so relevant data was sought from school records and the views of teachers about individuals' pro-social and problematic behaviour were ascertained by means of a brief questionnaire. Finally, the perspective of two key Scottish agencies of formal social control with a responsibility for engaging with young people in need or in trouble was sought by examining the records of the Social Work Department (SWD) and the Scottish Children's Reporter Administration (SCRA). The data extracted

¹ The survey of family functioning is due to be conducted in the Autumn of 2001.

from these records was also used to supplement and, as far as possible, validate the self-reported offending data.² The results of these data are presented in chapter 13.

Finally, one of the key aims of the study is to integrate the study of individual differences and life histories with the study of the effects of communities and the broader social context in which offending takes place. In order to help relate young people's offending histories to various aspects of the social geography of where they live, a Geographic Information System (GIS) has been developed. A range of geocoded social, physical and economic data about the City of Edinburgh, including 1991 census data and 1997 police recorded crime data, were loaded into a GIS software package.

Work was then carried out to separate Edinburgh into 91 distinct geographical neighborhoods, using an index of social deprivation as a guide, in order that levels of offending amongst the cohort could be visualised at the neighbourhood level. Bringing these two sources of data together has been invaluable in trying to differentiate between individual and neighbourhood effects on offending during analysis. The results of this analysis are reported in chapter 14.

To supplement the analysis of offending and neighbourhood, case studies were carried out in two of these newly defined neighborhoods. The two areas chosen were contiguous, with similar levels of social deprivation, but contrasting crime rates. By studying these two areas, the aim was to identify the mechanisms or processes that may have produced the relatively low level of crime in one neighbourhood and the relatively high level in the other. The findings of the case study work are reported in chapter 15. This aspect of the study will be further supplemented by a study of social networks and community structures in Edinburgh neighborhoods based on a survey of the general population, to be carried out in 2002.

Access to schools

The majority of pupils in Edinburgh attend state-run mainstream secondary schools, although it is estimated that around a quarter of pupils attending schools in Edinburgh are in the independent sector, which is disproportionately large compared with many other cities. Therefore, it was important to include as many of these schools as possible. In addition, to make the cohort truly representative, it was vital to include the small, but important, minority of vulnerable and sometimes problematic children attending schools for children with special educational needs.

A prolonged process of negotiation was required to secure access to all the relevant schools. Agreement in principle was sought from the City of Edinburgh Council Education Department to contact all the relevant state-run schools. Thereafter, the head teachers of every mainstream and special needs secondary school were approached in order to seek their agreement to participate. The head teachers of the relevant independent sector schools were also approached individually, although there was no governing body to which representation could be made about negotiating access to these schools in advance.

² Access to police records is currently being negotiated.

Access was eventually secured to 92 per cent of the young people who were enrolled as first year pupils at Edinburgh secondary schools in the autumn of 1998, as shown in Table 1.1. All 23 mainstream schools agreed to participate, which was crucial since they accounted for 78.5 per cent of the eligible population. The independent schools accounted for 19.5 per cent of all pupils in the relevant year group; however, only 8 agreed to participate which meant coverage was restricted to 12 per cent. The special schools accounted for only 2 per cent of the eligible population, although their inclusion was important to ensure the representation of potentially marginalised and vulnerable young people. Nine of the 12 special schools agreed to participate, representing 1.5 per cent of the eligible population.

Table 1.1: Survey coverage of Edinburgh school pupils - sweep 1

	Mainstream	Independent	Special needs	Totals
Pupils attending all eligible schools in Edinburgh (n)	3803	948	95	4846
Pupils attending participating schools (n)	3803	594	71	4468
Coverage of all eligible pupils (%)	100%	66%	75%	92%

1. These figures do not take account of children opted out in sweeps one or two, which are shown in Table 1.3.

During discussions with both the independent and special schools, it emerged that there was likely to be a substantial increase in the intake of both school sectors over the second and third years of the study. As the number of pupils attending these schools was relatively small in comparison to the mainstream schools, a decision was taken to include any new pupils entering the relevant year group up to the third year of data collection. For practical reasons, it was also agreed that any pupils who moved away from the Edinburgh area during sweeps two and three would not be tracked, although pupils moving to Local Authority funded special or residential schools situated outwith Edinburgh would be followed. Thus, the final cohort to be tracked longitudinally will be established at the end of year three of the study.

A considerable number of new pupils did join the cohort in sweep two, although an almost equal number moved away from the Edinburgh area. Overall, the number of pupils attending participating schools increased by only 0.7 per cent during sweep two. This does conceal a considerable amount of movement within the cohort, however, as shown in Table 1.2. The large number of both new pupils and leavers in mainstream schools resulted in a net gain of only 0.1 per cent although, as expected, the net gain at the independent schools was higher at 4.4 per cent. The number of pupils attending special schools increased by 28.2 per cent, although this large rise was largely due to movements by existing cohort members rather than new pupils joining the cohort.

Table 1.2: Survey coverage of Edinburgh school pupils - sweep 2

	Mainstream	Independent	Special needs	Totals
Pupils attending participating schools (n)	3786	620	91	4497
Change in population size (%)	-0.4%	+4.4%	+28.2%	+0.7%

Parental consent

Given the age of the cohort members, it was necessary to contact parents in advance of fieldwork to inform them about the study and seek their consent. There was concern that an opt-in method would yield a low response rate, particularly among certain sections of the population, which would significantly skew the characteristics of the cohort and undermine the validity of any survey results. As it was crucial that the cohort should comprise as complete and representative population of young people as possible, the various agencies involved in the study agreed that an opt-out consent method should be adopted. However, assurances had to be given that the Education Department child protection guidelines would be stringently followed and that participation would not be detrimental to the cohort members.

Prior to sweep one fieldwork, a letter was issued to all parents explaining the objectives and coverage of the study, the implications of participation and stating that their child could be opted-out of the study by returning a tear-off slip to the school. It was not considered necessary to repeat this exercise each year. However, an updated letter was sent to the parents of all new pupils who joined the cohort in sweep two. Cohort members also had the opportunity to opt out of the study during fieldwork and, in a few rare cases, school staff took the decision to opt pupils out if participation at that time was not felt to be in their best interests.

Table 1.3, below, reveals that the opt-out rates in both sweeps one and two varied little and the overall rates were very low in survey terms. It is particularly interesting that the opt out rates at the mainstream and independent schools were virtually identical during both sweeps, which suggests that opting out was unrelated to social class. Perhaps unsurprisingly, the opt-out rate in the special schools was considerably higher than that of the other school types, although this represents a very small number of people in real terms.

Table 1.3: Opt out rates by school sector during sweeps 1 and 2

	Mainstream	Independent	Special needs	Totals
Sweep one				
Pupils opted out by parents or school (n)	122	20	9	151
Self opt outs (n)	4	0	0	4
Potential cohort opted out (%)	3.3%	3.4%	12.7%	3.5%
Sweep two				
Pupils opted out by parents or school (n)	115	19	9	143
Self opt outs (n)	7	1	2	10
Potential cohort opted out (%)	3.2%	3.2%	12.1%	3.4%

Confidentiality

To reassure respondents about reporting sensitive information and encourage honest reporting, particularly about their own offending behaviour, a complete guarantee of confidentiality was given. As shown in Table 1.3, above, the number of self opt-outs was very low at both sweeps which suggests that few respondents were excessively worried about taking part, although there would be concern if this increasing trend continued in future sweeps. A few of those who opted themselves out did so during classroom fieldwork, but most were in response to approaches at home and the impression given was that they were more concerned with giving up their free time than confidentiality.

Issuing a complete guarantee of confidentiality did have consequences for the content of the survey. It was considered that early sexual activity might be correlated with offending behaviour. However, there was a danger that such questions might elicit disclosures of sexual abuse which, under the child protection guidelines, would have to be reported to the school authorities. Thus, the guarantee of confidentiality would have had to be qualified. Discussions with a team of researchers conducting a study of sexual health in Edinburgh at the time revealed that this approach led to lower reporting of sexual activity than comparative research in other cities where confidentiality was assured. Since there was a danger that this could impact upon self reports of offending, it was agreed that questions about sexual activity would be included only once the cohort reached the age of legal consent.

Questionnaire design and piloting

Self completion questionnaires were developed following detailed examination of data collection instruments from a variety of other studies, many of which involved young people. There was also extensive consultation with researchers in the UK and those involved in longitudinal studies of crime and young people in the US and New Zealand. This was particularly important to ensure that certain aspects of the questionnaires would be comparable with other similar studies.

Table 1.4 presents a summary of the broad themes which were included in the questionnaires during the first two sweeps. Within each theme, there were a number of questions focusing on different aspects of the individual's characteristics and behaviour. A set of core questions was devised for inclusion in every sweep to allow comparable, longitudinal analysis of self reported delinquency, adversarial health behaviours, friend's delinquency, experience of victimisation and contact with the police. Other questions were designed with the intention of asking them at regular intervals, such as personality measures (including self esteem, alienation and impulsivity) and questions about neighbourhood and school, while some were intended simply to be one-off questions.

Table 1.4: Broad questionnaire themes at sweeps 1 and 2

	Sweep one	Sweep two
Family structure & care experience	✓	✓
Parental relationships	✓	✓
Sibling relationships	×	✓
Leisure activities	✓	✓
Personality characteristics	✓	✓
Adversarial health measures	✓	✓
Neighbourhood	✓	×
Self reported delinquency	✓	✓
Friends' characteristics and delinquency	✓	✓
Moral judgements and values	✓	×
Commitment to and experience of school	×	✓
Experience of victimisation	✓	✓
Experience of bullying	×	✓
Contact with the police	✓	✓
Contact with other social agencies	×	✓

One of the most important considerations in designing the questionnaire was the reference period. Most self-report studies examine the events of the previous calendar year, however, this posed two problems. First, the sweep one questionnaire was intended to establish a baseline picture of various aspects of respondents' lives, in particular their offending behaviour. Therefore, the first year cohort were asked about things that had 'ever' happened, no matter how long ago.

For subsequent sweeps, it was agreed that the reference period should cover the previous year, thus providing a continuous account of their offending behaviour. However, there were concerns that young people would find it difficult to conceptualise events in terms of the calendar year. Therefore, sweep two asked about events during the previous school year i.e. from the beginning of first year to the end of the summer holidays prior to the start of second year at school³.

Although many questions were derived from existing questionnaires, careful piloting was necessary to check the level and integrity of the questions, to validate certain scales and to test out the survey administration procedure. Piloting for sweep one was carried out in three phases with age-matched pupils from secondary schools outside Edinburgh. Focus group discussions were conducted first to test out concepts, language and general comprehension of key issues. Then draft questionnaire sections were piloted to check for problems with specific questions or themes and, finally, a full draft questionnaire was piloted on a year group of young people to test out the content, level and length of the proposed instrument. With the exception of the focus groups, the same piloting procedure was adopted in sweep two.

During sweep one piloting, an issue arose over the design of the self reported delinquency section of the questionnaire. In order to collect more data about offending behaviour, respondents who said 'yes' to any of the delinquency questions were routed to a set of follow-up questions, while a 'no' response allowed the respondent to skip past the follow-ups. There was concern that some respondents might adopt a negative response pattern in order to proceed more quickly through the questionnaire. Therefore, two versions of the final questionnaire were produced, with the self-report delinquency questions in reverse order, to act as a validity check. Subsequent analysis of the sweep one data showed few significant differences in reported offending between the two versions and no evidence of a systematic response bias. This is discussed in more detail in chapter 3 of this report.

Fieldwork in schools

Given the size of the cohort, the most feasible way to administer the self-completion questionnaires was in school classrooms. This required a detailed fieldwork timetable to be devised in order to accommodate the preferred times of all 39 participating schools. In addition, numerous supplementary sessions had to be arranged to capture absentees. The questionnaire was designed to be completed in an average of 30 minutes, but a minimum of 1 hour per class was requested to allow respondents of all levels of educational ability to complete it comfortably. Given the confidential nature

³ This will need to be reconsidered when the cohort reach school leaving age.

of the study, the research team took responsibility for administering the questionnaires and teachers were asked to take no part in the fieldwork.

A very structured administration procedure was adopted to ensure that fieldwork was conducted uniformly across every classroom. The aims of the study were fully explained to the respondents and detailed instructions were given about how to complete the questionnaire, particularly in relation to the routing questions. Most importantly, pupils were told that the questionnaire was completely confidential and, to emphasise this, they were asked to sit separately in 'exam like' conditions. On the whole, pupils were extremely co-operative. However, in a small number of cases pupils were asked to move to another seat if they persisted in talking to a neighbour.

It was stressed that the questionnaire was not a test of their reading or writing ability. A researcher was on hand at all times and respondents were encouraged to ask for help with anything they did not understand. Due to the careful design of the questionnaire, most of the cohort were capable of completing the questionnaire on their own well within the time-scale. However, school learning support staff were asked in advance to identify individuals who would require additional assistance due to learning difficulties or other problems. Twelve per cent of the cohort were identified as needing help in sweep one, falling to 9.3 per cent in sweep two, although many more than that received some advice or assistance.

Extra researchers were employed to provide support and reassurance to pupils with learning or other difficulties. A flexible approach was required, but three main strategies were used. Those with mild learning difficulties were kept in the classroom and assisted as much as necessary by a reader in class. Those with moderate reading or comprehension problems were taken out of the classroom and put into small groups with a reader to provide more help. Finally, those with severe learning difficulties or behavioural problems were interviewed on a one to one basis. All participants attending special schools were given one to one help, although there were a few who could not respond due to severe comprehension problems (see Table 1.5, below).

Non-response rates

The bulk of fieldwork in schools was conducted between September and December during both sweeps, although it was not fully completed until the following March during sweep one and February during sweep two. This was primarily due to the difficulties of tracking pupils who were persistently absent from school. As far as possible, respondents were pursued by making return visits to schools. However, it proved impossible to gain access through schools to a small number of persistent truants, long-term sick children and temporarily or permanently excluded children. Therefore, attempts were made to gain access to these respondents at home.

Attempts to arrange home visits were problematic. The research team did not have access to parental names and addresses and, therefore, contact attempts had to be made via the schools. Many parents failed to respond to the letters sent home and no follow up attempts could be made due to the lack of address information. In sweep

one, letters were sent to the parents of 27 pupils⁴, to which there were nine positive and four negative responses. In sweep two, letters were issued to 50 parents producing eight positive and five negative responses. Nevertheless, with a persistent approach, Table 1.5 shows that the non-response rates for sweeps one and two of the study were exceptionally low at 0.3 per cent and 1.0 per cent respectively.⁵

Table 1.5: Non-response rates by school sector - sweeps 1 and 2

	Mainstream	Independent	Special needs	Totals
Sweep one				
Non-respondents (n)	8	0	5*	13
Non-response (%)	0.2%	0%	7.0%	0.3%
Sweep two				
Non-respondents (n)	34	0	11**	45
Non-response (%)	0.9%	0%	12.1%	1.0%

* All 5 were unable to comprehend the questionnaire.

** 8 of the 11 were unable to comprehend the questionnaire.

Participation rates

One of the most important issues for self-report studies is to achieve a high participation rate, since non-respondents have typically been shown to be more likely than average to be engaged in more serious offending (Aye Maung, 1995). Table 1.6 shows the proportion of pupils in each school sector that took part in the Edinburgh Study during sweeps one and two, taking into account both the opt outs and the non-respondents. However, compared with a response rate for the 1998 Youth Lifestyles Survey of 69 per cent (Flood-Page et al, 2000), the success of the Edinburgh Study is clear.

Not only were the participation rates for the mainstream and independent schools very high, but there was very little difference between them in both sweeps which suggests that the cohort was representative of both populations. The participation rate for pupils attending special schools was lower, particularly in sweep two. Nevertheless, as the number of pupils at special schools was so small this would be unlikely to have a dramatic effect on the findings.

⁴ Some of these children were subsequently picked up at school.

⁵ These non-response rates include all those who could not be contacted by the research team and those who were unable to respond due to comprehension problems.

Table 1.6: Participation rates by school sector - sweeps 1 and 2

	Mainstream	Independent	Special needs	Totals
Sweep one				
No. of participants	3669	574	57	4300
% of school population taking part in cohort	96.5%	96.6%	80.3%	96.2%
Sweep two				
No. of participants	3630	600	69	4299
% of school population taking part in cohort	95.9%	96.8%	75.8%	95.6%

Aims and structure of the report

The aim of this report is to present the key findings from the first three years of the Edinburgh Study, covering two sweeps of data collection. As the findings cover a broad range of topic areas, it is beyond the scope of this initial report to include an extensive review of the literature or a detailed discussion of theoretical issues. The content of the report is mainly descriptive, although relevant contextual information is referred to in each chapter. A concluding section is given at the end of each chapter, to sum up the findings, identify further areas of analysis and contemplate the issues for future stages of the Edinburgh Study.

This chapter has outlined the aims, design and methodology of the study. More detailed information about the way in which the study was carried out is contained in the Edinburgh Study Technical Report (McVie, 2001). The subsequent chapters present key findings about various specific aspects of the study. Throughout the analysis, reference is made to various key characteristics of the cohort, most commonly gender and social class, and details of these characteristics are given in chapter two. Chapter three presents a comprehensive analysis of the self-reported delinquency of the cohort at sweeps one and two, including other problematic behaviours such as drinking, smoking and drug use. Computation of the key offending variables used in analysis throughout the rest of the report is described here.

Chapter four examines the relationship between youth and the police in the context of their offending behaviour and, particularly, their social class. The relationship between self-reported offending and self-confessed victimisation is considered in chapter five, while the link between personality characteristics and delinquency are explored in chapter six. The important associations between aspects of parental supervision, control and relationships and delinquency are described in chapter seven. Chapters eight and nine consider the importance of lifestyle and leisure activities and the influence of peers on offending. Young people's attitudes towards and experiences at school are detailed in chapter 10, including the relationship between

truancy and offending more generally, while chapter 12 looks at the relationship between delinquency and teacher's ratings of pro-social and problematic behaviour.

Chapter 11 considers how moral judgements and values relate to delinquency, looking both at perceptions of seriousness about criminal acts and aspects of moral neutralisation. Chapter 13 examines the extent to which members of the cohort had had contact with two official agencies of formal social control, namely the social work department and the children's hearing system. The associations between self-reported delinquency and official evidence of offending are explored, and aspects of validity contemplated. Chapter 14 presents the findings from the exploration of social geography as it relates to individual offending, and considers the complex interaction between individual and neighbourhood effects as they relate to offending. Finally, chapter 15 describes the case study research in two neighbouring areas and presents some tentative conclusions explaining the reasons for differing crime levels in areas with similar levels of social deprivation.

CHAPTER 2: CHARACTERISTICS OF THE COHORT

Introduction

The Edinburgh Study is a large, single-cohort longitudinal study involving around 4,300 young people who started secondary school within the City of Edinburgh in August 1998. As stated in chapter one, Edinburgh is a city of enormous diversity which comprises all the social extremes that are found within cities across Britain. While it cannot be claimed that the demographic profile of Edinburgh would exactly match that of every other British, or indeed Scottish, city, it is unlikely that the factors which are associated with youth crime in Edinburgh would not be similarly observed elsewhere. This section of the report describes the basic demographic characteristics of the cohort. While it was not within the scope of this report to present a detailed demographic analysis within each chapter, analysis of gender and social class has been conducted consistently throughout.

Age and gender

There is a wealth of evidence to show that patterns of offending change with age, and that future offending can be predicted fairly well from character, behaviour and temperament shown at an early age. However, given the limitation of the early developmental approach, in terms of predicting 'false positives', this study focuses on the adolescent transitions that convert some young people into persistent or serious offenders. By selecting those in their first year of secondary school, with an average age of 12, it was anticipated that the cohort would be below the mean age of onset. Graham and Bowling (1995), for example, found the average age at which girls and boys started offending was 13.5 years, although the peak age of onset was 15. In the Cambridge Study, Farrington (1994) also found the age of onset of offending to be between 13 and 15 years.

The majority of the Edinburgh Study cohort were expected to have a birthday between March 1986 and February 1987, giving them an age span of between 11½ and 12½ at the start of sweep one data collection. Despite the fact that only one year group were selected, the cohort turned out to have a considerable spread of ages as shown in Figure 2.1, below. The mean age of the cohort at sweep one was 12.0 years during sweep one, and the vast majority of respondents (95.2 per cent) fell within the expected age group of 11½ to 12½ years. However, just under one per cent of the cohort were aged less than 11½ (the youngest being 10.7 years) and 5.8 per cent were older than 12½ (with the oldest being 13.9 years).¹ Figure 2.1 also shows that there was very little change in the spread of ages at sweep two, despite a slight change in the composition of the cohort. The mean age at sweep two was 13.0 and the majority (94.3 per cent) were aged between 12½ and 13½.

¹ The independent schools had a higher mean age of 12.1 because many of these respondents had come from abroad and had been placed in the year group which best reflected their academic ability. The special schools also had higher mean age of 12.2, which was due to the fact that some respondents had been dropped down a year due to educational underachievement.

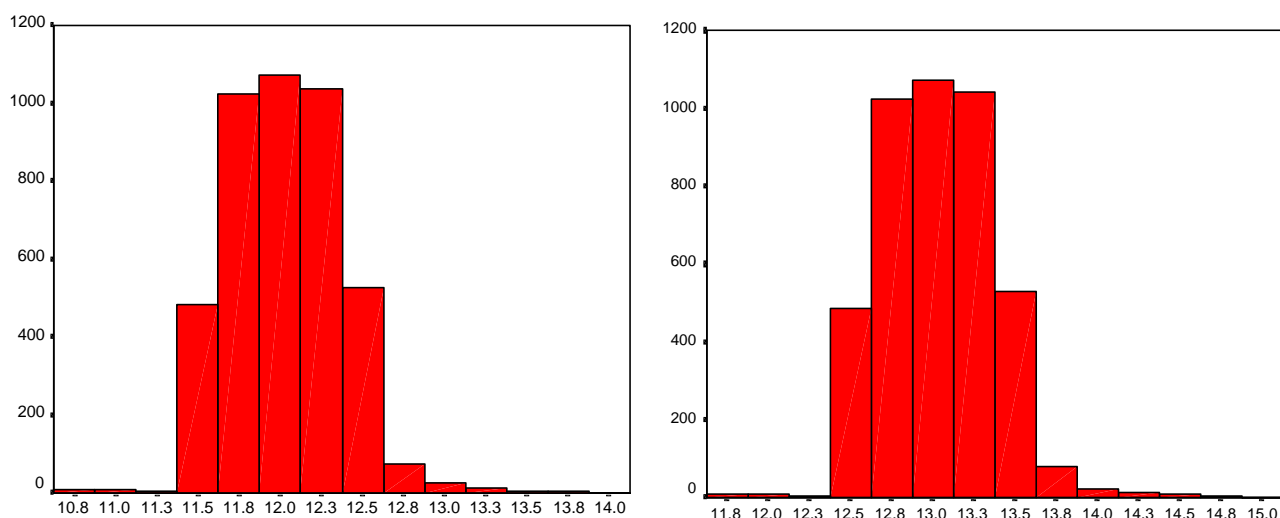


Figure 2.1: Age spread of the cohort – sweeps 1 and 2

The age of the cohort was also important in terms of analysing gender differences. Flood-Page et al (2000) found little difference between boys and girls aged 12 to 13 in terms of involvement in offending and other anti-social behaviours. However, the peak age of delinquency for girls was 14 compared with 18 for boys, suggesting that girls desist from offending and anti-social behaviour much earlier than boys. Analysis of gender differences in the Edinburgh Study was facilitated by the size of the cohort and the equal representation of boys and girls in the first two sweeps of the study. Of the 4,300 participants at sweep one, 50.5 per cent (n=2,172) were boys and 49.5 per cent (n=2,128) girls. Although the composition of the cohort changed slightly in sweep two, the gender balance shifted only slightly with 50.8 per cent (n=2,185) of the cohort being boys and 49.2 per cent (n=2,144) girls.

Socio-economic status

Official sources of data suggest major class differences between those who are subject to formal sanctions and those who are not. However, Riley and Shaw (1985) found that class differences revealed by self-report studies were less than those suggested by official statistics. Research by Anderson et al (1995) found that middle class children were just as likely to be involved in offending as lower class children. And in a study of problematic health behaviours, West et al (1990) argued that there may be relative resistance during adolescence to the influences of social deprivation, while other personal and social factors may be more important. In order to assess the relationship between social class and offending behaviour, two measures of socio-economic status were included in sweep one: social class based on parental occupation and a simple family affluence scale.

In order to assign social class status, respondents were asked to describe their parents' occupations, which were then coded using the Registrar General Social Classification (RGSC) Scheme. The respondent's social class was determined to be that of the parent with the highest social class according to occupation, with full time work taking precedence over part time work. Unfortunately, a fairly high proportion (14.5

per cent) of respondents were unable to adequately classify either parents' occupations and a further 1.7 per cent were not living with parents. Nevertheless, a best estimate of social class was assigned to 83.8 per cent of the cohort in the first sweep.

The limitation of measuring social class amongst adolescent population using this method was noted by Currie et al (1997) in their World Health Organisation study of health behaviour amongst Scottish school children. They found that over 20 per cent of 11 to 15 year olds could not describe parental occupation sufficiently to be classified using the RGSC Scheme. Devising a simple family affluence scale (FAS) based on household car and telephone ownership and whether the child had their own bedroom, they found this to be moderately correlated with parental occupation and to show similar patterns of association with selected problematic health measures.

Analysis of the first sweep data from the Edinburgh Study found that there was a significant correlation ($p < 0.01$) between the family affluence scale and the RGSC classification (0.363). However, since the latter provided a higher level of discrimination between social class groupings, it has been used for analysis throughout this report. Table 2.1 shows the social class breakdown for those who were able to provide classifiable information at sweep one, by gender. As the social class question was not repeated at sweep two, Table 2.2, below, uses the same data to show the social class of those who participated at sweep two.² There were no significant differences in social class between boys and girls at either sweep.

Table 2.1: Social class of Edinburgh Study respondents by gender - sweep 1

Column percentages

Social Class	Boys (n=1840)	Girls (n=1835)	Sweep 1 (n=3675)
I	10.2	10.2	10.2
II	31.6	31.7	31.6
III Non-manual	11.8	12.3	12.1
III Manual	21.4	19.8	20.6
IV	8.2	8.6	8.4
V	4.9	3.8	4.4
No parent working	9.8	11.7	10.7
Not living with parents	2.1	1.9	2.0

1. Column percentages may not total 100 due to rounding.

² The social class information at sweep two is the same as that at sweep one, but it excludes those who left the cohort after sweep one and those who joined at sweep two.

Table 2.2: Social class of Edinburgh Study respondents by gender - sweep 2

Column percentages

Social Class	Boys (n=1776)	Girls (n=1778)	Sweep 1 (n=3554)
I	10.1	10.3	10.2
II	31.9	31.8	31.9
III Non-manual	11.8	12.5	12.2
III Manual	21.5	20.1	20.8
IV	8.1	8.6	8.4
V	5.0	3.7	4.3
No parent working	9.4	11.0	10.2
Not living with parents	2.3	2.1	2.2

1. Column percentages may not total 100 due to rounding.
2. Based on data from sweep one, as the social class question was not repeated at sweep two.

Family structure

Social class is just one of a range of family characteristics which have been identified by research as having an influence over delinquency (Farrington, 1996). Family structure and, particularly, parental structure has been found to be less important than quality of parenting, such as level of supervision, nurturing and parental relationships. However, there is considerable evidence about the disruptive effects of family breakdown and experience in care during childhood. Tables 2.3 and 2.4 show the parental structure of the Edinburgh Study respondents during the first two sweeps of data collection.

Table 2.3: Family structure of Edinburgh Study respondents by gender - sweep 1

Column percentages

Parental structure	Boys (n=2159)	Girls (n=2118)	Total (n=4277)
Living with 2 birth parents	70.9	67.2	69.1
Living with mother only	17.0	20.3	18.6
Living with father only	2.0	1.6	1.8
Living with one parent & one step-parent	8.8	9.5	9.2
Living in care or not with a parent	1.3	1.4	1.3

1. Column percentages may not total 100 due to rounding.

Tables 2.3 and 2.4 both show that the vast majority of cohort members at both sweeps were living with two birth parents, although a substantial minority were living either with their mother only or in a step-family situation. Although there was a slight significant difference ($p < 0.05$) between boys and girls at sweep one in terms of parental structure, the differences at sweep two were not significant.

Table 2.4: Family structure of Edinburgh Study respondents by gender - sweep 2

Column percentages

Parental structure	Boys (n=2177)	Girls (n=2100)	Total (n=4277)
Living with 2 birth parents	70.7	68.4	69.6
Living with mother only	15.4	16.4	15.9
Living with father only	1.9	1.5	1.7
Living with one parent & one step-parent	10.4	12.1	11.2
Living in care or not with a parent	1.5	1.5	1.5

1. Column percentages may not total 100 due to rounding.

Experience of being in care

At sweep one, respondents were asked whether they had ever experienced being in care, including going to a foster home, a young person's unit or a close support unit. Only 2.4 per cent of the cohort stated that they had ever been in care at some point in their lives, and this did not differ significantly for boys and girls (2.5 per cent and 2.3 per cent, respectively). Of these, 1.8 per cent (n=41) said that they had experienced being in care in the past, while 0.6 per cent (n=16) stated that they were in care at the present time. Again, at sweep two the vast majority (97.0 per cent) stated that they had not been in care within the last year. Of those who had, experienced care only 24 respondents stated that they were currently in care, most of whom (n=22) were in a foster home.

Ethnic group

Certain ethnic minority groups tend to be over-represented in official statistics, although the results of studies into the relationship between ethnicity and offending have been ambiguous. Participants in the second sweep of the Edinburgh Study were asked how they would describe themselves, using a standard census ethnicity question. According to the 1991 Census, 97.6 per cent of those living in Edinburgh were classified as white³, therefore, it is hardly surprising that the majority (94.2 per cent) of respondents to the Edinburgh Study described themselves as white. Table 2.5

³ Data provided by the General Register Office for Scotland.

shows that the pattern in terms of the ethnic breakdown of the study and the census data for Edinburgh was very similar, which suggests that the Edinburgh Study population is broadly representative of the community.

One of the main differences shown in Table 2.5 is the fact that there was a higher proportion of ethnic minorities in the Edinburgh Study. There are three possible explanations for this. First, there was eight years difference between the data collection period for the census data and the study data, therefore, there may have been real changes in the demographic profile of the city over that time. Second, the census data was based on all ages, rather than the specific age group of young people included in the Edinburgh Study cohort. And third, many of the participants attending independent schools were foreign students attending schools within Edinburgh but not residing there.

Table 2.5: Comparison of ethnic origin from the Edinburgh Study and 1991 Census – sweep 2

Column percentages

	Edinburgh Study	1991 Census
White	94.2	97.6
Pakistani	1.6	0.7
Chinese	1.1	0.5
Black (all groups)	0.7	0.3
Indian	0.7	0.3
Bangladeshi	0.3	0.1
Other	1.4	1.9

1. Column percentages may not total 100 due to rounding.

School sector

Table 2.5 reveals that the majority of Edinburgh Study participants were attending mainstream schools, representing 100 per cent coverage of this sector. As a result of two large and several small independent schools opting out of the study, the proportion of participants attending independent schools at sweep one was only 13.3 per cent compared with 19.6 per cent of the first year population as a whole. Pupils attending special schools represented a very small, but important, minority. There were slight differences in the proportion of boys and girls attending mainstream and independent schools at both sweeps. However, boys were twice as likely as girls at sweep one, and three times as likely at sweep two, to be attending a special school ($p < 0.01$).

The vast majority (94.3 per cent) of those participating at sweep two had remained at the same school. However, 2.5 per cent had transferred from one Edinburgh school to another and 3.2 per cent had transferred from a school outwith the City.

Table 2.6: School sector by gender - sweeps 1 and 2

Column 'n' and percentages

	Boys	Girls	Total
Sweep one (n)	2172	2128	4300
Mainstream (%)	85.5	85.0	85.3
Independent (%)	12.5	14.2	13.3
Special needs (%)	2.0	0.8	1.4
Sweep one (n)	2185	2144	4299
Mainstream (%)	83.7	84.2	84.0
Independent (%)	13.4	14.9	14.2
Special needs (%)	2.8	0.9	1.9

1. Column percentages may not total 100 due to rounding.

CHAPTER 3: DELINQUENCY AND RISK BEHAVIOURS

Introduction

One of the main methods used in the Edinburgh Study is to ask young people to give an account of their own delinquency. There is, of course, the danger that respondents will conceal, or alternatively, exaggerate their acts of delinquency. However, a considerable body of evidence has been gathered from studies that used self-reported delinquency alongside other measures. These findings show that self-reports reveal a large body of offending that does not appear in official or other records, and that a fairly high proportion of officially recorded offences are also revealed by self-reports.

There is a high correlation between self-reports and official records in the sense that individuals who report that they are delinquent are much more likely than others to have official records. At the same time, self-reports are probably subject to important limitations and biases. People are probably unlikely to reveal very serious offences if they have never been caught (but once they have been caught they have little to lose by admitting to them). Some population groups are probably more likely to conceal offences, or to exaggerate them, than others. This could help to explain why in the US the contrast in official offending between black and white people is much greater than the contrast in self-reported offending (although targeted and discriminatory law enforcement is another possible explanation).

In short, extensive research has demonstrated that self-reports are a useful but of course imperfect measure of delinquency. The Edinburgh Study collects information about offending from a variety of official records as well as from the young person's questionnaire. By cross-relating self-reports and official records, we plan to investigate systematic bias both in self-reports and in the criminal justice and social work systems. The scope for such checks on validity and reliability greatly increases as the study continues. First, we focus on describing the main results from the self-report questions themselves.

Self-reported delinquency

At the first sweep, respondents were asked a sequence of questions about 15 kinds of delinquent behaviour (see Table 3.1). One of these (skipping school) is not a criminal offence. Several of the other questions often identify incidents that would not normally be treated as criminal, even if they are technically so: for example, taking a small sum of money from home, taking a pencil from a classmate, or behaving rowdily in a public place. Several of the other questions refer to much more serious incidents: for example, fire-setting, or taking and driving away a car. It is safer to call these collectively 'acts of delinquency' rather than criminal offences. At the second sweep, respondents were asked a similar sequence of questions about the same delinquent acts, with the addition of an item on deliberately hurting animals.

Table 3.1: Delinquency items - sweeps 1 and 2

1. Not paid correct fare on bus or train.
Sweep 2: 'travel on a bus or train without paying, without paying enough money or using somebody else's bus pass'.
2. Taken something from shop without paying.
3. Been rowdy or rude in a public place so that people complained or you got into trouble.
Sweep 2: 'noisy or cheeky in a public place so that people complained or you got into trouble'.
4. Stolen or ridden in a stolen car or van or on a stolen motorbike.
5. Taken money or something else from school.
6. Carried a knife or weapon for protection or in case it was needed in a fight.
7. Deliberately damaged or destroyed property.
8. Broken into a house or building with the intention of stealing.
9. Written things or sprayed paint on property that did not belong to you.
10. Used force, threats or a weapon to get money or something else from somebody.
11. Taken money or something else from home without permission.
12. Deliberately set fire to somebody's property or a building.
13. Hit, kicked or punched someone on purpose with the intention of hurting or injuring them.
Sweep 2: 'hit, kick or punch someone on purpose (fight with them) (DON'T include your brothers and sisters).
14. Broken into a car or van with the intention of stealing something.
15. Skipped or skived school.
16. Hurt or injured animals or birds on purpose [sweep 2 only].

[Items ordered as in Type A questionnaire at sweep 1]

At the first sweep, respondents were asked in each case whether they had *ever* behaved in each way, and if they answered 'yes', how many times they had ever done it. At the second sweep, by contrast, they were asked whether they had behaved in each way *within the past 12 months* and if so, how many times in the past 12 months.¹ Some more detailed questions were also asked about each kind of delinquent behaviour (for example, what was stolen), although these changed in detail between the two sweeps.

¹ It was carefully explained to respondents that wherever the phrase *within the past 12 months* was used, it meant from the beginning of the school year to the end of the summer holidays. This was to ensure that respondents would always be answering about the previous school year, even though questionnaires were completed at different schools over a period of three or more months.

Order effects

After completing the first couple of questions in the sequence, respondents would realise that by answering 'no' to the first question they could always avoid the follow-up questions. There was a danger, particularly in a self-completion questionnaire where respondents can look ahead, that this could lead to bias. To test for that possibility, two versions of the questionnaire (Type A and B) were used at sweep 1: in the second version, the order of the delinquency items was reversed. The two versions were allocated randomly to respondents.

At sweep 1, there was a statistically significant difference in the responses to Type A and B questionnaires in the case of four out of the 15 items. These findings are summarised in Table 3.2. In the case of car breaking, the probability that the difference might have occurred by chance is less than 1 in 1000, so the probability that the whole pattern of differences might have occurred by chance is remote indeed. However, the pattern is hard to interpret. If the differences between the questionnaires were caused by order effects, as postulated, then we would expect the affected items to be clustered at the beginning and end. Two are towards the beginning (in Type A), one towards the middle, and one fairly near the end. Hence the evidence that the differences arise from order effects is inconclusive. In any case, there was no significant difference for the remaining 11 items. In summary, these findings suggest that if the order of the items does influence responses, these effects are small and hard to detect.

Table 3.2: Responses to four delinquency items by questionnaire type - sweep 1

Question no.	Item	Sig. Level ¹	% yes, Type A	% yes, Type B
12	Joyride	.007	1.8	3.1
9	Vandalism	.002	15.4	12.2
3	Assault	.002	55.7	50.9
2	Car breaking	.000	0.7	2.0

¹ Pearson chi square, p of difference occurring by chance.

Responses to individual items

The basic results for the 15 items at sweeps 1 and 2 are shown in Table 3.3. For several of the delinquent acts, the proportion who said they had ever engaged in them was substantial at sweep 1: it was more than half for causing physical harm, and around one quarter for theft at home, graffiti, rowdiness in public, shoplifting, and fare dodging. Considerable proportions of 10 per cent or more admitted to theft at school, carrying weapons, and damaging property. It was only a small minority who admitted to breaking into cars, joyriding, using force to obtain something, housebreaking, and fire-setting. On average, those who said they had engaged in a type of delinquency said they had done it

on somewhere between two and three occasions. However, among those who had engaged in each type of delinquency, there was in each case a substantial minority who said they had done it on many occasions: for example, the proportion who had done it on four or more occasions ranged from 14.4 per cent for car-breaking, through 24.5 per cent for damaging property, to 45.0 per cent for causing physical harm.

Responses at sweep 2 were broadly similar, even though the questions at sweep 1 were supposed to cover the respondent's whole life up to the start of secondary school, whereas those at sweep 2 covered only the previous 12 months. At this stage it is hardly possible to assess how much change in behaviour underlies these answers, because of the recall problems associated with the 'ever' questions at sweep 1. It is quite possible that the smaller time window makes little difference to the proportion saying they have engaged in a delinquent act because nearly everyone who has, for example, damaged property has done so at least once a year. Also, if delinquency rarely started before the age of 10 or 11, most of those who at the age of 12 had ever engaged in a delinquent act would have done so within the past 12 months.

Table 3.3: Responses on 16 delinquency items - sweeps 1 and 2

Column percentages and means

	% prevalence ¹		Mean frequency ²		% 4+ times ²	
	Sweep 1	Sweep 2	Sweep 1	Sweep 2	Sweep 1	Sweep 2
Fare dodge	23.6	26.2	2.70	2.80	23.3	28.1
Shoplift	27.1	26.6	2.63	2.94	25.2	29.6
Rowdy	25.4	40.1	3.10	3.24	33.2	25.4
Joyride	2.5	4.5	2.89	2.76	29.6	31.5
Theft at school	11.3	9.2	2.18	2.44	17.4	23.0
Carry weapon	11.8	15.8	3.02	3.11	31.3	33.3
Vandalism	13.8	15.9	2.65	2.60	24.5	24.4
Housebreak	2.3	2.9	2.32	1.87	21.6	14.1
Graffiti	27.6	34.4	3.24	3.80	38.0	47.3
Rob	1.7	1.6	2.74	2.37	25.9	19.2
Theft at home	30.4	19.4	2.61	2.57	19.9	23.3
Fire setting	4.0	13.7	2.23	2.62	15.8	24.4
Injure, fight	53.3	46.1	3.85	2.87	45.0	28.7
Car break	1.3	1.9	2.02	1.92	14.4	12.7
Truancy	17.6	23.7	2.62	2.77	24.1	28.4
Animal cruelty		5.8		2.91		28.0

¹ Sweep 1, ever; sweep 2, past 12 months.

² Among those who have engaged in the form of delinquency.

However, looking at the responses in more detail, it is clear that there are important changes in the prevalence of specific forms of delinquency. The prevalence of rowdiness in public, fire-setting, and joyriding increased substantially in each case. The increase in the prevalence of joyriding from 2.5 per cent to 4.5 per cent is a large one, even though the proportion engaging in this form of delinquency remains fairly low in absolute terms, but the increase in fire setting from 4.0 per cent to 13.7 per cent is greater, and brings the prevalence of this form of delinquency to a substantial level. The increase in the prevalence of rowdiness in public, bringing this up to the very high level of 40.1 per cent, is interesting, since this is exactly the kind of behaviour that fits with public stereotypes of teenagers, and is associated in the public mind with the decline of civility, especially in deprived or dangerous neighbourhoods.

There was also some increase in the prevalence of fare dodging, carrying weapons, damaging property, graffiti, and truancy, although all of these increases were small. On the other hand, the prevalence of theft at home declined substantially, and there was also a smaller decline in theft at school. Despite the change in the time window, these changes clearly indicate a changing *pattern* of delinquency as respondents grow older. It cannot be said that there is a simple change from trivial to more serious offences, since, for example, there was no increase in the prevalence of housebreaking, and any increase in robbery was small. However, certain forms of delinquency, such as joyriding, seem to become common and fashionable as young people move into the teenage years.

Where young people had engaged in a form of delinquency, in the majority of cases they had done it more than once (whichever of the time windows is under consideration). As Table 3.3 shows, the mean number of occasions was around 2 to 3 in most cases at both sweeps, and a substantial minority had been involved on four or more occasions. Changes in frequency between the sweeps were in general not very striking, and are in any case hard to interpret, because of the change in the time window. Nevertheless, it is interesting that the frequency as well as the prevalence of fire setting and graffiti seem to have increased. The apparent decline in the frequency (as well as the prevalence) of hurting and fighting with others may arise from detailed change in the wording of the question to exclude fights with siblings (see Table 3.1).

At both sweeps, there was also a measure of whether the delinquent behaviour had come to the attention of the police or some other adult authority. At sweep 1, young people were asked 'Have you been caught doing this by an adult or the police?' or for some items 'by a teacher or another adult?'. At sweep 2, they were asked 'Did you get into trouble doing this?' and given options such as 'Yes—from the police or a security guard' and 'Yes—from another adult'. These options varied slightly according to the delinquency item. Table 3.4 provides a summary of the results, without distinguishing between police, security guards, teachers, parents, and other adults who had come to know about the delinquent behaviour.

Among those who had been involved in each kind of delinquency (last two columns) the proportion who had got into trouble with adult authority varied considerably according to the form of delinquency. At sweep 1, more than half (55 per cent) of those who had

physically hurt or injured others had come into contact with adult authority about it, although only 4.5 per cent had been caught by the police as opposed to other adults. Around one-quarter to one-third of those involved in many forms of delinquency had brushed with adult authority at sweep 1: this applied to shoplifting, joyriding, damaging property, housebreaking, robbery, theft at home, fire setting, car breaking, and truancy. The proportion who had brushed with adult authority was considerably lower for the remaining forms of delinquency: fare dodging (only 7.2 per cent), theft at school, carrying a weapon, and graffiti. A very small proportion of those who had harmed animals had got into trouble over it (sweep 2 only: 7.3 per cent).

Table 3.4: Whether respondents had been caught or got into trouble with adults, for each delinquency item – sweeps 1 and 2

Column percentages and means

	% prevalence		% of all who were caught/in trouble		% of offenders who were caught/in trouble	
	Sweep 1	Sweep 2	Sweep 1	Sweep 2	Sweep 1	Sweep 2
Fare dodge	23.6	26.2	1.7	2.4	7.2	9.3
Shoplift	27.1	26.6	6.9	5.0	25.8	18.8
Rowdy	25.4	40.1	NA	25.5	NA	63.6
Joyride	2.5	4.5	0.6	0.9	25.5	20.3
Theft at school	11.3	9.2	1.2	0.8	11.1	8.5
Carry weapon	11.8	15.8	1.8	1.3	15.7	8.4
Vandalism	13.8	15.9	5.1	4.9	37.3	31.1
Housebreak	2.3	2.9	0.7	0.9	30.9	32.8
Graffiti	27.6	34.4	3.8	3.7	14.2	10.9
Rob	1.7	1.6	0.4	0.4	26.1	26.9
Theft at home	30.4	19.4	9.7	5.2	32.4	27.1
Fire setting	4.0	13.7	1.1	2.3	28.0	17.1
Injure, fight	53.3	46.1	29.0	15.7	55.1	34.1
Car break	1.3	1.9	0.4	0.4	33.9	18.8
Truancy	17.6	23.7	5.0	8.6	28.9	36.8
Animal cruelty		5.8	NA	0.4	NA	7.3

If we consider the proportions of all young people who had got into trouble (middle two columns), these were less than 5 per cent for most of the forms of delinquency, the exceptions being fighting or injuring others, theft at home, shoplifting, damage to property, and truancy. The proportion of offenders who were caught or got into trouble declined from sweep 1 to sweep 2 for many of the forms of delinquency, and remained about the same for several others (although it increased for truancy). These findings

suggest that young people become more successful at evading detection as they grow older, although this is not certain because of the change in the time window.

Many studies have found that offending is often a group activity in late childhood and early adolescence. At present our best information on this topic comes from the second sweep.² For seven of the nine forms of delinquent behaviour for which the question was asked, it was unusual for the respondent to have acted alone (rowdy, 2.7 per cent; shoplifting, 12 per cent; graffiti, 6 per cent; damage to property, 7.5 per cent; housebreaking, 3.3 per cent; fire setting, 4.2 per cent; car breaking, 5.0 per cent). The exceptions were cruelty to animals and truancy, which were far more often solitary (32.9 per cent and 24.5 per cent respectively).

Fights usually involved just two people (76.5 per cent) but typically others would have been present and often egging on the participants (the questioning did not cover that). Many of these forms of delinquency often involved considerable groups of young people. The proportion of occasions when four or more people were involved (plus the respondent) was 57.4 per cent for rowdiness, 37.6 per cent for graffiti, 48.1 per cent for damage to property, 39.7 per cent for housebreaking, and 50.4 per cent for fire setting. The numbers involved in incidents of shoplifting and car breaking were generally smaller.

The results on what was stolen or damaged show that most of the incidents were fairly minor. Items stolen from shops were mostly food, drink, or sweets (sweep 1, 68.2 per cent; sweep 2, 53.7 per cent); other items stolen were toys and games, make-up, small pieces of stationery, and CDs, tapes, or videos, although the last was uncommon even at sweep 2 (3.3 per cent). It was mostly small items of stationery that were stolen at school (sweep 1, 57.8 per cent; sweep 2, 74.0 per cent), although 11 per cent of the stolen items were money (very rarely over £5). It was mostly money that was stolen from home; in most cases, the amount was not specified, but where specified, the amount was usually under £5.

Where things were taken with physical force or threats, what was taken was money in around half of cases. The amount was usually not specified: at sweep 2, an amount of over £5 was specified in only 1.5 per cent of cases, whereas an unspecified amount was mentioned in 48.5 per cent of cases. Other items taken with force or threats, but only in small proportions of cases, were a purse or wallet, toys, jewellery, a watch, a knife or penknife, and clothing. In more than one-third of cases of housebreaking, nothing was stolen (sweep 1, 33.7 per cent; sweep 2, 39.3 per cent), and where things were stolen they were mostly of low value. At sweep 2, an additional question revealed that the buildings broken into were empty in 60.3 per cent of cases; other buildings mentioned were huts (8.3 per cent) and houses (9.9 per cent).

² Detailed questions such as what was stolen, and were you with other people, were asked about the last occasion only (the last time you stole something from a shop, etc.). In precise terms, this is not a random sample of all such incidents (it over-represents incidents involving infrequent offenders) but this possible bias does not affect the interpretation offered here.

Property damaged included windows (sweep 1, 40.6 per cent; sweep 2, 35.1 per cent), cars (around 15 per cent at both sweeps) and street lamps (11 to 12 per cent). Favourite sites for graffiti were bus shelters (11.3 per cent at sweep 1, 17.1 per cent at sweep 2), walls and fences (around 20 per cent at both sweeps), and, less often, phone boxes, park equipment, and buildings.

Weapons carried at sweep 2 included a small knife or pen knife (49.3 per cent), a large knife or flick knife (10.0 per cent), a pole, stick, or bat (20.8 per cent), a BB gun or air rifle (7.4 per cent), and a hammer or metal weapon (4.1 per cent). There appeared to be a substantial change in specific weapons carried between the two sweeps, in particular an increase in small knives and a decline in big ones, which seems surprising, and may possibly reflect a change to pre-coded response options. BB guns and air rifles were mentioned for the first time at sweep 2.

The questions about fights and physical harm or injury included conflicts with siblings at sweep 1, but not at sweep 2. When fights with siblings were included, at sweep 1, they accounted for 40.4 per cent of last incidents. After the exclusion of conflicts with siblings, at sweep 2, 42.9 per cent of last incidents involved a friend, 49.7 per cent another young person, 2.1 per cent an adult known to the respondent, and 18.3 per cent some other person. Questions about the extent of harm or injury caused were included at sweep 2. There were no injuries in 37.6 per cent of cases; injuries included scratches and cuts (29.3 per cent), bruises or a black eye (44.3 per cent), broken bones (6.4 per cent), and a range of others (5.5 per cent) of widely varying levels of seriousness. These findings show that physical conflicts were fairly evenly distributed over a broad spectrum, with some weighting towards the less serious end.

Acts of cruelty to animals were mostly towards wild creatures (82.1 per cent) rather than pets. The victims included birds, cats, rabbits, squirrels, dogs, rodents, and other mammals. They did not include lower animals (insects, worms, etc.) because the question specifically mentioned 'animals and birds', so probably most of these incidents were not entirely trivial.

Summary measures of delinquency

In order to summarise the respondent's involvement in various kinds of delinquent act, we have calculated two kinds of score. The first *variety of delinquency* score is simply a count of the number of forms of delinquency that the respondent said he or she had been involved in (ever, at sweep 1, or in the past 12 months, at sweep 2). The second *volume of delinquency* score makes use of the questions about the number of times each act has been committed in order to estimate the total number of incidents.³ There were 15 delinquency items (forms of delinquency) at sweep 1 with an additional one (harming

³ These are minimum estimates rather than accurate counts, because the exact number was not always recorded. '6-10' was treated as 6, and 'more than 10 times' as 11. Where the respondent answered 'yes' to the first question, but the number of times was not stated, the median number of times was assigned.

animals) at sweep 2. Scores based on the 15 common items will be used when making close comparisons between the two sweeps.

The distributions of these summary scores are shown in Figures 3.1-4, below. Both variety and volume scores are skewed to the lower end, but this is much more marked for volume than for variety of delinquency. Because of this skewed distribution, a fairly small proportion of young people account for a high proportion of acts of delinquency, as many other studies have also found. For this reason, the mean number of acts of delinquency (8.29 at the first sweep, 9.23 at the second) was twice as high as the median (4.12 the first sweep, 4.73 at the second). At the first sweep, 11.7 per cent of respondents had engaged in 21 or more acts of delinquency, but accounted for 50 per cent of all acts of delinquency. At the second sweep, the pattern was similar: 13.2 per cent of respondents had engaged in 21 or more acts of delinquency (this time in the past 12 months) and these accounted for 51.7 per cent of all acts of delinquency. These are in fact minimum estimates of the concentration of delinquency, since the assumptions made in calculating them were conservative (see footnote 2 above).

There was a modest increase in both variety and volume of delinquency from sweep 1 to 2 (significant at better than the 99 per cent level of confidence for volume, and better than 95 per cent for variety). The change in time window means that the increase from year to year was probably greater than these statistics show.

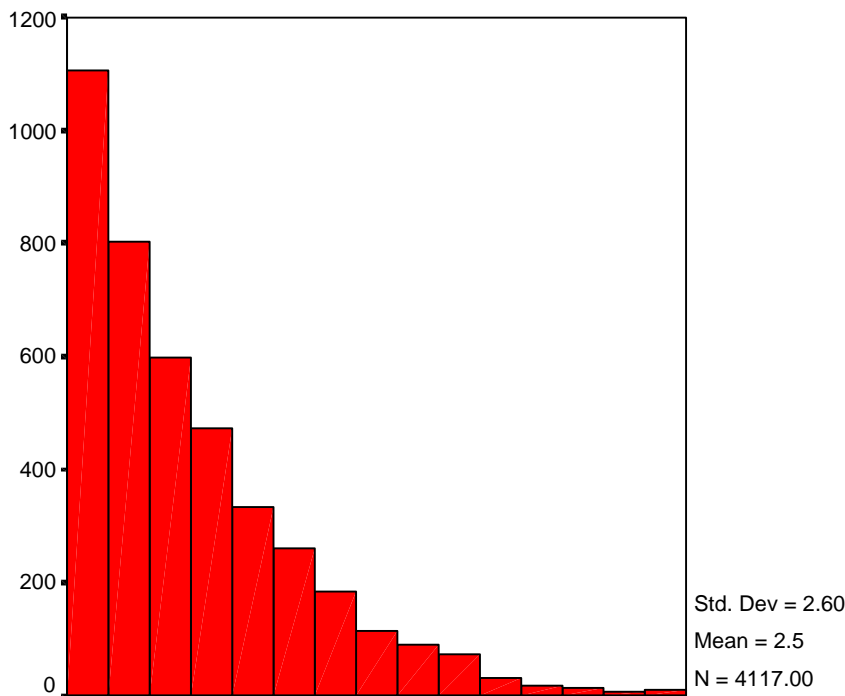


Figure 3.1: Variety of delinquency 0-15 - sweep 1

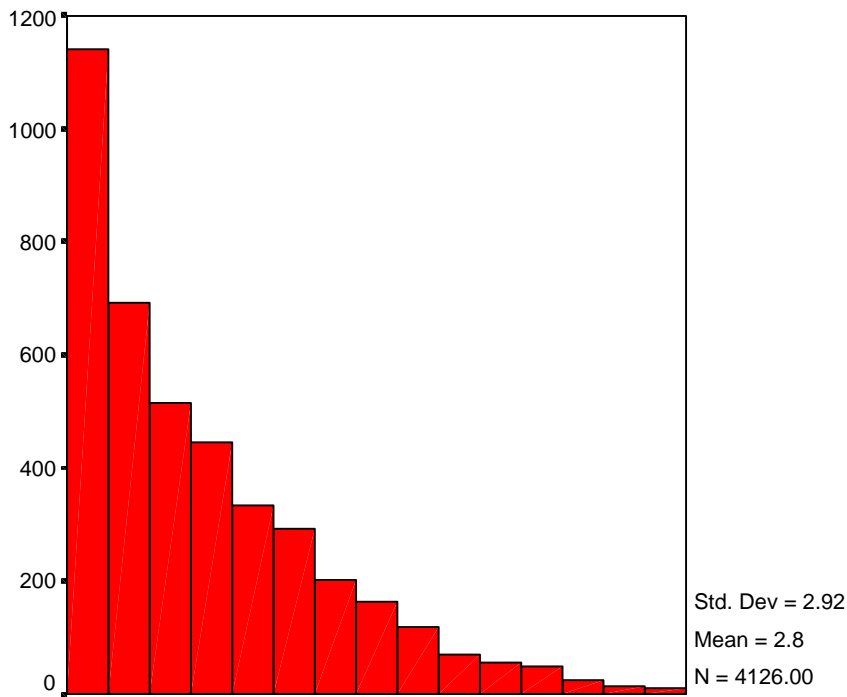


Figure 3.2: Variety of delinquency 0-15⁴ - sweep 2

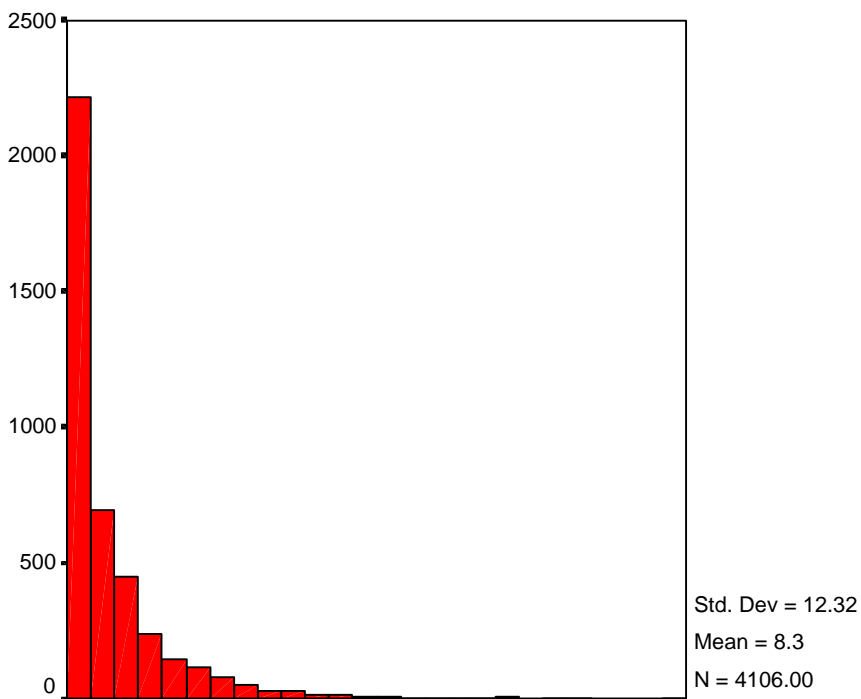


Figure 3.3: Volume of delinquency 0-130 - sweep 1

⁴ Excludes the additional item on cruelty to animals.

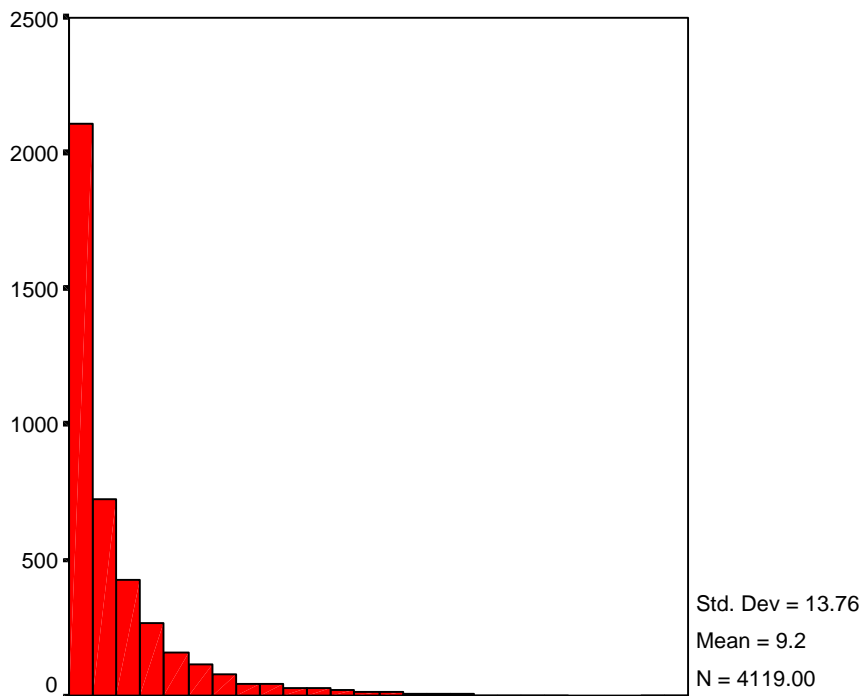


Figure 3.4: Volume of delinquency 0-130⁵ - sweep 2

Delinquency and gender

Earlier studies have shown that although delinquency is much more common among males than females, the difference is less pronounced among early teenagers than young adults, and the gap increases during the teenage years. At sweep 1, around the age of 12, there was a substantial difference in self-reported delinquency between males and females, although this was clearly much less pronounced than, for example, the male to female ratio of criminal convictions, which is around 5:1 in Scotland. In terms of mean scores, the male:female ratio at sweep 1 was 1.86 for volume and 1.54 for variety of delinquency. The contrast was greater for volume than variety because frequency as well as prevalence was higher among males than females. The contrast looks rather more pronounced if we focus on the upper end of the distribution. For example 17.7 per cent of males had engaged in 6 or more forms of delinquency, compared with 8.5 per cent of females.

The pattern of findings from other studies would lead us to expect the male/female gap to widen between sweeps 1 and 2, but in fact it narrowed to some extent. The male:female ratio of the mean scores for variety of offending changed from 1.54 to 1.46 from one sweep to the next, and in the case of volume from 1.86 to 1.46. As shown by the more detailed Tables 3.5-6, the gap narrowed because of an increase in the proportion of girls

⁵ Excludes the additional item on cruelty to animals.

who had been involved in many kinds of delinquency, and in many specific incidents: for example, the percentage of girls involved in 21+ acts of delinquency increased from 6.7 per cent to 10.1, whereas the percentage of boys who were in this category if anything declined. This important finding illustrates the value of annual sweeps that provide a continuous description of life histories. Although we can expect that the contrast in delinquency between males and females will increase over the teenage period, these early findings show that it does not increase steadily or consistently throughout these years.

Table 3.5: Variety of offending by gender – sweeps 1 and 2

Column percentages and means

	Sweep 1		Sweep 2	
	Males (n=2073)	Females (n=2044)	Males (n=2091)	Females (n=2035)
None	21.0	32.8	22.6	32.8
1	17.3	21.8	17.1	16.4
2-3	27.4	24.7	23.2	23.3
4-5	16.7	12.2	16.1	14.3
6-15	17.7	8.5	21.0	13.2
Mean	3.01	1.95	3.19	2.38

Table 3.6: Volume of offending by gender – sweeps 1 and 2

Column percentages and means

	Sweep 1		Sweep 2	
	Males (n=2066)	Females (n=2040)	Males (n=2088)	Females (n=2031)
None	21.1	32.9	22.7	32.8
1-3	19.2	24.6	18.7	19.1
4-8	20.1	19.9	20.1	19.2
9-20	22.9	16.0	22.3	18.7
21+	16.7	6.7	16.2	10.1
Mean	10.77	5.79	10.93	7.48

At each sweep, we have summarised the information on whether involvement in delinquent acts became known to the police or some other adult. At sweep 1, respondents were asked ‘Have you ever been caught doing this by an adult or the police?’

except that the question was omitted for public rowdiness, and for truancy ‘a teacher or another adult’ was substituted for ‘an adult or the police’. Taking account of a minor error in the questionnaire,⁶ answers about the police are available for 12 of the 15 items, and answers about another adult for 14. The summary score was calculated by counting the number of forms of delinquency for which the respondent had been caught by the police, and separately by another adult, so that these scores have a theoretical maximum of 12 and 14 respectively, although these are never reached. At sweep 2, respondents were asked for every item ‘Did you get into trouble for doing this’, and the response set included the police for every item except truancy. The scores have been calculated in the same way for the 15 items excluding cruelty to animals, although this time the ‘police’ score has a theoretical maximum of 14, and the ‘other adult’ score a maximum of 15.⁷

Table 3.7: Whether caught¹ by the police, by gender – sweeps 1 and 2

	Sweep 1			Sweep 2		
	Male	Female	Total	Male	Female	Total
Of all (n)	2073	2044	4117	2091	2035	4126
Caught (%)	10.2	0.3	6.3	15.6	10.5	13.1
<i>Of which:</i>						
Once (%)	7.4	1.8	4.6	10.9	8.6	9.7
Twice (%)	1.5	0.4	0.9	2.9	1.4	2.2
3+ times (%)	1.3	0.1	0.7	1.8	0.5	1.2
Of delinquents (n)²	1638	1373	3011	1618	1368	2986
Caught (%)	12.9	3.4	8.6	20.1	15.6	18.1
<i>Of which:</i>						
Once (%)	9.4	2.6	6.3	14.1	12.7	13.5
Twice (%)	1.9	0.6	1.3	3.7	2.1	3.0
3+ times (%)	1.6	0.1	1.0	2.3	0.7	1.6

Column percentages

¹ Number of forms of delinquency in which the respondent was caught during the reference period.

² Those involved in any of the 15 forms of delinquency during the reference period.

The results of these summary measures are shown in Tables 3.7-8, analysed by gender. The first part of each table shows the proportion of all respondents who had been caught or in trouble, whereas the second part shows those in trouble as a proportion of those who admitted to any of the forms of delinquency (of course only respondents who admitted to a form of delinquency were asked if they had been caught or been in trouble). Table 3.7 shows a very large difference at sweep1 between girls and boys in the proportion who

⁶ For the item about fare-dodging, the response set was incorrectly printed as ‘Yes—a teacher’ and ‘Yes—another adult’ although the question itself referred to an adult or the police. Consequently answers about the police are available for 12 of the 15 items.

⁷ At certain questions, specific adults in positions of authority were specified, e.g. ‘a bus conductor’, ‘a security guard’ but these have been combined with other adults in calculating the score.

had ever been caught by the police (10.2 per cent compared with 0.3 per cent). Of course, this partly arises because of the higher rate of delinquency among boys, but the second part of the table shows that, in addition, a much higher proportion of male than of female delinquents had been caught by the police (12.9 per cent compared with 3.4 per cent). This may suggest that the police target boys rather than girls up to the age of 11, but instead the difference may arise because boys tend to have committed more or more serious offences, or ones that are more visible to the police.

Table 3.8: Whether caught¹ by an adult, by gender – sweeps 1 and 2

Column percentages

	Sweep 1			Sweep 2		
	Male	Female	Total	Male	Female	Total
Of all (n)	2073	2044	4117	2091	2035	4126
Caught (%)	46.8	33.1	40.0	45.2	35.5	39.9
<i>Of which</i>						
1	30.8	26.0	28.4	28.0	23.0	25.5
2	11.0	5.3	8.1	10.1	8.4	9.3
3	3.4	1.5	2.4	4.4	2.9	3.7
4+	1.7	0.4	1.0	1.7	1.3	1.5
Of delinquents (n)²	1638	1373	3011	1618	1368	2986
Caught (%)	59.3	49.3	54.7	57.2	52.9	55.2
<i>Of which</i>						
1	39.0	38.7	38.9	36.2	34.2	35.3
2	13.9	7.9	11.1	13.1	12.5	12.8
3	4.3	2.2	3.3	5.7	4.2	5.1
4+	2.1	0.6	1.4	2.2	1.9	2.0

¹ Number of forms of delinquency in which the respondent was caught during the reference period.

² Those involved in any of the 15 forms of delinquency during the reference period.

The proportion caught by the police (or ‘in trouble’ with them) rose substantially for boys between sweeps 1 and 2 (from 10.2 per cent to 15.6 per cent) but in the case of girls, this rise was far more dramatic (0.3 per cent to 10.5 per cent). As shown by the second part of the table, this was largely because of a steep rise in the proportion of female delinquents who got into trouble with the police. This may suggest that the police pay far more attention to girls after the age of 12 than earlier: alternatively, it could be explained by a sharp rise in the seriousness or frequency of offending among girls, although the pattern of our findings does not show a sharp enough rise to account for the increase in police contacts.

At the second sweep, around one in ten of respondents had been in trouble with the police over the previous 12 months: a fairly substantial minority. Nevertheless, less than one in five of those who admitted to acts of delinquency had been in trouble with the police. Although there was a sharp increase from one sweep to the next in the proportion of girls

who had been in trouble with the police, narrowing the gap between girls and boys in this respect, the proportion who had been in trouble two or more times remained much higher among boys than girls (3.4 compared with 1.9 per cent).

A much higher proportion had been caught or in trouble with an adult than with the police (40.0 compared with 6.3 per cent at sweep 1) but trouble with other adults, unlike trouble with the police, did not become more common at sweep 2. This illustrates the shift during adolescence from informal control by family and other responsible adults to formal control by the official system. The proportion of boys in trouble with adults was considerably greater than for girls at sweep 1, although this gap narrowed somewhat at sweep 2, as the proportion of girls in trouble increased. It is notable that among girls the proportion in trouble two or more times increased from 7.2 to 11.6 per cent, whereas among boys it remained the same.

More than half of those who admitted to acts of delinquency had been in trouble with adults. Differences between boys and girls in this respect were not very striking, although at sweep 1 delinquent boys were more likely to have been in trouble than delinquent girls; this gap narrowed at sweep 2.

Delinquency and family background

At present, we rely on the reports of the young people in the cohort to describe their family background, although more accurate and detailed information will become available early in 2002 from a survey of parents. This section shows how self-reported delinquency varies according to the family background as described by the young people. Here we use information about family background from the first sweep to analyse self-reported delinquency at both the first and second sweeps. The pattern of results is similar whether volume or variety of delinquency is considered, so just one of the measures (variety) is used for illustration.

Table 3.9 shows that delinquency was lowest among children living with both parents, and considerably higher among those living with a single parent or a parent and step parent. From the standard errors also shown in the table, it is clear that the difference between those living with two parents and those living in other types of family is significant at a high level of confidence. Also, at both sweeps, delinquency was higher among those living with step parents than among those living with a single parent, and this difference, although not large, was statistically significant at better than the 95 per cent level of confidence. Delinquency was higher among those living with single fathers than among those living with single mothers, but this difference was not statistically significant at either sweep. The pattern shown at the two sweeps was similar. There is some suggestion that delinquency may have increased more among those living with step parents than among other groups, but this is something that would need to be tested by more elaborate analysis.

Table 3.9: Variety of delinquency by family structure – sweeps 1 and 2*Mean score and standard error of mean*

	Sweep 1		Sweep 2	
	Mean	SE	Mean	SE
Two birth parents	2.23	0.05	2.52	0.05
Parent + step parent	3.38	0.15	3.80	0.16
Single mother	2.85	0.10	3.17	0.12
Single father	3.19	0.35	3.44	0.39
In care/not with parents	2.85	0.42	2.96	0.45

Table 3.9 also shows that young people not living with their parents, including those currently in care, reported a level of delinquency distinctly higher than those in two-parent families, and about the same as those in single-parent families. Focusing specifically on those currently in care (according to their own reports), we find that these were a very small group (N=22 at sweep 1) whose rate of delinquency was not strikingly elevated. If we consider, instead, all those who had ever been in care (including those currently in care at sweep 1) then the group is much larger and provides more room for analysis. Table 3.10 shows that the variety of delinquency score at sweep 1 was almost twice as high among those who had ever been in care as among the rest.⁸

Table 3.10: Variety of delinquency by experience of care – sweeps 1 and 2*Mean score and standard error of mean*

	Sweep 1		Sweep 2	
	Mean	SE	Mean	SE
Ever in care	4.35	0.39	4.16	0.39
Never in care	2.43	0.04	2.75	0.05

At sweep 1, there was a distinct but fairly weak relationship between the parents' working status and the child's self-reported delinquency (see Table 3.11). It did not seem to matter whether parents were working full-time or part-time, but the child's delinquency was distinctly lower in families where there was a working parent than where there was not. At sweep 2, this difference had been diluted, largely because delinquency had increased most rapidly among the children of working parents.

⁸ The delinquency scores are considerably higher among those who had previously been in care than among those currently in care at sweep 1.

Table 3.11: Variety of delinquency by parents' working status – sweeps 1 and 2

Mean score and standard error of mean

	Sweep 1		Sweep 2	
	Mean	SE	Mean	SE
Lives with neither parent	2.85	0.42	2.96	0.45
No parent works	3.06	0.15	3.18	0.16
Parent(s) working PT only	2.44	0.11	2.86	0.13
Parent(s) working FT	2.41	0.05	2.70	0.05

There was a fairly consistent relationship between variety of delinquency at sweep 1 and social class (highest occupation of parents). This pattern remained broadly similar at sweep 2, although it had become rather less consistent (see Table 3.12). The delinquency score was around 50 per cent higher among those at the bottom compared with those at the top of the social class hierarchy. At sweep1, those whose parents were not working reported about the same level of delinquency as those in class 5, suggesting that they are similar to the lower manual group. No doubt this is partly because the rate of unemployment rises at each successive lower level of the social class hierarchy, so that the children of non-working parents often do have parents from the lower manual groups. Looking across the table, there is some indication that class differences in delinquency increased between the two sweeps. For example, the ratio between the class 5 and class 1 scores was 1.49 at sweep 1, compared with 1.80 at sweep 2.

Table 3.12: Variety of delinquency by parents' social class¹ – sweeps 1 and 2

Mean score and standard error of mean

	Sweep 1		Sweep 2	
	Mean	SE	Mean	SE
Social class 1	2.06	0.11	1.92	0.12
Social class 2	2.37	0.07	2.51	0.08
Social class 3 – non-manual	2.21	0.11	2.64	0.14
Social class 3 – manual	2.54	0.10	3.23	0.12
Social class 4	2.65	0.16	2.89	0.16
Social class 5	3.17	0.24	3.46	0.27
No parent working	3.06	0.15	3.18	0.16
Not living with parents	2.85	0.42	2.96	0.45

¹ Based on occupations of parents currently in work: where both parents were in work, the classification reflects the highest social class of the two occupations.

In broad terms these findings show that self-reported delinquency among 12 and 13-year olds is clearly related to basic features of the family background (whether the child is with both parents, whether the parents are working, whether the child has been in care, and social class). Yet, with the exception of experience of care, these relationships, although distinct, are not very strong.

Change in self-reported delinquency between sweeps 1 and 2

Findings already reported show some slight increase in self-reported delinquency between sweeps 1 and 2, although this is hard to interpret because of the change in the time window from ‘ever’ to ‘the last 12 months’. Also, they show some slight change in the distribution of delinquency: for example, the gap between girls and boys seemed to narrow slightly, and class differences became rather more pronounced. However, these conclusions were based on comparisons between the aggregate results for the two sweeps.

A different approach is to make use of the longitudinal design in order to consider how many young people increased, reduced, and maintained their level of delinquency from one sweep to the next. Respondents were divided into five groups according to their variety of delinquency score at each sweep, and a two-way table was produced showing the delinquency band at sweep 1 by sweep 2 (see Table 3.13).⁹ The darkest cells are the ones where there was greatest change from one sweep to the other, whereas cells on the diagonal, where there was least change, are white.

Table 3.13: Change in variety of offending from sweep 1 to sweep 2

Global per cent

Variety of offending sweep 2	Variety of offending, sweep 1					
	None	1	2-3	4-5	6+	Total
None	16.3	6.8	3.9	1.0	0.2	28.2
1	4.8	5.0	5.4	1.1	0.4	16.6
2-3	4.0	5.3	8.2	3.9	2.0	23.5
4-5	1.5	1.6	4.8	4.3	2.8	15.0
6+	0.7	1.2	3.5	4.2	7.2	16.8
Total	27.4	20.0	25.7	14.3	12.6	100.0

The table shows that the large degree of stability at the aggregate level conceals considerable flux at the individual level. The proportion of individuals whose variety of delinquency changed by three or more bands was fairly small, and increases by three or more bands were twice as common as decreases (3.4 per cent compared with 1.6 per

⁹ If volume rather than variety of delinquency is used, the pattern of results is closely similar.

cent). The proportion who increased by two or more bands was substantial, at 12.5 per cent, and the proportion who decreased by two or more bands was 8.6 per cent.

To produce a table like this one, it is necessary to group the scores into bands, which causes some blurring of the results. A different approach is to subtract the exact first sweep score from the exact second sweep score, which produces a measure of exact change in variety of delinquency score from one sweep to the next (a positive value means that delinquency has increased, a negative value that it has decreased). Figure 3.5 shows how this change score is distributed: the superimposed line is the normal distribution for comparison. Figure 3.6 shows the results of a similar analysis based on volume rather than variety of delinquency.

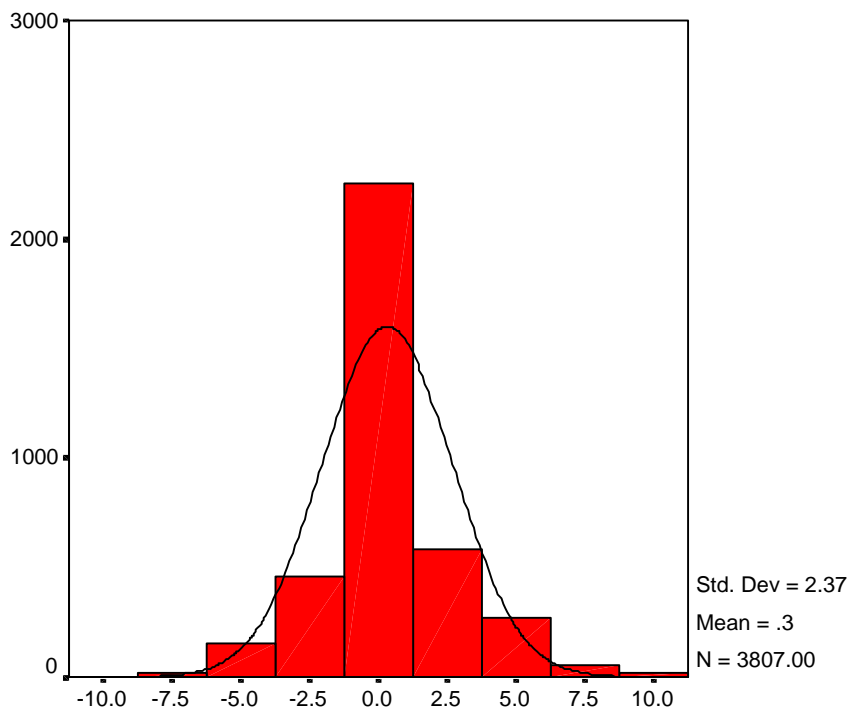


Figure 3.5: Change in variety of delinquency score from sweep 1 to 2

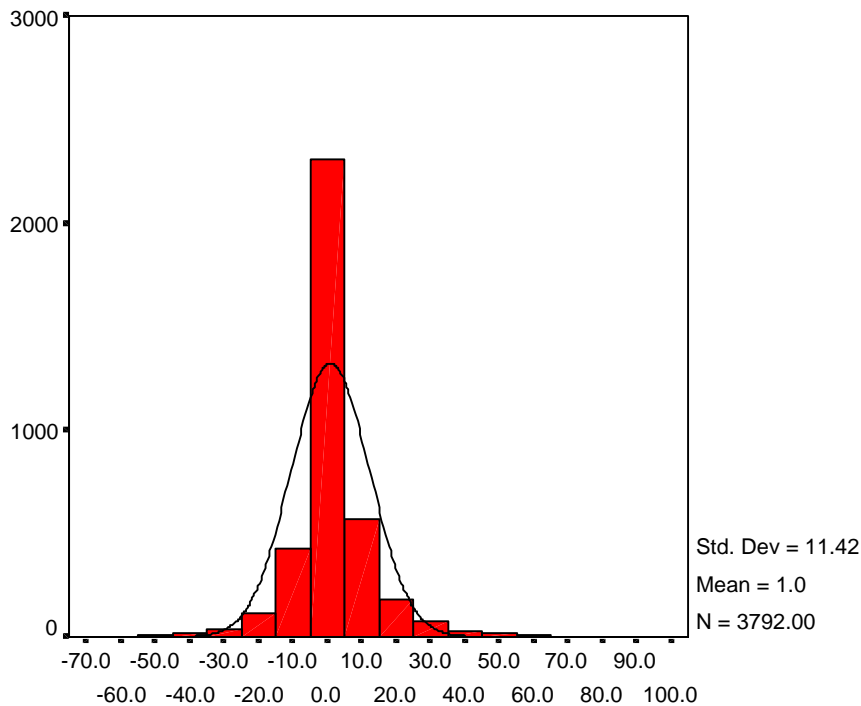


Figure 3.6: Change in volume of delinquency score from sweep 1 to 2

The means of these two change scores (.31 for variety and 1.00 for volume) illustrate the modest increase overall in delinquency from one sweep to the next.¹⁰ Both distributions are slightly asymmetrical, showing that a higher proportion of respondents had increased than decreased delinquency scores. Although these results show a considerable amount of change in both directions (increase and decline in delinquency) the high peak at the centre shows that stability was the norm.

The following tables show how the mean scores for change in delinquency vary between population groups. Table 3.14 shows that increasing delinquency was clearly more common among girls than boys (the difference is significant at a high level of confidence whether variety or volume is considered).

¹⁰ The measures of change in variety and volume of delinquency are conceptually the same as the sweep 2 mean score less the sweep 1 mean score, because the sum of the individual changes is the same as the aggregate change computed by performing the subtraction on the aggregate mean scores. However, detailed comparison with earlier tables will show discrepancies, because tables showing mean change are based on respondents for whom a score is available at both sweeps.

Table 3.14: Change in variety and volume of delinquency from sweep 1 to sweep 2 by gender

Mean score and standard error of mean

	Variety of delinquency		Volume of delinquency	
	Mean	SE	Mean	SE
Male	0.22	0.06	0.45	0.30
Female	0.41	0.05	1.55	0.22

There are some apparent differences according to family structure (Table 3.15), with the biggest increase in delinquency among those living with step parents: however, these differences are not statistically significant, and given the large sample size, this means that any difference is small.

Table 3.15: Change in variety and volume of delinquency from sweep 1 to sweep 2, by family structure

Mean score and standard error of mean

Family structure	Variety of delinquency		Volume of delinquency	
	Mean	SE	Mean	SE
Two birth parents	0.30	0.04	0.89	0.21
Parent and step parent	0.47	0.14	1.69	0.70
Single mother	0.32	0.09	1.11	0.49
Single father	0.31	0.35	1.32	2.15
In care/not with parents	-0.15	0.28	-0.26	1.61

On the other hand, there do appear to be significant differences according to social class (Table 3.16). The biggest increase in delinquency was among the class 3 manual group, and the difference between that increase and the decrease among those in class 1 was statistically significant. Also the increased delinquency among class 3 manual respondents was significantly higher than among those in class 2. Although this shows a clear relationship between change in delinquency and social class, it is not the case that each step down the class hierarchy is associated with a further increment. Instead, the peak is in the class 3 manual group.

Table 3.16: Change in variety and volume of delinquency from sweep 1 to sweep 2, by social class¹

Mean score and standard error of mean

Social class	Variety of delinquency		Volume of delinquency	
	Mean	SE	Mean	SE
Class 1	-0.12	0.10	-0.92	0.44
Class 2	0.19	0.07	0.71	0.32
Class 3 non-manual	0.44	0.12	1.40	0.45
Class 3 manual	0.65	0.10	1.94	0.47
Class 4	0.30	0.14	0.99	0.75
Class 5	0.29	0.22	-1.11	1.24
No parent working	0.21	0.14	1.22	0.71
Not living with parents	-0.15	0.28	-0.26	1.61

¹ Based on parents' highest occupation at sweep 1.

Delinquency increased significantly more among those who had never been in care than among those who ever had been (Table 3.17). This may seem puzzling at first, but the likely explanation is that early delinquency is often associated with disrupted family life, but in early adolescence delinquency tends to rise regardless of family life. The increase in delinquency is then more obvious among those from stable families who had not been delinquent earlier.

Table 3.17: Change in variety and volume of delinquency from sweep 1 to sweep 2, by experience of care

Mean score and standard error of mean

	Variety of delinquency		Volume of delinquency	
	Mean	SE	Mean	SE
Ever in care	-0.25	0.22	-2.95	1.42
Never in care	0.34	0.04	1.07	0.19

Smoking and delinquency

At sweep 1, 30 per cent of respondents (then aged between 11 and 12) said they had ever tried a cigarette¹¹, but most of these said they did not smoke any more. Just 5 per cent of respondents said they currently smoked, and among these were 3 per cent who smoked at least once a week, including just over 1 per cent who smoked every day. There was no significant difference between girls and boys. Among those who currently smoked, two-thirds (59 per cent) said they had started at the age of 11, 32 per cent at the age of 9 or 10, and 10 per cent at the age of 8 or less. Most smokers (82 per cent) thought their parents would mind very much if they knew.

At sweep 2, when respondents were aged between 12 and 13, 23 per cent said they had smoked a cigarette during the last year. The proportion who smoked every day had risen from 1.3 per cent to 5.1 per cent; the proportion who smoked once a week or more often had risen from 2.8 per cent to 8.5 per cent. Smoking had increased considerably more among girls than boys, so that 27.1 per cent of girls compared with 20.4 per cent of boys had smoked during the past year, and 9.5 per cent of girls, compared with 7.5 per cent of boys smoked once a week or more often.

As it is illegal for children under the age of 16 to buy cigarettes, we asked smokers how they got hold of cigarettes. A majority (60 per cent) said they got them from friends, but a substantial minority (39 per cent) said they bought them from shops. Other sources were purchase from others (12 per cent), theft from home (10 per cent) and from other places (3 per cent), boyfriend or girlfriend (9 per cent), sibling (6 per cent), and parents or relatives (3 per cent). Only 18 per cent of respondents thought their parents knew that they smoked, although a further 19 per cent were not sure whether they knew.

There was a close relationship between smoking and self-reported delinquency at sweep 1. For example, the mean volume of delinquency score was 7.9 times as high among those who smoked every day as among those who had never tried a cigarette. This relationship remained equally strong at sweep 2. For example, the correlation coefficient of variety of offending with frequency of smoking at sweep 1 was .454, compared with .484 at sweep 2.¹² The relationship between smoking and delinquency was similar for girls and boys.

Alcohol and delinquency

At sweep 1, when they were 11 or 12, most respondents (78 per cent) said they had tried alcohol, but most drank very infrequently: for example, only 4.2 per cent said they had a drink as often as once a month. More than half (52.6 per cent) said they drank only on special occasions. There was broad similarity in the pattern for girls and boys, but a higher proportion of boys (6.0 per cent) than of girls (2.5 per cent) said they drank at least

¹¹ 'Ever smoked a whole cigarette'.

¹² Spearman's rho, with frequency of smoking ordered from 'every day' through 'not nowadays although have smoked in past year' to 'never smoked'.

once a month. Most commonly, children had their parents permission when they had a drink, and only 5.9 per cent said they never had permission. Respondents had usually had their first drink at the age of 9 or 10 (20.1 per cent) or 11+ (21.3 per cent), while a small minority (5.2 per cent) had had their first drink at 8 or under.¹³

At sweep 2, drinking had increased considerably. Now 16.3 per cent (compared with 4.2 per cent at the first sweep) said they had a drink at least monthly, and among these were 6.7 per cent who drank at least once a week. The proportion of drinkers was no longer higher among boys than girls, in fact the proportion of girls drinking at least once a month was now slightly higher among girls, although the difference was not statistically significant (16.7 compared with 15.7 per cent).

Among those who drank, it was most usual to get drinks from parents and relatives (62.6 per cent), but 25.2 per cent said they got alcohol from friends, and 10.2 per cent that they bought it (illegally) in shops. Other, less common, sources were siblings, boyfriends or girlfriends, and stealing (mostly from home). Young people most commonly had drinks with parents (60.5 per cent), with relatives (33.9 per cent) and with friends (48.4 per cent). More than half (59.1 per cent) of those who had had a drink in the past year said they had never been drunk over that period, whereas 28.9 per cent said they had been drunk once or twice, and 12.0 per cent three times or more.

Drinking and self-reported delinquency were closely related. At sweep 1, the volume of delinquency score was 10 times as high among those who drank once a week or more often as among those who had never tried alcohol. At sweep 2, these mean scores differed by a factor of 6.5, but the statistic is not comparable because of the change in the time window.¹⁴ Treating the frequency of drinking as a scale,¹⁵ we find that at sweep 1 the correlation between variety of delinquency and drinking behaviour was .356, and at sweep 2, it was .492. The corresponding correlation coefficients for volume of delinquency were closely similar. These findings suggest that drinking became a better predictor of delinquency from one sweep to the next, probably because it became considerably more common.¹⁶

Drugs and delinquency

At the first sweep, 5.9 per cent of respondents said they had ever tried an illegal drug, but most of these (4.8 per cent) said they had tried but were not taking drugs now. Thus, only 1.1 per cent said they were currently using illegal drugs, most of them (.6 per cent) less often than once a month, .3 per cent once a month, and .2 per cent once a week or more often. A higher proportion of boys than girls said they had ever tried drugs (7.2

¹³ The remaining 53.3 per cent said they had never had a whole drink, a much higher proportion than the 22.6 per cent who had never tried.

¹⁴ At sweep 2, the comparison is between those who had a drink at least once a week, and those who had not had a drink in the past year (as opposed to those who had never tried alcohol at sweep 1).

¹⁵ The ordering of the frequency items makes a difference to the result. To obtain the closest correlation, 'special occasions' is treated as the least frequent item, below 'hardly ever'.

¹⁶ A rare behaviour cannot powerfully predict a more common one.

compared with 4.6 per cent) and that they were currently using them (1.6 compared with .6 per cent). Among those who had tried drugs, the majority (70.7 per cent) said they were 11 or older when they first tried them.

Table 3.20: Illegal drugs ever tried – sweep 1

Column percentages

	% of all¹	% of drug users²
Cannabis	3.0	48.3
Glue or gas	4.0	65.3
Ecstasy	.3	4.9
Cocaine	.4	7.2
Speed	.6	9.1
Heroin	.1	2.3
LSD	.2	3.4
Magic Mushrooms	.4	7.2
Downers	.3	5.3
Others	.3	4.5

1. 'All' is those answering the introductory question 'Have you ever tried an illegal drug?'

2. 'Drug users' are those answering 'yes' to this question.

As can be seen from Table 3.20, cannabis and glue were used much more commonly than other drugs. A substantial minority of the 11 to 12 year-old respondents at sweep 1 (10.5 per cent) said they had been offered hash or another drug to smoke. Smaller proportions had been offered other drugs (pills to get high, 2.8 per cent; drugs to inject, 1.2 per cent; glue or gas, 5.2 per cent). Only .2 per cent said they had ever sold drugs to anyone.

At sweep 2, 7.6 per cent of respondents said they had used drugs in the last year (whereas 5.9 per cent said they had ever tried an illegal drug at sweep 1, and only 1.1 per cent said they were currently using them). Although the change in the time window makes this difficult to interpret, it seems to imply a substantial increase in drug use from one sweep to the next. The proportion who had used drugs in the past year remained higher among boys than among girls (9.5 per cent compared with 5.7 per cent). Respondents were asked how many times they had used each specific drug, but the results can be used to estimate the number of times they had used any drug.¹⁷ These findings (Table 3.21) show that most drug use was occasional. Just 1.8 per cent of respondents said they had used drugs more than four times over the past year.

¹⁷ The result is a minimum estimate because the category '4 or more' is counted as 4.

Table 3.21: Estimated number of times drugs used in the past year – sweep 2

	Males	Females	Total
Not in past year	90.5	94.3	92.4
Once	2.5	1.7	2.1
2-2.5 times	1.8	1.3	1.6
3-4 times	2.9	1.4	2.2
4.5-8 times	1.6	0.9	1.3
Over 8 times	0.6	0.4	0.5

The findings for individual drugs suggest a considerable increase in use of cannabis from sweep 1 to 2, combined with a decline in sniffing glue or gas (which is probably a kind of behaviour typical of the pre-teen years). Numbers are too small to detect any rise in use of other specific drugs.

Table 3.22: Illegal drugs tried in past year – sweep 2

Column percentages

	% of all¹	% of drug users²
Cannabis	6.3	81.7
Glue or gas	3.0	39.0
Ecstasy	.4	5.5
Cocaine	.5	6.4
Speed	1.0	12.5
Heroin	.3	4.0
LSD	.4	5.5
Magic Mushrooms	.7	9.5
Downers	.6	7.6
Poppers	.3	4.0
Others	.1	1.2

1. 'All' is those answering the question 'During the last year, have you tried an illegal drug?'

2. 'Drug users' are those answering 'yes' to this question.

At sweep 2, 13.9 per cent of respondents said they had been offered hash or another drug to smoke in the past year; 3.0 per cent had been offered pills to get high; 1.4 per cent drugs to inject; 3.2 per cent glue or gas to sniff; and 2.1 per cent powder to sniff. The most common source of drugs was friends (68.2 per cent of users), although alternative sources were other young people (23.2 per cent) and adults (19.0 per cent). A few users said they stole drugs from home (5.2 per cent) or from others (3.7 per cent). Use of drugs is linked to some extent with family structure, as shown by Table 3.23 below. The main difference is between those in two-parent families and the rest.

Table 3.23: Proportion who had used drugs in the past year, by family structure – sweep 2

	% who had used drugs in the past year
Two birth parents	6.2
Parent and step parent	10.9
Single mother	10.3
Single father	12.0
In care/not with parents	11.8

Use of drugs (sweep 2) by social class is shown in Table 3.24, below. The main difference here is the low proportion who had used drugs in class 1. It is also notable that the proportion of users was particularly high for the ‘no parent working’ group, which may be regarded as an underclass category.

Use of drugs is closely linked to other forms of delinquency. For example, at sweep 2, the variety of delinquency score was 7.59 among those who had used any drug in the past year, compared with 2.40 among those who had not; the volume of delinquency scores were 33.55 and 7.24 respectively. If frequency of using drugs is treated as a scale, then the non-parametric correlation coefficient between variety of offending and drug use at sweep 1 was .293, and this rose to .362 at sweep 2.¹⁸ The findings are similar if volume of delinquency is used instead of variety.¹⁹

¹⁸ Drug use becomes a better predictor because it becomes more common, but also because the measure of drug use at sweep 2 was much more sensitive.

¹⁹ If a parametric correlation coefficient is calculated (Pearson), then we find a higher correlation between volume of delinquency and drug use at sweep 2 (.497), because both of these variables are long, albeit highly skewed, distributions.

Table 3.24: Proportion who had used drugs in the past year, by social class – sweep 2

	% who had used drugs in the past year
Class 1	3.6
Class 2	6.7
Class 3 non-manual	7.2
Class 3 manual	9.1
Class 4	7.4
Class 5	7.8
No parent working	10.8

Conclusion

The detailed description of delinquency in this chapter relies on the self-report method, which can be challenged. There can be motives for both exaggeration and concealment, and there will always be gaps and distortions caused by selective and self-serving memory. On the other hand, this study as a whole already provides impressive evidence for the general validity of the self-report method. Cross-checks with agency records and teachers' questionnaires provide a useful external validity test (see Chapters 12 and 13); and internal tests of validity are provided, for example, by the correlations between self-reported delinquency and personality (Chapter 6), friends' delinquency (Chapter 8), and relationships with parents (Chapter 7). In particular, the checks against agency records suggest that few young people with an official record of offending deny any involvement in delinquency; and that those with official files admit to more delinquent acts than others. The great advantage of the self-report method is that it captures far more delinquent acts than any other source, so it provides a fuller and more detailed account, and one less subject to systematic bias. Confirming that the self-report method works, the early findings show clear and consistent patterns.

A substantial proportion of 12 and 13 year olds had engaged in delinquent acts, and a considerable minority had done quite serious things, like starting a fire (14 per cent), or joyriding (5 per cent) by the age of 13. Only a minority of delinquents had brushed with adult authority (the police, a teacher, a parent), and delinquents became more successful at evading detection as they grew older. At this age, most delinquency was a group activity, and the groups were often quite large ones. Although trivial incidents were the most common, a substantial minority of incidents involved property of some value, or a weapon capable of causing serious injury, or actually resulted in cuts or bruises. Like other studies, this one finds that although a high proportion of 12 year olds were involved in delinquency in some way and to some extent, much of the delinquency was

concentrated in a fairly small group amounting to around 12 per cent of individuals, who were responsible for around half of delinquent acts.

At the first sweep, the ratio of male to female delinquency was well under 2:1 on any measure, whereas in adults the contrast is much greater. Surprisingly, the gap between girls and boys narrowed from age 12 to 13. We expect it to widen again at a later stage, but it remains to be seen just when that will happen. A possible explanation for the narrowing gap up to age 13 is that girls enter the stage of rapid adolescent development earlier than boys. Smoking also increased much more rapidly in girls than boys from age 12 to age 13. The findings suggest that up to the age of 12, boys are far more likely than girls to be targeted by the police (holding constant their actual level of delinquency), but that this gap narrowed dramatically between the two sweeps. This could mean that the police start paying far more attention to delinquent girls around the age of 13, but we have yet to assess other possible explanations fully: for example, as they reach the age of 13, girls may be seen much more frequently on the streets.

Family background and social class were only weakly related to delinquency at this age. As we show in Chapter 14, characteristics of neighbourhoods that are related to social class or deprivation are, by contrast, strongly related to neighbourhood crime rates. This contrast between the effects of social class or deprivation at the individual and neighbourhood levels is a theme that we intend to pursue in depth in future analyses.

Smoking and drinking were closely linked with delinquency, and increased sharply from sweep 1 to 2. There was also a substantial increase in use of illegal drugs between the two sweeps. At the age of around 13, eight per cent of respondents said they had used drugs in the past year, most commonly cannabis, glue, or gas, and speed. Use of drugs was closely linked to other forms of delinquency, although, because it was much rarer than delinquency as a whole, it did not predict delinquency particularly well.

Overall, then, we have a picture of delinquency at the age of 12 or 13 as a diverse range of behaviours including a considerable proportion that are fairly serious. A large proportion of young people engage in them, but a hard core of 12 or 13 per cent account for half of the incidents, which are overwhelmingly group activities. It is very difficult to predict which individuals will be most involved in delinquency from the social class or income of their family, their family structure, or whether their parents are in work. The following chapters review the great range of other factors that do predict individual involvement in delinquency much more successfully.

CHAPTER 4: THE POLICE

Introduction

Previous studies have shown that contact with the police is a common occurrence among young people, particularly contact of an adversarial nature. For example, evidence from recent Scottish studies shows that about half of all young people aged 11 to 15 experience some kind of adversarial police contact (Anderson et al, 1994; MVA, 1998; Jamieson et al, 1999). Also, Dobash et al (1987) found that police contact among young people is common but, while often adversarial, is generally fairly trivial. The first section of this chapter discusses cohort members' contact with the police over sweeps one and two and examines the extent to which it was related to gender, delinquent behaviour and social class. The second section of the chapter discusses young people's views about the police.

Young People's Contact with the Police

The Edinburgh Study aims to examine the factors and processes that lead some young people to become involved in serious or persistent offending, while others desist. Therefore, we are particularly interested in young people's adversarial contact with the police. To reflect this, most of the questions about contact at sweep one were designed to pick up adversarial experiences – see Table 4.1. Information on non adversarial contact was gained by asking, 'did you have contact with the police for any other reason?'. However, at sweep one in particular, what appeared as adversarial contact from the question asked may have been, in practice, non adversarial – for example, a young child being picked up by the police and taken home because he or she was lost.

Table 4.1: Questions about police contact – sweep 1

Have any of the following things ever happened to you, no matter how long ago?
1. I was told off or told to move on by the police
2. I was stopped by a police officer and asked to empty my pockets or bag
3. I was stopped by a police officer and asked questions about something that I'd done
4. I was picked up by the police and taken home to my parents
5. I was picked up by the police and taken to a police station
6. I was given a formal warning at a police station in front of my parents
7. I was charged by the police for committing a crime
8. I had contact with the police for another reason
Response set: yes or no

When data from sweep one was first considered, it was found that non adversarial contact with the police was fairly common (see Table 4.3) therefore at sweep two, extra questions were asked to pick up general types of non adversarial contact, like being a victim of, or witness to, a crime – see Table 4.2.

Table 4.2: Questions about police contact – sweep 2

During the last year did you have contact with the police for any of these reasons?

1. A police officer came to school to give a talk
2. I was asked questions about a crime that happened to me
3. I was asked questions about a crime that I saw happening
4. I was told off or told to move on
5. I was stopped and asked to empty my pockets or bag
6. I was stopped and asked questions about something that I'd done
7. I was picked up and taken home to my parents
8. I was picked up and taken to a police station
9. I was given a formal warning in front of my parents
10. I was charged for committing a crime
11. I had contact with the police for another reason

Response set: yes or no

Police contact: gender differences

As Table 4.3 indicates, at sweep one 37.7 per cent of the cohort reported some kind of adversarial contact with the police. The extent of adversarial contact in sweep one was not quite as high as that found in other studies although this was probably due to the young age of the cohort (11 to 12 years) – other studies found that police contact increased with age (e.g., Anderson et al, 1994). Of clear importance is the significant gender difference, with boys having more contact with the police overall and being more than twice as likely as girls to have any adversarial contact.

Table 4.3: Proportion of girls and boys with police contact – sweep 1

Experience of police contact	<i>Column percentages</i>		
	Boys (n=2172)	Girls (n=2128)	Total (n=4300)
No contact ***	39.9	62.5	51.1
Any type of contact ***	60.1	37.5	48.9
Any adversarial contact ***	51.8	24.1	38.1

1. *** Significant gender difference $p < 0.001$
2. Columns do not total 100 as police contact categories are not mutually exclusive

At sweep one, participants who reported adversarial contact with the police were then asked about the most recent incident. Almost half (47.3 per cent) said that the police had told them off or told them to move on recently (51.3 per cent of boys, compared with 40.2 per cent of girls). Few had been subject to direct police intervention (only 3.0 per cent of the cohort reported having been charged by police on the last occasion – 42 boys and 11 girls). Almost half (43.2 per cent) of those who reported recent adversarial contact said that they had not been bothered about it. Boys were slightly more likely than girls to feel this way and girls slightly more likely than boys to feel frightened by their contact with the police. Therefore, respondents' most recent contacts with the police tended to be fairly low level and then did not bother them afterwards to any great extent.

Evidence from other Scottish studies suggests that there should have been an increase in reported police contact between sweeps one and two of the Edinburgh Study (e.g., Anderson et al, 1994). However, as shown in Table 4.4, by sweep two – with most members of the cohort aged 13 – contact with the police had actually decreased. It is important to remember here, the change in the time window between sweeps one and two, from 'ever' to 'during the last year'. The apparent decline in police contact between sweeps one and two is fairly small and probably reflects a real increase when we allow for the difference between the first sweep which considered events occurring between the age of birth to 12 years, and the second which considered age 13 only.

Sweep two data show that significant gender differences remained although the gap was narrower. While the proportion of boys and girls reporting any police contact was smaller at sweep two than at sweep one, the change was much more marked for boys. Also, though the proportion of boys reporting adversarial contact was smaller at sweep two than at sweep one, the proportion of girls was slightly higher.

Table 4.4: Proportion of girls and boys with police contact – sweep 2

Column percentages

Experience of police contact	Boys (n=2185)	Girls (n=2114)	Total (n=4299)
No contact ***	51.3	66.7	58.9
Any type of contact ***	48.7	33.3	41.1
Any adversarial contact ***	44.7	25.4	35.1

1. *** Significant gender difference $p < 0.001$
2. Columns do not total 100 as police contact categories are not mutually exclusive

Police contact and social class

Social class also appeared to be an important factor in young people’s contact with the police. As Table 4.5 indicates, at sweep one young people from lower social classes were more likely than any other group, especially those in classes one or two, to report both any contact with the police and adversarial contact. These class differences were significant at better than the .001 level of confidence. Although we cannot assume that those with no parent in employment or who do not live with their parents are of lower class status (see chapter three), their experience of police contact most resembles those from classes four or five.

Table 4.5: Proportion of each social class with police contact – sweep 1

% within each social class

Experience of police contact	Class 1/2 (n=1494)	Class 3 non-manual (n=432)	Class 3 manual (n=738)	Class 4/5 (n=450)	No parent employed (n=362)	Not living with parents (n=71)
No contact	60.6	53.4	45.3	43.6	40.3	36.6
Any type of contact	39.4	46.5	54.7	56.4	59.7	63.4
Any adversarial contact	27.3	34.7	46.3	46.4	48.3	53.5

1. numbers (n) exclude missing cases (see chapter two)

Though the overall proportion of young people reporting police contact fell at sweep two¹, Table 4.6 shows that a similar pattern emerged when data were analysed by social class – contact increases as we move towards the lower end of the social class spectrum. Again the differences between social class groups were highly significant ($p < 0.001$) and those with no parent in employment or who did not live with parents most resembled those in classes four or five.

Table 4.6: Proportion of each social class with police contact – sweep 2

% within each social class

Experience of police contact	Class 1/2 (n=1494)	Class 3 non-manual (n=432)	Class 3 manual (n=738)	Class 4/5 (n=450)	No parent employed (n=362)	Not living with parents (n=235)
No contact	69.5	61.3	50.5	48.0	48.9	46.5
Any type of contact	30.5	38.7	49.5	52.0	51.1	53.5
Any adversarial contact	24.1	31.3	43.8	47.1	45.6	47.9

1. numbers (n) exclude missing cases (see chapter two)

When looking at police contact by gender and social class, it was found that boys and those in lower social class groups were particularly likely to come to the attention of the police, especially in an adversarial way. However, are these findings indicative of police bias against these groups of children? At present the Edinburgh Study does not have access to police files and this does limit the conclusions which can be drawn from the data. However, at this stage it is possible to consider self-reported delinquency and its relationship to police contact. Overall boys were more involved in delinquency than girls and young people from lower social class groups more involved than those at the higher end of the class hierarchy, at both sweeps one and two. It is important to remember however, that the relationship between social class and delinquency, though clear, was not very strong – see chapter three).

¹ A decrease that is less marked when we remember the time window change between the two sweeps.

Police Contact and Delinquency

The findings on gender and social class do not on their own explain the extent of police contact among lower class boys, therefore, it is necessary to look in much more detail at young people's reported delinquency. To simplify analysis of the relationship between police contact and delinquency across sweeps one and two, respondents were banded according to their variety of delinquency score ²– see Table 4.7.

Table 4.6: Method of banding variety of delinquency scores

Band one – those who had committed no delinquent acts
Band two – those who had committed one delinquent act
Band three – those who had committed two or three delinquent acts
Band four – those who had committed four or five delinquent acts
Band five – those who had committed between six and 15 delinquent acts.

Table 4.8 presents an analysis of sweep one delinquency by gender and police contact. This shows that boys were more likely than girls to be found in the higher variety of delinquency bands, which might explain their higher levels of police, contact generally. As delinquency increased, police contact with boys and girls also increased, which suggests that police officers are responding appropriately to youngsters who are involved in delinquent behaviour. However, looking at boys and girls within each band of delinquency, it became apparent that boys were more likely than girls – at every band – to have had both any police contact and, especially, more adversarial contact. Therefore, there appears to be a real disparity in the treatment of boys and girls by the police.

² The volume of delinquency score produced very similar results therefore only one of the two measures – variety – was used.

Table 4.8: Contact with the police by variety of delinquency score (banded) by gender – sweep 1

% within each band

	Band 1 Delinquent	Band 2 Delinquent	Band 3 Delinquent	Band 4 Delinquent	Band 5 Delinquent
number of boys within each band (n)	435	359	567	346	366
% of boys with any police contact***	31.0	40.7	59.6	80.1	92.3
% of boys with adversarial police contact***	20.2	26.5	52.0	73.4	89.3
number of girls within each band (n)	671	446	504	250	173
% of girls with any police contact***	16.7	29.6	43.1	63.2	80.3
% of girls with adversarial police contact***	6.3	13.7	25.6	49.2	72.8

1. significant gender difference: $p < 0.001$

2. numbers (n) exclude missing cases

3. percentages shown = % of boys and girls within each delinquency band who had either any or adversarial police contact

Table 4.9 indicates that a similar pattern emerged at sweep two – boys remained more likely than girls to come to police attention, even when they were involved in delinquency at similar levels to girls. So while their heavier involvement in delinquency may be responsible for boys being more likely than girls to come to the attention of the police, it does not provide a full explanation.

There are a number of possible explanations for this apparent selective approach by the police. It is possible that the activities of boys at every band of delinquency have a higher profile than those of girls, and therefore are more noticeable to the police. It may also be due to elements of police operational bias, which place boys rather than girls under the spotlight. These possibilities will be explored at future sweeps with the help of police record data, when it becomes available. In the meantime, we shall look in more detail at the relationship between police contact, gender and social class.

Table 4.9: Contact with the police by variety of delinquency score (banded) by gender – sweep 2

% within each band

	Band 1 Delinquent	Band 2 Delinquent	Band 3 Delinquent	Band 4 Delinquent	Band 5 Delinquent
number of boys within each band (n)	496	365	515	333	393
% of boys with any police contact***	15.9	29.6	50.9	68.8	85.2
% of boys with adversarial police contact***	10.7	23.3	46.8	65.5	83.7
number of girls within each band (n)	696	347	509	285	212
% of girls with any police contact***	11.6	22.5	38.1	57.5	78.3
% of girls with adversarial police contact***	5.0	14.4	28.5	49.8	70.8

1. significant gender difference: $p < 0.001$
2. numbers (n) exclude missing cases
3. percentages shown = % of boys and girls within each delinquency band who had either any or adversarial police contact

More about police contact and social class

In chapter three, the relationship between delinquency and social class was not found to be particularly strong, although those at the lower end of the class hierarchy had slightly higher delinquency scores. However, when we looked at the relationship between social class and police contact at sweeps one and two (Tables 4.4 and 4.5) a more striking difference was revealed.

Taking this analysis a little further, Tables 4.10 and 4.11 present police contact at both sweeps for boys and girls within each social class group. We see again that while police contact was clearly higher amongst those in lower social classes, the relationship between class and contact was significantly stronger for boys than for girls. Bearing in mind that class was not strongly related to delinquency, and that there were no significant gender differences in terms of social class status, it seems clear that boys from lower classes are, for reasons unknown at this stage, targeted by the police.

Table 4.10: Contact with the police by gender by social class – sweep 1

	<i>% within each class</i>					
	Class 1/2	Class 3 non-manual	Class 3 manual	Class 4/5	No parent employed	Not living with parents
number of boys within each class group (n)	770	217	393	241	181	40
% of boys with any police contact***	50.5	57.1	68.7	66.0	72.4	82.5
% of boys with adversarial police contact***	39.2	49.3	60.6	60.6	68.0	77.5
number of girls within each class group (n)	769	226	364	227	214	40
% of girls with any police contact***	28.7	38.1	39.6	48.9	49.5	50.0
% of girls with adversarial police contact***	15.7	22.6	30.8	32.2	33.2	32.5

1. significant gender difference: $p < 0.001$
2. numbers (n) exclude missing cases
3. percentages shown = % of boys and girls within each class who had either any or adversarial police contact
4. columns do not total 100 as police contact categories are not mutually exclusive

Table 4.11: Contact with the police by gender by social class – sweep 2

	<i>% within each class</i>					
	Class 1/2	Class 3 non-manual	Class 3 manual	Class 4/5	No parent employed	Not living with parents
number of boys within each class group (n)	770	217	393	241	181	40
% of boys with any police contact***	37.7	42.4	58.8	59.5	59.3	51.1
% of boys with adversarial police contact***	32.3	36.7	54.6	58.2	56.9	46.8
number of girls within each class group (n)	769	226	364	227	214	40
% of girls with any police contact***	23.4	35.1	39.5	44.0	44.1	38.5
% of girls with adversarial police contact***	15.9	26.1	32.2	35.3	35.9	29.2

1. significant gender difference: $p < 0.001$
2. numbers (n) exclude missing cases
3. percentages shown = % of boys and girls within each class who had either any or adversarial police contact
4. columns do not total 100 as police contact categories are not mutually exclusive

Young People's Views of the Police

At sweep two respondents were asked for the first time to rate police officers in terms of their fairness and friendliness towards young people and their willingness to break rules – see Table 4.12.

Table 4.11: Questions relating to young people's views of the police – sweep 2

Here are some sentences about the police. How much do you agree or disagree with each of these things?

1. The police are less fair to young people than other people
2. The police are generally helpful and friendly towards young people
3. The police often break rules when dealing with people who they think have broken the law

Response set: agree a lot, agree a bit, not sure, disagree a bit, disagree a lot

Responses were mixed. Almost half of all young people (45.3 per cent, n=1938) said that police officers were unfair, yet only 22.5 per cent (n=964) said that the police were unfriendly and 34.4 per cent (n=1472) that they broke rules. There were no marked gender differences amongst those who said either that they agreed or disagreed with the statements about the police. However, girls were significantly more likely than boys ($p<0.01$) to say that they were not sure.

There were no noticeable differences across social class groups in terms of young people's views of police fairness. However, a significantly greater proportion of young people in lower social classes ($p<0.001$) compared with those at the higher end of the class hierarchy believed that the police were unfriendly (29.0 per cent of those with no parent in employment compared with 19.7 per cent in social classes one or two). Similarly, a significantly greater proportion of those in lower class groups ($p<0.001$) than higher believed that the police broke rules (44.7 per cent of those with no parent in employment compared with 30.8 per cent in classes one or two).

Table 4.12 considers the relationship between young people's views of the police and their experience of police contact.

Table 4.12: Views of the police by experience of police contact – sweep 2

Column percentages

Young people's views of the police	No police contact	Any police contact	Adversarial police contact
Fair	24.3	18.4	17.2
Unfair	37.4	56.5	59.9
Friendly	54.5	44.9	41.7
Unfriendly	15.9	32.1	34.9
Don't break rules	21.9	15.1	13.2
Do break rules	25.8	46.8	50.5

1. To simplify the table, only those who expressed a view were included hence % do not add up to 100
2. % also do not add up to 100 as police contact categories are not mutually exclusive

It was found that those who had come into contact with the police, especially in an adversarial way, were more likely to hold critical views than those who had not had any contact. We learned earlier in this chapter that boys and those from lower social class groups were most likely to experience police contact and we now know that these groups were more likely to feel that the police were both unfriendly and broke rules. It is possible that these young people were more critical of the police than others because they felt that they were being unjustly targeted, although they may simply be expressing the type of negative views which are commonly held by adolescents, the older they become (Dobash et al, 1987 and MVA, 1998).

Conclusion

Edinburgh Study data from sweeps one and two indicate that boys consistently reported higher levels of police contact than girls. Even taking into account the fact that boys had higher delinquency scores than girls, boys still had proportionally more contact with the police. Social class was not a strong factor in delinquency and there were no significant social class differences between boys and girls. However, there was a close association between class and police contact.

Generally, analysis of police contact data so far, has shown that most young people who were involved in delinquency were not caught by the police. However certain young people, especially boys from lower class backgrounds, were more likely to come into contact with the police than others, a fact not explained in full by their involvement in delinquency. There must be some reason why this is so. Perhaps it is related to the way in which certain neighbourhoods are policed? Areas inhabited by people from lower social class backgrounds may experience higher levels of policing, either because there is more crime in these areas or because some form of bias is operating within the police force,

which encourages officers to over-scrutinise certain people from certain communities. That boys and those in lower social class groups expressed more critical views of the police than girls and those at the higher end of the class hierarchy, may be associated with some - whether actual or perceived – police bias against them. However, we can only speculate at this early stage in the study. Analysis of police record data, fuller analysis of neighbourhood differences based on our geographical information system (see chapter 14) and further exploration of young people's self-reported police contact at future sweeps, will allow the relationship between gender, social class and policing to be explored in greater detail.

CHAPTER 5: VICTIMISATION

Introduction

There is a large body of evidence that demonstrates a close relationship between offending and victimisation. One reason for this is that some kinds of crime arise out of mutual interactions between people, to the extent that victims and offenders are almost interchangeable: the clearest example would be fights in and around pubs on a Saturday night. Even where crimes do not arise immediately out of interpersonal interactions, people often tend to commit offences on others within their social circle, because these people are most accessible to them, or because they are paying off an old score.

Of course, many other crimes are committed on perfect strangers, but even then offenders and victims tend to be socially linked in some way: for example, they may go to the same school, work for the same employer, or live in the same area. A different kind of linkage between offending and victimisation emerges if we consider the life-course perspective. It is likely that many offenders have been victims at an early age, that offending and victimisation feed off each other in the process of individual development, and that the social settings, habits, and psychological traits associated with them are similar. An important aim of the Edinburgh Study is to examine these linkages, and therefore information is collected about victimisation as well as offending at every sweep.

Five forms of victimisation

At both sweeps, respondents were asked if they had been victims of each of five kinds of delinquency (see Table 5.1). Some of these incidents would clearly have been criminal offences, many would technically have been criminal offences but typically not treated as such among children of this age, and some would probably not have been criminal offences, although in many cases (particularly of assault) it is extremely difficult to draw the line. As in the case of the questions on self-reported delinquency, the period covered was 'ever' at sweep 1, and the last school year (September to August) at sweep 2.

Table 5.1: Victimisation items at sweeps 1 and 2

<ol style="list-style-type: none">1. Stolen something of yours that you left somewhere (for example, from school or a changing room)2. Used threats or force to steal or try to steal something from you3. Threatened to hurt you by hitting, kicking or punching you <i>Sweep 2: Threatened to hurt you [Don't include brothers and sisters or times when you were being bullied]</i>4. Really hurt you by deliberately hitting, punching or kicking you <i>Sweep 2: Actually hurt you by hitting, kicking or punching you (fighting with you) [Don't include brothers and sisters or times when you were being bullied]</i>5. Really hurt you by deliberately hitting you with a weapon <i>Sweep 2: Actually hurt you with a weapon [Don't include brothers and sisters]</i> <p>(Items ordered as at sweep 1)</p>

At sweep 1, three of these kinds of victimisation (theft, threats, and assault) were common, with around 4 out of 10 respondents saying they had ever suffered them, whereas the other two (robbery and assault with a weapon) were much less common, with around 12 per cent lifetime prevalence (see Table 5.2). On average, those who had experienced each kind of victimisation said it had happened around twice, or three times in the case of threats.

Because of the change in the time window between sweep 1 and 2, and the exclusion of attacks by siblings at sweep 2 (see Table 5.1)¹ it is difficult to say whether victimisation increased or declined. At sweep 2 it was around one in four who had experienced theft, threats, and assault over a 12-month period, and a fairly small proportion who had experienced robbery (5.2 per cent) and assault with a weapon (7.5 per cent). Among those who had experienced each form of victimisation, the frequencies were broadly similar at the two sweeps, which apparently implies a considerable increase in frequency, taking account of the shorter time window at sweep 2.

¹ Also, at sweep 2 there was a separate set of questions about bullying which came before the main victimisation questions. Respondents were asked not to count again the incidents they had already covered when answering the questions on bullying. (See below for the findings on experience of being bullied.)

Table 5.2: Experience of five types of victimisation at sweeps 1 and 2*Column percentages and means*

	% prevalence ¹		Mean frequency ²		% 4+ times ²	
	Sweep 1	Sweep 2	Sweep 1	Sweep 2	Sweep 1	Sweep 2
Something stolen	41.9	27.9	2.20	1.80	12.9	8.7
Something taken with threats or force	12.0	5.2	2.16	2.13	15.4	14.7
Someone threatened to hurt you	43.0	23.9	3.25	2.57	34.3	23.5
Someone deliberately hurt you	36.6	27.1	2.1	2.34	28.7	19.1
Someone deliberately hurt you with a weapon	12.1	7.5	2.13	2.03	14.2	12.2

¹Sweep 1 ever; sweep 2, last 12 months.²Among those who have experienced the form of victimisation.

At sweep 1 (but not sweep 2) some further information was obtained about these incidents of victimisation. Money or a purse or wallet was the most common item to have been stolen (27.4 per cent of last occasions).² The amount of money was usually not specified, but an amount over £5 was mentioned in only 2.2 per cent of cases. Other items commonly stolen were jewellery or a watch (14.4 per cent), clothing (9.3 per cent), stationery (10.3 per cent) and toys or games (6.6 per cent). A wide range of other items were mentioned, the great majority of small value, as might be expected at this age. In more than half of cases, respondents did not know who had stolen their property, but where they did know who it was, it was usually a friend (14.3 per cent) or some other young person they knew (14.6 per cent). This confirms, as argued at the beginning of this chapter, that offenders and victims often belong to the same social circle.

Where respondents had had something taken by force or threats, the thing most commonly demanded or taken was again money or a purse or wallet (45.1 per cent): although the amount was very rarely specified, it was probably fairly small in most cases. However, the next most common item was a bike (9.4 per cent), which is of course much more valuable. In fact, 44 out of the 4006 respondents giving valid answers to this series of questions said they had had a bike taken from them by force or threats.³ Toys or games (7.3 per cent) and jewellery or a watch (6.8 per cent) were other items mentioned fairly often. The others covered a very wide range of mostly low-value property, although a few of them (such as trainers, 1.7 per cent) could be quite valuable. In 55.4

² Follow-up questions about each type of victimisation were asked about the last occasion only. These are not a true random sample of all occasions, but any resulting bias is unlikely to affect the interpretation offered here.

³ Only about 1 per cent of the total, but 9.4 per cent of those who had been robbed.

per cent of cases, respondents said the offender was someone unknown to them; other answers were a young person known to them (25.2 per cent), a friend (10.9 per cent) and a sibling (7.3 per cent). It looks as though some of these incidents involved a friend or brother or sister forcing the respondent to let them 'borrow' something like a bike for a while—which would be very different from robbery. Nevertheless, some incidents of that kind may be very distressing to the child; and presumably the majority of incidents that involved a perfect stranger were robbery in the conventional sense.

Incidents where 'someone threatened to hurt you' involved a sibling or friend in a substantial minority of cases (18.3 and 15.1 per cent respectively). They usually involved 'a young person I know' (33.8 per cent) or someone not known to the respondent (30.7 per cent).

The person who had physically hurt the respondent was usually someone they knew: a sibling (25.1 per cent), a friend (20.9 per cent), or some other young person they knew (28.9 per cent) and rarely an adult they knew (1.4 per cent). It was someone unknown to the respondent in 23.7 per cent of cases. There was some sort of injury in 78.9 per cent of cases. Injuries included bruises or a black eye (45.7 per cent), scratches or cuts (34.9 per cent), broken bones (6.4 per cent), and a mixed bag of others (3.8 per cent).

Where respondents had been hurt with a weapon, the offender was most commonly a young person they knew (32.1 per cent) or someone unknown to them (35.1 per cent), although a considerable number of these attacks were by siblings (15.6 per cent) or friends (14.8 per cent). Very few were by an adult known to the respondent (2.4 per cent). The weapon was most commonly a stick or club (56.5 per cent), although there were also some attacks with a bottle or glass (8.5 per cent), with a knife (8.1 per cent), and with a wide assortment of other implements.

In summary, these answers from sweep 1 show that incidents of victimisation covered a wide range. Many involved intimate associates, and other young people known to respondents, but also many involved perfect strangers. Generally, they involved low-value objects and minor injuries, yet in a substantial minority of cases, injuries were more serious and values higher. The offenders were rarely adults (but findings from a separate series of questions on harassment by adults will be summarised below). Bearing in mind the respondents' age (12 at the first sweep) many of these incidents would probably have seemed serious to them, and items stolen would often have been highly valuable measured against their pocket money allowance.

Bullying

At the first sweep, the questions on victimisation were confined to the five types of incident discussed in the previous section. These questions used neutral language about 'threats', 'hitting', 'hurting', 'weapon' and 'stealing' without any reference to the social context or who might have done these things. The vast majority of incidents mentioned in response to these questions were ones where both the delinquent and the victim was a

young person, confirming the point that victims and offenders tend to belong to the same social circle. At the second sweep, two further sequences of questions were added in which the focus was shifted, implicitly or explicitly, to the age of the offender. The first sequence used the concept of bullying, and the second the idea of being ‘bothered by an adult’.

Although the questions on bullying made no explicit reference to the age of the offender, pilot work showed that the term ‘bullying’ is understood to mean attacks and harassment by children of school age (and not by adults). The term is readily used and accepted, especially because there have been anti-bullying campaigns, and schools have anti-bullying policies, distribute leaflets on the topic, and offer help and advice to victims. This also means, of course, that respondents are not ‘naïve subjects’. They have been sensitised to the possibility that behaviour they do not like might count as bullying, and questionnaire responses have to be interpreted in that light.

The sequence of questions on bullying appeared before the sequence on five forms of victimisation, so that incidents regarded as bullying were counted as such rather than some other form of victimisation, such as theft or assault.⁴ The four introductory questions, developed through careful piloting, are shown in Table 5.3.

Table 5.3: Four questionnaire items on bullying - sweep 2

<p><u>During the last year</u>, how often did somebody or a group of people <u>bully you</u> in the following ways?</p> <ol style="list-style-type: none">1. Bullied by somebody hitting, punching, spitting or throwing stones at you2. Bullied by somebody saying nasty things, slagging you or calling you names3. Bullied by somebody threatening to hurt you4. Bullied by somebody ignoring you on purpose or leaving you out of things

It can be seen from Table 5.4 that a substantial proportion of respondents said they had experienced each form of bullying over the past 12 months, and that name calling (40.3 per cent) was about twice as common as the other forms. It should be noted that every questionnaire item repeated the word ‘bullying’, so respondents were unlikely to include teasing or rough play that they actually enjoyed. Some of this bullying was sporadic: nevertheless, the proportion who experienced each form of bullying daily or weekly varied from 5.3 per cent (for hitting) to 19.1 per cent (for name calling).

⁴ At the victimisation questions, respondents were asked not to count incidents of bullying a second time.

Table 5.4: Experience of being bullied - sweep 2

	<i>Column percentages</i>			
	Hitting etc.	Name calling	Threats	Exclusion
Ever	15.1	40.3	17.7	22.1
<i>Of which</i>				
Most days	2.2	9.0	3.8	3.6
At least once a week	3.1	10.1	4.0	5.0
Less than once a week	9.7	21.1	9.9	13.4

Just under half of respondents (44.9 per cent) said they had been bullied in one of the four ways over the previous 12 months. The proportion of boys and girls who said they had been bullied was similar (41.3 and 48.7 per cent respectively). Most bullying was among boys or girls, although bullying of girls by boys was more common than bullying of boys by girls. Confining our attention to those who said they had been bullied, 8.8 per cent of boys said they had been bullied by a girl, a group of girls, or a mixed group; whereas 32.9 per cent of girls said they had been bullied by a boy, a group of boys, or a mixed group. The proportion who said they had been bullied by people of their own sex (not counting mixed groups) was 72.3 per cent for boys, compared with 53.3 per cent for girls.⁵

Among those who had been bullied, three quarters (74.5 per cent) said they had been bullied at school, 17 per cent on the way to and from school, and 29.5 per cent elsewhere. One-fifth (19.8 per cent) said they had 'skived school or pretended you were ill because you were afraid of being bullied', and among these 6.3 per cent had done so three or more times. Just over half (51.5 per cent) said they had told an adult about being bullied: more specifically, 42.2 per cent had told a parent, 20.7 per cent a teacher, and 5.2 per cent somebody else. Telling an adult seems to have been helpful in the majority of cases. Among those who did so, 73.8 per cent said they were then bullied less (including a few who said the bullying stopped), and 18.9 per cent said it remained the same; only 7.3 per cent said the bullying got worse.

Harassment by adults

The second sequence of age-specific victimisation questions focused on harassment by adults (as we have seen, incidents of this kind were rarely captured by the neutrally worded victimisation questions considered earlier). Four of the five questionnaire items (see Table 5.5) are about behaviour perceived as anomalous or threatening, but which might or might not have had a sinister motive. The fifth (indecent exposure) is about something that is clearly a criminal act if it occurred, although there is often much room for interpretation about whether it occurred or not.

⁵ A residual category said they had been bullied by different people at different times.

Table 5.5: Five questionnaire items on harassment by adults - sweep 2

During the past year, how many times have you been bothered by an adult doing the following things?

1. An adult staring at you so that you felt uneasy of uncomfortable
2. An adult following you on foot
3. An adult following you in a car
4. An adult trying to get you to go somewhere with them
5. An adult indecently exposing themselves to you (flashing)

The findings (Table 5.6) show that a very substantial proportion of young people had been disquieted by what they took to be odd, anomalous, or threatening behaviour by adults. The vaguer the threat, the greater the proportion of respondents who had perceived it. Getting on for half (43.8 per cent) of respondents had been bothered by adults staring at them, but notoriously such perceptions are highly subjective (hence many fights start because one man decided that another ‘looked at him in a funny way’). It can also be argued that the past decade has witnessed a ‘moral panic’ about child abuse, which must have caused children to look on adult strangers with suspicion. It is fruitless to search for ‘hard facts’ underlying this finding. What it certainly does show is that a large proportion of young people from time to time feel vaguely threatened by adults. It is reasonable to assume that the perceived threat is from strangers in public places, although that was not spelt out in the question.

Table 5.6: Experience of adult harassment at sweep 2

	<i>Column percentages</i>				
	Staring	Following on foot	Following by car	Trying to take you with them	Indecent exposure
Ever	43.8	23.2	13.7	6.1	6.6
<i>Of which</i>					
1 or 2 times	34.7	19.6	11.4	5.1	5.3
3 or 4 times	4.9	2.1	1.2	.4	.6
5+ times	4.2	1.5	1.1	.5	.7

The proportions of respondents who thought they had been followed on foot or by car, although smaller, were also substantial. Usually, young people thought this had happened once or twice, rather than more often. More than one in twenty young people said they had experienced being pressed to go with an adult, and a similar proportion that they had experienced indecent exposure, in the past 12 months, although rarely on more than two occasions.

Summary measures of victimisation

Four summary measures of victimisation have been computed from answers to the questions already discussed.

a) *Variety of victimisation* is a count ranging from 0-5 of the number of different forms of victimisation experienced (ever in the first sweep, in the past year in the second) among theft, taking property by threats or force, threats to hurt, actual physical hurt, and attacks with a weapon.

b) *Volume of victimisation* is a minimum estimate of the number of incidents of victimisation of these five types (6+ is counted as 6, 11+ as 11).

c) *Extent of bullying* is a score ranging from 0-12 that reflects how often respondents said they had experienced each of the four forms of bullying ('most days' = 3, 'at least once a week' = 2, 'less than once a week' = 1).

d) *Variety of adult harassment* is a count ranging from 0-5 of the number of different forms of harassment by adults experienced among staring, following on foot, following by car, trying to take you with them, and indecent exposure.

The distributions of these four summary measures are shown in Figures 5.1-6, below.

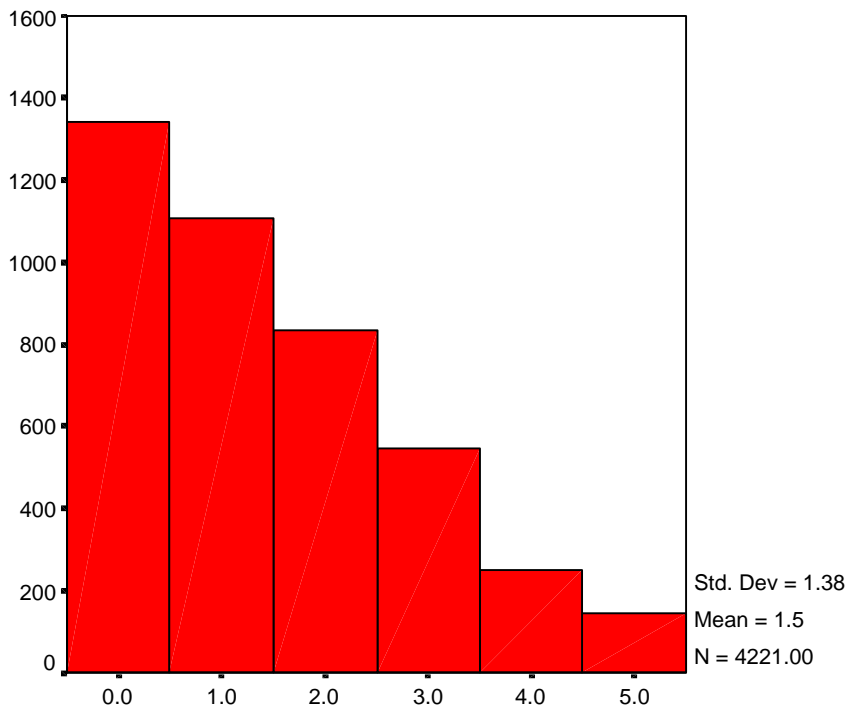


Figure 5.1: Variety of victimisation - sweep 1

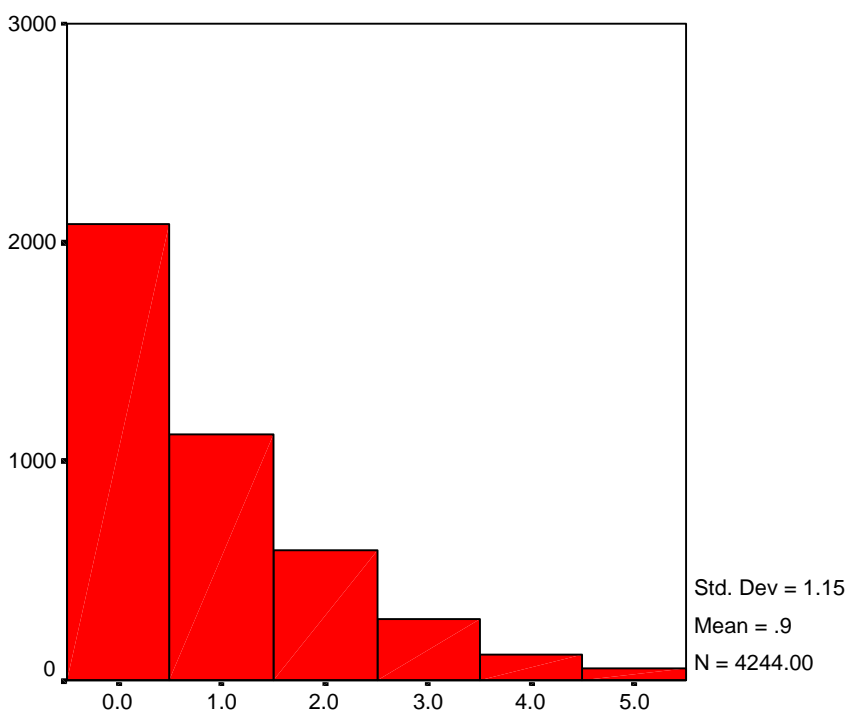


Figure 5.2: Variety of victimisation - sweep 2

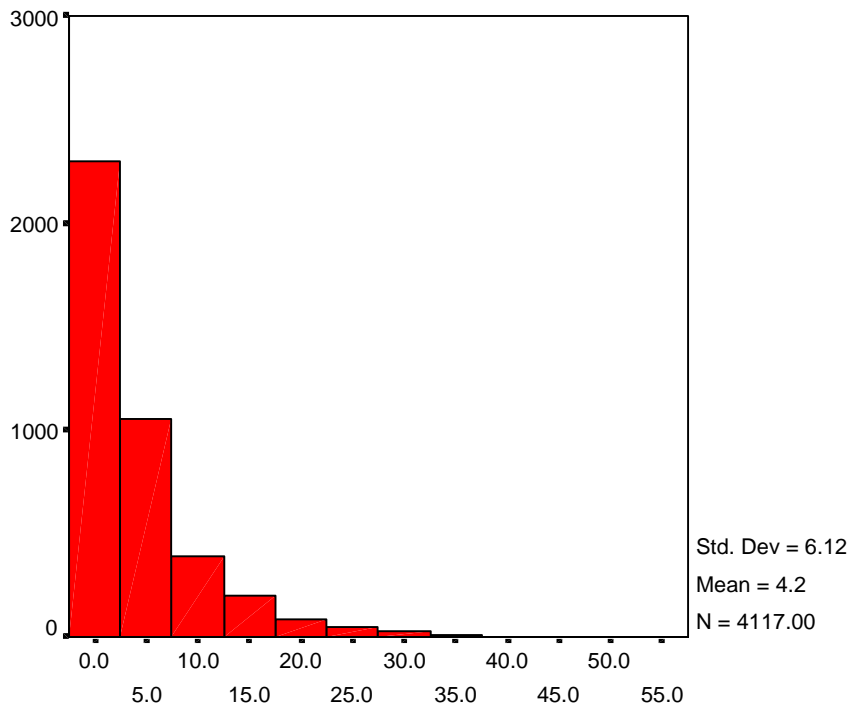


Figure 5.3: Volume of victimisation - sweep 1

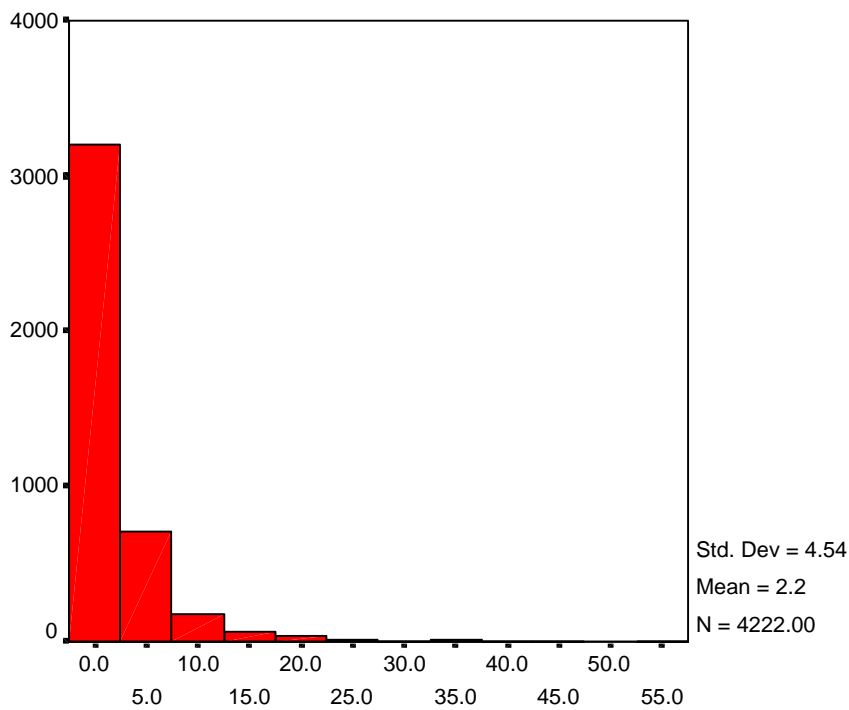


Figure 5.4: Volume of victimisation - sweep 2

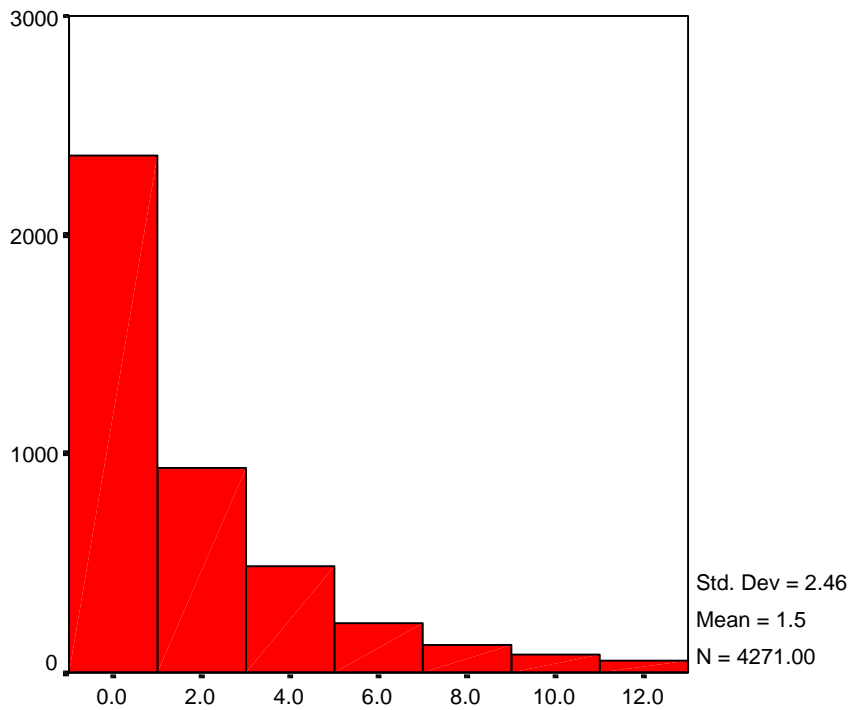


Figure 5.5: Extent of being bullied - sweep 2

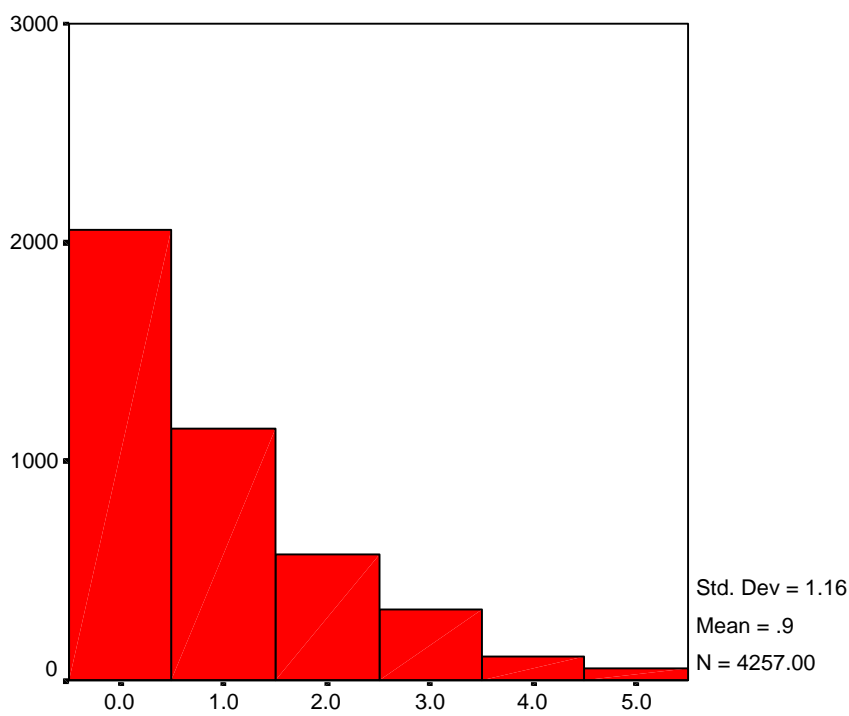


Figure 5.6: Variety of adult harassment - sweep 2

At sweep 1, more than two-thirds of respondents (68.2 per cent) had ever experienced at least one of the five forms of victimisation, and more than one-fifth (22.3 per cent) had experienced three or more of them. At sweep 2, half of respondents (50.9 per cent) had experienced at least one form of victimisation in the previous 12 months, and one-tenth (10.5 per cent) had experienced three or more of them. Turning our attention from variety to volume of victimisation, 12.6 per cent of respondents at sweep 1 had ever experienced more than 10 incidents of victimisation, whereas at sweep 2, 4.5 per cent had experienced more than 10 incidents in the previous 12 months.

At sweep 2, 44.7 per cent of respondents said they had experienced at least one of the four forms of bullying in the previous 12 months. An 'extent of bullying score' of 6 or more would mean, for example, that someone experienced at least two forms of bullying on most days: 8.7 per cent of respondents fell into that category. A score of 3 or more would mean, for example, that someone experienced three forms of bullying less than once a week in each case, or one form of bullying on most days: 22.7 per cent of respondents fell into that category.

At sweep 2, half of respondents (51.8 per cent) said they had experienced at least one form of adult harassment in the previous 12 months, and 11.3 per cent had experienced three or more different forms.

Victimisation and gender

On the basis of the summary measures, victimisation at sweep 1 (the five basic types) was around 40 per cent higher among males than females (Table 5.7), the difference being rather greater if the volume rather than variety measure is used. As shown by the standard errors, these differences are statistically significant at a high level of confidence. This is similar to the finding, for adults, that males are victims of assaults more often than females. It emphasises, again, the interpersonal nature of many of these incidents. Offenders may possibly have tended to choose male victims, but it is also likely that victims influenced events through their expectations, behaviour, or responses.

At sweep two, these gender differences had increased, so that victimisation was 56 per cent higher among males than females on the basis of variety, or 97 per cent higher on the basis of volume. This is in marked contrast to the change between sweeps in self-reported delinquency. In the case of delinquency, the gap between boys and girls narrowed from sweep 1 to sweep 2, whereas in the case of victimisation, it increased. Nevertheless, in a broad way, the gender differences fit with the theory that victimisation and offending are closely related, since both victimisation and offending were higher among males than females at both sweeps.

Table 5.7: Summary measures of victimisation by gender – sweeps 1 and 2*Mean and standard error of mean*

	Males		Females	
	Mean	SE	Mean	SE
Sweep one				
Variety of victimisation	1.68	.031	1.22	.028
Volume of victimisation	4.92	.145	3.45	.095
Sweep two				
Variety of victimisation	1.11	.027	.71	.022
Volume of victimisation	2.88	.117	1.46	.071
Extent of bullying	1.58	.056	1.50	.050
Variety of harassment by adults	.84	.025	1.02	.025

By contrast, the extent of bullying was about the same among girls and boys (the small difference in the means is not statistically significant), whereas harassment by adults was significantly higher among girls than boys. These findings confirm that the three broad types of victimisation measure (crime victimisation, bullying, and adult harassment) are tapping widely different kinds of experience. As set out in an earlier section, although the aggregate bullying scores are the same for boys and girls, there is an important gender difference, in that girls are considerably more likely to be bullied by boys than vice versa.

Victimisation and family background

In terms of family background, the major difference in victimisation is between children who have ever been in care and those who have not (Table 5.8). On every measure, those who had been in care were considerably more likely to have been victims. To some extent, of course, this finding is a tautology, since the children were usually taken into care precisely because they were thought to be in danger. Nevertheless, most of the forms of victimisation covered in these questions (for example, thieving by other children) are very different from the conditions that would have caused the children to be taken into care. The finding therefore illustrates that children who are vulnerable in one way tend to be vulnerable in many other ways also.

Table 5.8: Summary measures of victimisation by experience of being in care – sweeps 1 and 2

Mean and standard error of mean

	Ever in care		Never in care	
	Mean	SE	Mean	SE
Sweep one				
Variety of victimisation	2.14	.171	1.43	.021
Volume of victimisation	8.30	1.030	4.08	.096
Sweep two				
Variety of victimisation	1.49	.153	.89	.018
Volume of victimisation	5.60	1.036	2.08	.072
Extent of bullying	2.56	.383	1.50	.038
Variety of harassment by adults	1.29	.150	.91	.018

There were some differences in victimisation according to family structure, but these were small enough to be hard to detect, even with the study's large sample size. It seems that children living with a step parent were more likely to be subject to all forms of victimisation than those living with two birth parents. For example, at sweep 2, the volume of victimisation score was 2.87 among children in step-families, compared with 1.99 among those living with two birth parents, a difference that is statistically significant at a high level of confidence. The equivalent differences for bullying and adult harassment were of about the same size as for variety of victimisation. There were also indications that the rates of victimisation among children in single parent families might be elevated compared with those for children living with two birth parents, but most of these differences were not statistically significant, and they were in any case small.

Differences according to social class were small, and were mostly neither consistent nor statistically significant. The same is true of differences according to whether the parents were working at sweep 1.

Victimisation and bullying were considerably higher among those at special schools than those at mainstream or independent ones. For example, at sweep 2, the variety of victimisation score was 1.28 among those at special compared with .90 among those at mainstream schools; the volume of victimisation scores were 5.68 and 2.13 respectively; and the extent of bullying scores were 3.20 compared with 1.51.

Relation between victimisation and delinquency

As mentioned at the beginning of this chapter, there are several reasons why the same individuals may tend to be both delinquents and victims of delinquency. One is that, as

discussed further in Chapter 14, there are wide variations in crime rates between neighbourhoods, so that young people tend to have both a rate of victimisation and a rate of delinquency characteristic of the place where they live. Similarly rates of delinquency and victimisation vary in parallel between schools and other social units that young people belong to. A second reason for the link is that incidents of delinquency (and victimisation) are generally the outcome of an interactive process, in which both the eventual victim and the eventual delinquent play a part. Sometimes the roles are hard to distinguish (as when it is hard to tell who started a fight), and at other times those who participate as victim may learn how to play the role of delinquent in future.

A third link between offending and victimisation arises through the developmental process. In a variety of ways, pathways of development may lead from victimisation to offending, and back from offending to victimisation. For example, young victims may find it difficult to form strong social bonds that restrain them from offending. Fourthly, those who become heavily involved in crime tend to spend more and more of their time in the company of criminals, who are of course likely to commit offences against their associates. Notoriously, prisons are extremely dangerous places.

Table 5.9: Correlation between victimisation and self-reported delinquency

Correlation coefficients (Spearman's rho)

	Variety of delinquency sweep 1	Volume of delinquency sweep 1	Variety of delinquency sweep 2	Volume of delinquency sweep 2
sweep one				
Variety of victimisation	0.463	0.443	0.344	0.340
Volume of victimisation	0.456	0.463	0.326	0.334
sweep two				
Variety of victimisation	0.321	0.311	0.419	0.394
Volume of victimisation	0.316	0.312	0.407	0.391
Extent of bullying	0.084	0.080	0.110	0.096
Variety of harassment by adults	0.229	0.215	0.362	0.349

Note: All of the correlation coefficients are significant at better than the 99 per cent level of confidence.

Our present findings show that the link between victimisation and delinquency is already very well established before the teenage years. This can be illustrated by considering the correlation coefficients between the four summary measures of self-reported delinquency and the six summary measures of victimisation (Table 5.9). At sweep 1, the correlation between the delinquency and victimisation scores was around .45, whereas at sweep 2, it was around .4, very high figures, showing an extremely strong relationship. It is very interesting to find, also, that there was a correlation of around .36 between delinquency at

sweep 2 and harassment by adults at the same sweep. This cannot be explained by the interactive nature of incidents of victimisation such as fights between young people. It suggests that much of the relationship between victimisation and offending arises from the polarisation of geography and associated social settings. It is equally interesting to find a much smaller (though statistically highly significant) correlation of around .1 between delinquency at sweep 2 and experience of bullying at the same sweep. Although there is a fairly strong correlation between experience of bullying and variety or volume of victimisation at sweep 2 (around .36) the link between bullying and other victimisation is actually weaker than that between victimisation and delinquency. More powerful analytical methods will be needed to explore these relationships adequately, but they are compatible with the theory that much of the association between delinquency and victimisation is mediated by social geography and associated social settings. Bullying may be relatively weakly associated with delinquency because it mostly takes place in a highly specific social setting closely associated with school, whereas much delinquency, and much other victimisation, takes place beyond the school, and in the residential neighbourhood.

Conclusions

Our study covers crime victimisation (theft, threats, robbery, assault, and attacks with a weapon); bullying; and harassment by adults. Each of the three types of victimisation affected around half of 12 and 13 year olds. Each covered a wide range of seriousness, but included a considerable number of serious incidents. It seems likely from these findings that victimisation is a major influence on the development of many or most young people.

The findings show that a strong relationship between victimisation and delinquency is already well established before the teenage years. Although multivariate analyses have yet to be carried out, it is likely that victimisation will be one of the most important predictors of delinquency.

Victimisation (theft, threats, robbery, attacks) was much higher among boys than girls: about twice as high on the basis of the average number of incidents. This is similar to the finding, for adults, that males are victims of assaults more often than females. The difference in victimisation is certainly connected with the difference in delinquency, and may help to explain it. On the other hand, whereas the gap in delinquency between girls and boys decreased between age 12 and 13, the gap in victimisation increased. By contrast with theft, threats, robbery and attacks, experience of bullying was about the same among boys and girls, whereas harassment by adults was significantly higher among girls than boys. These findings show that the three broad types of victimisation measure are tapping widely different kinds of experience.

As victimisation is closely bound up with delinquency, so are many of its correlates similar. In particular, victimisation, like delinquency, is only weakly related to family background and social class, but more strongly related to experience of being in care.

These findings emphasise the need to understand how experience of crime as victim and offender are common and closely related features of adolescent development. For example, when considering the mutual interactions between a factor such as moral reasoning and delinquency, it will always be important to trace its interactions with victimisation as well.

CHAPTER 6: PERSONALITY

Introduction

A number of theories link personality characteristics to delinquency or criminal offending, and also make similar links with risk behaviours such as use of cigarettes, alcohol, and illegal drugs. Before 1980, the only personality theory that was widely discussed by mainstream criminologists was Eysenck's (1977). On that account, criminals were distinguished by high scores on three independent constructs: extraversion, neuroticism, and psychoticism. The theory did not gain wide acceptance in criminology, partly because many criminologists rejected out of hand any quantitative approach emphasising individual psychological traits that could be measured by a few simple instruments (Matza, 1964).¹ More valid criticisms are that because the research was conducted among incarcerated populations, the findings reflect the characteristics of unsuccessful offenders, and these may be a consequence of criminalisation and imprisonment, rather than the prior cause of offending.

More recently, personality theory has been revived by research emerging from longitudinal studies of youth crime in both New Zealand and the US. In a series of articles, researchers working on the Dunedin Multidisciplinary Health and Development Study (described in Silva, 1990) and the Pittsburgh Youth Study (Loeber, Stouthamer-Loeber, Van Kammen, & Farrington 1989) have presented robust findings linking personality variables to self-reported crime. Unlike Eysenck's earlier work, these studies use longitudinal designs to study general population samples of young people; they measure the full range of offending (instead of taking imprisonment as the indicator of criminality); and they use a range of instruments derived from the Multidimensional Personality Questionnaire (MPQ: Tellegen, 1982) instead of testing only a few narrowly conceived personality constructs. These studies found that delinquency or criminal offending were consistently related to two personality 'superfactors': high negative emotionality, and low constraint. Those with high negative emotionality have a low threshold for fear, anxiety, and anger, especially under stress. Those scoring low on constraint are impulsive and risk-taking, and reject social conventions.

The idea that these personality factors predict offending connects with a number of strands in current criminological theory. The relationship between negative emotionality and offending fits with the idea that offenders have a 'perceptual bias' that leads them to see threats in ordinary behaviour and situations. Many current remedial programmes, such as anger management for offenders, aim to correct a perceptual bias of that kind. The relationship with low constraint and offending is closely connected with Hirschi and Gottfredson's (1990) theory that crime arises out of low self-control; it can also be related to Bandura's (1986) more elaborate theory of the constraining influence of the self system.

¹ In the language of the critics, the approach was rejected as being reductionist and positivistic.

Another research tradition focuses on the association between health risk behaviours and various aspects of the concept of self. Rosenberg and Kaplan (1982) for example argued that perceptions of the self and attitudes towards the self have wide-ranging implications for identity and action in the world. In particular, Rosenberg (1979) argued that individuals act in ways to maximise regard for themselves (the *self-esteem motive*). Further, Kaplan's (1978) self-enhancement thesis states that people with low self-esteem engage in delinquent behaviour in order to raise their self-esteem through winning the good opinions of other delinquents.

This theory predicts that people with low self-esteem will be more likely to engage in delinquent behaviour than those with high self-esteem; and that involvement in delinquency will raise their self-esteem. Many studies have shown that low self-esteem is associated with problem behaviours of various kinds (Currie and Todd, 1990; Sweeting and West, 1996); and a few longitudinal studies have provided evidence that delinquent associations can be self-enhancing (Jang and Thornberry, 1998).

In the Edinburgh Study, we therefore set out to measure three personality constructs that are relevant to these current debates: impulsivity (a focused measure of lack of constraint); alienation (the MPQ subscale that taps negative emotionality as it influences delinquency); and self-esteem.

Personality measures

We used modified versions of three instruments: the Rosenberg Self-Esteem scale (Rosenberg, 1965); the Alienation scale of the MPQ (Tellegen, 1982) and the Eysenck Impulsivity Scale (Eysenck & Eysenck, 1984). All three were included in the sweep 1 questionnaire, whereas the self-esteem scale alone (with some slight changes of wording) was included in the sweep 2 questionnaire.² Limited questionnaire space meant that each scale had to be abbreviated (the original scales contained 10, 17, and 27 items respectively).

During piloting at sweep one, the full scales were administered to 108 children in the same age group as the cohort at a school outside Edinburgh. For each scale, the six items that best predicted the total score were then selected. Some changes of wording were made to make the statements more appropriate for the age group. The response format was changed to a 5-point verbal scale (strongly agree—strongly disagree). The wording of the items is set out in Table 6.1.

² Given space limitations in the questionnaires, we considered it would not be worthwhile repeating all three scales in every sweep. The self-esteem scale was repeated in sweep 2 in preference to the others because there is evidence that self-esteem may change relatively quickly, and because of the need to test Kaplan's (1978) idea that involvement in delinquency raises self-esteem.

Table 6.1: Items of the three personality scales – sweeps 1 and 2

Impulsivity (sweep 1)

- Planning takes the fun out of things
- I get into trouble because I do things without thinking
- I put down the first answer that comes into my head on a test, and often forget to check it later
- I get involved in things that I later wish I could get out of
- I sometimes break rules because I do things without thinking
- I get so excited about doing new things that I forget to think about problems that might happen

Alienation (sweep 1)

- Lots of people try to push me around
- Some people are against me for no good reason
- My friends often say or do things behind my back
- I would be more successful if people didn't make things hard for me
- I know that people have spread lies about me on purpose
- Some people would like to take away what success I have

Self-esteem (sweeps 1 and 2)

- I like myself
 - I often wish I was someone else
 - I am able to do things well
 - I have a low opinion of myself
- [Sweep 2: I don't think much of myself]
- I feel I have a number of good qualities
- [Sweep 2: There are some good things about me]
- There are lots of things about myself I would like to change

The items were scored from 0-4, with a high score corresponding to the trait in question (impulsivity, alienation, or self-esteem), so that each total score had a range of 0-24. Each of the three scales had good internal reliability (see Table 6.2). On average, males scored distinctly higher than females on both self-esteem and impulsivity. The scores on the three scales were correlated to some considerable extent, yet these inter-correlations were low enough to indicate that the three scales were measuring different constructs.³ The scores on the three scales were related very little, if at all, to social class, family structure, or whether parents were working. However, there were consistent differences according to whether the child had been in care. Among those who had ever been in

³ The correlations (Spearman's rho) were self-esteem with alienation, -.293; self-esteem with impulsivity, -.246; alienation with impulsivity, .327. Moffitt et al (1995), however, argue that alienation and impulsivity are synergistic: that feelings of alienation, resentment, and victimisation are more likely to be converted to anti-social behaviour where the person has low impulse control.

care, self-esteem was lower, whereas alienation and impulsivity were higher, than among those who had never been in care.⁴

Table 6.2: Descriptive statistics on three personality scales - sweep 1

	Valid n	Mean	SE of mean	SD	Alpha
<i>Self-esteem</i>					
Males	2107	16.11	.093	4.26	.68
Females	2087	14.34	.098	4.47	.73
<i>Alienation</i>					
Males	2131	9.72	.141	6.50	.85
Females	2109	9.37	.137	6.28	.85
<i>Impulsivity</i>					
Males	2112	14.02	.119	5.49	.78
Females	2075	12.53	.123	5.62	.80

1. Valid n: score computed only if all six items completed.

2. SD: Standard deviation

3. Alpha: Cronbach's alpha (measure of internal reliability)

At sweep 2, the aggregate mean scores on self-esteem (the only scale that was repeated) were almost identical to those at sweep 1. However, there were some considerable changes (in both directions) in the scores of individuals from one sweep to the next. The correlation between the sweep 1 and sweep 2 self-esteem score was .594. Allowing for the less than perfect reliability of the measure, this indicates that some genuine individual change in self-esteem did occur between the two sweeps. The question whether experience of delinquency enhanced self-esteem from one sweep to the next will be investigated in later analyses.

Personality, delinquency and victimisation

Table 6.3 shows the correlations between each of the three personality scores and self-reported delinquency at the two sweeps.⁵ Self-reported delinquency was correlated strongly with impulsivity, modestly with alienation, and rather weakly with self-esteem. All of these correlations were significant at a high level of confidence, but the strength of the relationship nevertheless varied widely between the three personality attributes. The

⁴ There was a difference of 2 to 3 in the mean score. The correlation coefficients between the scale scores and whether ever in care ranged from .062 to .070, and were significant at the 99.9 per cent level of confidence.

⁵ The correlations with variety of delinquency are shown. The correlations with volume of delinquency are almost identical.

sweep 1 personality scores predicted sweep 1 delinquency distinctly better than sweep 2 delinquency. Also, the sweep 2 self-esteem score predicted sweep 2 delinquency considerably better than sweep 1 delinquency. If the analysis is carried out separately for males and females, very similar correlation coefficients are found. Thus, for example, both impulsivity and delinquency are higher, on average, among boys than girls, but the relation between them is almost the same among boys and girls.

Table 6.3: Correlation of personality scales with self-reported delinquency and victimisation – sweeps 1 and 2

Spearman's rho

	Variety of delinquency sweep 1	Variety of delinquency sweep 2	Variety of victimisation sweep 1	Variety of victimisation sweep 2
Self-esteem – sweep 1	-.138	-.112	-.091	-.070
Self-esteem – sweep 2	-.086	-.130	-.066	-.086
Alienation	.217	.123	.381	.267
Impulsivity	.467	.373	.305	.187

1. All of the correlation coefficients are significant at better than the .001 level of confidence.

In Chapter 5 we demonstrated the close link between delinquency and victimisation: for example, the correlation coefficient between variety of delinquency and variety of victimisation at sweep 1 was .463 (Spearman's rho). In view of that link, it is important to consider whether the personality characteristics that are associated with delinquency have something in common with those associated with victimisation. Table 6.3 demonstrates that this is indeed the case. Impulsivity and alienation were both quite strongly associated with victimisation, and self-esteem much more weakly. However, the pattern of these relationships was different for victimisation compared with delinquency. In the case of delinquency, much the strongest association was with impulsivity, with alienation coming second. In the case of victimisation, this order of priority was reversed, and the strongest relationship was with alienation. By comparison, self-esteem was rather weakly related both to delinquency and to victimisation.

These findings strongly confirm the idea that the development of delinquency must be understood as an interactive process that often also involves victimisation. Impulsivity seems to play a central role, because lack of planning and foresight can lead to vulnerability to attack as well as involvement in delinquent behaviour. Equally important, the feelings of fear and persecution that arise from victimisation, and also lead to it, may spill over into anger and punitive retribution, so it is easy to see how alienation can be associated with offending as well as victimisation (see footnote 3 above).

Table 6.4: Correlation of personality scales with bullying and extent of harassment by adults – sweeps 1 and 2

Spearman's rho

	Extent of being bullied	Extent of adult harassment
Self-esteem – sweep 1	-.140	-.127
Self-esteem – sweep 2	-.195	-.165
Alienation	.387	.165
Impulsivity	.101	.172

1. All of the correlation coefficients are significant at better than the .001 level of confidence.

Chapter 5 also describes the results from two further sets of questions at sweep 2, one on experience of being bullied, the other on experience of being harassed by adults. Table 6.4 shows that extent of being bullied was related to personality in a different way from other forms of victimisation. First, impulsivity was much more strongly related to victimisation than to being bullied (.305 compared with .101, using sweep 1 measures). Second, self-esteem was more closely related to being bullied than to other victimisation (-.195 compared with -.086, using the sweep 2 measures). These findings imply that being bullied is more passive than other forms of victimisation, and hence much less related to a lack of self control, and also that being bullied is more closely related to a loss of self-esteem. The link with self-esteem is probably bi-directional: that is, being bullied causes a loss of self-esteem, but also those with low self-esteem are more likely to be targets.

These personality attributes are also related to experience of being harassed by adults, although the pattern of relationships is different again. Experience of adult harassment was correlated with self-esteem in much the same way as bullying, but was much less strongly related to alienation, and more strongly related to impulsivity.

Personality and other risk behaviours

Chapter 3 presented findings showing fairly close links between delinquency and three other risk behaviours: smoking, drinking alcohol, and using illicit drugs. As might be expected, there are links between the three personality attributes and these risk behaviours which in some respects parallel the links with delinquency (see Table 6.5). At sweep 1, the pattern of associations for smoking was fairly similar to that for delinquency: a strong link with impulsivity, and a clear link with low self-esteem. An important difference, though, was that alienation was quite strongly linked with delinquency, but much more weakly linked with smoking. The other two risk behaviours, drinking and use of drugs, were quite clearly associated with impulsivity also at sweep 1, but their links with alienation and self-esteem were rather weak.

Table 6.5: Correlation of personality scales with health risk behaviours – sweeps 1 and 2

Spearman's rho

	Smoking sweep 1	Alcohol sweep 1	Drugs sweep 1	Smoking sweep 2	Alcohol sweep 2	Drugs sweep 2
Self-esteem – sweep 1	-.140**	-.074**	.063**	-.152**	.081**	-.053**
Self-esteem – sweep 2	-.114**	-.029	.029	-.159**	.106**	-.051
Alienation	.085**	.088**	.047**	.053**	-.029	-.016
Impulsivity	.298**	.210**	.158**	.191**	.208**	.129**

**Significant at the .01 level of confidence

The pattern of relationships between sweep 1 personality scales and sweep 2 risk behaviours was similar to that at sweep 1. A more complex analysis will be needed to establish whether there is evidence that smoking, drinking, and using drugs enhances self-esteem. From Table 6.5, there is no evidence of such an effect in the case of smoking or using drugs. However, the pattern of findings for alcohol is interesting. At sweep 1, the contemporaneous measure of self-esteem was negatively related to drinking, whereas it was positively related to drinking at sweep 2. Also, the sweep 2 measure of self-esteem was positively related to drinking at sweep 2. These findings are consistent with the idea that drinking enhances self-esteem as young people grow older. An alternative (or complementary) explanation is that in childhood, drinking is deviant (and therefore associated with low self-esteem) whereas in adolescence it is normal (and therefore associated with high self-esteem).

Conclusion

These results show a clear pattern of relationships between delinquency on the one hand and impulsivity, alienation, and low self-esteem on the other. Given that delinquency is closely linked with crime victimisation, and with health risk behaviours, it is not too surprising to find that the same personality attributes are also associated with these other risks. These findings fit with the idea that personality, delinquency, and victimisation are linked together in a sequence of interactive processes, and mutually influence one another.

Obviously, lack of self control and inability to foresee consequences may expose people to risks of victimisation as well as leaving them free to offend. Less obviously, feelings of fear, anxiety, and persecution (characteristic of those who score highly on alienation) may both arise from victimisation and make further victimisation (such as bullying) more likely; and some forms of delinquency may be a way of expressing or dealing with such feelings, for example by exacting retribution from actual or imagined attackers, or from the world in general. In particular, it has been argued from earlier research (e.g. Moffitt

et al, 1995) that it is the *combination* of low impulse control with alienation (often a consequence of victimisation) that often leads to delinquency. A central purpose of the Edinburgh Study as it develops will be to contribute to current debate about the exact nature of the interactions between personality characteristics, the social environment, and delinquent or risk-taking behaviour. Because the study is designed to measure the social context (see Chapter 14) a particularly important aim is to show whether deprived or dangerous neighbourhoods make it more likely that impulsive or retributive tendencies will be expressed in behaviour; this could set up a sequence of interactions if delinquent behaviour then reinforces longer lasting dispositions.

Some of the present results fit well with Moffitt's (1993) distinction between adolescence-limited and life-course persistent offending. On this theory, life-course persistent offending is linked with personality characteristics originating in early childhood, whereas adolescence-limited offending is not. We find that personality characteristics are more strongly correlated with delinquency at sweep 1 than at sweep 2, which would be predicted from Moffitt's theory, as the proportion of adolescence-limited delinquents increases at the age of 13.

The analysis so far conducted provides no support for the idea that delinquency, smoking, or drug taking are ways of enhancing self esteem, but they are consistent with the idea that drinking alcohol is used in that way. However, more detailed analysis is needed to pursue this question thoroughly; this will make use of the repeated measures of self-esteem at the two sweeps, and will investigate the effects of association with peers.

A central purpose of the Edinburgh Study is to discover whether different explanatory models are needed to understand delinquency in males and females. At the first sweep, boys scored on average higher than girls on self-esteem and impulsivity, while the scores on alienation were about the same. However, the pattern of relationships between the three personality characteristics and delinquency was similar among males and females. If this is repeated for other explanatory variables, it will mean that the same model of explanation applies to males and females: that is, the same characteristics influence offending in the same way among both groups, but females tend to be different from males with respect to those characteristics.

CHAPTER 7: PARENTS AND SIBLINGS

Introduction

The Edinburgh Study aims to explore the role of family relationships and controls in either inhibiting or supporting criminal behaviour in young people. Thus, at sweeps one and two participants were asked about their relationships with parents, how much time they spent productively with parents and the extent to which parents supervised their behaviour. They were also asked to say how much pocket money they received and – at sweep two only – how well they got on with their siblings. This section will focus on family and how the different measures described above relate to gender, class and delinquency.

Parental Supervision

A simple scale was devised to measure levels of parental supervision across sweeps one and two, based on responses to the questions displayed in Table 7.1 below.

Table 7.1: Questions relating to parental supervision at sweeps 1 and 2

When you go out, how often do your parents know:

1. where you are going?
2. who you are going out with?
3. what time you will be home

Response set: always, usually, sometimes, never

Depending on their answers respondents were given a score ranging from zero to nine, with nine the highest possible level of parental supervision (parents always knew where young people went or with whom or when they would be home) and zero the lowest (parents never knew where young people went or with whom or when they would be home). Scores were then grouped into low levels of supervision (scores zero to three), medium levels (scores four to six) and high levels (scores seven to nine).

At sweep one 58.0 per cent of the cohort (n=2479) reported high levels of parental supervision with only 8.0 per cent (n=341) reporting low levels (the mean parental supervision score was 6.65). There were significant gender differences, however. By comparing the mean parental supervision scores of boys and girls at sweep one, it was found that girls were significantly more likely ($p < 0.001$) to experience high levels of supervision (mean = 6.95) than boys (mean = 6.35). At sweep two the mean parental supervision score was slightly higher than at sweep one (6.73 compared with 6.65) although similar proportions of the cohort reported high (57.8 per cent) and low (7.7 per

cent) levels of supervision. Significant gender differences remained at sweep two ($p < 0.001$) although the means scores for boys and girls were closer (6.52 for boys and 6.94 for girls).

Significant social class differences were also found across both sweeps. At sweep one, comparing mean parental supervision scores with social class highlighted a significant difference ($p < 0.001$) with those in social class one being more likely to experience high levels of supervision (mean = 7.0) than those in social class five (mean = 6.20). The pattern was similar at sweep two with the mean score for those in social class one being 7.03 and for those in social class five, 6.40. However, the results were slightly less significant ($p < 0.01$) suggesting the gap between those in high and low social classes was closing.

As Table 7.2 indicates, when the measure of parental supervision was compared with summary measures of delinquency (variety and volume, as explained in chapter three), a strong correlation was found at both sweeps.

Table 7.2: Correlation of parental supervision scale with variety and volume of delinquency at sweep 1 and 2

	<i>Spearman's rho</i>	
	Variety of delinquency	Volume of delinquency
sweep 1 - parental supervision	-.455	-.457
sweep 2 - parental supervision	-.472	-.475

All correlation coefficients are significant at better than the .01 level of confidence

Summary – parental supervision

Levels of parental supervision were generally high across both sweeps, especially for girls, although gender differences had decreased somewhat by sweep two. Similarly, significant social class differences were found at both sweeps but again the gap between those at the higher and lower end of the spectrum was seen to be closing by sweep two. The relationship between delinquency and parental supervision was strong for boys and girls. However, at sweep one, the link for boys between both measures of delinquency and parental supervision (variety correlation coefficient = $-.447$, volume = $-.452$, $p < 0.01$) was stronger than that for girls (variety correlation coefficient = $-.426$, volume = $-.429$, $p < 0.01$). These differences may not be particularly large but suggest that the higher levels of parental supervision to which girls were subject at sweep one had some impact on their behaviour.

We already know that the gap between boys and girls in terms of parental supervision had narrowed by sweep two, though significant differences remained. When the relationship between delinquency and supervision was considered by gender at sweep two, girls had caught up with boys and, in fact, had overtaken them in the case of variety.

The variety correlation coefficient for boys was -.456 and for girls -.473 ($p < 0.01$) and the volume correlation coefficient for boys and girls was -.473 ($p < 0.01$).

Parental Relationships

In a bid to measure the quality of young people's relationships with their parents across both sweeps, respondents were asked to describe levels of trust between them and their parents and levels of arguments— see Tables 7.3 and 7.4 below. In asking young people these questions, the aim was to explore two, separate dimensions of young people's relationships with their parents: direct parental control versus autonomy and trust; conflict in parent/child relationships. In exploring conflict, the point is not that it exists – as this is surely inevitable in any family situation – but how it is resolved.

Table 7.3: Questions about trust between parents and young people at sweeps 1 and 2

How would you describe your parents?

1. They let me do things I like doing
2. They trust me
3. They treat me like a baby
4. They try to control everything I do
5. They let me make my own decisions

Response set: always, usually, sometimes or never

Based on the four point response set, a trust score between zero and 15 was calculated for each respondent (where zero represented absolutely no trust between parent and child and 15, total trust).¹ At sweep one the mean trust score was 10.93 and 87.2 per cent of young people ($n=3657$) gained a score of nine or more on the scale. This suggests that a large proportion of the cohort felt that their parents trusted them to a high degree. At sweep two the mean trust score was 10.89 and almost the same proportion of young people as in sweep one (86.8 per cent, $n=3658$) scored nine or more.

¹ It could be argued that parents who gave their children a great deal of autonomy over their decision-making and behaviour were not providing adequate levels of supervision. However, for the purposes of analysis here, and following extensive discussion with participants during piloting, a high level of trust was taken as an indicator of a positive relationship between parent and child.

Table 7.4: Questions relating to arguments between parents and young people at sweeps 1 and 2

How often do you disagree or argue with your parents about each of these things?

1. Homework
2. Friends
3. How tidy your room is
4. What time you get in
5. What you do when you go out

Response set: most days, at least once a week, less than once a week or never/hardly ever.

A parental argument scale was devised based on another four point response set. From this, a parental argument score was calculated (where zero represented arguments most days on all subjects and 15 absolutely no arguments). At sweep one, the mean parental argument score was 10.21 and only a very small proportion of young people (12.2 per cent, n=512) had a score of five or less. This suggests that, while most cohort members argued with their parents, only a small number argued frequently and about lots of things. Arguments were up a little at sweep two with a mean score of 10.60, although a smaller proportion argued frequently – e.g. – scored less than five (10.2 per cent, n=434).

As Table 7.5 shows, there were significant but small gender differences between the mean parental trust and argument scores for boys and girls at sweep one. These differences were not repeated at sweep two however, which suggests that, once again, the gap between boys and girls is closing.

Table 7.5: Parental relationships by gender at sweeps 1 and 2

Mean score and p value

Measure of parental relationship	Mean Sweep 1	p value Sweep 1	Mean Sweep 2	p value Sweep 2
Trust				
Boys	10.80	P<0.01	10.85	P<0.1
Girls	11.06		10.94	
Arguments				
Boys	9.89	P<0.01	10.40	P<0.1
Girls	10.53		10.80	

1. $p < 0.1$ is not significant

Parental relationship scores were then analysed by class and again significant differences were found across both sweeps ($p < 0.01$) Levels of trust fell and levels of arguments rose slightly as we moved from higher to lower social class groupings, however, the differences, though significant, were small.

At both sweeps large, significant differences were found when parental relationships were analysed by measures of delinquency. However, as Table 7.6 indicates, both variety and volume of delinquency correlated strongly with the parental argument scale, yet only weakly with the trust scale.

Table 7.6: Correlation of parental relationship scales with variety and volume of delinquency - sweeps 1 and 2

Spearman's rho

	Variety of delinquency	Volume of delinquency
Sweep 1		
Trust	-.157	-.156
Arguments	-.369	-.369
Sweep 2		
Trust	-.148	-.153
Arguments	-.400	-.394

1. All correlation coefficients are significant at better than the .01 level of confidence

Summary – parental relationships

Based on scales measuring levels of trust between parents and children and levels of arguments, it can be seen that a large proportion of the cohort reported good relationships with their parents on both fronts. As young people mature and try to assert themselves more at home, we might expect arguments to increase, and certainly, mean argument scores were up slightly at sweep two. Significant social class differences were seen at both sweeps, with young people from lower class backgrounds being more likely to argue with their parents and less likely to feel trusted by them.

At sweep one, boys were more likely than girls to feel that their parents did not trust them and more likely than girls to argue with their parents. This gap however had noticeably decreased by sweep two, with no significant gender differences found. Most striking perhaps, was the significant relationship between delinquency and parental relationships, particularly arguments – although neither arguments nor trust were as strongly related to delinquency as parental supervision. As with parental supervision and delinquency, the relationship for boys and girls between parental relationships and delinquency differed at sweep one. A stronger link was found for girls than boys, which suggests that a less positive home life had more of an impact on the behaviour of girls than boys. By sweep two the relationship between delinquency and parental relationships was equally strong for boys and girls, which suggests, once again, that girls and boys became more alike during the change from sweep one to two.

Conventional Activities with Parents

At sweep one respondents were asked how often they did particular activities with their parents – see Table 7.7. The sweep two questions relating to conventional activities were not comparable with those at sweep one therefore, this chapter will consider sweep one only. However, a more detailed analysis of young people's spare time activities can be found in chapter nine.

Table 7.7: Questions relating to conventional activities with parents – sweep 1

How often do you do each of these things with your parents?

1. Watch TV or videos
2. Go shopping
3. Play sports or go to watch sports
4. Go to the cinema, theatre or concerts
5. Visit friends or relatives
6. Go out for something to eat
7. Go on trips or outings
8. Go for walks or bike rides
9. Any other things

Response set: most days, at least once a week, less than once a week or never

Based on a four point response set, a total activities score was calculated which ranged from zero to 27 (with zero being no involvement at all in activities with parents and 27 being involved most days in all activities. The mean parental activities score was 13.54 therefore, to reflect this – and to simplify analysis – a simple low, medium and high level scale was devised. The low level of activity with parents' category took in young people who scored zero to eight, the medium level those who scored nine to 18 and the high level those who scored 18 to 27.

The majority of participants (75.3 per cent, n=2756) said that they had medium level involvement in conventional activities with their parents. Similar proportions were found at both the high (11.5 per cent) and low levels (13.2 per cent). Generally boys and girls were fairly equally involved in activities with their parents. This said, there was a small significant difference at the low level end of the scale where boys were slightly more likely to be found than girls (14.7 per cent compared with 11.7 per cent - $p<0.01$). Interestingly – and perhaps rather surprisingly given the previous association between lower social class, lower levels of trust between parent and child and higher levels of parental arguments – young people from social class one were significantly less likely to be highly involved in activities with their parents than any other group (a mean of 12.82 for class one compared with means of at least 13.46 for all others).

However, it cannot be taken that involvement in activities with parents is necessarily a protective factor in relation to delinquency. We know from the parental supervision discussion earlier that what matters is the control that parents exercise over their children when they are out of their sight. This said, delinquency was significantly related to involvement in activities with parents, although weakly, when compared with parental supervision and parental arguments. The correlation coefficient between variety of delinquency and activities was $-.117$ ($p<0.01$) and between volume of delinquency and activities was $-.118$ ($p<0.01$). This association will be examined further in chapter nine,

where, for example, the relationship between the different forms of activity with parents and their relationship to delinquency will be considered.

Relationships with Siblings

At sweep two only, respondents were asked about the quality of their relationships with siblings – see Figure 7.8. 84.2 per cent of the cohort (n=3613) said that they lived with brothers/stepbrothers or sisters/stepsisters and of this high number 80.7 per cent (n=2932) said that they argued with their siblings most days (48.6 per cent) or at least once a week (32.0 per cent).

Figure 7.8: Questions relating to relationships with siblings – sweep 2

Arguments

How often do you argue with your brothers or sisters?

Cohort members as victims of sibling violence

How often does your brother or sister do these things to you?

1. Threaten to hurt you in some way
2. Hurt you by hitting or kicking or punching you
3. Hurt you by hitting you with a weapon of some kind

Cohort members as instigators of sibling violence

How often DO YOU do these things to your brothers or sisters?

4. Threaten to hurt them in some way
5. Hurt them by hitting or kicking or punching them
6. Hurt them by hitting you with a weapon of some kind

Response set: most days, at least once a week, less than once a week, never or hardly ever

Not surprisingly, arguments with siblings were common, but what about actual physical violence between siblings? Based on the four point response set to questions about the child as either a victim or instigator of sibling violence, respondents were given a total victim or instigator score ranging from zero to nine. Zero represented no experience of violence at all (either as victim or instigator) and nine, experience of all forms of violence most days.

10.7 per cent said that their siblings were violent to them most days and 21.1 per cent that their siblings were violent at least once a week. Similarly, 10.4 per cent of respondents reported that they were violent to their siblings most days and 22.0 per cent that they were violent at least once a week. Boys were slightly more likely than girls to have violent siblings – a small but still significant difference ($p < 0.01$) – but girls were just as likely as boys to be violent towards their siblings. No differences were found across social class in terms of victims of sibling violence although respondents in lower social class groups were significantly more likely to report that they instigated sibling violence (15.6 per cent in classes four or five and 8.6 per cent in classes one or two – $p < 0.001$).

By using our victim and instigator scores described above to explore the relationship between victimisation by siblings and instigation of violence towards siblings, a very strong association was found (a correlation coefficient of .631 ($p < 0.01$)). This suggests that if young people are victimised by their siblings, they are highly likely to victimise their siblings in return. Generally speaking, conflicts between siblings are an interactive process. Though one sibling may come off worse or better than the other, it is the interactive nature of the process that leads to the high correlation.

Delinquency was strongly associated with being both a victim and instigator of sibling violence, however, as Table 7.9 indicates, the relationship between delinquency and instigation of sibling violence was much the stronger of the two.

Table 7.9: Correlation of victim and instigator of sibling violence scores with variety and volume of delinquency – sweep 2

	<i>Spearman's Rho</i>	
	Variety of delinquency	Volume of delinquency
Child is victim of sibling violence	.191	.191
Child is instigator of sibling violence	.307	.316

All correlation coefficients are significant at better than the .01 level of confidence

Pocket Money

At both sweeps respondents were asked to say if they received pocket money from their parents or money from other sources – a job, grandparents – and, if so, how much – see Table 7.10. Their weekly disposable income was then calculated.

Table 7.10: Questions relating to pocket money at sweeps 1 and 2

<p>Sweep 1</p> <p>Do your parents give you pocket money?</p> <ol style="list-style-type: none">1. If so, how much do you get?2. If so, how often do you get it? <p>Do you usually get any other money, for example from a part time job, for doing work around the house or from relatives?</p> <ol style="list-style-type: none">3. If so, where do you get other money from?4. How much do you get?5. How often do you get it? <p>Sweep 2</p> <p>Do you regularly get money to spend on yourself?</p> <ol style="list-style-type: none">6. If so, how much money do you usually get each week?7. Where do you usually get money from?

At sweep one the majority of the cohort said that money was received regularly (85.5 per cent, n=3617) and of this group, a large proportion said that they received either up to £5.00 (54.6 per cent) or £5.00 to £10.00 (27.2 per cent) each week. However, almost 10.0 per cent (n=328) of those who said they received money regularly had a disposable income of £15.00 or more each week, which can perhaps be seen as a fairly high sum for young people aged 11 or 12. There were no gender differences amongst those who had less money each week however, a significantly higher proportion of boys than girls fell into the group of higher earners (9.9 per cent compared with 5.3 per cent, $p < 0.01$). Few marked differences were seen in relation to social class, especially amongst those with less money. However, young people from lower social class backgrounds were more likely than those in higher groups to have £15.00 or more each week (9.7 per cent compared with 5.8 per cent), a significant though small difference.

At sweep two general income patterns were repeated. Although a smaller proportion of the cohort reported that they received money regularly (74.4 per cent, n=3212) in sweep two, the proportion with a disposable income of £15.00 a week or more was up from

sweep one (from 10.0 per cent to 16.1 per cent, n=510). The gender and social class differences remained.

To explore the relationship between delinquency and income, total weekly income measures were correlated with summary measures of delinquency at both sweeps. As Table 7.11 shows, there was a significant relationship between income and variety and volume of delinquency at both sweeps but the correlation was stronger at sweep two.

Table 7.11: Correlation of weekly disposable income with variety and volume of delinquency – sweeps 1 and 2

Weekly Disposable Income	<i>Spearman's Rho</i>	
	Variety of Delinquency	Volume of Delinquency
Sweep 1	.169	.168
Sweep 2	.252	.258

All correlation coefficients are significant at better than the .01 level of confidence

At both sweeps, young people said from where their money had come and the majority said their parents or other relatives had given it to them. Only a fairly small proportion said they had a part time job over and above doing chores around the house (14.2 per cent in sweep one and a higher proportion of 20.8 per cent in sweep two). Across both sweeps it was clear that boys were more likely to work than girls, which is not surprising when we recall that girls were more likely than boys to be subject to higher levels of parental supervision. However, though at sweep one those from lower social class groups were more likely to have a job than those in higher groups, the situation had evened out by sweep two.

Conclusion

When family measures from sweeps one and two of the self completion questionnaire were analysed, significant, though often small, gender and social class differences were found, especially in terms of parental supervision of, and relationships with, young people. However, generally the gaps between girls and boys and between young people from different social class groups appeared to have narrowed by sweep two. It was apparent also that delinquency was significantly related to family controls, relationships and activities. Especially striking was the strong association between delinquency and lower levels of parental supervision. This suggests that, in terms of inhibiting delinquent behaviour, it is more important for parents to know what their children are doing, where and with whom than to have strong, high quality relationships with them.

The quality of young people's relationships with their siblings also appeared to be an important factor associated with delinquency, given the strong link between delinquency and higher levels of violence between siblings – especially when the respondent was the instigator rather than the victim of sibling violence. Edinburgh Study data has already highlighted the strong relationship between delinquency and other problem behaviours in young people – smoking, drinking alcohol, using illegal drugs (see chapter three) and bad behaviour in school (see chapter 10) – therefore, it is not surprising that problem behaviour at home was similarly related.

We found out in chapter five that delinquency was closely related to experience of other forms of victimisation such as being threatened, attacked or bullied by other young people. Clearly, however, in light of the strong link between delinquency and instigation of sibling violence found here, it will be important in the future to consider the relationship between young people's own delinquency and their victimisation of others outside the sibling relationship.

Finally, the fact that weekly income increased as level of delinquency increased could be explained in part by the fact that delinquency was also significantly related ($p < 0.01$) to having a part time job. However, across both sweeps, there remained a large proportion of offenders who did not work, yet who had reasonably large amounts of money to spend. Respondents have yet to be asked the extent to which they benefit financially from their involvement in certain types of offending – thefts from home, school or cars, housebreaking, personal theft and so on – and this may well become an important area to consider at future sweeps.

CHAPTER 8: LEISURE ACTIVITIES

Introduction

A crucial influence during adolescent development is the shifting balance between parental and peer influence. One of the most common changes during this stage of life is a reduction in the amount of time spent with parents or around the home and an increase in the amount of time spent with friends. What young people do in their spare time is dependent upon a number of factors, including their particular interests or hobbies, the opportunities available to them and their financial situation. However, there is considerable research evidence to suggest that young people spend much of their time in groups, and that youth group activities and delinquency are strongly related (Messerschmidt, 1994). Moreover, there is a recognised culture of hanging around amongst young people and this is often cited as a source of concern or complaint within communities (for example, see Carnie, 1995).

In this chapter, we look at how boys and girls reported spending their leisure time and the relationship between these activities and their own self-reported delinquency. In the following chapter, we examine in more detail the structure and characteristics of friendship groups and the influence of peers on offending behaviour.

Pattern of leisure activities at sweep one

In order to get a broad picture of how young people spent their leisure time, the respondents in sweep one were asked a range of questions about the amount of time they spent doing activities at home, with their parents, with their friends and other outside activities. These questions encompassed both conventional and less conventional activities (see Table 8.1, below). The analysis revealed that most young people led very varied social lives and tended to be regularly involved in numerous different types of activity. While they spent a lot of time at home doing things, they also spent a lot of time going out, particularly with their friends, and engaging in various organised and unsupervised activities.

Table 8.1: Questions on leisure activities at sweep 1

Out of home activities

1. How often do you
- go to a youth club or school club?
 - to to scouts, guides or BBs?
 - go to a sports club or team?
 - go to church or another place of worship?
 - play sports or games, but not at a club?
 - go to keep fit or dancing classes?
 - go to watch football or other sports?
 - do a part time job?
 - do sponsored events or voluntary work?

Activities with friends

2. How often do you
- Hang about the streets, a park or shops?
 - go to friend's houses?
 - go shopping or out for something to eat?
 - go to an amusement arcade?
 - go to the cinema, theatre or concerts?
 - go to raves, discos or night-clubs?
3. How many evenings a week do you usually go out with your friends?

Home based activities

4. How often do you
- play computer or video games?
 - read comics, books or magazines?
 - listen to music or watch TV or videos?
 - ask friends round to your house?
 - do housework or chores at home?
 - do a hobby or play an instrument?
 - babysit for your family?
 - do your homework?

Activities with parents

5. How often do you
- watch TV or videos?
 - go shopping?
 - play sports or go to watch sports?
 - go to the cinema, theatre or concerts?
 - visit friends or relatives?
 - go out for something to eat?
 - go on trips or outings?
 - go for walks or bike rides?
 - any other things?

Response options: most days, at least once a week, less than once a week and never.

(Structure of questions here are not exactly the same as asked in the questionnaire)

For simplicity, Table 8.2 shows the extent to which boys and girls reported being involved ‘at least weekly’ or ‘less than weekly’ in the various activities included in the questionnaire.¹ Although some detail has been lost by merging categories, any crucial differences at a more precise level are discussed in the text.

Table 8.2: Involvement in leisure activities by gender - sweep 1

Row percentages within gender

	Boys		Girls	
	At least weekly	Less than weekly	At least weekly	Less than weekly
Out of home activities				
Go to a youth or school club	37.8	62.2	45.5	54.5
Go to scouts, guides, BBs	15.6	84.4	18.7	81.3
Play for a sports club or team	58.2	41.8	43.0	57.0
Go to church or to worship	13.8	86.2	14.7	85.3
Play sports or games, not at club	86.4	13.6	63.8	36.2
Go to keep fit or dancing classes	10.2	89.8	32.1	67.9
Watch football or other sports	49.1	50.9	20.4	79.6
Do a part time job	11.8	88.2	5.7	94.3
Sponsored events/voluntary work	4.1	95.9	4.7	95.3
Activities with friends				
Hang around the street, etc	59.8	57.2	40.2	42.8
Go to friends’ houses	75.2	24.8	75.7	24.3
Go shopping, out to eat	44.8	55.2	50.6	49.4
Go to amusement arcade	15.0	85.0	6.1	93.9
Go to cinema, concerts	24.3	75.7	23.9	76.1
Go to discos or nightclubs	10.4	89.6	10.6	89.4
Activities at home				
Play computer or video games	90.3	9.7	63.3	36.7
Read comics, books, magazines	66.7	33.3	84.2	15.8
Listen to music/watch TV or video	96.6	3.4	98.6	1.4
Ask friends round to house	71.8	28.2	75.4	24.6
Do housework or chores	55.5	44.5	66.2	33.8
Do a hobby/play an instrument	68.5	31.5	69.1	30.9
Babysit for family	11.0	89.0	14.4	85.6
Do homework	90.7	9.3	95.9	4.1
Activities with parents				
Watch TV or videos	84.0	16.0	81.3	18.7
Go shopping	63.5	36.5	70.6	29.4
Play or watch sports together	46.4	53.6	23.7	76.3
Go to the cinema together	20.9	79.1	19.4	80.6
Visit friends or relatives	62.0	38.0	65.3	34.7
Go out to eat	41.7	58.3	38.7	61.3
Go on trips or outings	34.3	65.7	33.3	66.7
Go for walks/bike rides	33.5	66.5	30.9	69.1
Any other things	46.8	53.2	49.7	50.3

¹ The ‘at least weekly’ category includes those who did things either most days or at least once a week, while the ‘less than weekly’ includes those who said they did things less than once a week or never.

Table 8.2 shows that some of the most commonly pursued activities during the course of a week were those based at home and, in fact, many respondents reported doing things at home 'most days'. The most popular activities at home which were reported to be done most days were playing music or watching TV (88.3 per cent), playing computer or video games (52.8 per cent), reading comics, books or magazines (47.4 per cent) and doing homework (80.3 per cent). Having friends round, pursuing hobbies or playing an instrument and doing work around the house were also fairly regular activities, although not so much on a daily basis.

Boys were generally less likely than girls to say that they did activities at home most days. In addition, there were significant gender differences in the nature of their activities which tended to reflect typical gender stereotypes. Girls appeared to be more studious or industrious, being significantly more likely ($p < 0.001$) to spend more time reading, listening to music or watching TV, doing work around the house, doing homework or babysitting for family members. Boys on the other hand were more likely to be involved in active pursuits such as playing computer or video games ($p < 0.001$) and doing hobbies or playing instruments ($p < 0.01$).

Although many respondents clearly spent a lot of time around the house, few said they did anything other than watch TV with their parents on a daily basis. Most young people did things with their parents at least once a week, although the most common activities tended to be general day to day things, such as shopping and visiting friends or relatives. Again, gender stereotypes seemed to prevail since doing these things was significantly more common amongst the girls ($p < 0.001$ and $p < 0.05$ respectively).

Going on outings or doing actual leisure pursuits with parents such as going to the cinema, out for something to eat, on trips and for walks or bike rides were equally uncommon amongst boys and girls, although a substantial minority managed to do these things at least once a week. Watching or playing sports with parents was significantly ($p < 0.001$) more common amongst the boys and indeed sports in general seemed to be a much more masculine domain. Playing unorganised sports, going to a club or team and watching sports were all significantly more frequently ($p < 0.001$) pursued by boys. Girls were more likely ($p < 0.001$) to get involved in dancing or keep fit, although only a third of girls reported doing this at least once a week.

Conventional activities which required a bit more organisation or commitment were less frequently attended, although it is not possible to say to what extent this is due to lack of opportunity or lack of interest. Around two in five said they went weekly to a youth club, although 47.2 per cent of respondents overall said they never did this. Even less frequently attended were scouts or guides (81.0 per cent never did this) and attending church or another place of worship (74.4 per cent never did this). Girls were significantly ($p < 0.01$) more likely to be involved in these types of activity.

After sports, the most common out of home activities amongst young people involved going to friends houses, hanging around outside or going shopping with friends. Although girls were more likely ($p < 0.01$) to go to friends houses or go shopping, there was no gender difference in the extent to which young people said they were involved in hanging around public places.

Going to the cinema with friends was less common, possibly because of financial constraints, although again this was more common amongst girls. Less conventional activities, such as going regularly to an amusement arcade and to discos or nightclubs, were very uncommon. More than half of all respondents said they never went to an arcade (58.9 per cent) or to discos (57.7 per cent). Perhaps predictably, boys were far more likely to go to an arcade and, although it is not apparent from Table 8.1, girls were more likely than boys to go to a disco or rave (both $p < 0.001$).

The fact that a large proportion of young people reported doing social activities on a regular basis with friends is hardly surprising, since respondents reported spending an average of 4.55 evenings a week out with friends. In fact, 38.6 per cent stated that they went out with their friends five evenings or more per week. The mean scores for both boys (4.72) and girls (4.38) were high, although the difference between them was highly significant ($p < 0.001$).

Pattern of leisure activities at sweep 2

The pattern of responses to the sweep one questionnaire very much highlighted the importance of activities outwith the home, particularly those involving unstructured activities with friends. It was not the aim of the sweep two questionnaire to measure change across the two sweeps in terms of how often young people took part in particular activities. Therefore, as can be seen from Table 8.3, a restricted list of activities was included.

Table 8.3: Questions on leisure activities - sweep 2

1.	How many evenings a week do you normally just stay at home?
2.	How many evenings a week do you usually go out with your friends?
3.	Do you go out in the evening to any clubs, groups or sports centres?
	<i>If Yes,</i>
4.	How many evenings a week do you usually go out to clubs or groups?
5.	What kind of club or group do you go to?
6.	Are adults in charge of the clubs that you go to?
7.	How often do you just hang around your area and other areas (away from where you live) in the evening? (Not exactly as asked in the questionnaire)
8.	Where do you usually hang around in the evening?
9.	How often do you
	- go shopping or out for something to eat?
	- go to the cinema, theatre or concerts?
	- go to an amusement arcade?
	- go to church or another place of worship?
	- go to raves, discos or night-clubs?
	- do a part time job?

The focus in sweep two was on providing a better measure of the overall extent to which young people stayed at home or went out to do things and examining the concept of hanging around in more detail. Although some of the questions in sweep two were similar to those in sweep one, the structure and time frame were changed which makes it difficult to make direct comparisons between the two sweeps.² Nevertheless, broad comparisons can be made in terms of the relative importance of certain activities.

Table 8.4 examines the average number of evenings per week that respondents said they spent doing different activities. These findings largely support those of the sweep one questionnaire to the extent that both activities at home and activities with friends were found to be common. However, the amount of time spent out and about with friends appears to take on more prominence here. Although activities at home appeared to be very common at sweep one, it is clear that young people do not exclusively stay at home in the evening to pursue them. In addition, while many people said they played sports or attended clubs at least once a week in sweep one, these appear to be activities which are pursued on average only once or twice a week.

Table 8.4: Significant difference between mean number of evenings spent at home, at clubs or out with friends by gender - sweep 2

Column percentages and Pearsons Coefficients

	Mean number of evenings per week		Significant differences between gender
	Boys (n=2185)	Girls (n=2144)	
Going out with friends	4.50	4.28	P<0.01
Going out to clubs or groups	1.55	1.40	P<0.01
Staying at home	3.56	3.58	P<0.1

¹ P value measures statistical significance between means. P<0.1 is not significant.

Looking in more detail at the extent to which respondents said they stayed at home in the evening, there was something of a bias towards the lower end of the scale. While the average number of nights spent at home was 3.57 overall, 69.8 per cent of respondents said they stayed in three evenings per week or less and 38.4 per cent said they stayed in only once or twice a week. As can be seen from Table 8.2, there was no gender difference in the mean number of evenings spent at home.

² The response options were changed in sweep two, to ‘at least once a week’ ‘at least once a month’ and ‘never or hardly ever’ and the sweep two questions did not ask specifically about going places with ‘friends’ or ‘parents’ as they did in sweep one.

A large proportion (59.7 per cent) of respondents at sweep two said they attended a club, group or sports centre. However, it is clear from Table 8.2 that this was not a frequent activity. As with sweep one, the most popular type of club or group was a sports club, which 60.4 per cent of club-goers said they attended, and again this was significantly more common ($p < 0.001$) amongst boys. Much less common was attending youth clubs (28.3 per cent), scouts or guides (16.2 per cent), keep fit or aerobics clubs (15.5 per cent) or other types of club or group (17.3 per cent). Girls were slightly more likely ($p < 0.05$) to report attending a youth club, and significantly more likely ($p < 0.001$) to go to all of the other types of club.

As predicted from the sweep one findings, going out with their friends in the evening was the most common activity. Around a third (34.5 per cent) said they went out with their friends on five evenings or more per week, although a significant minority (41.3 per cent) stated that they only did so two evenings per week or less. Unexpectedly, the mean number of evenings spent out with friends was slightly, but significantly ($p < 0.01$), lower than at sweep one. The gender difference observed at sweep one was also slightly reduced, although boys continued to report a higher mean number of evenings out with friends. It is difficult to say to what extent these may be real changes, or caused by a change in the position of the question within the questionnaire, from the friends' section to the section on spare time activities generally. The findings at sweep three will give a better indication of actual change.

Given the relationship between unstructured leisure time and delinquency found in other studies, more detailed questions on hanging around were asked at sweep two. This continued to be a very popular activity, with 54.3 per cent of respondents saying that they hung about outside most evenings and a further 20.4 per cent said they did so at least once a week. Hanging about their local area was most common, with 61.0 per cent saying they did so at least weekly, although 46.3 per cent also said they visited areas away from where they lived on a weekly basis to hang about. Boys were significantly ($p < 0.01$) more likely to report hanging about most days than girls, although the difference in percentage terms was small (57.1 per cent of boys compared with 51.4 per cent of girls).

Looking in more detail at the places young people said they went to hang around, it was clear that they moved around a great deal both within their own and other areas (see Table 8.5). Many respondents reported hanging around residential areas - either near their own house or a friend's house. This was significantly more common amongst girls which may reflect their concerns about safety. Nevertheless, many young people also said they spent time hanging around other more public places, which may have afforded less safety. Although boys were more likely to go to parks or playing fields, there was no difference in the extent to which girls and boys hung about the street, near school or other places and girls were slightly more likely to hang around shops or shopping centres.

Table 8.5: Location of hanging around by gender - sweep 2*Column percentages and Pearsons Coefficients*

	% boys (n=2185)	% girls (n=2144)	Significant difference between gender
Hanging around own house	39.5	47.7	P<0.001
Hanging around a friend's house	47.3	59.9	P<0.001
Hanging around a park or playing field	42.1	37.4	P<0.01
Hanging around shops or shopping centre	15.7	18.3	P<0.05
Hanging around the street	39.1	40.9	P<0.1
Hanging around near school	7.2	6.7	P<0.1
Hanging around other places	9.4	8.5	P<0.1

1 P value measures statistical significance between proportions. P<0.1 is not significant.

2 Column percentages do not add up to 100 as more than one response was permitted.

Similar to sweep one, going shopping or out to eat was a common social activity, particularly amongst the girls. Boys were slightly more likely ($p<0.05$) than girls to go to the cinema although, possibly due to financial constraints, this was uncommon. A higher proportion than in sweep one reported going to discos and raves, with 42.3 per cent saying they did this at least once a month. As with sweep one, girls were more likely to report going to discos or nightclubs while boys were more likely to go to an amusement arcade (both $p<0.001$). There was no gender difference in terms of going to church, which 82.4 per cent of respondents said they would hardly ever or never do.

Table 8.6: Frequency of involvement in leisure activities by gender - sweep 2*Row percentages within gender*

	Boys		Girls	
	At least weekly	Less than weekly	At least weekly	Less than weekly
Go shopping, out to eat	58.2	47.8	66.8	33.2
Go to cinema, concerts	20.3	79.7	18.7	81.3
Go to amusement arcade	11.8	88.2	3.5	96.5
Go to church or to worship	11.6	88.4	11.1	88.9
Go to discos or nightclubs	10.6	89.6	13.4	86.6

Relationship between leisure activities and delinquency

To allow meaningful comparison between sweeps, respondents were compared on the basis of whether they said they had done things 'at least weekly' or 'less than weekly'. The mean scores for self-reported variety of offending were calculated for

the ‘weekly’ and the ‘non-weekly’ participants in each type of leisure activity, and these are presented in Table 8.7³. Data from both sweeps is used, however, given the large number of activities involved only those for which weekly involvement was significantly associated with delinquency are shown⁴. In addition, any comparisons between the two sweeps are tentative due to differences in question structure discussed above.

Table 8.7: Positive associations between weekly leisure activities and mean score of variety of delinquency - sweeps 1 and 2

Column percentages and Pearsons Coefficients

	Mean score for variety of delinquency		Significant difference between mean scores
	At least weekly	Less than weekly	
Sweep one			
Out of home activities			
Play unorganised sports	2.62	2.05	P<0.001
Watch football, other sports	3.09	2.46	P<0.001
Activities with friends			
Hang around the street, etc	3.09	2.00	P<0.001
Go to friends’ houses	2.64	2.00	P<0.001
Go shopping, out to eat	2.63	2.35	P<0.01
Go to amusement arcade	3.58	2.93	P<0.001
Go to cinema, concerts	2.95	2.38	P<0.001
Go to raves, discos	3.95	2.91	P<0.001
Activities at home			
Play computer games	2.55	2.22	P<0.01
Have friends to house	2.60	2.11	P<0.001
Activities with parents			
Play or watch sports together	2.58	2.33	P<0.05
Go to the cinema together	2.53	2.28	P<0.05
Sweep two			
Hang around neighbourhood	3.27	2.77	P<0.001
Hang around other areas	4.34	3.19	P<0.001
Go to a club, group or sports centre	2.88	2.66	P<0.05
Go to cinema, concerts	3.15	2.70	P<0.001
Go to amusement arcade	3.88	2.70	P<0.001
Go to discos or raves	4.93	2.50	P<0.001

1 P score represents statistically significant difference in mean variety of delinquency between those who did activities weekly and those who didn’t. P>0.1 is not significant.

2 The overall mean for variety of delinquency was 2.48 in sweep one and 2.79 in sweep two.

3 Activities in sweeps one and two are not directly comparable due to differences in question structure.

³ Significant differences for volume and variety of delinquency were the same.

⁴ Those activities for which weekly participation was not positively associated with variety of offending – either because there was no significant difference to non-weekly participation or because the association was negative - are not shown in Table 8.7.

Perhaps unsurprisingly, weekly involvement in every type of peer related activity was positively associated with delinquency at sweep one – including having friends round to their home. Until more detailed analysis is completed, it is difficult to identify those activities which are most strongly associated with delinquency. However, there appears to be a clear relationship between hanging around on a frequent basis and involvement in delinquency. Less conventional activities, such as going weekly to discos or nightclubs and amusement arcades, were also strongly associated with delinquency at sweeps one and two.

At sweep one, regular involvement in unorganised sports or being a sports spectator were significantly related to delinquency, whereas attending a sports club on a weekly basis was not. This is not really surprising since less organised sporting pursuits are likely to be associated with hanging around with friends and playing in the street or a park. However, in sweep two, going to a club, group or sports centre on a weekly basis was slightly more likely to result in a higher delinquency score.

Those who said they read comics or books, did housework, had a hobby or played an instrument and did homework on a weekly basis all had significantly lower mean delinquency scores at sweep one. At sweep two, going to church at least weekly was also negatively associated with delinquency. None of these findings are really that surprising. However, it was unexpected that those who did certain activities with their parents on a weekly basis had higher mean scores for delinquency at sweep one. The relationship between all of these activities clearly requires further investigation through more complex analysis as there are likely to be many inter-connections between different types of activity and gender differences are likely to play a part.

The findings from Table 8.7 reveal a strong relationship between activities with friends and self-reported delinquency. This is further supported by high correlation scores between the number of evenings per week spent going out with friends and both variety (.298) and volume of delinquency (.283) at sweep one. At sweep two, however, the correlation coefficients between evenings out with friends and variety (.160) and volume (.177) of delinquency, although significant, were far smaller than in sweep one. Whereas the correlation coefficients for hanging around and variety (.361) and volume (.294) of delinquency were far stronger. This suggests that the amount of time spent going out with friends does not predict delinquency so well as the types of activities they indulge in and the extent to which they spend time just hanging around with no specific purpose.

Conclusions

This chapter has shown that young people lead varied social lives which involve participation in many different types of activity – including both conventional and unconventional activities. While this was true for both boys and girls, there was considerable evidence that some of their activities reflected stereotypical gender roles. Girls were more often involved in passive or domestic activities, such as reading or studying, helping around the home, shopping or visiting relatives with parents and were also more likely to be involved in organised activities which would be subject to adult controls. Boys on the other hand tended to be more commonly involved in active and aggressive pursuits such as playing computer games, doing hobbies or

participating in sports, and were more often involved in unorganised or unsupervised activities.

Socialising with friends was particularly important for both boys and girls and many young people reported rarely staying at home in the evening. Nevertheless, the number of evenings spent out with friends was not so strongly correlated with delinquency as hanging around in public places. This suggests that the activities in which young people indulge – particularly those which are unorganised and unsupervised by adults – are more predictive of delinquency than merely the amount of time they spend outwith the home. Of course, the characteristics of the people they associate with during these activities is another important factor, and this will be explored further in chapter 9.

Whether gender roles within groups that hang around together are also stereotypical has yet to be investigated. However, the type of activities they were involved in and the places they went to with friends suggested that girls' experiences of hanging around were somewhat different from boys. Clearly, there are complex inter-relationships between gender and leisure activities – both conventional and unconventional – that need to be investigated further. This chapter has highlighted the need for both regression and multivariate analysis to disaggregate these complex associations and identify those activities which are most strongly related to delinquency. The longitudinal nature of the study will also help to assess the extent to which life-course changes in male and female activities are influential in changing their delinquency rates.

CHAPTER 9: FRIENDS

Introduction

As chapter eight has already identified, there appears to be a strong association between the activities young people get involved in with friends and their own delinquency. The relationship between peer group activity and delinquency has long been recognised within criminological theory. Two contrasting explanations have been put forward, in the form of sub-cultural theory and differential association.

Sub-cultural theory views delinquency as a product of the dynamics of group interactions which encourage young people to resist adult authority and express youthful subversion. Cohen (1955) argued that young males from working class backgrounds form gangs as a solution to the status frustration or strain they experience when they come up against the 'middle class measuring rod' at school. Cloward and Ohlin (1961) proposed that delinquent sub-cultures arose because of a gap between the aspirations of lower class youth for economic success and the possibility of achieving them through legitimate means. While Downes (1966) suggested that delinquency amongst young people had less to do with economic aspirations and more to do with blocked opportunities for the pursuit of leisure activities. However, these accounts of delinquency do not provide an adequate explanation for gender differences in offending.¹

In their theory of differential association, Sutherland and Cressey (1970) proposed that delinquency was not a collective reaction to circumstances but an individual learned response, conditioned by exposure to the values of intimate personal groups (such as family or peers) who viewed criminal behaviour as acceptable. Rutter and Giller (1983) also found strong relationships between individual delinquency and criminality within both the family and the peer group. However, differential association theory fails to explain the reasons why some people behave differently to others in the face of very similar circumstances.

Recent research into youth offending has produced a hybrid of these two theories, which proposes that delinquency is partly the product of an individual predisposition towards offending and partly the result of a culture of delinquency which develops and thrives amongst members of the peer group (Thornberry et al, 1994). As individual personality characteristics are discussed elsewhere in this report (see chapter 6), this chapter of the report focuses on the structure and characteristics of young people's friendship groups, including girlfriends and boyfriends, paying particular attention to gender differences. This section also explores the relationships between respondents reports of their own and their friends' delinquency and examines the extent to which respondents felt their behaviour would be influenced by their peers.

¹ Cohen, for example, has been heavily criticised for the stereotypical manner in which he portrays female behaviour (see Heidensohn, 1996). According to Cohen the main way of achieving status for girls is through successful relationships with the opposite sex and, where opportunities for this are limited, girls become sexually delinquent.

Structure and characteristics of friendship groups

At each sweep, respondents were asked a series of questions about how many friends they had and what they were like, in order to build up a picture of the characteristics of young people's peer groups (see Table 9.1). There was a slight difference in emphasis between the two sweeps. Sweep one asked about 'friends' generally while, in recognition of the fact that young people often have a large number of friends with very different characteristics, sweep two focused more specifically on the 'friends you mostly go about with in your spare time'.

Table 9.1: Questions on friends' characteristics – sweeps 1 and 2

<p>Sweep 1</p> <ol style="list-style-type: none">1. How many friends do you have altogether?2. How many close friends do you have?3. Do you wish that you had more friends?4. How many of your friends...<ul style="list-style-type: none">- go to the same school as you?- live in your neighbourhood?- are boys?- are girls?- are a year younger than you?- are about the same age as you?- are a year or more older than you? <p>Sweep 2</p> <ol style="list-style-type: none">1. How many friends do you have altogether? <p><i>Now think about the friends you mostly go about with in your spare time...</i></p> <ol style="list-style-type: none">2. How many of the friends you went about with last year do you still go about with now?3. How old are the friends you usually go about with?4. How many of the friends you usually go about with are girls and boys?5. How many friends do you usually go about with at once?6. Would you call the group of friends you usually go about with a 'gang'?
--

Friendship group size

As expected with a cohort of this age, the respondents proved to be a very sociable group, with the majority in both sweeps one (76.3 per cent) and sweep two (78.7 per cent) saying they had more than 10 friends altogether. The overall pattern of friendship group size was very similar for both boys and girls, with most having many friends and few having only one or two. However, girls clearly had a greater number of social associations, as they were more likely ($p < 0.05$) than boys to say they had more than 10 friends at sweep one and even more likely ($p < 0.01$) than boys to have 6 friends or more at sweep two.

Although most respondents reported having large numbers of friends at sweep one, they tended to have a smaller number of close friends. Most people said they had one or two (26.5 per cent) or between 3 and 5 (37.6 per cent) close friends. Interestingly,

boys were significantly ($p<0.01$) more likely than girls to say that they had no close friends. When asked about the number of friends they hung about with at sweep two, most respondents reported usually going around with between 3 and 5 (45 per cent) or with six or more (31.4 per cent) friends. Only 23.5 per cent said they would hang around with one or two friends. Once again, girls favoured a larger group of friends and were significantly ($p<0.01$) more likely to hang about with 6 friends or more, while boys were more likely than girls to hang around with only 1 or 2 others.

Seven in ten respondents (71.5 per cent) at sweep two said that most or all of their friends were the same as they had been the previous year, although 25.0 per cent said that only some were the same and 3.5 per cent said all their friends had changed. Although boys reported having fewer friends than girls overall, they were significantly more likely ($p<0.01$) to report that most or all of their friends in sweep two were the same as they had been the previous year. Girls, on the other hand, were more likely to say that only some of their friends were the same. These findings suggest that girls not only have more friends altogether and hang around in larger groups than boys, but they are also more active in terms of changing friendship groups and making new friends at this age.

Although Ball and Curry (1995) found little evidence in Britain of the 'gang culture' typical amongst American youth, the findings from sweep two show that young people do predominantly hang around in groups. While respondents' concept of the term 'gang' may be very different to that of the American street gangs, a significant minority (26.4 per cent) of those who said they hung about with at least three others described their group as a 'gang'. Boys were no more likely than girls overall to say they belonged to a gang. However, their experiences were somewhat different as boys were significantly more likely ($p<0.01$) to say that their gang had a name (30.5 per cent, compared with 17.2 per cent of girls) and that their gang used special signs or sayings (32.6 per cent and 23.5 per cent respectively).

Sex, age and social origin of friends

Not surprisingly, respondents tended to have predominantly same sex friends, although this was significantly more common ($p<0.01$) among boys in both sweeps. Testing between sweeps, there was a significant ($p<0.01$) rise from 65.3 per cent to 72.4 per cent in the proportion of boys who said their friends were mostly or all the same sex. The rise from 61.4 per cent to 64.5 per cent for girls was not significant. These findings suggest that boys' friendship groups are not only smaller but more exclusively male, whereas girls are more socially interactive with a larger number of people from both sexes.

This finding seems somewhat paradoxical and is difficult to explain. One speculation may be that girls and boys within the same group have a differing sense of social attachment. For example, if boys are the key actors in group activities they may only consider other participating boys as their friends. Girls are often perceived to be bystanders in group activities, however, their stronger sense of social attachment may lead them to consider the boys as their friends merely through association with them.

Boys and girls also differed in terms of the age of their friends. The majority of respondents (63.4 per cent) reported that all or most of their friends were the same age as themselves, although this was significantly more common ($p < 0.001$) amongst girls in both sweeps (68.7 per cent and 71.8 per cent, respectively) than amongst boys (58.1 per cent and 65.2 per cent, respectively). Boys on the other hand were more likely than girls to report having a mixture of older, younger and same age friends (19.5 per cent and 13.3 per cent in sweeps one and two) compared with girls (13.7 per cent and 8.5 per cent, respectively). There were no gender differences in terms of those who said they had predominantly older or predominantly younger friends.

It is not really surprising that most respondents had friends of the same age, since 67.8 per cent of respondents stated that most or all of their friends went to the same school as them and were probably in the same year group, although this question was not asked. This did not necessarily mean that they lived in the same area, however. In fact, 58.1 per cent of respondents said that only some of their friends lived in the same neighbourhood and almost one in five (19.0 per cent) reported that they did not live near any of their friends. Although the patterns were similar, again there were some gender differences in the social origin of friends. While girls' friends were more likely ($p < 0.001$) to go to the same school, boys were more likely ($p < 0.001$) to be acquainted with friends from the same neighbourhood.

Boyfriends and girlfriends

Other studies have shown that forming partnerships and settling down has a positive effect on reducing delinquency amongst women, although the effect of marriage and children is not so apparent amongst young men (Graham and Bowling, 1995). However, there is little evidence to suggest that making close attachments to one or more partners during adolescence has the same preventative effect. Unfortunately, due to the restrictions on asking detailed questions about their relationships (see chapter 1), it was not possible to assess how serious their relationships were. Nevertheless, a few basic questions were asked about boyfriends and girlfriends in sweeps one and two (see Table 9.2, below).

Only 24.3 per cent of respondents in sweep one reported currently having a partner², although a further 50.5 per cent said they had had one at some point in the past. Boys were more likely ($p < 0.01$) than girls to say they currently had a partner, while girls were more likely than boys never to have had one. Not surprisingly, 71.8 per cent of those who currently had a partner said that they were the same age, which reflects the age of their friendship groups generally. However, almost a quarter (22.6 per cent) said that their partner was a year or more older, and girls were significantly more likely ($p < 0.01$) than boys to have an older partner (27.4 per cent and 18.5 per cent, respectively).

² For the sake of brevity, 'partner' is used to describe boyfriends and girlfriends, although this is not intended to insinuate stable, long term commitments which, at this age, would be unlikely.

Table 9.2: Questions on boyfriends and girlfriends³ - sweeps 1 and 2

<p>Sweep 1</p> <ol style="list-style-type: none">1. Do you have a girlfriend or boyfriend at the moment?2. How old is your girlfriend or boyfriend? <p>Sweep 2</p> <ol style="list-style-type: none">1. During the last year, did you have a girlfriend or boyfriend? <p><i>If yes,</i></p> <ol style="list-style-type: none">2. How many have you had during the last year? <p><i>If you don't have one just now, answer the next two questions about your last one</i></p> <ol style="list-style-type: none">3. How old is your girlfriend or boyfriend?4. Do your parents know that you have a girlfriend or boyfriend?5. How often do you do things in your spare time with a boyfriend or girlfriend? (not exactly as asked in the questionnaire)

In accordance with the changes to the reference period, the cohort in sweep two were asked whether they had had a boyfriend or girlfriend during the previous year. Six in ten (60.1 per cent) said that they had, with the majority (71.6 per cent) having had more than one and a quarter (23.2 per cent) saying they had had four or more partners. Nevertheless, far fewer stated that they did things most days (16.9 per cent) or at least once a week (14.4 per cent) with a girlfriend or boyfriend. In fact, 55.6 per cent of respondents said this was something they hardly ever or never did in their spare time. Most (75.8 per cent) of those at sweep two also reported that their current (or previous) partner was the same age. While a smaller proportion than at sweep one (19.5 per cent) said that their partner was a year or more older, girls were still significantly more likely ($p < 0.01$) to have an older partner than boys (23.4 per cent compared with 15.8 per cent, respectively).

Most (68.3 per cent) respondents stated that their parents were aware of their current (or previous) partner. Similar proportions of girls and boys said this, but boys were slightly more likely to say that their parents knew about their relationships. This was slightly unexpected, since girls generally had better relationships with their parents than boys (see chapter 7). This might have been explained by the fact that girls were more likely to have an older partner and were unwilling to tell their parents about this. However, there turned out to be no significant difference in parental awareness by age of partner.

There was some evidence that having a partner was associated with delinquency, although it is likely that this relationship is inter-linked with young people's friendship groups and lifestyles generally. Nevertheless, both boys and girls who had been involved in at least one form of delinquency were significantly more likely ($p < 0.001$) at both sweeps to say that they had had a partner. At sweep one, only 19.3

³ In order not to delve more deeply into the nature of the relationship, the terms 'girlfriend' and 'boyfriend' were not defined in a prescriptive way.

per cent of girls who had offended had never had a partner compared with 43.6 per cent of non-offenders, while the Tables for the boys were similar (17.9 per cent and 44.1 per cent respectively). However, there were no differences between male and female non-offenders or between male and female offender groups. Similarly at sweep two, 74.1 per cent of girls who reported at least one type of delinquency said they had had a partner in the previous year compared with only 31.9 per cent of non-offending girls. The pattern for the boys was very similar, with the comparable Tables being 67.6 per cent and 32.1 per cent, respectively.

Friends' delinquency

Given the strong relationship between hanging around or doing other activities with friends and self-reported delinquency, and the fact that most young people hang around in groups, it is not surprising that other studies have found a strong relationship between self-reported offending and friends' offending (Junger-Tas, 1988; Hagell and Newburn, 1994). However, determining the causality of such relationships is complicated. As Rowe et al (1994) concluded, the influence of a delinquent peer group is strongly affected by both individual pre-disposition towards delinquency and the process of peer selection. An additional problem with self-report studies is the risk that the respondent may seek to absolve themselves of guilt by giving an inflated estimate of their friends' delinquency.

In sweeps one and two, the cohort were asked whether any of their friends had committed any of the delinquent acts that they themselves were asked about (see Table 3.1)⁴. The average number of delinquent acts respondents said their friends had been involved in was 3.04 in sweep one, rising to 3.53 in sweep two. Comparing the means for boys and girls, boys were significantly more likely ($p < 0.01$) to report that their friends were involved in delinquent acts than the girls in both sweeps.

Counting the types of delinquency that friends were reported to have been involved in (ever at sweep one, and in the last year at sweep two) a variety of friends' delinquency score was calculated, identical to that created for self-reported delinquency.⁵ Extremely strong correlation scores were found in sweep one between friends' variety of delinquency and both variety (0.750) and volume (0.676) of self-reported offending. And in sweep two, the strength of the association remained virtually unchanged (0.750 and 0.678 respectively). Correlation scores for boys were stronger than those for girls ($p < 0.01$), but both scored extremely highly on all counts.

Table 9.3 looks in more detail at the type of delinquent acts that respondents said their friends had been involved in. Referring back to Table 3.3, which shows the prevalence rates of self-reported delinquency, similar trends are apparent. The types of delinquency which were most common amongst respondents were also those they reported most often for their friends. And those types of delinquency which increased in prevalence between sweeps were similar for both respondents and friends.

⁴ The only difference to the self-report questions was that they were given a 'don't know' option for friends' delinquency.

⁵ The scale was made up of 15 items of delinquency, and excluded cruelty to animals which was asked only in the second sweep and would not have provided a comparable measure.

The comparisons between self-reported and friends' reported delinquency confirm there is a strong relationship between the two. However, the percentage difference between the two responses reveals that respondents consistently reported higher prevalence of offending amongst their friends than amongst themselves. The only exceptions to this were 'theft from home' (which may be explained by the large proportion of 'don't know' responses), 'graffiti' in sweep two (which shows only a slight difference) and 'fighting' in sweep one.

Table 9.3: Friends' reported delinquency - sweeps 1 and 2

Column percentages

	% prevalence ¹		% difference with self reports ²	
	Sweep 1	Sweep 2	Sweep 1	Sweep 2
Fare dodge	27.9	29.2	+ 4.3	+ 3.0
Shoplift	35.8	40.3	+ 8.9	+ 13.9
Rowdy	35.3	48.3	+ 9.9	+ 8.2
Joyride	4.3	8.0	+ 1.8	+ 3.5
Theft at school	15.0	14.4	+ 3.7	+ 5.2
Carry weapon	15.6	17.4	+ 3.8	+ 1.6
Damage property	17.4	21.2	+ 3.6	+ 5.3
Housebreak	3.6	5.4	+ 1.3	+ 2.5
Graffiti	30.0	33.6	+ 2.4	- 0.8
Rob	5.3	6.6	+ 3.6	+ 5.0
Theft at home	20.2	18.2	- 10.2	- 1.2
Fire setting	7.5	15.9	+ 3.5	+ 2.2
Injure, fight	48.1	46.2	- 5.2	+ 0.1
Car break	4.1	6.2	+ 2.8	+ 4.3
Truancy	36.7	43.7	+ 19.1	+ 20.0
Cruelty to animals	-	8.1	-	+ 2.3

1. Sweep 1 ever; sweep 2, past 12 months.

2. Percentage difference measured by subtracting prevalence of self-reported delinquency from prevalence of friends' delinquency.

It is impossible to prove that there is not some level of attribution effect in terms of individuals inflating their friends' delinquent activities to justify their own.⁶ However, it was not the case that every individual who reported doing a delinquent act also said that they had a friend who had done the same thing. For example, less than half of those who had stolen something from home said their friends had done the same in sweeps one (43.2 per cent) and two (45.1 per cent). And even those who had done more serious things did not implicate their friends. Of those who had broken into a house or building to steal something, for instance, only 53.7 per cent in sweep one and 49.6 per cent in sweep two said their friends had also done this. Given the size of the friendship groups described earlier, it would not be surprising if many non-delinquents were acquainted with others who had offended in some way.

⁶ To test this further, the respondents in sweep three are being asked to name their three closest friends (also cohort members) so that reports on self and friends' delinquency can be compared more closely.

In addition, the findings presented in chapter three showed that many young people reported being with others when they committed delinquent acts. Looking at this in slightly more detail, we find something quite paradoxical which is the opposite of the attribution effect. At sweep two, respondents who reported certain delinquent acts were asked about the last incident 'how many friends were you with at the time?'⁷. Many respondents who said they were with others at the time of the last incident later reported that they had no friends who had done these things. For example, 28.2 per cent of those who had been with others when they broke into a house or building to steal something said none of their friends had done this. The comparable figures for the other categories were 17.1 per cent for animal cruelty; 16.5 per cent for vandalism; 15.6 per cent for fire setting; 13.7 per cent for graffiti; 9.2 per cent for breaking into a vehicle; 6.5 per cent for being rowdy in public; and 5.9 per cent for shoplifting.

It may be true that in some cases the individual committed the act on their own while their friends acted as bystanders, since acts of vandalism, animal cruelty or housebreaking would not necessarily involve the whole group. However, it is likely to be the case that many respondents under-reported their friends activities. For example, being rowdy in public would typically be an activity involving the entire group. Rather than trying to attribute delinquent acts to their friends, therefore, perhaps individuals conceal their friends delinquency out of a sense of loyalty.

Friends' contact with the police

To pursue the relationship between individual and peer delinquency, the respondents were asked how many of their friends had been in trouble with the police. A fairly large proportion stated that at least some (32.5 per cent) or most (7.3 per cent) of their friends had ever got into trouble during sweep one. This dropped slightly in sweep two to 31.0 per cent and 6.1 per cent respectively, although this may be a result of the change in reference period to the last year only. Gender differences were apparent in both sweeps, with boys being significantly ($p < 0.01$) more likely to have friends who had been in trouble with the police than girls.

Respondents were very consistent in terms of reporting their friends' delinquency and the proportion of friends who had been in trouble with the police. Looking again at the variety of friends' delinquency score, those at sweep one who said none of their friends had been in trouble with the police scored a mean 1.19, while the scores for those who said one or some friends (4.75) and most or all friends (7.95) had been in trouble with the police were much higher. The findings at sweep two were very similar, with those with no friends in trouble scoring 1.59, those with one or some friends in trouble scoring 5.68 and those with most or all friends in trouble scoring 8.59 on the variety of friends delinquency scale. In other words, the more friends people said had been in trouble with the police, the greater the variety of delinquency they reported among their friends.

⁷ The delinquent acts for which this question was included were shoplifting, being rowdy in public, graffiti, vandalism, breaking into a house or building, fire setting, breaking into a vehicle to steal something and animal cruelty.

The respondents' own involvement in delinquency was another strong predictor of their friends involvement with the police. Almost half of those who had been involved in at least one delinquent act at both sweep one (48.3 per cent) and two (47.8 per cent) reported having at least some friends who had been in trouble with the police, compared with only 15.7 per cent and 16.9 per cent of non-delinquents at each sweep, respectively. And, not surprisingly, respondents' who had had adversarial contact with the police themselves were also more likely to have friends who had been in trouble with the police. As can be seen from Table 9.4, this was true of a significantly high proportion ($p < 0.001$) of both boys and girls who had had some form of adversarial contact with the police.

Table 9.4: Extent of friend's contact with the police by self-reported experience of adversarial police contact and gender - sweeps 1 and 2

Column percentages within sweep

Friends in trouble with the police	Boys		Girls	
	No adversarial police contact (n=1032)	Adversarial police contact (n=1115)	No adversarial police contact (n=1603)	Adversarial police contact (n=508)
Sweep 1				
None	44.9	11.7	54.0	15.7
One or some	25.7	53.5	17.0	48.6
Most or all	1.4	19.4	0.5	14.0
Sweep 2				
None	40.3	12.7	52.3	23.5
One or some	30.3	52.0	18.3	42.1
Most or all	2.9	18.6	1.1	10.8

1. Column percentages for each sweep do not add to 100 as those who responded 'don't know' are not included here.

Peer influence

The strong relationship between self-reported delinquency and both friends' delinquency and their police contact is undeniable, but how do young people perceive the influence of their friends on their behaviour? Jamieson et al (1999) found that most young people felt their behaviour was unaffected by the opinions of their friends, although boys aged 14-15 who were classed as persistent offenders were most likely to report being negatively influenced by their friends. In most cases, this was because their friends were involved in the same types of delinquency and because they often offended with their friends. In order to ascertain the extent to which young people thought they would be swayed by their peers against their better judgement, a series of questions was asked in sweep two (see Table 9.5, below).

Table 9.5: Questions on peer influence - sweep 2

- | |
|---|
| <p>1. How likely is it that you would still hang around with your friends if they were</p> <ul style="list-style-type: none"> - getting you in trouble at home? - getting you in trouble at school? - getting you in trouble with the police? <p>2. How likely is it that you would do what your friends said if they</p> <ul style="list-style-type: none"> - told you to do something that you thought was wrong? - told you to do something that you thought was against the law? |
|---|

A reliable scale was created by combining the responses all five questions on negative peer influence. Boys were found to have a significantly higher mean peer influence score (5.28) than girls (4.71), which indicated that they were more likely to be negatively influenced by their peers. However, those who reported being involved in at least one type of delinquency at sweep two also had a significantly higher ($p < 0.001$) mean peer influence score than non-delinquents (5.64 and 3.27, respectively) and so the gender difference could have been explained to some extent by this.

In order to explore this further, Table 9.6 combines gender and delinquency. This Table reveals that there are highly significant differences between delinquents and non-delinquents regardless of gender. However, the difference in mean peer influence scores for boys and girls who had committed a delinquent act was far smaller and there was no difference at all between girls and boys who had not committed a delinquent act.

Table 9.6: Significant difference in mean peer influence scores for delinquents and non-delinquents by gender - sweep 2

Column means and Pearsons Coefficients

	Mean score of peer influence		Significant difference between gender
	Boys (n=2185)	Girls (n=2144)	
Committed at least one delinquent act	5.81	5.45	$P < 0.01$
Committed no delinquent acts	3.39	3.19	$P < 0.1$
P value within gender groups	$P < 0.001$	$P < 0.001$	

¹ P value measures statistical significance between means. $P < 0.1$ is not significant.

Looking in more detail at the relationship between peer influence and delinquency, the negative peer influence scale was strongly correlated with both variety (.442) and volume (.412) of self-reported delinquency. These correlation coefficients were very

similar for both boys and girls, which further supports the findings in Table 9.6. The negative peer influence scale also correlated highly with the variety score for friends' delinquency (.427). It is hardly surprising that there is a relationship between peer delinquency and likelihood to be negatively influenced by peers. However, the direction of causality cannot be inferred from these findings since it is equally possible that an individual may be predisposed to behaving in a delinquent manner and seek out those who share that predisposition.

Conclusions

One of the most powerful findings from this chapter was the extent to which peer group offending was correlated with self-reported delinquency, for both boys and girls. However, the association is clearly a very complex one. On the surface there was evidence that individuals attributed greater levels of delinquency to their friends than they reported themselves. However, many respondents did not attribute the same delinquency to their friends that they admitted themselves and, moreover, there were indications that some respondents under-reported their friends' delinquency. The results of sweep three, in which respondents were asked to name other cohort members who were their friends, will provide greater clarification on this.

The findings of this chapter are strongly linked to those of the previous chapter on leisure activities, which found that certain social activities were strongly associated with delinquency. Both boys and girls reported spending much of their time in groups, often quite large groups, and it is clear that offending often emerges out of these group interactions. The relationship between delinquency and peer group does not fully explain the lower rate of offending among girls, however. It seems certain that characteristic differences in the nature of these social interactions are more important in explaining gender differences. A more detailed understanding of these complex relationships will be determined by conducting further detailed analysis.

Whatever the relationship between individual and peer offending, there was a strong correlation between individual delinquency and susceptibility to negative peer influence. One of the advantages of the longitudinal design is the ability to test whether this is the result of genuine peer influence or merely a by product of the individual's disposition to select delinquent peers.

CHAPTER 10: SCHOOL

Introduction

A number of studies already tell us that delinquency is closely associated with academic failure (Elliot and Voss, 1974; Phillips and Kelly, 1979) and that school organisation and ethos can be an important factor in either inhibiting or promoting disruptive behaviour (Rutter et al, 1979; Galloway, 1985). However, Graham (1988) argues – in his review of the research on schools, disruptive behaviour and delinquency – that further research is needed to examine the processes in schools that may negatively affect certain pupils and lead to their being categorised as delinquents or failures. He identifies three features of schooling that might be associated with disruptive behaviour: teaching skills and teacher/pupil relations; rule enforcement, rewards and sanctions; pastoral care and pupil welfare. He aims to discover whether there are causal relationships between school processes and disruptive behaviour in school, and between disruptive behaviour in school and delinquency out of school.

Although the Edinburgh Study is not in a position to measure cause and effect at this stage, over time, it is expected that patterns will emerge which will help to build a picture of school processes and how they relate to disruptive behaviour, and, in turn, delinquency. Already the study has information from school records on attendance, exclusions and eligibility for free school meals¹, and in year four, expects to collect information on attainment. Meanwhile, in a bid to explore in more detail school processes and young people's experiences, a section on school was introduced to the sweep two questionnaire and will be revisited in sweep four. At sweep two, cohort members were asked about their school experiences: their own attitudes to school and those of their parents; their behaviour in class and that of other pupils; their relationships with teachers and other pupils; their experience of sanctions and rewards. This section will summarise the most pertinent findings from the school section and, in doing so, will again consider whether there is any relationship between school experiences, gender, social class and delinquency.

Young People's Attitudes to School

Respondents were asked a number of questions to discover whether they held positive or negative views towards school – see Table 10.1. Based on the five point response set, an attitude score between zero and 16 was calculated (where zero represented totally negative attitudes towards school and 16, totally positive). Scores were then banded to categorise respondents as very negative towards school (scores zero to four), somewhat negative (scores five to eight), somewhat positive (scores nine to 12) and very positive (scores 13 to 16). The majority of young people held positive views of school (only 9.7

¹ At the time of writing, this school record data, though collected, was not ready for analysis.

per cent scored in the negative range of the scale and there were no significant gender differences.

Significant social class differences were found in relation to young people's attitudes to school. Those who were very positive were significantly more likely ($p < 0.01$) to be drawn from higher social class groups (67.5 per cent of classes one or two fell into this group compared with 51.5 percent of those with no parent in employment).

Table 10.1 Questions relating to positive and negative attitudes to school – sweep 2

<p>How much do you agree or disagree with these sentences about school?</p> <ol style="list-style-type: none"> 1. School is a waste of time 2. Working hard at school is important 3. I feel safe at school 4. School will help me get a good job <p>Response set: agree a lot, agree a bit, not sure, disagree a bit, disagree a lot</p>

When the attitude to school score was correlated with the summary measures of delinquency (variety and volume) a strong relationship was found (variety correlation coefficient = -0.349 and volume correlation coefficient = -0.359 , $p < 0.01$). The relationship between delinquency and attitudes to school was then examined from a different angle. Respondents were re-categorised as having either negative (scores zero to eight) or positive (scores nine to 16) attitudes to school and means were then compared. Clearly, as Table 10.2 indicates, those with negative attitudes to school were more involved in delinquency than those with positive attitudes.

Table 10.2: Variety and volume of delinquency by attitude to school – sweep 2

Attitude to School	Mean variety of delinquency	p value	<i>Mean score and p value</i>	
			Mean volume of delinquency	p value
Negative	4.78	P<0.01	20.43	P<0.01
Positive	3.57		11.96	

1. p value measures statistical significance between means

To shed more light on the attitudes of delinquents to school the separate attitude questions outlined in Figure 10.1 were examined in more detail by delinquency score. To simplify this analysis the variety of delinquency score was banded² – see Table 10.3

Table 10.3: method of banding variety of delinquency scores

1. Band one – those who had committed no delinquent acts
2. Band two – those who had committed one delinquent act
3. Band three – those who had committed two or three delinquent acts
4. Band four – those who had committed four or five delinquent acts
5. Band five those who had committed between six and 14 delinquent acts.

It became clear that, while the majority of the cohort – across variety of delinquency bands – believed that school would help them find a good job and that working hard was important, those in band five were five times more likely than non delinquents to strongly agree that school was a waste of time (18.6 per cent compared with 3.3 per cent. Also, band five delinquents were much less likely than non delinquents to strongly agree that they felt safe at school (13.3 per cent compared with 33.4 per cent). It seems then that, although higher level delinquents are aware of what school can offer, they feel less safe there and are less likely to believe that what is on offer at school is appropriate to them.

Parental Attitudes to School

A full scale survey of parents is planned for sweeps three and four; however, at this stage in the study, the only information we have about parents is that which young people gave us in their questionnaires. At sweep two, participants were asked to report on the extent to which their parents showed an interest in their school – see Table 10.4.

Table 10.4: Questions relating to parental interest in school – sweep 2

How often do your parents do the following things?

1. Check that you have done your homework
2. Go to parents' evenings
3. Help If you have a problem at school
4. Reply to school letters when they are asked to

Response set: always, usually, sometimes, never, I'm not sure

² The volume of delinquency score produced very similar results therefore only one of the two measures – variety – was used.

Using the five point response set, a parental interest score between zero and 20 was calculated (where zero represented parents who had no interest in school at all and 20, parents who were always interested). The parental interest score was then banded into very negative (scores zero to four), negative (scores five to eight), neither negative nor positive (scores nine to 12), positive (scores 13 to 16) and very positive (scores 17 to 20).

It was found that, overwhelmingly, parents were very interested in their children's school careers - 82.6 per cent of young people felt that their parents had either a positive or very positive approach to school, and there were no significant gender differences. Young people from lower social class backgrounds reported slightly lower levels of parental interest in school. 3.1 per cent of those from classes one or two had negative or very negative parents, compared with 11.3 per cent of those without a parent in employment but the common pattern across social classes was for parents to be actively involved.

Again, involvement in delinquency was closely associated with negative parental attitudes to school. When the parental interest score was correlated with variety and frequency of offending scores, a strong relationship was found (variety correlation coefficient = $-.253$ and volume correlation coefficient = $-.267$, $p < 0.01$).

Behaviour in School

Young people were asked to rate their own behaviour in school with the questions outlined in Table 10.5.

Table 10.5: Questions relating to respondents' behaviour in school – sweep 2

During the last school year, how often did you do these things at school?
1. Be cheeky to a teacher
2. Cause trouble in the classroom
3. Cause trouble outside the classroom
Response set: most days, at least once a week, less than once a week, hardly ever or never

From the response set, a behaviour scale from zero to nine was constructed, where zero represented very frequent bad behaviour and nine, very infrequent bad behaviour. The scores were then banded into frequently (scores zero to three), sometimes (scores four to six) and rarely (scores six to nine) badly behaved. As Table 10.6 indicates, almost three quarters of the cohort reported that they were generally well behaved in school, with only 15.2 per cent admitting to frequent bad behaviour. What is most noticeable, however, is

the significant gender difference – a higher proportion of girls than boys insisted that they were rarely badly behaved in school.

Table 10.6: Behaviour in school by gender: sweep 2

Column percentages

Behaviour in School	Male (n=2185)	Female (n=2114)	Total (n = 4299)
Frequently bad***	19.9	10.3	15.2
Sometimes bad***	24.1	16.5	20.3
Rarely bad***	56.1	73.2	64.5
Totals	100.0	100.0	100.0

1. *** Significant gender difference $p < 0.001$

When behaviour was analysed by social class, marked, although not especially strong, differences were found again. As Table 10.7 shows, lower social class was associated with more regular bad behaviour in school.

Table 10.7: Behaviour in school by social class – sweep 2

Column percentages

Behaviour in School	Class 1/2 (n=1494)	Class 3 non-manual (n=432)	Class 3 manual (n=738)	Class 4/5 (n=450)	No parent employed (n=362)	Not living with parents (n=235)
Frequently bad	9.9	11.4	18.7	18.8	24.6	19.8
Sometimes bad	17.7	19.0	21.0	25.2	20.7	24.1
Rarely bad	72.4	69.6	60.3	56.0	54.6	56.0

Delinquency was particularly closely associated with bad behaviour at school. When the behaviour score was correlated with summary delinquency scores a very strong relationship was found (variety correlation coefficient = -0.640 and volume correlation coefficient = -0.654 , $p < 0.01$).

In terms of their behaviour, young people were also asked about disciplinary action taken by their school – see Table 10.8.

Table 10.8: Questions relating to punishment in school

During the last year did your parents have to sign a punishment exercise for you?

During the last year did the school get in touch with your parents because of something you had done wrong?

If yes to either question:

1. How many times did this happen in the last year?

Response set: once, twice, three times, four times, five times or more

Over half the cohort (52.6 per cent, $n=2256$) admitted to receiving punishment exercises and, given their propensity to behave badly in school more often than girls, it was not surprising to find that boys received punishment exercises more often than girls (62.1 per cent of boys said they had received a punishment exercise compared with 42.9 per cent of girls, $p<0.01$). About one quarter (23.8 per cent, $n=1011$) of the cohort said that school had been sufficiently concerned about their behaviour to contact their parents. Again boys were more likely than girls to say this had happened to them (31.2 per cent of boys, compared with 16.2 per cent of girls).

Participants were also asked whether they had received awards, prizes or merits for doing well at school. Findings indicate that only 24.6 per cent of the cohort did not receive any awards for good behaviour or school work and that there were no significant differences – across the whole distribution – in terms of gender, social class or delinquency. However when the number of awards was cross tabulated with school behaviour, significant differences were found ($p<0.01$). Those who admitted to frequent bad behaviour in school were more likely to have no awards than those with good behaviour (33.7 per cent compared with 22.0 per cent). However, it is fair to say that, when the young people were completing this part of the questionnaire, it was apparent that some schools did not in fact believe in any reward system. It is therefore, difficult to say whether those with fewer awards simply attended a school that did not implement a reward system.

To gauge their attitude to other pupils' bad behaviour, participants were asked to say what they thought of those who 'messed around' in class. 60.4 per cent of respondents said that other pupils messed about most days in school, so clearly many young people felt that bad behaviour was fairly common place. 62.6 per cent of respondents were either not bothered about others' bad behaviour or actually found it funny and of these young people, 88.0 per cent reported that they were often badly behaved themselves. Interestingly, slightly more badly behaved girls than boys held either non-committal or positive views about badly behaved schoolmates (92.4 per cent compared with 85.8 per cent). Generally, however, it is evident that young people's own bad behaviour was closely associated with support for bad behaviour among others. These findings are

hardly surprising, given the strong association, which was found in chapter nine, between young people's delinquency and that of their peers.

Relationships with Teachers

Participants were asked about the quality of their relationships with teachers – see Table 10.9.

Table 10.9: Questions relating to relationships with teachers – sweep 2

During the last year how many of your teachers

1. did you get on well with?
2. helped you to learn?
3. treated you fairly?

And during the last year how many of your teachers

4. could you ask for help if you had a problem with schoolwork?
5. could you ask for help if you had a personal problem?
6. treated you like a troublemaker?

Response set: none of them, some of them, all of them

From the three point response set a relationships with teachers score was calculated ranging from zero to 12 (where zero represented those who could find nothing positive in their relationships with teachers, and 12, those who were positive on all counts). The scores were then banded into very poor relationships with teachers (scores zero to three), mixed feelings about teachers (scores four to six), good relationships (scores seven to nine) and very good relationships (scores 10 to 12).

Earlier in this chapter it was found that most young people held positive attitudes to school; therefore, as indicated in Table 10.10, it was to be expected that a high proportion also reported having either good or very good relationships with their teachers (67.5 per cent).

Table 10.10: Quality of relationships with teachers by gender

Quality of Relationships with teachers	Column percentages		
	Boys (n=2185)	Girls (n= 2114)	Total (n=4299)
Very poor***	4.4	2.5	3.5
Mixed feelings***	31.1	26.9	29.1
Good***	38.4	38.5	38.5
Very good***	26.0	32.0	29.0
Total	100.00	100.00	100.00

1. *** Significant gender difference $p < 0.001$

Though the differences between boys and girls did not appear to be particularly marked, they were statistically significant, so once again, boys were more likely than girls to have negative experiences at school, this time in the form of poorer relationships with teachers.

When relationships with teachers were examined by social class, it was found that young people from lower social classes were less likely than those from higher class groups to have good relationships with their teachers. Though the different social classes were fairly evenly distributed in the 'mixed feelings' or 'good relationship' groups, greater polarisation was seen between high and low social classes in both the 'very poor' or 'very good' relationship groups.

As with the other aspects of young people's school experiences considered here, the quality of their relationships with teachers was closely associated with involvement in delinquency. When the relationship with teachers score was correlated with variety of delinquency, the correlation coefficient was -0.472 and with volume of delinquency, -0.477 ($p < 0.01$).

Truancy

In the introduction to this chapter, the long-established association between academic failure and delinquency was discussed. Following from this, it seems fairly self evident that regular truancy or exclusion from school must undermine young people's ability to achieve, which may in turn increase the risk of their drifting into delinquency. Central government recently made clear its thinking on truancy and school exclusion and now formally recognises that pupils who fail to attend regularly will be educationally disadvantaged, and at risk of drifting into anti-social behaviour (Department of Education and Employment, 2000).

As data collected from school records is not yet ready for analysis, the Edinburgh Study does not have available official information on truancy or exclusion. However, we do have information on truancy from sweeps one and two of the self-completion

questionnaire. During piloting for the first two sweeps, young people were asked what they understood by playing truant and most felt that it involved unauthorised absences from school – that is – absences not sanctioned either by parents or teachers but where young people leave school without permission at some point during the day, or simply do not turn up in the morning.

It is these unauthorised absences that we are particularly interested in because they appear to suggest an anti-authority attitude on the part of the young people concerned. The questions relating to truancy – see Tables 10.11 and 10.12 – were designed specifically to capture occasions when young people decided to stay away from school on their own initiative, not at the request of their parents. The official record of attendance, when we have it, is likely to show something different, more inclusive in some ways, but less closely related to antisocial behaviour.

Table 10.11: Questions relating to truancy – sweep 1

Have you ever skipped or skived school?
If yes: 1. How many times have you ever done this?
Response set: 1, 2, 3, 4, 5, between 6 and 10, more than 10
2. Have you ever been caught doing this by a teacher or another adult
Response set: yes – a teacher, yes – another adult, no

Table 10.12: Questions relating to truancy – sweep 2

During the last year did you skip or skive school?
If yes:
1. How many times? (same response set as sweep one)
2. Did you get into trouble for doing this? (same response set as sweep one)
Now think about the last time you did this
3. Where did you go?
Response set: my house, a friend's house, hung around school, hung around streets or shops, hung around a park or playing field, somewhere else
3. How many friends did you skive with?
Response set: none, 1, 2 or 3, 4 Or 5, 6 or more

17.6 per cent of the cohort (n=752) said that they had played truant at some point during sweep one and boys were significantly more likely ($p<0.01$) than girls to have done so (21.7 per cent, n=468, compared with 13.4 per cent, n=284). Most young people who had played truant had only done so once or twice (64.0 per cent, n=474) and there were no gender differences among these low level truants. 15.1 per cent (n=112) of those who had played truant however, said that they had done so more than six times. Significant gender differences did emerge among the high level truants with 18.7 per cent of boys (n=87) falling into this category compared with only 9.0 per cent of girls (n=25).

Truancy had increased by sweep two with 23.7% of the cohort (n=1012) saying that they had played truant. This time however, in a move away from the gender differences apparent in young people's school behaviour so far, boys were no more likely to truant than girls. Similarly, when the number of times young people had played truant was examined, there were no significant gender differences. Nor were boys any more likely than girls to play truant with large groups of friends.

As Table 10.13 indicates, significant gender differences were found at sweep two in terms of where truants went while not in school. Girls were more likely than boys just to stay home, while boys were more likely than girls to hang around at parks or playing fields. We already know from chapter seven that girls are subject to greater levels of parental supervision than boys therefore, perhaps girls are more likely to be kept off school with parental support than boys, while boys have more opportunities to run fairly wild. Instead, it may be that girls themselves have a preference for staying indoors, perhaps watching television or talking to friends, whereas boys have a preference for roaming outside.

Table 10.13: Where young people play truant by gender – sweep 2

Where young people play truant	Column percentages		
	Boys (n=2185)	Girls (n=2114)	Total (n=4299)
Stay at home**	29.7	35.6	32.5
Go to friend's house	16.4	18.8	17.5
Hang around school	10.0	6.7	8.4
Hang around streets or shops	27.1	24.4	25.8
Hang around parks**	22.6	15.8	19.4
Go somewhere else	30.6	27.3	29.1

1. ** Significant gender difference $p<0.01$

When truancy variables from both sweeps were analysed by social class, significant differences were found amongst the various groupings. Previous findings discussed in this chapter confirmed that young people from lower social class backgrounds were more likely than those in higher classes to be disaffected and badly behaved in school. It is not

surprising therefore, that they were also more likely to play truant (young people with no parent in employment were more than twice as likely to play truant than those in social classes one or two).

By far the most striking association found was when truancy was cross tabulated with delinquency, as shown in Tables 10.14 and 10.15. Again variety of delinquency scores were banded (see Table 10.3) to simplify analysis at both sweeps.³ As variety of delinquency scores increased so did the likelihood that young people had played truant. At sweep one, not one non-delinquent said they had played truant, yet 65.5 per cent of those who had committed six or more delinquent acts had done so. Across both sweeps the differences between delinquency bands were significant at better than the .01 level of confidence

Table 10.14: Truancy by variety of delinquency (banded) – sweep 1

Variety of delinquency band	<i>Row percentages</i>	
	Played truant in sweep 1 YES (n=752)	Played truant in sweep 1 NO (n=3531)
Band 1 (non-delinquent)	-	100.0
Band 2 (1 delinquent act)	4.8	95.2
Band 3 (2/3 delinquent acts)	14.1	85.9
Band 4 (4/5 delinquent acts)	26.8	73.2
Band 5 (6+ delinquent acts)	65.5	34.5
Total	17.6	82.4

1. numbers (n) exclude missing cases.

³ Truancy was included in the previous sweep one and two variety of delinquency scores but removed for the purposes of this analysis.

Table 10.15: Truancy by variety of delinquency (banded) – sweep 2

Row percentages

Variety of delinquency band	Played truant in sweep 2 YES (n=1012)	Played truant in sweep 2 NO (n=3287)
Band 1 (non-delinquent)	4.1	95.9
Band 2 (1 delinquent act)	9.4	90.6
Band 3 (2/3 delinquent acts)	24.4	75.6
Band 4 (4/5 delinquent acts)	37.7	62.3
Band 5 (6+ delinquent acts)	61.9	38.1
Total	23.7	76.3

Aspirations

Finally, at the end of the sweep two questionnaire, participants were asked when they planned to leave school and what they wanted to do on leaving. Half the cohort (51.9 per cent, n=2217), confirmed they wished to stay on at school as long as possible and leave after their sixth year. Of this group, 59.0 per cent wished to go on to further education. A significantly higher proportion of girls ($p < 0.01$) than boys wished to stay on at school (55.2 per cent compared with 48.7 per cent) and to proceed to further education (65.7 per cent compared with 52.5 per cent). This is somewhat surprising when we recall that boys were just as likely as girls to have positive attitudes to school. However, recent research has confirmed that girls continue to outstrip boys in terms of academic performance (Gallagher, 1997): perhaps girls in the cohort are already doing better than boys and their aspirations reflect this. The Edinburgh Study will discover more about attainment rates at the next sweep.

The ‘don’t knows’ accounted for most of the remaining members of the cohort. 30.3 per cent and 20.5 per cent respectively, did not know when they would leave school or what they would do next and there were no significant gender differences amongst this group.

Social class was also closely related to plans to stay on at school and proceed to further education, with those from lower social classes being significantly more likely ($p < 0.01$) than those from higher groupings to wish to leave school early and to avoid further education. Similar patterns were seen when aspirations were measured against delinquency – the higher their variety and volume scores, the less likely were young people to stay on at school and proceed to further education.

Conclusion

At this stage in the study only a snapshot of first year at secondary school is available – the period covered in sweep two. What is very clear, is that most young people have positive attitudes to school, good behaviour and positive relationships with their teachers. There is a marked association between social class and attitudes to school, behaviour at school and relationships with teachers. Yet this class effect is not nearly as strong as the association between school factors and delinquency, which ties in with the finding (see chapter three) that delinquency at the individual level is not strongly related to class at this age. Also, a majority of young people from lower social class groups have positive attitudes to school, positive relationships with teachers, and so on, even though this is a smaller majority than for other groups.

A close relationship was found between gender and behaviour in school, experience of punishment, poor relationships with teachers and aspirations. Again, however, though significant, this association was not particularly strong.

Attitudes to school, relationships with teachers and behaviour in school are all very closely related to delinquency, which suggests that school factors may play a role in the complex interactions leading to delinquency. However, we cannot yet construct a model of these relationships because we do not know whether it is more important that delinquent youngsters come to dislike school, or that disliking school causes them to become delinquent

In future, we may be able to analyse different paths of development among children at different schools, so as to establish whether particular schools exert an influence. It is expected that we will discover more about school differences in rates of delinquency and whether such factors as teachers' attitudes towards young people, school disciplinary codes and school support for young people who struggle actually matter. However, we are limited in what we can do because we do not have the resources to collect detailed information about school ethos and functioning.

CHAPTER 11: MORAL JUDGEMENTS AND VALUES

Introduction

It is a common assumption that delinquents have different or weaker moral standards than others, although it is not obvious that they do. In certain contexts, at least, criminals seem to make harsh and punitive judgements about other wrong-doers: for example, despised categories of offenders, such as child abusers, are often 'punished' by other inmates in prison. Nevertheless, most criminological theories make some connection between moral beliefs and delinquency. In Lemert's (1967) labelling theory, the officially stigmatised person may respond by embracing the despised role; this involves a reorganisation of the self, including the adoption of new moral perspectives, reinforced by the company of new associates. In Hirschi's (1969) social control theory, the strength of belief in moral standards was one of the four elements of the social bond that was held to restrain people from offending.

In learning theories of crime, such as Sutherland's differential association, contacts with others are held to exert an influence by changing moral perceptions and beliefs. Sykes and Matza (1957) gave this a different twist when they argued that young men learn from the gang how to neutralise their moral beliefs for long enough to permit them to offend. Later this idea of moral disengagement was developed much further as part of Bandura's (1986) social cognitive theory. Different theories, therefore, propose different specific processes linking offending and moral beliefs. In practice, it is difficult to determine what these processes are. Even establishing the overall direction of causation is difficult: do people change their moral beliefs to fit their behaviour, or does their behaviour follow from their moral beliefs? Theories such as Bandura's which propose that moral standards are *temporarily* disengaged are particularly hard to test, because it is hard to find out what people were thinking at the time that they committed an offence.

A longitudinal design provides leverage for resolving at least some of these issues. From the assumptions underlying all of the main strands in criminological theory, we would expect that the strength of moral beliefs would be associated with delinquent behaviour at any one time. A more interesting question is whether the strength or pattern of moral beliefs predicts an increase or decline in offending in the future.

A series of questions about moral beliefs was included in the sweep 1 questionnaire. This chapter reports on the overall pattern of findings, and the construction of two scales to summarise the strength of moral beliefs. It also considers the simple relationships between these summary measures and self-reported offending at both sweeps. Analyses to test the extent to which moral beliefs predict future offending are not reported here, but will be carried out later.

Moral neutralisation

There were two forms of question. An example of the first form is:

It's OK to tell a lie if it doesn't hurt anybody.....Yes.....No.....I'm not sure

These questions tap the extent to which respondents have neutralised conventional moral beliefs (which would otherwise restrain them from delinquency). The second form of question was a rating (on a four-point verbal scale) of the seriousness of the same 14 types of delinquent act that were covered elsewhere in the sweep 1 questionnaire. The items were arranged in groups of four or five, each group of 'OK to' questions alternating with a group of 'seriousness' questions. This method of presentation was chosen to avoid the monotony and inattention caused by a large bank of similar items. In the analysis, however, the moral neutralisation questions ('OK to...') are treated as a group, and similarly the questions on seriousness of delinquent acts.

Table 11.1: Moral neutralisation items, by gender – sweep 1

	<i>Column percentage answering 'yes'</i>	
	Males	Females
It's OK to tell a lie if it doesn't hurt anybody	52.7	50.7
It's OK to lie to keep your friends from getting into trouble	42.7	36.2
It's OK to lie to stop you from getting into trouble	30.8	23.1
It's OK to lie if nobody finds out you did it	29.1	19.8
It's OK to take something from somebody who is rich and can afford to replace it	7.5	4.0
It's OK to take little things from a shop without paying for them because shops make a lot of money	7.2	5.2
It's OK to take someone's bike without asking if you intend to give it back	11.1	5.2
It's OK to steal if nobody finds out you did it	6.5	3.3
It's OK to hurt someone if you didn't mean to do it or it was an accident	53.3	53.8
It's OK to fight with someone if they hit you first	56.5	31.2
It's OK to fight with someone if they insult your friends or family	54.6	30.1
It's OK to fight because everyone my age does it	7.3	3.2

The three groups of questions were about lying, stealing, and fighting (or physically hurting someone). The findings (Table 11.1) show that substantial proportions of respondents—up to half, depending on the circumstances—condoned lying and fighting, but much smaller proportions—well under one in ten for most situations—condoned stealing. For all except one item, moral neutralisation was more common among boys than girls. The exception is hurting someone if you didn't mean to do it, and arguably this cannot be regarded as morally wrong in any case (yet as we shall see, responses to this item do correlate with responses to the other ones). Gender differences are large for several items, notably fighting with physical or verbal provocation, and undetected lying and stealing. These findings open up the possibility that gender differences in moral beliefs underlie and foreshadow the developing gender differences in offending.

The 12 items were used to compute a single scale of moral neutralisation.¹ In addition, three sub-scales were computed for condoning lying, stealing, and fighting. The internal coherence of all four scales was fairly good. For example, the values of Cronbach's alpha were as follows:

Full scale	.8137
Lying sub-scale	.7637
Stealing sub-scale	.7444
Fighting sub-scale	.6022

The rather poor reliability of the fighting sub-scale arises largely because of the item on hurting without meaning to: this does correlate with the other items, but rather weakly. If it is removed, then the alpha value rises to .6821. Also, the alpha value of the full scale rises slightly (to .8191) if the same item is deleted. However, removal of the item has little effect on its usefulness in predicting offending, so it has been left in both the total scale and the fighting sub-scale.

Table 11.2: Moral neutralisation scales (sweep 1) by self-reported offending - sweeps 1 and 2

Correlation coefficients (Spearman's rho)

	Sweep 1		Sweep 2	
	Variety of delinquency	Volume of delinquency	Variety of delinquency	Volume of delinquency
Moral neutralisation scale	.584	.580	.449	.450
Lying sub-scale	.469	.462	.356	.355
Stealing sub-scale	.396	.388	.275	.266
Fighting sub-scale	.524	.528	.421	.425

Note: All of the correlation coefficients shown are significant at better than the 99.9 per cent level of confidence.

¹ 'I'm not sure' was treated as an intermediate response, between 'yes' and 'no': the scoring therefore was yes=2, no=1, not sure=1.

As expected (see Table 11.2) the moral neutralisation scale is strongly correlated with self-reported delinquency. However, the correlation with delinquency was higher at sweep 1 (when the questions on moral beliefs were asked) than at sweep 2. This may suggest that moral beliefs are continuously adjusted to fit behaviour, rather than guides and hence predictors of future behaviour. However, multivariate analysis of a longer run of sweeps is needed to generate more conclusive evidence.

The fighting sub-scale is most strongly correlated with delinquency, followed by the lying sub-scale, with the stealing sub-scale being least strongly correlated (though even then the correlations for stealing are substantial). Fighting and physical attacks do not by any means predominate among self-reported acts of delinquency, so this finding implies that moral beliefs about fighting are closely associated with delinquent acts of various kinds, including ones that do not involve fighting (like fire-setting, vandalism, and theft). Among all of the individual items on moral beliefs, the two that are most strongly correlated with self-reported delinquency are 'It's OK to fight with someone if they hit you first' and 'It's OK to fight with someone if they insult your friends or family'.² As shown in Table 11.1 above, these two items are also ones that evoke widely different responses from boys and girls. These findings begin to suggest that a belief in the legitimacy of punitive retaliation, associated with masculinity, is a part of the explanation for delinquency.

The close link between victimisation and offending was illustrated in an earlier chapter. Perhaps because of that link, moral neutralisation is associated with being a victim of delinquency, as well as with being a delinquent. The correlation between the total neutralisation score and variety of victimisation at sweep 1 is .293, declining to .182 for the correlation between neutralisation (at sweep 1) and victimisation at sweep 2. This is a potentially interesting finding, which requires more detailed investigation. One possibility is that because victims and delinquents tend to be the same young people, weak moral beliefs that partly explain delinquency are also associated with victimisation, but are not causally related to it. Another possibility is that experience of being victimised tends to erode beliefs in standards of good conduct, perhaps through arousing punitive feelings. There is some support for the idea that punitive feelings aroused by victimisation may be important, in that the fighting sub-scale is correlated more strongly with victimisation than the other two sub-scales.³

Moral neutralisation and impulsivity are strongly related at sweep 1 (the correlation coefficient is .448). There are also weaker relationships with self-esteem (-.135) and alienation (.151). This pattern means that young people who are impulsive, have low

² The correlation coefficients between these two items and variety of offending at sweep 1 are 'OK to fight back' .447; 'OK to fight if insulted' .461 (Spearman' rho). The highest correlation coefficient achieved for any other item is .386 (OK to lie to keep friends from trouble). The lowest correlation coefficient, for 'OK to hurt someone if you didn't mean it', is .215. This also illustrates the point that this last item, although relatively weakly related to the others, and not obviously a test of low moral standards, nevertheless does contribute significantly to the prediction of delinquency.

³ The correlation between the fighting sub-scale and variety of victimisation at sweep 1 is .316; for the lying and stealing sub-scales, the corresponding correlations are .195 and .192 respectively.

self-esteem, and feelings of alienation or persecution, all tend to have lower or weaker moral standards; each of these characteristics is, of course, associated with self-reported delinquency as well. The stealing sub-scale is less strongly associated with impulsivity than the other two (lying and fighting). It may also be of interest that the fighting sub-scale is considerably less strongly related to self-esteem than the lying and stealing sub-scales: this means that believing it is OK to fight in some circumstances is only very weakly related to low self-esteem.

Moral neutralisation is related only weakly to class and family background factors. The mean neutralisation score was distinctly higher among those in class 5 compared with class 1 families (9.69 compared with 7.38) but this is a weak relationship compared with those considered above, and corresponds to a correlation coefficient of .08. There was hardly any difference in moral neutralisation score between those in two-parent and single-parent families, and no significant difference between those living with single fathers and single mothers. The score was a bit higher among those living with a step-parent than those in other types of family. Moral neutralisation was only weakly related to experience of being in care.⁴

Perceived seriousness of delinquent acts

At sweep 1, after they had earlier been asked whether they had engaged in each of 15 delinquent acts, respondents were asked to rate the seriousness of each of these same acts, except that two (theft from home and school) were now combined into a single item. The results are summarised in Table 11.3 by showing a mean score for each item, ranging from 0 (not at all serious) to 3 (very serious).

In general, respondents rated most of these delinquent acts as serious or very serious. The ones considered most serious were housebreaking, joyriding, fire-setting, and car-breaking. Fare-dodging was considered much less serious than anything else, the score of 1.28 corresponding to something just above 'not very serious'. After fare-dodging, rowdy behaviour in public was the act that respondents considered least serious (1.84, rather less than 'quite serious'). Truancy, fighting, shoplifting, and graffiti were most commonly considered to be 'quite serious', with scores around 2.

⁴ Among those ever in care the score was 9.46, compared with 8.36 among those never in care.

Table 11.3: Perceived seriousness of 14 delinquent acts - sweep 1

	% Prevalence, sweep 1	Seriousness score (0-3)	Correlation with variety of delinquency, sweep 1²
Fare dodge	23.6	1.28	-.295
Graffiti	27.6	2.19	-.314
Damage property	13.8	2.54	-.247
Truancy	17.6	2.07	-.209
Fire setting	4.0	2.84	-.144
Car breaking	1.3	2.76	-.150
Theft from home or school ¹	30.4/11.3	2.41	-.260
Housebreaking	2.3	2.85	-.128
Joyriding	2.5	2.85	-.132
Shoplifting	27.1	2.21	-.344
Injure, fight	53.3	1.96	-.370
Robbery	1.7	2.68	-.225
Carrying weapon	11.8	2.53	-.244
Rowdy in public	25.4	1.84	-.348

¹Theft from home and school was two separate items in the questions about engaging in delinquent acts, but combined into a single item in the questions about seriousness. Hence two percentages are given in the first column.

²Spearman's rho.

Comparing the prevalence of each type of behaviour in the first column of Table 11.3, it is clear that the common forms of delinquency are the ones considered least serious, whereas the rare forms are those considered most serious. Of course, this correspondence is not perfect. Exceptions are fighting and writing graffiti, which are both very common, but taken fairly seriously. On the other hand, the very rare behaviours are all considered to be very serious.

As expected, perceptions of the seriousness of each of these behaviours are correlated with self-reported delinquency, as shown in the right-hand column of the table. These correlations are fairly strong in the case of the common behaviours that typify delinquency at this age, but weaker for the rarer and more serious behaviours such as fire-setting, car-breaking, housebreaking, and joy-riding. Most respondents consider that these behaviours are serious, and have not engaged in them, so perceptions of their seriousness are not a particularly good indicator of their delinquency. On the other hand, many respondents have engaged in shoplifting or writing graffiti, and not all consider these to be serious, so perceptions of their seriousness are a better indicator of their delinquency.

We have computed a total score, ranging from 0-42, to reflect respondents' ratings of the seriousness of all 14 items.⁵ This score is strongly correlated with delinquency at both sweeps. However, the neutralisation score is more closely related to delinquency than the seriousness of delinquency score. For example, the correlation coefficients (Spearman's rho) with variety of delinquency at sweep 1 are .584 for moral neutralisation, compared with -.427 for seriousness perceptions. As in the case of the moral neutralisation score, the correlation between seriousness perceptions (at sweep 1) and delinquency declines from sweep 1 to 2.⁶

These perceptions of the seriousness of delinquent acts, as indexed by the overall score, seem to be remarkably constant across population groups. There is hardly any difference in perceptions between girls and boys, although girls rate the acts as slightly more serious. The pattern of responses to individual items is also remarkably similar among males and females. There are no significant differences according to social class, and differences according to family structure are trivial even if statistically significant. There is a significant, but small, tendency for respondents who have ever been in care to rate the acts less seriously than those who have never been in care.

At this stage, the pattern of results suggests that the items on moral neutralisation give a better insight into the connections between moral beliefs and offending than do the items on perceived seriousness. Perhaps the ratings of seriousness are useful chiefly to indicate the 'pecking order' in young people's minds among different delinquent or criminal acts, and how this changes with age.

Troublemakers

At sweep 1, we also tried to investigate self-perceptions, using the concept of the 'troublemaker'. Respondents were asked: 'Do you see yourself as a troublemaker?', then whether four other categories of person would see them as a troublemaker (friends, other people your age, parents, other adults). Just 6.1 per cent saw themselves as troublemakers, and the proportion who thought their friends saw them that way was almost identical. Rather higher proportions thought other young people, their parents, and other adults regarded them as troublemakers (8.9, 7.4 and 12.7 per cent respectively). Responses to the five items were found to be highly correlated, and a total score (0-5) across the items was computed. As might be expected, this is strongly correlated (rho=.421) with variety of delinquency at the first sweep. Self-perception as a troublemaker is related to gender and family background in much the same way as delinquency, except that these relationships may possibly be stronger in the case of self-perceptions than in the case of delinquent acts.

The responses to these questions may later be used to test elements of labelling theory, by asking whether young people who consider they have been labelled as troublemakers

⁵ This scale has very good internal consistency. Cronbach's alpha has a value of .8833.

⁶ For example, the correlation (Spearman's rho) between seriousness perceptions and variety of delinquency declines from -.427 at sweep 1 to -.332 at sweep 2.

later come to have more elevated rates of delinquency. The question to be addressed by that analytic approach is whether self-perception as a troublemaker adds significantly to prior experience of delinquency when constructing models to predict future delinquency.

Conclusions

Our findings illustrate the close links between moral reasoning and beliefs and delinquent behaviour. At sweep 1, these strong correlations could partly arise because of influences of one set of questions on another: respondents turned their attention to the moral reasoning questions soon after completing a long set of questions about their own delinquency. At sweep 2, however, the moral reasoning questions were not repeated, yet we still find strong correlations between moral reasoning and beliefs at sweep 1 and delinquency at sweep 2 (even though these correlations are weaker than those within the sweep 1 data). These findings strongly suggest that moral perceptions are a part of the causal explanation of delinquency, although of course the causal influences are certainly reciprocal: that is, people who have committed offences tend to justify themselves by adopting moral standards to suit; but those who think a kind of behaviour is acceptable are more likely to engage in it as a consequence. The process of becoming delinquent involves a series of interactions, in which trials of delinquent or criminal acts are accompanied by a relaxing of moral standards, perhaps followed by a more permanent change in moral perceptions, then by further delinquent acts, and so on.

Our findings also suggest that at this age (12 to 13) perceptions of when it is acceptable to fight with someone, or hurt them physically, are a particularly important influence on delinquent behaviour of all kinds. This suggests a deep connection between delinquency and physical threat, or the need to respond to insults with physical force.

The findings also show a fairly strong link between moral neutralisation and experience of being a victim. Multivariate analysis will shortly be used to show whether this is merely a statistical association that arises because victimisation and offending are closely related. It is likely from earlier studies that this will show some genuine causal relationship, since experience of being victimised may tend to erode beliefs in standards of good conduct, for example through arousing punitive feelings.

CHAPTER 12: TEACHERS' RATINGS OF BEHAVIOUR

Introduction

One feature of the Edinburgh Study is the use of multiple methods to track the development of young people, their involvement in delinquency, and their contacts with the official systems (social work, police, children's hearings, courts). No one source of information about offending is complete or ultimately authoritative; but all sources gain from being set in the context of others. Whereas we obtain information every year from young people themselves, and from social work and children's hearing files, we also obtain information from various other sources from time to time. Two other such sources are parents and teachers.

In the autumn term of 2001/2002, the cohort's fourth year at secondary school, we plan to carry out a survey of the main care-giver (most commonly the mother) of each member of the cohort. This will provide more detailed information about the family background than can be obtained from the young people. It will also give us another account of the behaviour of the young people in the cohort, this time from the perspective of one of their parents; and will form the basis for a broader study of family functioning and its influence on the later development of young people.

In the autumn term of 1999/2000, we arranged that pastoral teachers at each school would complete a short questionnaire about each individual cohort member. The main objective here was to open another perspective on the behaviour of cohort members. This will provide one of many checks on the validity of the measures of self-reported delinquency, and will also show how far misbehaviour and criminal offending is visible to a teacher who knows the child reasonably well. To the extent that it is invisible, this may be because it happens mainly outside school, or because it tends to be hidden within the school setting.

Normally it was the teacher with pastoral responsibility for the child who completed the questionnaire, and this was done at the beginning of the second year, so that teachers would have got to know the children they were describing.¹ The questionnaire consisted of a single instrument: the short version of Goodman's Strengths and Difficulties scale.² This consists of ten items rated on a three-point verbal scale (not true, somewhat true, certainly true) plus an overall rating (see Table 12.1). The ten items are used to compute a single score ranging from 0 (no difficulties) to 20 (many difficulties), and the overall rating provides an additional, separate measure.³ As indicated in Table 12.1, pairs of items also form small sub-scales measuring lack of pro-social behaviour, hyper-activity,

¹ Among members of the cohort included in sweep 2, teacher's questionnaires were completed for 94.2 per cent (N = 4060). Most teachers (90.5 per cent) had known the child for 6 months or more.

² Goodman (1997).

³ Reliability of the ten-item scale was good (Cronbach's alpha = .8552).

disobedience or conduct disorders, peer problems, and emotional problems.⁴ Clearly, this questionnaire does not aim to measure delinquency or criminal behaviour as such. On the other hand, we might expect to find some correlation between the total score and measures of delinquency. Also, we should expect certain sub-scales (for example, disobedience or conduct disorders) to correlate more highly with delinquency than others (such as emotional problems).

Table 12.1: Goodman’s strengths and difficulties questionnaire items

	Scoring	Sub-scale
Considerate of other people’s feelings	-	Pro-social
Restless, overactive, cannot stay still for long	+	Hyper-active
Generally obedient, usually does what adults request	-	Disobedient, conduct disorder
Rather solitary, tends to play alone	+	Peer problems
Often has temper tantrums or hot tempers	+	Disobedient, conduct disorder
Helpful if someone is hurt, upset or feeling ill	-	Pro-social
Often unhappy, down-hearted or tearful	+	Emotional problems
Has at least one good friend	-	Peer problems
Many fears, easily scared	+	Emotional problems
Sees tasks through to the end, good attention span	-	Hyperactive
Overall, do you think that he or she has difficulties in one or more of the following areas: emotions, concentration, behaviour or being able to get on with other people?	No Yes – minor difficulties Yes – definite difficulties Yes – severe difficulties	

The total score on the 10 items was distributed rather like the delinquency measures, with most cohort members having low scores and a diminishing tail having high ones. Thus, although the score has a range of 0-20, the median value was 2.02, and only 6.7 per cent of the cohort had scores of 10 or more.

⁴ Reliability of the sub-scales is inevitably rather poor in the shortened version that we used, because there were only two items in each sub-scale. Yet as shown below, findings for the sub-scales are readily interpretable.

The strengths and difficulties score is quite strongly related to gender and family background (Table 12.2). It was considerably higher among males than females, and more than twice as high among the lower as among the upper social classes. Also, it was twice as high among those who had ever been in care compared with the rest who had never been in care.

Table 12.2: Strengths and difficulties score by gender, social class, family structure and experience of care – sweep 2

Mean and standard error of mean

	Mean score	SE
<i>Gender</i>		
Males	4.43	.089
Females	2.63	.075
<i>Social class</i>		
Class 1	2.13	.141
Class 2	2.91	.102
Class 3 non-manual	3.08	.176
Class 3 manual	3.60	.138
Class 4	3.89	.229
Class 5	5.31	.363
No parent working	5.59	.246
Not living with parents	5.98	.665
<i>Experience of care</i>		
Ever in care	7.30	.496
Never in care	3.44	.060
<i>Family structure</i>		
Two birth parents	3.11	.066
Parent + step parent	4.55	.226
Single mother	4.27	.157
Single father	5.47	.580
In care/not with parents	5.98	.665

Again, the score was rather strongly related to family structure. Setting on one side those in care or for other reasons not living with their parents, the score was highest among those living with a single father, and next highest among those with a single mother. Also, it was substantially higher among those with a step parent than those with two birth parents. In general, this whole pattern was similar to the pattern for self-reported delinquency, but the differences between groups were considerably larger in the case of the strengths and difficulties score.

As shown in Table 12.3, there is a moderate correlation between the strengths and difficulties score and the four measures of self-reported delinquency. The correlations are just marginally stronger for the sweep 2 than for the sweep 1 measures, as might be expected given that the teachers' questionnaire was completed at the beginning of the second year. These findings lend some weight to the argument that the measures of self-reported delinquency are valid, but they also indicate that the difficulties indexed by Goodman's scale are markedly different from the behavioural problems that are manifested in delinquency.

Table 12.3: Correlation between strengths and difficulties score and four measures of self-reported delinquency – sweep 2

Measure of delinquency	<i>Spearman's rho</i>
	Correlation coefficient
<i>Sweep 1</i>	
Variety of delinquency	.240**
Volume of delinquency	.253**
<i>Sweep 2</i>	
Variety of delinquency	.259**
Volume of delinquency	.267**

What is concealed in Table 12.3 is that two of the five sub-scales are unrelated to self-reported delinquency, whereas the remaining three are fairly strongly related to it (see Table 12.4). The two unrelated sub-scales are peer problems and emotional problems. The sub-scale that predicts delinquency most strongly is the one that taps disobedience or conduct problems, while hyperactivity comes second, and lack of pro-social behaviour third. A scale made up of these three sub-scales correlates quite highly (.325) with volume of delinquency at sweep 2. This pattern rather strongly supports the validity of the measures of self-reported offending.

Table 12.4: Correlation between strengths and difficulties sub-scales and volume of delinquency - sweep 2

Spearman's rho

Measure of delinquency	Correlation coefficient
Not pro-social	.249**
Hyper-active	.296**
Disobedient	.334**
Peer problems	-.004
Emotional problems	.053**
Not pro-social, hyper-active, disobedient	.325**

Children who had been referred to the social work department or children's hearings tended strongly to have difficulties, according to teachers' ratings (Table 12.5) and the difficulties were greatest where there was evidence of offending on file.

Table 12.5: Strengths and difficulties score by contact with hearing system and social work department and evidence of offending – sweeps 1 and 2

Mean and standard error of mean

	Sweep 1		Sweep 2	
	Mean score	SE	Mean score	SE
<i>Children's Hearings</i>				
Referred: evidence of offending	8.67	.449	9.49	.552
Referred: no evidence of offending	6.02	.338	7.58	.399
Not referred	3.31	.059	3.33	.059
<i>Social Work Department</i>				
Referred: evidence of offending	8.85	.620	8.42	.496
Referred: no evidence of offending	6.44	.330	7.86	.517
Not referred	3.31	.059	3.36	.059

1. Sweep 1 refers to agency contact from birth to 31 August 1998. Sweep 2 refers to agency contact from 1 September 1998 to 31 August 1999 (see chapter 13).

However, the strengths and difficulties score was, in fact, more strongly related to self-reported delinquency than it was to referral to the social work department and children's hearings.⁵ This means that the score predicts actual behaviour (as indexed by self-reports of delinquency) better than targeting by the official systems. This again provides support for the validity of the measures of self-reported delinquency. In line with this pattern of findings, the number of times respondents had been caught by the police or adults was less strongly correlated with the strengths and difficulties score than were the measures of self-reported delinquency.

Conclusion

Teachers' ratings of behaviour of individual children tend to support the validity of the self-report measures, especially since the particular sub-scales concerned with disobedience and hyperactivity are most strongly related to delinquency. Second, they suggest that pastoral teachers can fairly accurately identify children with problems and difficulties. Third, and perhaps most interesting, they show that problems and difficulties of the kind measured by Goodman's scale are more closely related to gender and family background than delinquency is. Unlike personal and emotional problems, delinquency is rather weakly related to deprivation, low status or income, and non-standard family forms.⁶ These findings may suggest that for 12 or 13 year olds, delinquency is not a problem in the sense that it is a problem to have no friends, or to be emotionally insecure or unable to concentrate. At any rate, it is not related, as these other problems are, to various forms of deprivation.

⁵ This is not obvious from the tables shown here, because these give correlation coefficients in one case and mean scores in the other; however, appropriate comparisons (for example of means) show that it is the case.

⁶ This statement refers to the individual level. We show in Chapter 14 that at the neighbourhood level, delinquency is rather strongly related to an index of deprivation.

CHAPTER 13: OFFICIAL AGENCY RECORDS

Introduction

A central aim of the Edinburgh Study is to investigate the extent to which contact with formal agencies of social control and law enforcement impacts upon the behaviour of young people, particularly those involved in offending. Access is currently being negotiated to police records; however, information has already been collected annually from records held by two key official agencies: the social work department and the children's hearing system. Each year, information is collected on the extent of contact, the source of and reasons for referral, evidence of the respondent's involvement in offending, background information about the young person and their home circumstances and the nature of any decisions made or action taken in respect of the child.

To coincide with the 'ever' reference period used in sweep one of the self-report questionnaire, record information for those known to the official agencies was collected from birth up to 31 August 1998 – the point at which fieldwork began. Thus, the sweep one official agency data relates to any referrals made during the respondent's life up to age approximately 11 to 12. Since it is unlikely that young people would be able to recall events throughout their entire lifetime, and much of the sweep one questionnaire focused on their current circumstances, it cannot be claimed that the sweep one agency record data are entirely contemporaneous with the self-report data. Nevertheless, the sweep two agency data covers the same period as the sweep two self completion questionnaire, therefore, the data are more comparable and are likely to be more accurate in terms of validity checks.

This section will begin with a discussion of the Scottish system of juvenile justice and the role played in it by the children's hearing system and the social work department. It will then describe the extent and nature of intervention by these two agencies during sweeps one and two, by examining the number and source of referrals and the reasons they were made. The characteristics of those with an agency record are explored, in relation to gender, social class and self-reported delinquency. And finally, as a test of validity, the offending information held on record by the children's hearing system is compared with the respondents' own self-reported delinquency.

The Scottish system of juvenile justice

In keeping with the wider criminal justice and penal system in Scotland, the Scottish juvenile justice system has demonstrated a continued commitment to welfare principles. The roots of this commitment lie in the Social Work (Scotland) Act 1968 which placed social work at the heart of the criminal justice enterprise. This Act, among other things, abolished the existing juvenile courts and established the Scottish Children's Hearings System (implemented in April 1971).

These structural changes were driven by a coherent vision of criminal justice known as the "Kilbrandon philosophy", named after the chairman of the committee set up to examine the problems of the existing system of juvenile justice in Scotland. The committee stressed that juvenile offending and other troublesome behaviours should be regarded as manifestations of deeper social and psychological malaise or failures in the normal up-bringing process, and recommended the establishment of a new system of dealing with young people in need or in trouble (Kilbrandon Committee, 1964).

The overall aim of the children's hearings system is to focus on the needs of each individual child, regardless of the reason for referral, and any decisions made must be done so in the best interests of the child. Referrals for children who have offended or are in need of care and protection are made to the Reporter, the official employed by the Scottish Children's Reporter Administration. The Reporter investigates all referrals based on the available evidence and decides whether there are grounds for the child to be subject to compulsory measures of care.¹ Where the Reporter has serious concerns about the welfare of a child or public safety, the case is brought to a children's hearing.

The Hearing itself is a tribunal consisting of a lay panel of three members, which must comprise at least one man and one woman.² The task of the panel is to decide in the best interests of the child whether compulsory measures of supervision are necessary. The panel has considerable powers in this regard. They can impose a "supervision requirement" which ensures statutory social work involvement, and attach conditions such as place of residence and parental contact arrangements. In those cases where a decision cannot be taken immediately, it is also within the power of the panel to take out a 22 day place of safety warrant, to ensure the child is kept in a safe place, or a 22 day secure warrant, to hold the child in a secure unit for their own safety or the safety of others.

¹ There are 12 grounds on which a child may be brought before a Children's Hearing, and these are listed in the Children (Scotland) Act 1995. The grounds include both care and protection issues (including lack of parental care, physical and sexual abuse) and behavioural issues (such as offending, truancy, and drug or alcohol use).

² Members of the Children's Panel are volunteers selected from a wide range of occupations, social backgrounds and neighbourhoods. The representativeness of panels has been a matter of concern over many years, the evidence until recently suggesting that women, older people and the middle class were over-represented (see Reid 1998, Hallet et al. 1997)

The majority of children dealt with by the system are under the age of 16³. However children can be kept in the system until the age of 18 through the extension of supervision requirements. In practice most children between the ages of 16 and 18 are dealt with in the adult system although courts do have the power to remit such cases to the Hearings system for advice or disposal.⁴ The courts are also involved in the cases of a small number of children under the age of 16 where they have committed a serious offence, such as murder, serious assault, or particular driving offences (in 1998 the number of persons under the age of 16 with a charge proved against them was only 0.3 per 1,000 population, Scottish Executive 1999).⁵

Social workers also have an important role to play in the identification and care of children in trouble. Most social work departments having designated children and family teams who will deal on a voluntary or statutory basis with a wide range of young people, many of whom never have contact with the children's hearing system. However, social workers have a crucial role to play at each stage in the referral process within the children's hearings system. Many children are referred to the Reporter by a social worker (in 1996/7 social work accounted for around 8 per cent of all referrals) and they assist in the initial investigation by providing background reports. In many cases, the Reporter will request that the social work department provide advice or voluntary assistance, rather than convening a hearing. In cases where hearings are held, social workers have a statutory responsibility to implement any supervision requirement and conditions made by a panel.

Extent of contact with the agencies

During the sweep one period of the study (from birth up to age 11 or 12), exactly 10 per cent of the cohort (n=430) were referred either to the social work department (n=300) or the children's hearing system (n=299). As shown in Table 13.1, there was a considerable overlap between the two agencies, with four in 10 of those with an agency record (3.9 per cent of the total) being known to both agencies. Of the remainder, almost equal proportions were known to the social work department and the children's hearing system. There was no significant gender difference in the proportion of sweep one respondents who had been referred to the agencies.

³ At the time of writing the age of criminal responsibility in Scotland is 8. This is currently under review. While children between the ages of 0 - 16 can be referred on non-offence grounds, only children over the age of 8 can be referred on offence grounds.

⁴ The courts are required to remit a case to the children's hearings system for advice where a child aged between 16 - 18 is currently the subject of a supervision requirement.

⁵ Two further instances of court involvement with the children's hearings system are: (i) in cases where the child or the parent does not accept the grounds for referral (in these circumstances a proof hearing is held in the Sheriff court); and (ii) in cases where the decision of a hearing is appealed (with the Sheriff being able to substitute their decision for that of the panel). See Edwards and Griffiths (1997) for further information on these procedures.

Despite the fact that sweep one encompassed such a long time period, the majority of those known to the children's hearing system had been referred only once (57.2 per cent) and for only one reason (66.6 per cent). The maximum number of referrals to the Reporter was 10, although the mean was only 2.0 and fewer than one in ten had been referred more than four times. Referrals to the social work department during sweep one were more frequent, with only 33.3 per cent having been referred on one occasion. The maximum number of social work referrals was 12, with a mean of 3.5.

Table 13.1: Proportion of cohort with an agency record by gender – sweep 1

Column percentages

Type of record	Boys (n=2172)	Girls (n=2128)	Total (n=4300)
No record	89.6	90.4	90.0
Children's hearing only	3.4	2.6	3.0
Social work only	3.0	3.1	3.0
Children's hearing and social work	3.9	3.9	3.9

1. Column percentages may not total 100 due to rounding.

Only 5.8 per cent (n=250) of the sweep two cohort were referred to the official agencies. The lower prevalence of contact at sweep two is not surprising since the reference period between the two sweeps changed from 'ever' (covering birth to around age 12) to 'the last year' (approximately age 12 to 13). This time there was a significant ($p<0.05$) gender difference, with boys being more likely than girls to have had contact with the agencies. In particular, the boys were more than twice as likely to have had contact solely with the children's hearing system.

Table 13.2: Proportion of cohort with an agency record, by gender – sweep 2

Column percentages

Type of record	Boys (n=2185)	Girls (n=2114)	Total (n=4299)
No record	93.1	95.3	94.2
Children's hearing only	2.3	0.9	1.6
Social work only	2.6	2.1	2.3
Children's hearing and social work	2.0	1.8	1.9

1. Column percentages may not total 100 due to rounding.

One hundred and fifty respondents had contact with the children’s hearing system during sweep two, although 12.0 per cent (n=18) of these were already on supervision and did not have any new referrals. A total of 279 children’s hearing referrals were made, with most respondents being referred only once (55.3 per cent) or twice (27.3 per cent). The median number of referrals was 1.0, although one individual had accumulated 22 referrals during sweep two, resulting in an average of 2.1 referrals overall.

Of the 181 respondents who had had social work contact during sweep two, 19.1 per cent (n=38) had merely had ongoing contact rather than any specific referrals. The remaining 143 respondents accumulated a total of 269 referrals to the social work department during sweep two. Most were referred only once (55.6 per cent) or twice (25.0 per cent), with the highest number of referrals being 8. The median number of referrals was 1.0, with a slightly higher mean of 1.5.

Social class of those with an agency record

The likelihood of having an agency record during sweeps one and two differed significantly by social class, as shown in Table 13.3. Since the social class structure of those with a social work record was very similar to that of those with a children’s hearing record, they have been grouped together here. These findings are quite similar to those found in other, recent Scottish research on the children’s hearing system (Waterhouse et al, 2000).

Table 13.3: Proportion of cohort with an agency record by social class – sweeps 1 and 2

	Class 1/2	Class 3 non-manual	Class 3 manual	Class 4/5	No parent employed	Not living with parents
Sweep one (n)	1,539	443	757	468	395	85
No agency record (%)	97.5	93.9	91.0	85.7	66.8	53.8
Agency record held (%)	2.5	6.1	9.0	14.3	33.2	47.1
Sweep two (n)	1,494	432	738	450	362	71
No agency record (%)	97.5	94.2	91.6	86.4	68.0	55.1
Agency record held (%)	2.5	5.8	8.4	13.6	32.0	44.9

1. Column percentages within sweeps may not total 100 due to rounding.

There were no significant differences in the social class balance of those with and without an agency record between the sweeps. Nevertheless, the likelihood of young people having been known to the official agencies during both time periods was significantly

($p < 0.001$) related to their social class background as measured at sweep one.⁶ Although no assumption can be made about the social class background of those with no working parent and those not living with parents, they clearly represent a very vulnerable group of young people who have had in the past, and continue to have, significant contact with the official agencies.

Sources of referral to the agencies

Children's hearings

Referrals to the social work department and the children's hearing system come from a number of different sources and, on many occasions, referrals are made from more than one source about a particular child. Broadly speaking, the types of agency or individual who make referrals to the hearing system are the same as those that make referrals to the social work department. Table 13.4 reveals the source of referrals to the children's hearing system during sweeps one and two. To simplify analysis and clarify any emerging patterns, sweep one data were analysed in three age bands – birth to 4 years, 5 to 7 years and 8 to 11 years (as used in official children's hearing statistics).⁷

Table 13.4: Sources of referral to children's hearings by age group and gender – sweeps 1 and 2

Column percentages

Referral source	BOYS				GIRLS			
	Sweep 1 Age 0-4 (n=35)	Sweep 1 Age 5-7 (n=31)	Sweep 1 Age 8-11 (n=123)	Sweep 2 Age 12-13 (n=88)	Sweep 1 Age 0-4 (n=38)	Sweep1 Age 5-7 (n=41)	Sweep 1 Age 8-11 (n=90)	Sweep 2 Age 12-13 (n=44)
Family members	-	-	1.6	-	-	5.0	3.3	4.7
Education department	2.9	13.3	5.7	14.9	2.7	7.5	5.6	9.3
Police	57.1	73.3	94.3	90.8	62.2	77.5	84.4	86.0
Social work agencies	42.9	20.0	9.8	5.7	40.5	15.0	12.2	7.0
Medical professionals	5.7	-	0.8	-	5.4	-	-	2.3
Other	-	-	0.8	-	2.7	5.0	2.2	-

1. Column percentages do not total 100 as many individuals were referred by more than one source.

2. The number of individuals within each age group relates only to those for whom new referrals were made at some point during that time.

⁶ It is important to bear in mind both the limitations of measuring social class from young people's descriptions of their parents' occupations (as described in chapter 2) and the fact that the social class measure used was not contemporaneous with the sweep one referral data.

⁷ Only a small number of those referred to the children's hearing system had reached the age of 12 during the sweep one period, so they are excluded from this analysis.

There are three points of particular note from Table 13.4. First, it is clear that the number of both boys and girls referred increased markedly with age. While more children were referred at age 8 to 11 than at any other time, the number referred at age 12 to 13 was also very high. Bearing in mind that the 8 to 11 period covers four years and the 12 to 13 period only one, it seems certain that the older they become, the more likely young people are to be referred to the children's hearing system. Second, the patterns in the source of referrals for boys and girls were very similar, although there was a slight shift over time in terms of police referrals. A higher proportion of girls were referred by the police in the earliest two age groups while, as they got older, boys were more likely to be referred by the police.

The third point of interest from Table 13.4 is that the vast majority of referrals were made by only two sources: the police and the social work department. Although the education authorities made an increasing number of referrals as the respondents got older, there were few referrals from other professionals or from families themselves. The extent of referrals made by the police was particularly interesting. Not only were they the most common source of referrals to the hearing system overall, but their importance increased dramatically over time. Conversely, social workers were a major source of referrals in the early years, but this declined markedly as the respondents became older. This shift most probably reflected a change in the reasons for referral, which are discussed later in this chapter.

Social work

The number of social work referrals also saw a marked increase by age for both boys and girls, although the pattern in the sources of referral was considerably different to that of the hearing system. As can be seen from Table 13.5, below, referrals were made by a much wider range of people – including both professionals and family members. And unlike the children's hearing referrals, which were dominated by police officers, there was a much more even spread in terms of the people who had made referrals.

Some agencies became more important in referring cases to the social work department over time, while others became less important. Although their involvement was not so great as with the children's hearing system, the proportion of respondents referred by the police grew steadily over time. The importance of the police as an indirect source of referral may also be inferred by the increasing proportion of referrals made by the Reporter to the children's hearing, which are likely to have resulted from police referrals in the first place. The important role played by other professionals, such as doctors and other social work agencies, was also clear from the pattern of social work referrals, although they appeared to become less significant over time.

Table 13.5: Sources of referral to the social work department by age group and gender – sweeps 1 and 2

Column percentages

Referral source	BOYS				GIRLS			
	Sweep 1 Age 0-4 (n=41)	Sweep 1 Age 5-7 (n=45)	Sweep 1 Age 8-11 (n=135)	Sweep 2 Age 12-13 (n=99)	Sweep 1 Age 0-4 (n=32)	Sweep1 Age 5-7 (n=57)	Sweep 1 Age 8-11 (n=127)	Sweep 2 Age 12-13 (n=82)
Family members	37.5	34.1	34.1	25.0	47.1	36.8	38.4	30.6
Education department	2.5	27.3	20.7	15.5	-	15.8	18.4	25.8
Children's Hearing	17.5	13.6	26.7	35.7	2.9	17.5	23.2	35.5
Police	17.5	29.5	39.3	39.3	23.5	40.4	44.0	41.9
Social work agencies	37.5	20.5	19.3	14.3	35.3	22.8	18.4	12.9
Medical professionals	30.0	29.5	14.8	8.3	35.3	24.6	12.0	11.3
Other	12.5	-	11.9	4.8	14.7	7.0	18.4	9.7

1. Column percentages do not total 100 as individuals may have been referred by more than one source

Family members were a major source of referrals to the social work department, far more so than to the hearing system. This probably reflects the fact that social work offices are based in local communities and have a non-statutory element to many of their services, therefore people in need of advice would be likely to feel more comfortable making contact. The children's hearing system, however, is centrally-based and only deals with the heavier end of statutory child protection and offending cases. It is likely that few families would wish to evoke the formality of the children's hearing system by making a referral, preferring instead the relative informality of the social work department. Although the proportion of family referrals to the social work department reduced over time, a significant number of referrals were still being made by family members for those aged 12 to 13.

The pattern in the sources of referral to the social work department were very similar for both boys and girls, with the exception of those made by the education authorities. Interestingly, the proportion of referrals made by schools or other education professionals for girls increased over time, while it is decreased markedly for boys. It is unclear whether this reflects a differential policy for boys and girls, or whether problematic behaviour manifests itself in different ways which are dealt with by different agencies. This is an area which will be explored more fully by longitudinal analysis.

Reasons for referral to the agencies

Children's hearings

Grounds of referral to the children's hearing system are laid down by the Children (Scotland) Act, 1995 (see footnote 1, above), whereas reasons for referral to the social work department are not pre-defined in the same way. For simplicity of analysis,

referrals to both agencies were grouped into three categories: care and protection (including lack of parental care, child abuse and neglect); behavioural (such as being beyond parental control, offending or drug and alcohol problems); and other issues (mainly school problems, special needs and health-related issues). Analysis in this section focuses on the first of these two categories.

While there was little gender difference in the source of referrals to the children’s hearing system, Table 13.6 reveals that the reasons for which referrals were made differed markedly by gender, particularly as the respondents got older. Up to the age of seven, referrals for reasons of care and protection were most common for both boys and girls. However, by age 8 to 11, the proportion of referrals made for boys on the grounds of care and protection had fallen dramatically, while a large proportion of girls continued to be referred on this basis. By sweep two, the proportion of referrals for care and protection had fallen further for both boys and girls, although girls were still twice as likely to be referred on these grounds.

Table 13.6: Grounds of referral to children's hearings by age group and gender – sweeps 1 and 2

Column percentages

Grounds of referral	Boys				Girls			
	Sweep 1 Age 0-4 (n=35)	Sweep 1 Age 5-7 (n=31)	Sweep 1 Age 8-11 (n=123)	Sweep 2 Age 12-13 (n=94)	Sweep 1 Age 0-4 (n=38)	Sweep 1 Age 5-7 (n=42)	Sweep 1 Age 8-11 (n=90)	Sweep 2 Age 12-13 (n=56)
Care and protection	97.1	87.1	44.7	23.0	100.0	92.9	82.2	50.0
Behavioural	2.9	12.9	67.5	78.2	-	7.1	28.9	65.9
Other	-	6.5	4.1	13.8	-	4.8	3.3	9.1

1. Column percentages do not total 100 as individuals may have been referred for more than one reason

While referrals on care and protection grounds fell over time, there was a corresponding increase in the proportion of both boys and girls being referred on behavioural grounds. It is interesting that while boys showed a dramatic leap in behavioural referrals between the 5 to 7 age group and the 8 to 11 age group, the rise in behavioural referrals for girls was more modest at this stage. However, the proportion of boys being referred as a result of their behaviour showed only a relatively small increase between age 8 to 11 and age 12 to 13, while there was a large jump in the proportion of girls being referred on behavioural grounds at that stage. It is impossible to say whether the time lapse between the increase in boys’ and girls’ behavioural referrals is due to a change in practice by the referring agencies, or a real gender difference in behaviour. However, it will be possible to investigate this further once the police data becomes available.

Social work

The pattern in the reasons for referral to the social work department is similar to that of the children’s hearing system. Table 13.7 shows that the proportion of referrals made on the basis of care and protection fell over time, while those made on behavioural grounds increased with age for both boys and girls. However, the extent of the shift is not nearly so great as for the children’s hearing referrals. Although care and protection referrals became less prominent over time, they remained the most common reason for referral to the social work department for both boys and girls at every age group. And while behavioural referrals increased, this were not as common a reason for referral as it was to the children’s hearing system. Nevertheless, the interesting time lapse in the jump from low to high proportions of behavioural referrals for boys and girls, observed in the children’s hearing data, is replicated here.

Table 13.7: Reasons for referral to the social work department by age group and gender – sweeps 1 and 2

Column percentages

Reasons for referral	Boys				Girls			
	Sweep 1 Age 0-4 (n=41)	Sweep 1 Age 5-7 (n=45)	Sweep 1 Age 8-11 (n=135)	Sweep 2 Age 12-13 (n=99)	Sweep 1 Age 0-4 (n=32)	Sweep1 Age 5-7 (n=57)	Sweep 1 Age 8-11 (n=127)	Sweep 2 Age 12-13 (n=82)
Care and protection	94.9	82.2	72.9	59.5	93.8	91.1	91.2	77.4
Behavioural	15.4	28.9	48.1	52.4	-	19.6	25.6	38.7
Other	2.6	11.1	15.8	10.7	6.3	7.1	9.6	17.7

1. Column percentages do not total 100 as individuals may have been referred for more than one reason

Thus, it appears that as they get older both boys and girls are increasingly likely to come to the attention of the official agencies as a result of their behaviour. And, despite a time lapse between the increase in behavioural referrals for boys and girls, by the age of 12 to 13 the gap between the proportion of referrals made as a result of behaviour for boys and girls had closed. Chapter 3 of this report reveals that there is a real narrowing of the gap between boys and girls in terms of their offending, so that will not be further explored here. However, it is worth exploring the link between respondents’ offending levels and whether or not they were known to the agencies, and the relationship between self-reported delinquency and that contained in the agency records.

Agency records and self-reported delinquency

Two main measures of self-reported delinquency are used for analysis throughout this report: *variety of delinquency* (i.e. the number of different types of delinquent acts committed) and *volume of delinquency* (i.e. the total number of delinquent acts of any kind committed). In addition, information was collected from the agency records on

whether there was any evidence of delinquency recorded by the agencies, using the same categories as those included in the self-completion questionnaire (see chapter 3, Table 3.1). Exploring the relationship between agency records and self reports is important for at least two reasons. First, it provides a check on the validity of the self-report measures as indicators of delinquent activity. Second, it allows a comparison to be made between the characteristics of those who come to the attention of the official agencies for offending and those who do not.⁸

The information contained in the children’s hearing records was a more reliable source of information about known offending since it was based largely on police reports. Much of the information contained in the social work reports about offending was not verified in the same way and, therefore, the analysis here is restricted to data from the children’s hearing records. Table 13.8 compares the mean variety and volume delinquency scores for those with a hearing record and those without. To make it more interesting, those with a record have been separated into those who were known by the children’s hearing system to have offended and those for whom there was no official report of offending in their record.

Table 13.8: Variety and volume of self-reported delinquency by children’s hearing record status – sweeps 1 and 2

	Variety of delinquency		Volume of delinquency	
	Mean	Significant difference	Mean	Significant difference
Sweep one				
Hearing record with offending reported (n=103)	4.93	P<0.001	20.89	P<0.001
Hearing record with no offending reported (n=193)	3.19	P<0.001	12.32	P<0.001
No hearing record (n=3870)	2.35		7.59	
Sweep two				
Hearing record with offending reported (n=84)	6.18	P<0.001	27.00	P<0.001
Hearing record with no offending reported (n=66)	4.06	P<0.001	14.54	P<0.001
No hearing record (n=3857)	2.66		8.58	

1. P score represents statistically significant difference measured between hearing record status groups.

⁸ It is important to bear in mind that the respondents were only asked about a selected number of items of delinquency (see chapter 3) , whereas the information collected from the agency records included all aspects of offending, including those which would not have been uncovered in the sweeps one and two questionnaires.

What is immediately obvious from Table 13.8 is the significantly higher level of delinquency among those who were known to the children's hearing system and, even more so, among those who were known by the system to have been involved in offending. The pattern is broadly similar at both sweeps, although the differences are considerably greater at sweep two. For example, the ratio between the mean volume scores for those with evidence of offending on file and those without a hearing record is 3.1:1 compared with 2.7:1 at the first sweep.

These findings show a distinct relationship between the self-report measures and the hearing records, which suggests that many of those who are involved in high levels of offending are appropriately brought to the attention of the agencies of formal social control. Nevertheless, the relationship cannot be close as a fairly small minority of the cohort had a children's hearing record at both sweeps, whereas most of them admitted to at least one act of delinquency. This illustrates the familiar fact that the total volume of crime greatly exceeds that which is recorded by official agencies.

Looking in more detail at those with a hearing record, very few claimed they had not engaged in delinquency at some point. For example, among those whose record showed no evidence of offending during the sweep one reference period, only 23.4 per cent claimed that they had committed no delinquent acts. At sweep two, the proportion was even lower, with only 12.3 per cent of those with no evidence of offending on their hearing record saying they had not committed a delinquent act during the last year. This confirms that self-report measures are a much more effective method of getting an accurate picture of youth offending than official statistics.

To look in more detail at the relationship between self-reports and recorded information on delinquency, an *agency variety of delinquency* score was computed by counting the number of types of delinquency recorded in the children's hearing file of each young person. Although the findings presented above showed that a large proportion of delinquency was not known to the agencies, there were remarkably good correlation coefficients ($p < 0.01$) between the agency variety score and their own self-reports of both variety (0.317) and volume (0.285) of delinquency, at sweep one. The same coefficients were just as significant ($p < 0.01$) at sweep two (0.277 and 0.341 respectively). Thus, there was a good level of association between the two measures.

Testing validity is not a simple matter of comparing self-report data against record data. As has already been stated, much delinquency goes undetected by agencies of formal social control, which makes it impossible to detect over-reporting of delinquency among the cohort. As regards under-reporting, there may be many reasons why information held in agency records does not tally with that given by the respondents. Problems of recall are common in surveys, particularly about relatively trivial incidents, and this would have been exacerbated in sweep one by the lengthy recall period involved. In addition, given the self-completion methodology, it cannot be assumed that all young people read properly or interpreted the delinquency questions in the same way.

It is also important to take account of the different methods by which the data were collected and the differing perceptions of those who provided them. Young people's recollections and interpretations of their delinquency were bound to differ from the subjective view of the police or other adults who processed and recorded the information officially. Young people are in a relatively powerless position as regards the information held about them by official agencies. For this reason, it is wholly possible that some of the information provided to the children's hearing system by the police was inaccurate, and respondents may have disputed that information if they had been given the opportunity to do so.

For these reasons, it cannot be assumed that any disparity between the self-reports and the agency records in terms of actual delinquency types negates the validity of the young people's responses. However, making broad comparisons between whether the respondent reported any delinquency and whether there is evidence of any type of offending from their record is valuable in terms of testing the strength of association between the two sets of data. This proved to be very successful as very few respondents were identified as having a record of offending (of any kind) despite having reported no delinquency themselves. In total, there were 8 at sweep one and 3 at sweep two, as shown in Table 13.9.

Table 13.9: Record of offending for those who reported no delinquency – sweeps 1 and 2

	Sweep one (n=8)	Sweep two (n=3)
Record of offending per person	1 theft from home 4 vandalism 3 thefts from home 1 other theft* 1 sexual offence* 1 vandalism 1 assault 2 vandalism/1 shoplift/1 theft from school/1 rowdy in public/1 assault/ 1other theft*	1 vandalism 1 shoplift 1 reset*

* Offences which were not included in the questionnaire and, therefore, would not have been picked up in the self-reports.

Looking in more detail at these individuals in Table 13.9, it can be seen that most of them had a record of committing only one offence, most of which were trivial and could easily have been forgotten. Three of these individuals could, in fact, be excluded from this analysis since their record referred to one-off incidents of delinquency which would not have been captured in the self-report questionnaire. Only three individuals had records of multiple delinquency and all of them had been reported at some stage during the sweep one period and, therefore, could easily have been the result of recall problems. In terms of general validity, these findings suggest that the association between self-reports and record data were very strong indeed.

Conclusion

The welfare principles of the juvenile justice system in Scotland are intended to ensure that the needs of all young people are met regardless of the reasons for their referral to the social work department or the children's hearing system. In the event, a relatively small proportion of the cohort had been referred to these agencies – only 10.0 per cent during the whole of sweep one period and 5.8 per cent at sweep two – and they were largely weighted towards the lower end of the social class spectrum. While delinquency in itself was not strongly related to social class, therefore, the likelihood of coming to the attention of the agencies as a result of offending was much greater for those from a socially deprived background.

Those with an official agency record were referred by a variety of sources of referral and, without access to their police records, it is impossible to say to what extent individuals from a lower social class were differentially treated by these agencies. Access to police records will provide particularly valuable information in this respect, since the police were shown to be an increasingly major source of referrals to the agencies over time. This increase in the number of referrals made by the police was clearly the result of a shift in predominance from care and protection referrals in the early years to behavioural referrals as the cohort neared adolescence. Nevertheless, the findings from chapter four of this report pointed out that respondents from lower social class backgrounds reported the highest levels of adversarial police contact, which might explain the social class bias in the official agency records.

This chapter also showed some interesting gender differences. In particular, the jump in referrals for behavioural reasons occurred somewhat later for girls than it did for boys. Again, without access to the records of those who made the referrals it is difficult to say whether this pattern reflects a real gender difference in developmental terms. It is hoped that access to the police records will enable greater analysis to be conducted on this aspect of the data. Nevertheless, the closing of the gap between behavioural referrals for boys and girls at sweep two closely mirrors the marginal differences between boys and girls self reported delinquency at this sweep, as discussed in chapter three. This would suggest that the agency data are reflecting a real developmental difference and, therefore, longitudinal comparison of both these data sources will be vital in assessing the extent to which the picture presented by agency data reveals true gender differences.

One of the key reasons for collecting data from the official agency records was to provide a check on the validity of the self-report measure as an indicator of delinquent activity. The findings presented in this chapter reiterate the well known fact that many people who are involved in offending do not come to the attention of official agencies and, among those who do, many incidents of delinquency go unrecorded. This demonstrates the superiority of self-reports over official statistics in terms of uncovering a more accurate picture of the extent and nature of delinquency. Nevertheless, those in the cohort who were known to the agencies and, in particular, those who were known to have offended, reported higher levels of offending than those who do not have a record. In addition, there were strong associations between individual accounts and the variety of delinquency recorded by the agencies.

In using the agency records to test validity, the intention was not to discredit the respondents' reports by identifying specific discrepancies between the two sources of data, as there are many reasons why the official records and the self-report data might not have matched up. Rather, the objective was to make a general comparison in order to check whether those who had been reported to the agencies as being involved in some form of delinquency had also identified themselves as offenders in their self-report accounts. In this respect, the agency records proved to be a good test of validity as very few respondents with an official record of offending had not disclosed at least some aspect of their delinquency. Again, this highlights the importance of collecting both individual and agency data on a longitudinal basis to test the extent to which this changes over time.

CHAPTER 14: EDINBURGH'S NEIGHBOURHOODS

Introduction

A central objective of the Edinburgh Study is to integrate the descriptions of life histories and their social setting. At the present stage, that is achieved by interpreting the lives of the 4,300 individual cohort members by reference to a description of the neighbourhoods where they live. The basic design of the study was chosen, in part, so as to support an analysis of this kind. By studying a large cohort in a single city, we have the optimal design for assessing neighbourhood effects. This design ensures that there is an adequate number of cohort members for comparison between local areas recognisable as neighbourhoods.

At the same time that information was collected about individual young people from questionnaires and files, a parallel research exercise was launched to map the social geography of Edinburgh and its crime patterns. One outcome of this exercise was the division of Edinburgh into 91 neighbourhoods which are as far as possible internally homogeneous, and whose boundaries correspond where possible with major physical features, socio-economic contrasts, and named communities. Social geography and patterns of police-recorded crime for each of the 91 neighbourhoods could then be described.

The postcodes were obtained for the residential addresses of the majority of cohort members, who could then be assigned to the 91 neighbourhoods. From that point on, two linked sets of information were available, one at the level of the individual, the other at the level of the neighbourhood. Patterns at one level could be analysed by reference to patterns at the other: for example, we could ask whether individual levels of delinquency were related to the proportion of the local population who were unemployed. Also, information could be exchanged between the levels: for example, each neighbourhood could be characterised according to the mean level of delinquency among cohort members living there.

This chapter describes the procedures used to map the social geography and crime patterns of Edinburgh, concentrating on the principles rather than the technical detail. It then displays in outline the results of this mapping exercise. Next, it examines correlations between features of social geography and crime at the level of the 91 neighbourhoods, using both police records and self-reported delinquency from the study questionnaires. This analysis reveals that the explanations for variations in offending at the neighbourhood level are very different from those that apply at the individual level.

Evidence on community-based mechanisms that might produce higher or lower rates of crime is discussed in a preliminary way. This paves the way for analyses now being planned which will aim to assess how much of the variation in delinquency between individual cohort members is to be explained by mechanisms rooted in the areas where they live. The next chapter presents early findings from using a different but

complementary research strategy. This was to carry out more detailed but informal investigations in two adjoining neighbourhoods having a similar social composition but contrasting rates of crime.

Theoretical background

From the early days of the Chicago School in the 1920s, social scientists have found that crime is very unevenly distributed across neighbourhoods. Most kinds of 'ordinary' crime (in contrast to crimes of the powerful, or white collar crime) are concentrated in areas characterised by multiple deprivation and high residential mobility. A number of explanations have been developed to account for these patterns; for the most part, these are not mutually exclusive, but complementary, and in some cases inter-linked. Earlier work focused on explaining the place of residence of young offenders, but more recently criminologists have recognised the importance of distinguishing between factors influencing the placement of a crime, and factors influencing the level of criminality among residents in a particular area (who may not always commit their offences close to home). These factors are, however, quite closely linked, because a high proportion of offences are, in fact, committed fairly close to home, so that factors which increase the level of crime in an area also tend to increase the level of criminality among its residents.

One set of explanations relates to the spatial layout of an area, its physical fabric, the purposes that buildings are used for, and how all this connects with regular movements and routine activities of the population. For example, the clustering of pubs and nightclubs, the effectiveness of street lighting, the location of bus stops, the number of passers by at various times, the sight lines of residents and shopkeepers, all influence the occasions and opportunities for various kinds of crime.

A second set of explanations concerns the ways that structural characteristics of an area such as level of unemployment and incomes, quality of housing, leisure and shopping facilities, influence the development of young people in the long term. For example, it is much more difficult to be an effective parent, or to run an effective school, in a deprived than a privileged area. Again, once criminally-inclined people begin to concentrate in a deprived area for any reason, young people there become more likely than in a privileged area to find themselves in the company of young delinquents and to learn the skills, attitudes, and moral reasoning strategies that are appropriate to a life of crime.

A third set of explanations focuses on the mechanisms operating within local communities that ordinarily tend to inhibit criminal offending. Contemporary scholarship in the field is preoccupied with the problem of conceptualising, defining, and measuring these mechanisms of informal social control. Recently Sampson and others have adapted Bandura's concept of *collective efficacy* and defined it in this context as the capacity of a community to regulate people moving within it according to common standards. Analyses of the contemporary Chicago study appear to show that variations in police-recorded crime rates between neighbourhoods can be explained, in part, by variations in the strength of collective efficacy, where this is not the same as or reducible

to an index of deprivation. However, it is not yet clear exactly what are the mechanisms whereby some communities effectively regulate unwanted behaviour.

The Edinburgh Study aims to develop and evaluate more detailed explanations of the second and third types (the long-term effects of structural factors on individual development, and the mechanisms of local social control). Although the placement of crime in relation to the social and physical fabric (the first set of explanations) is an important topic, it is difficult to pursue by means of this type of longitudinal study: that is because respondents probably cannot accurately recall or explain where they were when they committed specific offences, often several months earlier; because even if they could recall, geocoding their reports of offence locations would be extremely difficult; and because of limitations in the police-recorded crime data.

In all of this work, it is important to make a clear distinction between explaining differences at the individual level (why this person or that person offends or stops offending) and differences at the neighbourhood or city level (why the crime rate is higher in this neighbourhood than that one, or why the rate of crime in the city as a whole has increased). The salient explanations for offending at the individual level may be different from the salient explanations for crime rates at the neighbourhood level. This may seem like a paradox, yet it can be dissolved by a form of analysis which shows how much of the variation between individuals is explained by the structural properties of social units such as neighbourhoods. The present chapter reports on the extensive work that has prepared the way for a later analysis of this kind.

Sources of data for describing areas

The main sources of data used in the present analysis are as follows:

1. *Definitions of boundaries* of various units such as census output areas, postcode areas, districts and sectors, and electoral districts and wards. Although not all of these have yet been used, some are needed so that data about the attributes of various geographical units can be displayed on a map. Although not used in the present analysis, we also have access to Ordnance Survey data on features such as roads, buildings, and natural objects such as hills or woodland.
2. *City development data* on vacant and derelict land, retail outlets, public leisure facilities, new development, and industrial sites.
3. Data from *the 1991 population census* on all output areas in Edinburgh. Output areas are the smallest unit of analysis in the census,¹ and contain about 100-120 people. For most of the present analysis, the following six census variables were used: per cent of persons aged 10-24; per cent of persons who were migrants (had lived in the output area for less than a year); per cent of households that consisted of lone parents

¹ Note that output areas, the smallest unit of analysis in Scotland, are different from the (larger) units used in England & Wales.

and children; per cent of households overcrowded (more than one person per room); per cent of households in local authority housing; per cent of economically active persons unemployed. Data on the per cent of households belonging to each social class were also used for some analyses.

4. *Crimes and offences recorded by the police in 1997.* Although the original data were more detailed, these incidents were arranged in the following ten groups in our analysis: violence, drugs, vandalism, deception, car crime, housebreaking, shoplifting, other theft, sexual offences, offences against minors. This dataset includes information about the address or locus of each offence, but not the address of the complainant or accused.² A considerable body of further information about recorded offences (such as modus operandi, the number of persons accused, what was stolen or damaged, what injuries were sustained) is in our files, but has not been used in the present analysis. In 1997, police data on recorded crimes were not yet geocoded (the system has since been updated). Cleaning and geocoding the data turned out to be a very arduous process. Eventually, 70.48 per cent of all incidents were successfully geocoded.³ In the remaining cases, the information about the location of the incident cannot be matched with any actual location, even after correcting the spelling of street names and other data cleaning strategies.
5. *Data from the Edinburgh Study cohort.* We currently have usable postcodes for the residence of 3700 out of the 4300 young people in the cohort (86 per cent). A small part of the shortfall arises because no information has been provided by schools for some children. Most of the shortfall arises because young people live outside the City of Edinburgh, because the information provided was inaccurate, or because the electronic postcode files are out of date.⁴ Any information about individual children (from questionnaires, or school records, for example) can be used to generate a variable describing cohort members living in a particular geographical area.

Defining neighbourhoods

In order to study the effects of structures and mechanisms existing or operating within social units of some kind, it is necessary to define the social units under consideration. In this case, we started from the vague concept of a 'neighbourhood'. Naturally, there is no consensus about what a neighbourhood is. Various pieces of research have shown that when people are asked to draw the boundaries of their neighbourhood on a map, or to say where their neighbourhood starts and ends, different individuals come up with different

² This was because of data protection problems perceived by the Lothian and Borders Police. It is possible that these may be overcome in future, by seeking postcodes only of complainants and suspects.

³ However, only 62 per cent of incidents can be allocated to the neighbourhoods that we later defined, because the electronic postcode files are out of date. The list of Edinburgh postcodes used to define neighbourhoods dates from 1995, and does not include postcode areas created since then, usually because of new build. Hence incidents occurring at addresses created after 1995 cannot at present be allocated to neighbourhoods, although this problem will be overcome once more recent postcode data become available.

⁴ See note 2 above.

ideas. Even in Belfast, where residents feel that Protestant and Catholic areas are clearly demarcated, there is often wide disagreement about where the boundaries lie.⁵ Nevertheless, it is implausible that distinctions between neighbourhoods have no more reality than boundaries drawn arbitrarily on a map.

In addressing the problem of dividing Edinburgh into neighbourhoods, the first step is to decide on the scale of the analysis. The critical question is how large the neighbourhoods are to be, and hence how many neighbourhoods will be identified. In deciding on the scale of the analysis, two considerations were taken into account. The first was statistical power. The number of neighbourhoods would need to be large enough to support analysis of the effects of specific neighbourhood characteristics (such as low or high cohesiveness or social control). At the same time, there would need to be a sufficient number of cohort members within each neighbourhood to produce estimates of neighbourhood characteristics based on cohort data.

The second consideration was the size of the unit that was appropriate for the analysis of the relevant structures and mechanisms. The problem here is that certain scales are appropriate to certain activities and goals. For example, a Gay Pride march may be city-wide; a protest against extending an airport may take in people from several boroughs; a Scout troupe draws its membership from a parish; objectors to the extension of a license to a public house or sauna may come from just one street. Structures and modes of organisation exist at various different levels, yet to avoid complicating our analysis too much, we needed to choose one collective level for our study of crime and delinquency.

Taking into account both kinds of consideration, we decided to divide Edinburgh into at least 80 neighbourhoods, which would therefore have a population of around 5000 on average (the total population of Edinburgh is c. 420,000). This provides adequate statistical room for analysis (with around 50 cohort members per neighbourhood). It also means that the neighbourhoods are rather small in population terms: much smaller, for example, than those used in the contemporary Chicago study. We aimed to keep the population size of neighbourhoods fairly constant, which meant that their physical size had to vary widely, but on average they would be around half a mile across, so that one could walk from one edge to the other in around eight minutes.

It would be possible to decide the boundaries arbitrarily, or to follow electoral or administrative boundaries, and a number of previous studies have adopted that approach. However, our specific objective is to identify structures and mechanisms that operate at a collective level and vary between areas. If the boundaries correspond to the socio-spatial units within which these structures and mechanisms operate, then the findings will be more clear-cut than if they are chosen arbitrarily. We therefore adopted the strategy of choosing boundaries so as to maximise the homogeneity of neighbourhoods, and hence the contrasts between neighbourhoods. At the same time, we aimed, where possible, to make the boundaries coincide with physical features that are likely to influence perceptions of neighbourhood identities, and with names and recognisable features that are rooted in history and mark out one neighbourhood as different from another.

⁵ See D. J. Smith and G. Chambers, *Inequality in Northern Ireland*, Clarendon Press, 1991.

Following from these broad objectives, we needed a test of the homogeneity or heterogeneity of different parts of Edinburgh. Following a search of the literature, we identified six census-defined area characteristics that are consistently found to be related to crime rates (see Table 14.1). A dataset was then compiled for all of the (roughly 3,600) census output areas in the City of Edinburgh containing each of these six items of information.⁶ At this point, we needed a method of computing a composite score for each output area that would take account of all six variables. To achieve this we expressed each value as a z score, standardised with reference to the standard deviation of the distribution of the variable across all of the Edinburgh output areas.⁷ The six z scores for each output area were then added, to produce a composite measure of social and economic stress of a kind that is known to be related to variations in local crime rates.

Table 14.1: Variables used to construct the index of social and economic stress

Type of area characteristic			
Demographic	Household	Housing	Socio-economic
% of population who have lived in the area for less than 12 months	% of households consisting of lone parents and children	% of households in local authority housing	% of the population who are unemployed
% of population aged 10-24	% of households overcrowded (>1 person per room)		

Figure 14.1 illustrates the way this index varies across different parts of Edinburgh. An obvious feature of the pattern is that the most deprived areas are away from the city centre and in some cases close to the periphery. Thus the model of ‘inner city deprivation’ does not apply to Edinburgh. In this respect, as in others, Edinburgh is more like continental European cities than English ones.⁸ The French model of run-down public housing in ‘les banlieux’ (outskirts) is the appropriate one. Figure 14.2 illustrates the distribution of local authority housing, and shows how that roughly corresponds with the composite index of social and economic stress.

⁶ The data were downloaded from CASWEB.

⁷ z scores are expressed in units of standard deviation. If the distribution is normal, the same proportion of cases will always lie within, say, 1 or 2 standard deviations of the mean. Hence the z scores for different variables are closely comparable.

⁸ The model of ‘inner city deprivation’ is probably ultimately traceable to the first Chicago School, which produced a famous map of concentric rings in Chicago, with the most deprived areas and highest crime rates closest to the centre.

Fig 14.1 Index of social and economic stress (sum of z scores) by census output area

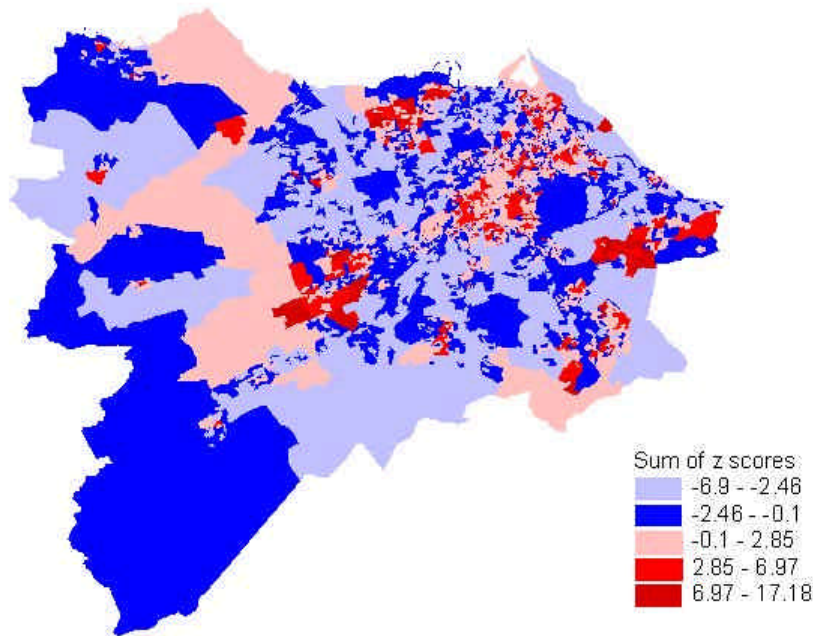
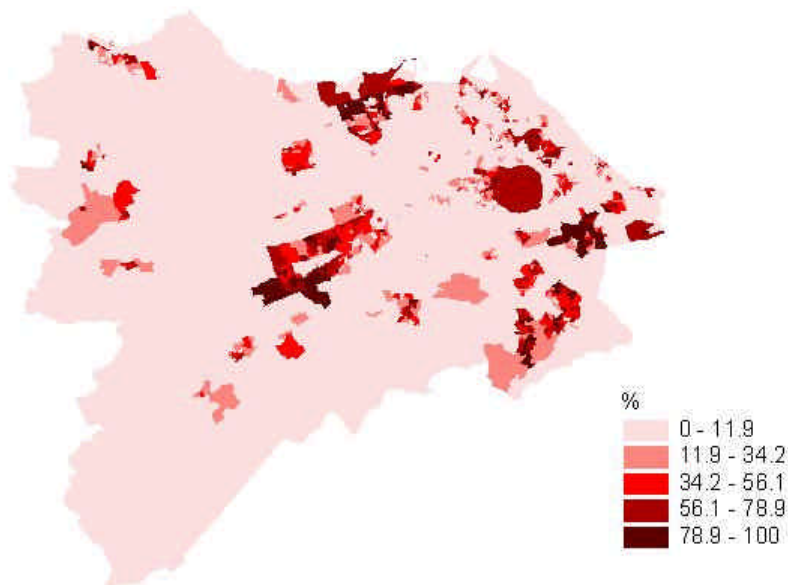


Fig 14.2 Proportion of local authority housing by census output area



In order to obtain around 80 neighbourhoods, we needed to arrange output areas in contiguous clusters of around 45. The next step was to draw tentative boundaries for these groupings, in such a way as to maximise the similarity between output areas within each cluster in terms of the index of social and economic stress. Each cluster was given a name, as well as a number. At the final stage, we refined the boundaries, making use of

information shown on digitised Ordnance Survey maps about physical features such as roads, parks, and hills, our local knowledge of the social divisions perceived by Edinburgh people, and the traditional boundaries and vernacular district names shown on local maps. This was a lengthy, iterative process, which gave rise to substantial difficulties in areas that contain large natural or man-made features (such as the Royal Botanic Gardens, Arthur's Seat, or the ancient systems of bridges, steps, and multi-level access in the Old Town).⁹

As the outcome of this process, Edinburgh was eventually divided into 91 neighbourhoods, as shown in Figure 14.3, which also illustrates the index of social and economic stress that belongs to each neighbourhood.¹⁰ The neighbourhoods vary widely in area, but have roughly equal populations. From the large size of the neighbourhoods to the west of the city, it can be seen that this is a suburban or semi-rural area with a much lower density of population than the rest. The areas of highest social and economic stress are located towards the edge of the town, but to the west are well inside the boundary of the administrative area.

Social geography and crime

We would expect the index of social and economic stress to be related to crime rates at the neighbourhood level, because the index was constructed out of census-derived variables shown to be related to area crime rates in earlier studies. Figure 14.4 maps the rate of police-recorded housebreaking across the 91 neighbourhoods. Comparison with Figure 14.3 shows that the rate of housebreaking and the index of social and economic stress are spatially distributed in a similar way. The distribution of these two variables across the 91 neighbourhoods is highly skewed, as shown by Figures 14.5 and 14.6. There is a long tail of neighbourhoods with a stress index well above the mean, together with a large cluster of neighbourhoods with a score close to the mean or somewhat lower. This means that the majority of neighbourhoods have 'normal' or 'somewhat better than normal' levels of stress, but a relatively small number of outliers have very high levels of stress

⁹ Historically, social divisions in the Old Town were between elevations (vertical levels) rather than *quartiers* defined in plan.

¹⁰ The index for a neighbourhood is simply the mean of the summed z scores for its constituent output areas.

Fig 14.3 Index of social and economic stress, distribution across Edinburgh study defined neighbourhoods

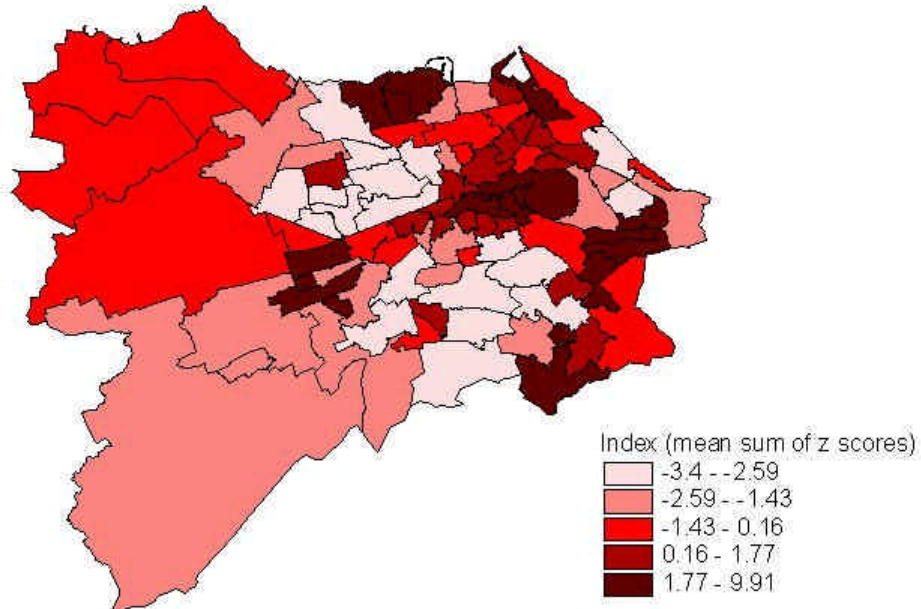
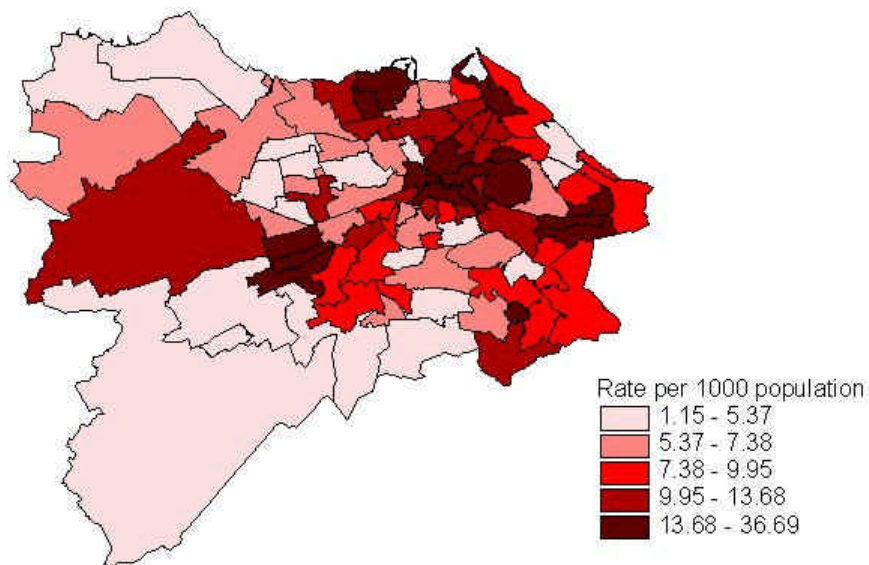


Fig 14.4 Police recorded housebreaking per 1000 population, distribution across Edinburgh study defined neighbourhoods



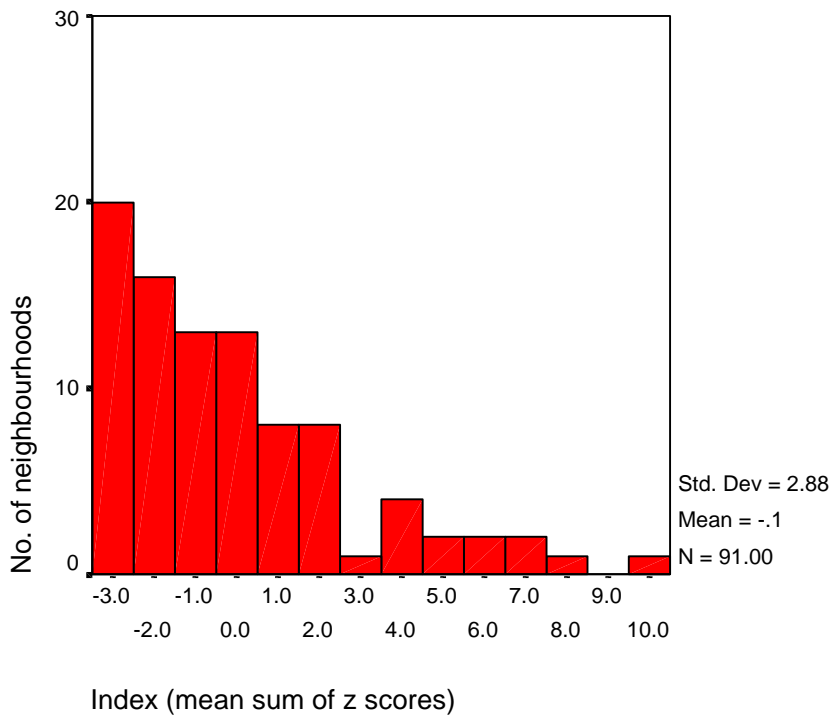


Figure 14.5: Index of social and economic stress, distribution across neighbourhoods

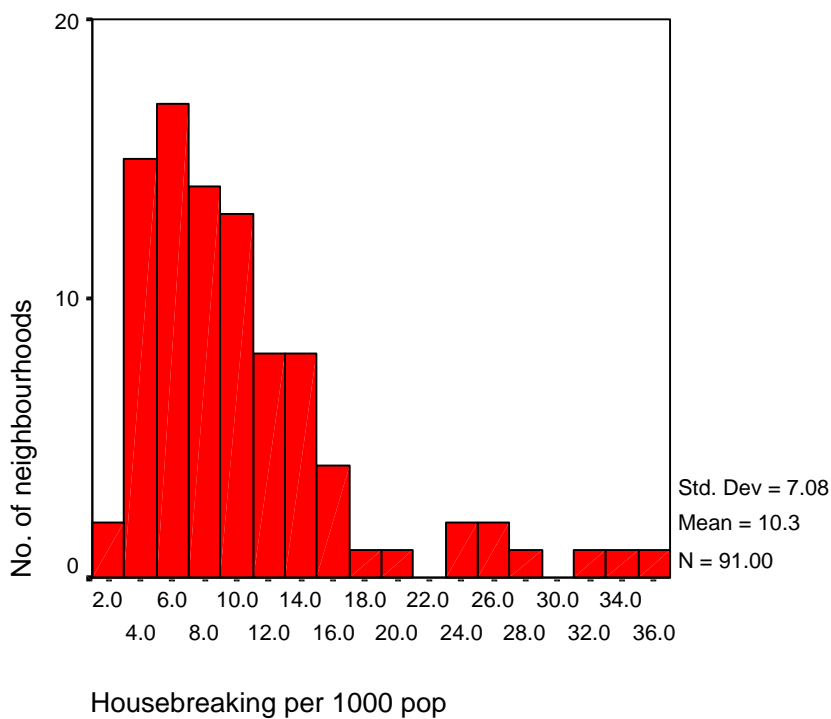


Figure 14.6: Rate of housebreaking, distribution across neighbourhoods

The pattern for housebreaking is rather similar, showing that there are a few neighbourhoods with much higher housebreaking risks than the norm. The same is true of most other offences, but to a still greater degree. The most important exception is car crime, which is distributed more evenly. Theft of vehicles (a part of car crime) is an unusual case, because the vehicle may not be left in the area from which it was taken, and the location recorded is the one where the vehicle was found; this means that the link between the rate of car crime and the characteristics of the neighbourhood will be blurred.

One way of looking more closely at these links is to calculate a correlation coefficient between a characteristic of the neighbourhood (such as the index of stress) and a rate of crime (such as housebreaking). The number of cases on which the correlations are based is the 91 neighbourhoods. As illustrated by Figures 14.5 and 6, the distributions of the variables that are being correlated are highly skewed, with a few outlying neighbourhoods. This means that it is not appropriate to use a parametric statistic such as the Pearson correlation coefficient (which assumes a roughly straight line relationship). It is more appropriate, as in other chapters, to use Spearman's correlation coefficient, which is essentially computed from the rank order of the neighbourhoods on the variable in question rather than the exact values. Table 14.2 shows the Spearman correlation coefficients at the neighbourhood level between the rate of each category of police-recorded crime and the index of stress, and separately with the component variables of the index.

Table 14.2: Correlation between neighbourhood characteristics and police-recorded crime

*N=91 neighbourhoods
Spearman's rho*

	Index of stress	% migrants	% lone parents	% LA housing	% aged 10-24	% unemp.	% over-crowded
Housebreaking	.685**	.449**	.488**	.365**	.411**	.733**	.564**
Violence	.767**	.360**	.588**	.529**	.415**	.811**	.616**
Drugs	.759**	.352**	.629**	.549**	.317**	.840**	.651**
Vandalism	.727**	.257*	.646**	.610**	.274**	.748**	.721**
Deception	.366**	.413**	.143	.100	.153	.484**	.257**
Car crime	.025	.157	.140	-.104	.002	.089	-.047**
Shop theft	.366**	.369**	.128	.095	.121	.464**	.293**
Other theft	.550**	.589**	.300**	.114	.302**	.651**	.397**
Sexual offences	.570**	.323**	.459**	.414**	.304**	.571**	.431**
Offences against minors	.543**	.146	.534**	.490**	.238*	.520**	.501**

**Significant at the 99 per cent confidence level.

*Significant at the 95 per cent confidence level.

The table shows a pattern of very strong relationships at the neighbourhood level. Looking first at the index of stress, this is correlated very highly with housebreaking, violence, drugs, and vandalism (coefficients around .700). It is also correlated strongly with theft other than shoplifting, sexual offences, and offences against minors (above .500). There is a more moderate correlation with deception and shop theft (above .300). Probably the correlation with shop theft is weakened because a fair proportion of these offences take place in large shopping centres and malls which are usually not located in areas of social and economic stress. The only offence type that is not significantly correlated with the index of stress is car crime. As explained above, this is probably because stolen cars are often abandoned away from the area where they were stolen.

A complex pattern of relationships is revealed between police-recorded crime rates and the individual census variables from which the index is composed. Here the most striking feature is that the unemployment rate is generally more strongly correlated with crime rates than are the other census variables. Indeed, the correlations with unemployment rates at the neighbourhood level are extremely strong for housebreaking, violence, drugs, vandalism, and theft other than shoplifting. Each of the other component variables is also quite strongly related to rates of various types of crime.

Of course, this may be largely because these neighbourhood characteristics go together. In principle it is possible, from these findings, that the social processes leading to higher crime rates in certain neighbourhoods are connected with, say, unemployment, but not with the presence of single parents: the association with the proportion of single parents could arise because neighbourhoods with high unemployment rates tend to have a high proportion of single parents also. To settle that kind of question it would be necessary to carry out multivariate analysis, although the room for that kind of analysis within a sample of 91 neighbourhoods is rather limited.

It is important to note that a wide range of crime types are correlated with the index of stress and with its individual component variables at the neighbourhood level. These offences include, for example, sexual offences and offences against minors as well as violence and vandalism and offences carried out for gain. These offences have widely different motivations, so if these neighbourhood differences arise from a link between crime and poverty or deprivation, the mechanisms that make the link are likely to be complex. The findings do not just show that the police record more theft in poverty-stricken areas, but also that they record more child abuse, wilful damage to property, and sexual offences.

Only about one quarter of offences mentioned by victims in the Scottish or British Crime Surveys are recorded as crimes by the police. It follows that the police-recorded crime rates for neighbourhoods reflect the pattern of police activity and decision making as well as the distribution of crimes known to members of the public. It could be argued, therefore, that the links between neighbourhood characteristics and police-recorded crime that are illustrated in Table 14.2 mainly reflect police targeting of certain areas, or the distribution of police resources and activity. One way of testing that argument is to examine the relationship between self-reported delinquency among cohort members and

neighbourhood characteristics. We have seen in Chapter 3 that most of this self-reported delinquency is not reported to the police, and does not therefore result in police-recorded crime. For this analysis, we have computed the mean self-reported delinquency scores among cohort members living in each of the 91 neighbourhoods. We have then computed the correlation coefficients between these scores and the same census-derived neighbourhood characteristics as before (see Table 14.3).

Table 14.3: Correlation between neighbourhood characteristics and mean rate of self-reported delinquency among cohort members

N=91 neighbourhoods
Spearman's rho

	Index of stress	% migrants	% lone parents	% LA housing	% aged 10-24	% unemp.	% over-crowded
<i>Sweep one</i>							
Variety	.521**	.210*	.442**	.304**	.270**	.478**	.443**
Volume	.567**	.227*	.489**	.389**	.270**	.478**	.443**
<i>Sweep two</i>							
Variety	.448**	-.072	.533**	.417**	.136	.357**	.590**
Volume	.507	.038	.545**	.422**	.163	.427**	.586**

**Significant at the 99 per cent confidence level.

*Significant at the 95 per cent confidence level.

The pattern of findings for self-reported delinquency is broadly similar to that for police-recorded crime. The composite index of social and economic stress is strongly correlated (around .5) with self-reported delinquency at both sweeps. These correlation coefficients are lower than for several types of police-recorded crime, although higher than for police-recorded deception, car crime, and shoplifting. These are nevertheless strong correlations, which firmly support the validity of both the self-report method, and the classification of neighbourhoods. Clearly this broad pattern of findings shows that the neighbourhood variations in rates of police-recorded crime arise largely out of variations in offending rates rather than targeted police activity.

The correlations with individual census indicators are broadly similar for self-reported delinquency and police-recorded crime, although it is difficult to generalise because of the large number of police-recorded crime types. The percentage of lone parents, the percentage in local authority housing, the percentage unemployed, and the percentage in overcrowded accommodation are all strongly correlated with self-reported delinquency at the neighbourhood level. It is clear that the percentage of migrants and the percentage of young persons are less strongly correlated with self-reported delinquency than these other census indicators. These correlations remain much the same whether variety or volume of delinquency is considered. There may appear to be some shifts in the strength of the

correlations between sweeps 1 and 2, but these differences are not statistically significant, and would also be hard to interpret, since in some cases the correlation appears to increase, and in others to decline.

A first look at neighbourhood mechanisms

So far we have shown that there are strong correlations between neighbourhood crime rates and various indicators derived from the census, all of them related to forms of deprivation or stress. This does not of course demonstrate a causal relationship. In order to get closer to demonstrating causation, we need to give an account of the mechanisms or processes that might account for the statistical association; and then we need to find evidence that these mechanisms do operate as postulated. At present, there is limited information to support an analysis of this kind. Census data do not describe the processes or mechanisms underlying demography. Otherwise we have to rely at present on questionnaires filled in by 12 and 13 year old children. A more satisfactory basis for describing social dynamics in the 91 neighbourhoods would be the survey of residents that we plan to carry out in 2002. Nevertheless, a limited amount of useful information can be gleaned from the questionnaires completed by cohort members.

At sweep 1 a substantial section on the neighbourhood was included in the questionnaire. This produces four measures that provide some insight into neighbourhood mechanisms. First, respondents were asked 'How safe do you feel when you are out on your own in your neighbourhood during the day?'. They chose a response from a four-point verbal scale. They were also asked a similar question about safety after dark, but a substantial minority (16 per cent) answered that they did not go out on their own after dark. Cross-analysis suggests that some of these respondents stay at home because of fears about safety, but some for other reasons. This means that the question about night time produces partly ambiguous results which cannot easily be scored, and in fact it is a less powerful predictor than the question about day time. We have therefore used the question about day time alone to produce a mean score for each of the 91 neighbourhoods which reflects the level of perceived danger.

Second, we made use of the concept of 'incivilities' that was introduced by Wilson and Kelling in their famous article 'Broken Windows' (1981). By incivilities they meant signs of disorder which show that unwanted behaviour is not effectively controlled. Respondents were asked whether each of the following incivilities was a problem in their neighbourhood:

- Rubbish in the street
- Broken windows in shops or buses
- Vandalised or burnt out cars
- Dog dirt on pavements, grass, etc.
- People who are drunk in the street
- Gangs of young people
- Boarded up or burnt out houses

- Not enough street lights
- Graffiti on walls or building
- Vandalised buildings or bus shelters
- People selling drugs
- Drug needles (or syringes) lying around
- Busy roads or heavy traffic
- Neighbours fighting in the street

This list was arranged in two groups separated by other questions, so that respondents did not lose interest half-way through. Each item was rated on a four-point scale.¹¹ The results were used to compute an ‘incivilities score’ ranging from 0-28. This scale has very high reliability and internal coherence.¹² The mean scores were then computed for each of the 91 neighbourhoods.

Third, we included a measure of social cohesion, that is, how close and friendly are relations between people living in the neighbourhood. Social cohesion, or the lack of it, is probably related in some way to the idea of social disorganisation proposed by the early Chicago School to explain high rates of crime in certain areas. Without entering for the moment into a critical discussion of the concept of social disorganisation and its contemporary re-interpretation by Sampson and others, it seems useful to explore whether close relationships (as distinct from a specific ability to control) are related to lower neighbourhood crime rates. The social cohesion measure was based on the following six items:

- I know most of the adults who live in my neighbourhood
- Most of the adults who live in my neighbourhood know me
- I know most of the young people who live in my neighbourhood
- Most of the young people who live in my neighbourhood know me
- Most adults who live in my neighbourhood are friendly
- Most young people who live in my neighbourhood are friendly

The responses on a three-point scale were used to compute a score ranging from 0-12. The scale has fairly good reliability.¹³ The mean score was then computed for each of the 91 neighbourhoods.

¹¹ The scale has been scored as follows: Not a problem=0; A bit of a problem=1; A big problem=2; I’m not sure=1.

¹² Cronbach’s alpha = .9038. Inter-correlations of items are high, and no improvement in reliability can be obtained by omitting any item.

¹³ The scoring was: Agree=2; I’m not sure=1; Disagree=0. Cronbach’s alpha = .7704.

Table 14.4: Correlation between perceptions of the neighbourhood and police-recorded crime

N=91 neighbourhoods
Spearman's rho

	How unsafe	Incivilities	Social cohesion	Social control
Housebreaking	.414**	.497**	-.175	-.395**
Violence	.518**	.570**	.003	-.326**
Drugs	.465**	.585**	-.003	-.372**
Vandalism	.541**	.655**	.081	-.395**
Deception	.308**	.234*	-.316**	-.202
Car crime	-.043	-.079	-.252*	-.051
Shop theft	.189	.207*	.241*	-.090
Other theft	.341**	.317**	-.382**	-.243*
Sexual offences	.382**	.454**	-.067	-.296**
Offences against minors	.345**	.459**	.185	-.179

**Significant at the 99 per cent confidence level.

*Significant at the 95 per cent confidence level.

The concept of informal social control has been widely invoked to explain neighbourhood differences in crime rates. In Sampson's recent work, it has been re-interpreted as 'collective efficacy' defined as the capacity of a community to regulate those passing through it in accordance with common values. At sweep 1, we included six items designed to tap perceptions and expectations on the part of young cohort members about the way that people would respond to public crime or disorder. Respondents were asked:

- If someone was spray painting a wall in your neighbourhood, what would probably happen?
- If someone was trying to steal a car in your neighbourhood, what would probably happen?
- If teenagers were fighting in the street in your neighbourhood, what would probably happen?

In each case they were asked two questions: whether an adult would try to stop them; and whether someone would call the police (note that the question was not about the formal police response, but about whether local people would seek to control the situation by calling the police). Unfortunately, the format of the questions caused substantial problems. Some 400 respondents thought they had to choose whether adults

would try to intervene themselves or call the police.¹⁴ Perhaps partly for that reason, the resulting scale has low reliability.¹⁵ In particular, the last item, on whether someone would call the police to teenagers fighting, does not correlate well with the rest of the scale. We have nevertheless included all six items in the scale, because on theoretical grounds they should be measuring the community's capacity for self-regulation. As before, the mean score for each of the 91 neighbourhoods was computed.

Table 14.5: Correlation between perceptions of the neighbourhood and self-reported delinquency among cohort members

*N=91 neighbourhoods
Spearman's rho*

Self-reported delinquency	How unsafe	Incivilities	Social cohesion	Social control
<i>Sweep one</i>				
Variety	.435**	.460**	-.026	-.383**
Volume	.373**	.471**	.000	-.416**
<i>Sweep two</i>				
Variety	.289**	.459**	.338**	-.299**
Volume	.347**	.454**	.205	-.324**
Index of social and economic stress	.592**	.780**	.029	-.453**

**Significant at the 99 per cent confidence level.

*Significant at the 95 per cent confidence level.

Tables 14.4 and 5 show the correlations between perceptions of the neighbourhoods in these respects and neighbourhood crime rates. The first point to note, from the last row in Table 14.5, is that young people's perceptions of the neighbourhoods do seem to mean something, since three of the variables correlate strongly with the composite measure of social and economic stress. The correlation between neighbourhood incivilities and the index of stress is extraordinarily high (.78), and the index is also closely correlated with perceptions of safety, and of social control.

Interestingly, social cohesion is not correlated at all with the index of stress. This provides strong support for the view that on average poor communities are no less integrated, friendly, or cohesive than rich ones. This is one of a number of arguments deployed in criticising the theory of social disorganisation put forward by the first Chicago School. A separate analysis (not reproduced in the table) shows that social

¹⁴ This is somewhat speculative, but seems the most likely explanation for the much larger number of missing values on these questions than the other ones about the neighbourhood.

¹⁵ Cronbach's alpha = .5141. The scoring was: Yes = 2; I'm not sure = 1; No = 0. The score ranges from 0-12.

cohesion at the neighbourhood level is not significantly correlated with perceptions of safety, incivilities, or social control.

The correlations with police-recorded crime and self-reported crime are consistent with one another. In broad terms, perceptions of safety, incivilities and social control are all clearly related to crime rates at the neighbourhood level. The correlations seem strongest for incivilities, with perceptions of safety coming next, and social control third. There are few significant correlations with social cohesion, and one (out of four) is in the 'wrong' direction.

The findings mean that in areas of social and economic stress, young people tend to see their neighbourhood as unsafe, plagued by incivilities, and passive in the face of crime and disorder; and that neighbourhoods perceived that way tend to be high-crime areas according to both police records and young people's self-reports. On the other hand, social cohesion seems unconnected either with social and economic stress or with crime rates (barring a few small and inconsistent relationships). So far, these findings do not describe specific mechanisms that create higher or lower crime rates, but they do demonstrate remarkably clear links between neighbourhood crime rates and perceptions of specific features of those neighbourhoods.

The neighbourhood versus the individual level

The previous section described a pattern of clear and consistent relationships between characteristics of the 91 neighbourhoods. Information about the neighbourhoods was drawn from three distinct sources: the 1991 census, police records of crime, and the questionnaires completed by the cohort of young people. There were clear relationships between pieces of information drawn from the same source: for example, neighbourhoods with a high proportion of single parents also tended to have high rates of unemployment (both census variables); neighbourhoods with high levels of theft also tended to have high levels of vandalism (both police variables); neighbourhoods with high levels of self-reported delinquency also tended to have high levels of incivilities (both cohort questionnaire variables).

More striking, there were equally clear and consistent relationships between pieces of information drawn from different sources: for example, neighbourhoods with high levels of self-reported delinquency according to the questionnaires also tended to have high levels of social and economic stress, according to the census; and areas with high levels of police-recorded crime also tended to have high levels of incivilities according to the questionnaires. These consistencies between information drawn from different sources constitute an important confirmation of the validity of the various measures, including self-reported delinquency.

All of the relationships considered were at the neighbourhood level, that is, relationships among characteristics of the 91 neighbourhoods. Relationships among characteristics of

the individuals living in the neighbourhoods may be entirely different. The following section illustrates and discusses that point by reference to a few examples.

The first example to be considered is the relationship between the rate of crime and the proportion of single parents, a relationship that has been highlighted in Charles Murray's writings about crime and the underclass in the US. Table 14.2 shows that there are strong correlations in Edinburgh between the proportion of lone parents (from the census) and rates of various types of police-recorded crime: for example, vandalism (Spearman's $\rho = .646$), drug crimes (.629), violence (.588), offences against minors (.534) housebreaking (.488), and sexual offences (.459). Correlations for the other types of offence (shop theft, other theft, deception, and car crime) are much lower. Table 14.3 demonstrates that these findings are entirely consistent with the results from the young person's questionnaires. At the neighbourhood level, there are also very strong correlations (ρ approximately .5) between the level of self-reported delinquency at both sweeps and the proportion of lone parents in the neighbourhood according to the census.

On the other hand, Chapter 3 found only a modest relationship between self-reported offending and family structure at the individual level. Table 3.9 shows fairly small (although statistically significant) differences in mean variety of offending at sweep 1 according to the type of family structure: the mean was highest among families with a parent and step parent (3.38), and lowest for those with two birth parents (2.23). This kind of difference in means would correspond to a low correlation coefficient. A correlation coefficient cannot in fact be computed from the original family structure variable (because it has several categories that are not arranged as a scale). However, we can sharpen the comparison by focusing on lone parents specifically, and by simplifying the family structure variable accordingly.

In the cohort we find that 21.7 per cent of young people belonged (in sweep 1) to single-parent families, while the remaining 78.3 per cent belonged to two-parent families (including those with step parents).¹⁶ The mean variety of delinquency score at sweep 1 for those from two-parent families was 2.36, compared with 2.88 among those from single-parent families, a difference that is modest, although statistically significant at a very high level of confidence. By contrast, Table 14.3 shows that at the neighbourhood level, the corresponding correlation coefficient was .442 (more precisely, this is the correlation between variety of delinquency at sweep 1 and proportion of lone parents from the census).¹⁷ It is interesting that, in addition, the correlation between mean

¹⁶ Inevitably this summary removes some of the richness in the original data. Offending is in fact highest among children from families with step parents, but the census tells us nothing about that group. Consequently in order to make the appropriate comparison, we have to group families with step parents and with two birth parents together, even though children in these families have different delinquency rates. Nevertheless, the form of analysis set out here does address the issue of the influence of coming from a lone parent family specifically.

¹⁷ It is also possible to construct a variable from the cohort data describing the proportion of young persons belonging to a single-parent family, then use this to describe each of the 91 neighbourhoods. Substituting that variable for the census-derived variable on proportion of single parents, we still find a similar correlation at the neighbourhood level between mean self-reported delinquency and proportion of single

delinquency score and proportion of lone parents rose from sweep 1 to sweep 2; the highest correlation with proportion of lone parents was .545 with mean volume of delinquency at sweep 2.

To summarise, the findings show that at the individual level there is only a weak relationship between self-reported delinquency and single-parent families; whereas at the neighbourhood level, there is a strong relationship (correlation coefficients around .45 to .55). This contrast is independent of the sources of data used. Neighbourhood characteristics can be constructed from questionnaire responses by cohort members and will produce essentially the same results. However, census data on proportion of lone parents within neighbourhoods are considerably more accurate, and have therefore been preferred.

Of course, none of this implies that there is at the neighbourhood level any simple causal relationship between the proportion of single-parent families and the level of crime. Rather, the neighbourhood-level statistics show that the proportion of single-parent families is closely linked with various aspects of social and economic deprivation. The actual mechanisms that link this complex of deprivation with high crime remain to be investigated in this study. However, the example of single-parent families clearly illustrates the highly divergent pattern of relationships that exist at the individual and neighbourhood levels.

A second example that illustrates the same point is social class. The findings from the composite index of social and economic stress show that something like poverty or deprivation is strongly related to crime at the neighbourhood level; and this relationship holds both for police-recorded crime and for self-reported delinquency among cohort members. We need to consider how strong is the corresponding relationship at the individual level between delinquency and poverty or deprivation. This comparison is difficult, because we have at present rather poor information about the social and economic circumstances of the families of cohort members—information that comes from questionnaires completed by 12 year olds. However, the first sweep questionnaire did include questions about the occupations of both parents, which have been used to compute the variable described as ‘highest social class of either parent’.

Table 3.12 shows that rates of self-reported delinquency varied significantly, but not greatly, between these social class groups. Although the pattern looks complex in detail, most of the variation in delinquency between social classes can in fact be captured by a simple contrast between manual and non-manual groups.¹⁸ The mean variety of delinquency at sweep 1 was 2.27 for the non-manual group, compared with 2.76 for the manual group, a statistically significant but modest difference. Because the

parents. This shows that the contrast between the relationships at individual and neighbourhood levels is independent of the source of data used.

¹⁸ In this simplified classification, those not living with their parents, and those whose parent(s) are not working are placed in the manual group. If the original 8-way classification is treated as a scale, a correlation coefficient with self-reported delinquency can be computed. The value of this coefficient is almost the same whether the 8-way or simplified 2-way classification is used. This suggests that the 2-way classification captures most of the variation in delinquency between social classes.

summarised social class grouping has only two categories, it can be used to compute a correlation coefficient. These coefficients for the four delinquency scores are shown in the first column of Table 14.6.

Table 14.6: Correlation between self-reported delinquency and simplified social class at individual and neighbourhood levels

Spearman's rho

	Individual level	Neighbourhood level
<i>Sweep one</i>		
Variety	.073	.390
Volume	.082	.442
<i>Sweep two</i>		
Variety	.129	.531
Volume	.141	.568

1. All of the correlation coefficients are significant at better than the 99 per cent level of confidence.

We can use exactly the same, simplified, social class variable from the cohort data to characterise each of the 91 neighbourhoods: the relevant variable is the proportion of cohort members belonging to the manual¹⁹ social classes. This is not a particularly good index of poverty or deprivation: it is much weaker, for example, than the census-based index of social and economic stress. However, the purpose of using it here is to allow a strict comparison between the individual and neighbourhood levels. The correlations at the neighbourhood level between the four delinquency measures and the simplified social class measure are shown in the second column of Table 14.6.

All of the correlation coefficients shown in Table 14.6 are statistically significant, but it is clear that the correlations at the neighbourhood level are much higher than at the individual level. It is interesting that, in both cases, the strength of the correlation increased from sweep 1 to sweep 2. This appears to imply that as respondents grew older, delinquency became more closely related to social class. Because exactly the same variables were used in this case for the analysis at the individual and neighbourhood levels, it is clear that the contrast between the results at the two levels must be a genuine one.

This pattern of findings can be regarded as an illustration of the 'ecological fallacy'. Characteristics of aggregates like neighbourhoods do not apply equally to every individual within them, so it is not legitimate to read across from one level of analysis to another. Nevertheless, this contrast between the results from different levels of analysis

¹⁹ Those not living with their parents or whose parent(s) were not working were also included in the manual group.

probably underlies many disputes in criminology. The influence of social class, or of poverty and deprivation, look very different depending on whether we consider aggregates and structures or individuals. It is necessary to progress beyond this contrast between individual variation and social structure, by encompassing both within the same analysis.

In broad terms, the apparent paradox illustrated in Table 14.6 can be resolved as follows. Most of the variation in delinquency is between individuals within neighbourhoods, and not between neighbourhoods. Nevertheless, an important part of the variation is between neighbourhoods (and the clusters of individuals that belong to them). In carrying out the neighbourhood-level analysis, we average the delinquency scores and other individual characteristics (such as lone parent families) across the whole neighbourhood, and this removes most of the individual-level variation from the analysis before we start. This puts the spotlight on neighbourhood-level differences, and these are found to have a very clear pattern. When we carry out the individual-level analysis, the picture is dominated by individual variations that are unrelated to elements of neighbourhood structure: for example, personality attributes such as impulsivity.

The next step will be to build regression models that aim to explain the individual's delinquency, but take in explanatory variables at both the neighbourhood and individual levels. Ultimately, that will provide a much more accurate measure of the effects of specific variables at both levels. The problem is complex, because there is an interplay over the life course between structural, contextual, and neighbourhood factors and individual characteristics, so that how people are as individuals is partly the product of the social scenes and experiences they have been through. Consequently, individual variations in part have their origins in social structure, and a cross-sectional analysis may under-estimate the influence of contextual and structural factors in producing individual differences. A powerful analysis of neighbourhood effects should therefore take advantage of the longitudinal design of the study.

Conclusion

We have set out to divide Edinburgh into neighbourhoods that are internally homogeneous, and have boundaries that run along natural fault-lines in the social landscape. There are many indications that this enterprise has succeeded. There are considerable contrasts between the 91 neighbourhoods in terms of social composition and crime rates. Moreover, there is a highly consistent pattern of relationships between the different neighbourhood characteristics.

Information collected about individual cohort members can be used to characterise the neighbourhoods where they live: for example, we have computed the mean level of self-reported offending within each neighbourhood. Equally, information drawn from other sources, such as the census, to describe neighbourhoods can also be used to characterise the individual cohort members living there: for example, a cohort member can be described as living in a neighbourhood of high or low deprivation. The analysis shows a

high level of consistency between the information drawn from different sources: for example, areas with high police-recorded offending tend also to have high self-reported delinquency. This constitutes another impressive validation of the self-report method.

High correlations are found at the neighbourhood level between various indicators of deprivation and the level of crime, whether this is measured by crimes recorded by the police, or by self-reported delinquency among cohort members. By contrast, at the individual level, relationships between the same indicators of deprivation and self-reported delinquency are weak. This apparent paradox implies that there is a clear pattern of differences in neighbourhood crime rates, which is driven by mechanisms that we aim to investigate as the study continues. Yet these neighbourhood differences have a relatively modest influence on the behaviour of individuals, because there is so much variation among individuals living in the same neighbourhood. A major task for this programme in the future is to specify the individual and neighbourhood influences as accurately as possible.

In the attempt to understand the mechanisms that underlie neighbourhood differences, we rely at present on the accounts of cohort members at the age of 12. Much better information will later be available from a survey of residents planned for 2002. The present findings show that perceptions of safety, incivilities, and social control in the neighbourhood among cohort members are quite strongly related to neighbourhood levels of crime, but perceptions of social cohesion are not. This supports the theory that the critical factor influencing neighbourhood crime rates is not the density of social networks, but the capacity of residents to mobilise their connections for the specific purpose of controlling crime and disorder.

CHAPTER 15: CASE STUDIES OF TWO NEIGHBOURHOODS

Introduction

As set out in the last chapter, early analyses of the Edinburgh Study have begun to confirm the results of other contemporary research in showing that there are important differences between neighbourhoods in rates of crime and delinquency. Although these differences are associated with the social composition of the area, it seems that they cannot be explained by social composition in a simple and direct way, because the contrasts are greater than would be expected from the individual characteristics of residents. For example, the crime rates in areas with a high proportion of single parents seem much higher than expected from considering the slightly elevated rate of offending among individuals belonging to single-parent families.

Findings like these suggest that there is a range of mechanisms or social processes leading to elevated crime rates in certain neighbourhoods; these mechanisms are loosely associated with social and economic deprivation, but are by no means reducible to it. An important objective of the Edinburgh Study is to investigate these mechanisms, and considerable further research will be needed to do that fully: an important element of that part of the research programme is the survey of Edinburgh residents which we plan to carry out in 2002.

In sweep one of the study, we used a case study approach to explore possible explanations for differences in crime rates between neighbourhoods. The findings from case studies will inform the design of quantitative research on neighbourhood differences, but we also plan to maintain and if possible expand the case study work in future years. Findings from the first case studies of two adjoining neighbourhoods are briefly summarised in this chapter. Fuller accounts of the findings will be published elsewhere.

Background and aims

A number of loosely connected ideas have been deployed in attempting to explain neighbourhood differences in crime rates. For example, various writers have talked about social capital, informal social controls, social cohesion, social networks, and collective efficacy.¹ Because the present case studies were exploratory, they did not start from a fully articulated theory of neighbourhood processes as they influence crime. Instead, we hope that a clearer theoretical position may be an eventual outcome of the Edinburgh programme. However, we did broadly start from a set of assumptions similar to

¹ This is not the place for a review of the extensive writings that are relevant. These will be reviewed in separate publications that will also provide a fuller account of the findings from the Edinburgh Study. Key references on collective efficacy applied to criminology are Sampson, Raudenbush and Earls (1997) and Sampson, Morenoff and Earls (1999). On social capital, key references are Coleman (1988), Putnam (1995) and Fukuyama (1995). On informal social control, see Wilson and Kelling (1982) and Skogan (1986; 1990).

Sampson's (see footnote 1). We assume that characteristics of neighbourhoods have an impact on crime rates over and above the characteristics of the individuals living there, for three broad reasons.²

First, people move about, so people coming into an area but not resident there influence crime rates. This means that the social composition of the neighbourhood is not the same as the composition of its residents. Most obviously, shopping centres, and centres of entertainment, take their character from the people who go there (and also the nature of their activity) not the people who live nearby. For technical reasons arising from the ways in which research is done, it is much easier to describe the composition of the resident population than the composition of the floating population of people who visit a neighbourhood. In the Edinburgh Study, as in others, we are using census data on the resident population as an indicator of the character of a neighbourhood, where ideally we would use a description of the people who make use of the neighbourhood for any purpose.

Second, crime rates are influenced by the pattern of activities in a neighbourhood, their spatial layout, and the spatial relations between the neighbourhood and the rest of the city. In Edinburgh, for example, there is a high rate of violent crime in Lothian Road, close to the city centre, because many clubs and late-night drinking venues are located there; and these venues are concentrated in the city centre because that maximises their accessibility from all parts of the city. American research on burglaries has shown that affluent areas close to areas of deprivation are particularly vulnerable, because they offer attractive targets to a nearby pool of offenders.

Third, social practices, social structures, and behavioural norms may vary depending on the composition of the local population (again, this could be influenced by the floating as well as the resident population). Practices, structures, and norms emerge out of the dealings that people have with each other, and not directly out of individual beliefs and preferences. Consequently, the practices that emerge in a predominantly poor area are not simply the sum of the practices of a number of poor people. Hence, the practices of poor people living in a predominantly poor area may be quite different from those of poor people elsewhere. This is what the American sociologist W. J. Wilson calls 'concentration effects': a whole series of processes that radically change the character of the most deprived neighbourhoods in American cities.³ However, that is just one example of social practices, structures, and norms that transcend the individual characteristics of the local population.

Our central aim in carrying out the case studies was to review the evidence that striking neighbourhood differences in crime rates could be explained by factors under each of these heads. We were, however, particularly interested in exploring the third set of factors, to do with social structures, practices and norms. A more specific aim was to explore the potential of the concept of collective efficacy, on Sampson's interpretation of the term, as a means of explaining contrasting crime rates in apparently similar

² For a review of research on environmental criminology, see Bottoms and Wiles (1997).

³ See Wilson (1987).

neighbourhoods. Sampson's claim is that collective efficacy identifies the specific social mechanisms that are relevant to crime control. This draws on broader theories about social capital, social networks, social cohesiveness, and informal social control, but also brings them down to earth by trying to explain one particular feature of the social scene: the neighbourhood variation in crime rates.

Coleman's social capital is a very broad concept that attempts to capture the rational, utilitarian value in human relationships. Wherever people have reciprocal relationships with others, that increases their 'reach' and their capacity to get things done. Just as economic structures at the collective level emerge out of a myriad of individual transactions, so larger social structures emerge out of patterns of individual relationships. Individuals have social capital arising out of their own relationships, but also larger groups have social capital arising out of the network of relationships in the whole community. An immediate problem in applying the idea of social capital to explaining neighbourhood crime rates is that many middle-class communities with low crime rates seem not to have dense social networks, whereas many working class communities with high crime rates do. Hence, as set out in Chapter 14, there seems to be little relationship between social cohesion and crime rates at the neighbourhood level.

By contrast, on Sampson's interpretation of collective efficacy, it is task specific. It involves utilising the social capital arising out of social ties and social networks to achieve common goals; in its application to explaining crime rates, collective efficacy involves mobilising to achieve the common aim of reducing crime, defined in terms of common values and expectations. One way in which collective efficacy might work would be by creating conditions in which people have the capacity and the confidence to exercise control over unwanted behaviour. This could be by intervening as an individual, by acting collectively, as part of some organisation, or by drawing on formal sources of authority and control, such as the police, or the local authority housing department. Again, collective efficacy might be expressed through pressure to improve the physical environment or the local facilities so as to reduce the likelihood of crime.

Methods

As described in Chapter 14, the social geography of Edinburgh was mapped using 1991 census data, and patterns of police-recorded crime in 1997 were superimposed on that map. Edinburgh was then divided into 91 neighbourhoods of roughly equal population size, using an index of deprivation as a guide, and choosing boundaries that corresponded as far as possible with major physical features and with locally known place names. The broad aim was to ensure that each neighbourhood would be as homogeneous as possible with respect to the index of deprivation, and would constitute as far as possible a recognisable place, district, or community.

We decided to carry out case studies in two of these newly defined neighbourhoods, choosing if possible two neighbourhoods with contrasting crime rates, but similar levels of deprivation. This is the same strategy as that followed by the research team which

carried out case studies of two council estates known as Gardenia and Stonewall in Sheffield in the 1980s.⁴ The underlying logic is that although crime rates at the neighbourhood level are correlated with the index of deprivation, it is not deprivation as such that brings about higher levels of crime. By studying two neighbourhoods with similar levels of deprivation, but different crime rates, we may be able to identify the mechanisms or processes that have produced a relatively low level of crime in one neighbourhood and a higher level in the other. Of course, the evidence from a single pair of case studies cannot be conclusive, but it may produce insights that can be tested by quantitative methods at a later stage.

In fact, we were able to identify several pairs of neighbourhoods that met the above criteria. One of these pairs was chosen because the two contiguous neighbourhoods are closely associated in the public mind, in fact usually called by the same name, yet have widely different levels of police-recorded crime. Because stigmatisation of certain districts in Edinburgh is a serious problem, we will refer to the case study neighbourhoods by the fictitious names of *Conan* and *Doyle* which stand for the reverse and obverse sides of a well-known Edinburgh character. Table 15.1 summarises the basic statistical information about the two neighbourhoods.

Table 15.1: Basic information about the two case study neighbourhoods

	Conan	Doyle
Population	4313	3862
Index of deprivation	5.94	9.91
Rank of the index of deprivation (of 91 neighbourhoods)	7	1
<i>Police-recorded crime in 1997 per 5000 inhabitants</i>		
Total crime	633	233
Vandalism	144	70
Housebreaking	118	78
Shop theft	32	0
Drugs	133	6
Sexual offences	10	13
Theft other than shops	71	19
Crimes against minors	3	1
Violence	27	5
Car crime	46	23
Offences against courts or the police	26	5
Deception	22	12

⁴ See Bottoms, Claytor and Wiles (1992).

Doyle was in fact the most deprived of the 91 neighbourhoods in Edinburgh, whereas Conan was the seventh most deprived. Although they were ranked fairly closely on deprivation, the actual level of deprivation in Doyle, as measured by the index, was considerably higher than in Conan. However, rates of police-recorded crime in 1997 were much higher in Conan, the less deprived area, than in Doyle, the more deprived one. The total crime rate was 2.7 times as high in Conan as in Doyle, and there were substantial differences in the same direction for every crime category except sexual offences (which were rather rare in both neighbourhoods). The most striking difference was for drugs offences, which were more than 22 times as common in Conan as in Doyle.

Data are also available about cohort members living in the two neighbourhoods, but unfortunately the sample size in Doyle is low (N = 22) although it is higher in Conan (N = 66). Although the self-reported delinquency results do follow the same pattern as the police-recorded crime statistics, it is unsafe to rely on them. The difference between the neighbourhoods in police-recorded crime rates continued in 1998, but we have not yet been able to check the statistics for later years. Three kinds of research were carried out in the two neighborhoods:

1. A review of documentary evidence, including police crime data, records of the multi-agency safety forum, the community safety forum, and results of an earlier survey of residents. Annual reports and evaluations of regeneration initiatives, including surveys of residents, were also analysed. Information was gathered from housing agencies in the two neighbourhoods.
2. Observation and recording of the design, layout, and physical condition of the two neighbourhoods.
3. Semi-structured interviews with a range of actors working in the two neighbourhoods including police, housing managers, social workers, youth workers, community representatives and regeneration partnership staff (detailed further in Table 15.2).

Table 15.2: Agencies in which key informants worked

Children and Families Team, City of Edinburgh Social Work Department City of Edinburgh Local Housing Office Community Newspaper (name withheld) Community Care Team, City of Edinburgh Council Social Work Department Community Safety Forum Criminal Justice Team, City of Edinburgh Council Social Work Department Community Housing Association (name withheld) Lothian and Borders Police Partnership Community Safety Group Youth Agency (name withheld) Youth Centre (name withheld)
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The two neighbourhoods

Conan and Doyle are located within a peripheral housing estate in Edinburgh. The estate was developed between 1969 and 1975 and initially comprised 6,000 units of local authority owned tenement properties in four- or five-storey or high-rise blocks. The estate is an area of multiple deprivation and was designated as an area for a major holistic regeneration initiative in the late 1980s. The population of the estate has declined from a peak of 16,000 to 11,000 at the latest count. Conan and Doyle comprise most of the estate, although there is also a third neighbourhood within it. The estate is fragmented, being spread over a large area with major roads and a railway creating physical boundaries between neighbourhoods. The housing stock is increasingly mixed, with local authority, housing association, Right to Buy, and shared ownership units, and with low-cost and new-build owner occupier developments.

There is a major commercial development in the centre of the estate, including retail outlets and a bingo and cinema complex. The centre also contains a library, job centre, and local housing office. The estate has a tradition of strong community organisation, primarily through the community representative council, which consists of representatives from 12 designated neighbourhoods, each served by its own neighbourhood council.

There continues to be a high turnover of tenants throughout the estate, particularly due to the lack of current housing available in other social housing areas in the city. The estate has seen a great deal of investment, and benefits from an active community representative agency. However, much of the community is still reported to be disorganised and fragmented. There is a high turnover of population, although there are many long-term residents, and many individuals move between areas within the estate.

Conan and Doyle are contiguous, sharing the same shopping and leisure facilities and similar communication and transport routes into the centre of town. Their social composition, tenure and housing patterns are similar according to the 1991 census. The railway line creates a boundary between the two neighbourhoods, and there is little interaction between them.

The following section describes the spatial pattern of youth disorder across the estate. We argue that certain kinds of crime, associated with youth disorder, will tend to follow the same spatial pattern, and that young people from all over the estate congregate at the same locations. The following sections review a number of other explanations for the contrast in crime rates between Conan and Doyle, including housing allocation policies and markets, and varying levels of informal social control that may be associated with tenure, housing management, and the physical fabric.

The spatial pattern of youth disturbances

The estate has regularly been troubled by incidence of youth disorder. The extent and location of this youth disorder has varied and appears to occur in cycles. At present, youth disturbances are located primarily in Conan. Groups of between 20-50 young people are reported to hang about together. These are not clearly defined 'gangs' but clusters of young people in loose groupings which grow and contract in numbers depending on 'what is going on.' The loose group can expand at certain times and has become involved in various incidents of disorder.

Youth disturbance occurs primarily at two locations in Conan. Until recently the disturbances occurred mainly at the shopping complex. This provides a focal point for young people, as does the service station across the road. Up to fifty young people would congregate near the shopping complex and were involved in incidents of vandalism, disturbance to local people and some acts of violence, including throwing stones at buses to the extent that the bus company threatened to withdraw bus services from the area.

The shopping complex, which is privately owned and patrolled by security guards, has introduced a policy of barring certain individuals, or restricting their access. Young people must now be accompanied and supervised by adults. CCTV has also been introduced. These measures have dramatically reduced the number of disturbances in the shopping complex, but have displaced them to the Mycroft Park area within Conan. Large numbers of young people congregate about the shop there, which remains open later than any other retail outlet on the estate. The young people now congregating at Mycroft Park come from all over the estate and further afield. Mycroft has gained a reputation as 'the' place to hang around, and this draws new young people towards it.

Of course, most of the young people hanging about are not engaging in any criminal activity, but according to police a few of them commit large numbers of offences. For that and other reasons, it may be that a wide range of offences that are committed mainly by young people are concentrated near the locations where large groups hang about.

Possible explanations for the spatial pattern of youth disturbances

To some extent, the choice of a particular area to hang about is a fashion, which could change randomly and unpredictably. Changes in fashion could follow as a particular cohort of young people matures. For example, some respondents argued that a group of teenagers who used to congregate in Doyle have now started to travel more widely, on reaching the age of 17 or 18.

However, it does seem likely that these fashions are not entirely random, but are influenced, for example, by the physical layout of the neighbourhoods, and the facilities they have to offer. What draws young people to parts of Conan may be facilities like shops and unsupervised spaces associated with them. Although Mycroft Park may not offer huge advantages of this kind, the group was first established at the shopping

complex, then moved to Mycroft Park as the nearest alternative spot that seemed at all suitable.

Many of our respondents discussed the question whether providing alternative facilities and organised activities might shift these young people from hanging about on the streets. There was no hard evidence on this issue, but it was widely believed that providing activities and facilities could often work with 8 to 14 year olds, but was much less likely to work with older teenagers. What made this approach particularly difficult to implement was that persistent offenders who cause most of the trouble would be least likely to take part in organised events or make use of facilities provided. There is some paradox involved in providing facilities to attract young people to a different location, when the main attraction of the location that they choose is that they are unsupervised and unregimented there. Also, as one respondent (a social worker) pointed out, young people barred from the shopping centre would probably be barred from organised youth activities as well; and these activities would precisely *not* confer the 'badge of honour' they are looking for.

In any case, a wide range of facilities and activities for young people seem to be available in both Conan and Doyle. In particular, the only designated community centre serving a specific area of the estate is in Doyle, the high-crime neighbourhood, and is reported to be successful and active, offering for example after school clubs, football teams, and a boxing club.

It was argued by some respondents that young people on the estate were strongly attached to a narrow territory, so that local facilities were not genuinely available to young people from outside the very immediate area. For example, there is a need for three separate football teams within one part of one of the two neighbourhoods, because of rival disputes. It is said that young people are afraid of travelling across 'rival' territories. However, this is in interesting conflict with the fact that youth disturbances are highly concentrated near a particular location, and draw in young people from some distance around.

A tentative conclusion at this stage is that young people from a fairly wide area congregate in particular places, which at present are in the Conan rather than the Doyle neighbourhood, and that these patterns are influenced by a desire to have unsupervised access to facilities like shops and places of entertainment. It is probably quite difficult to counter these patterns by offering youth facilities, especially in the case of older teenagers. The nature of any link between these patterns of hanging about and a broad range of crimes is not well understood at present. However, it is possible to imagine that young people congregating tend to deflate the confidence of local people in their ability to regulate behaviour in the neighbourhood.

Housing tenure, design, and physical condition of housing

At the time of the 1991 census, 83 per cent of households in Conan were tenants of the local authority, compared with 92 per cent of those in Doyle. There have been considerable changes since 1991, but we are unsure whether the overall tenure pattern now varies significantly between the two neighbourhoods. There has been more housing demolition, new build, and rehabilitation in Doyle than in Conan. A significant portion of the new build and renovation in Doyle has been carried out by the local community housing association. Also, there have been developments of low-cost owner-occupied units in Doyle.

In Conan, there has been one major housing association new-build development, and a small amount of new-build for low-cost owner occupation. On balance, the development of housing other than properties rented from the local authority has been considerably more extensive in Doyle than in Conan. A particular difference is that in Conan, compared with Doyle, there is a larger number of former council tenants who have bought their properties, but now find it impossible to sell them, and face large repair bills.

Direct observation by the researchers suggests that in general properties are in a better state of repair in Doyle than in Conan, and the environment contains fewer examples of incivilities such as graffiti, filthy stairs, and litter. This may be connected with the differences in tenure patterns that have emerged since the 1991 census. Within Doyle, there are two adjacent sets of tenements, one owned by the local authority, the other by a housing association. The difference in appearance between them is striking: in contrast to the local authority property, the housing association property is well-maintained and clear of graffiti, with clean stairs and pleasant external spaces. Probably the explanation for this difference is that the housing association has a shorter, faster maintenance programme than the local authority. Quick repairs and removal of graffiti means that a cycle of decline does not develop. In principle, then, the better physical state of buildings in Doyle might be associated with a larger increase in properties managed by a housing association compared with Conan. However, at present we do not have statistical evidence on the growth of housing association properties in the two neighbourhoods.

Again, our respondents said that families who had bought their council properties and were unable to sell them were concentrated in Conan rather than Doyle. Many of these householders cannot afford to pay large repair bills, and have given up hope of maintaining, still less improving, their properties. This of course has an impact on the social as well as the physical environment. Further, many council tenants in Conan have applied to be transferred to another area, which leads them to withdraw from community activity, and to make little effort to maintain the physical and social environment. All of these statements may be accurate (although they are not supported by statistical evidence at present) but they describe a spiral of decline without explaining why that cycle started in one neighbourhood but not yet in the other.

It is a common view among our respondents that there is more neighbour nuisance and serious disturbance in tenement than other properties. Related to that, it is commonly thought that earlier housing was ‘uniform and this uniformity reduced pride and dehumanised people’, and that the diversity of more recent housing schemes encourages some pride in the area. Specifically, it is thought that giving people individual houses with gardens has helped increase pride and a sense of ownership, and hence a desire to exert control over the local environment. Against that, it can also be argued that the broader population mix in tenements, with a smaller proportion of large families and children, is likely to reduce complaints; and that the tenement layout means that people are distanced from disturbances such as children playing in the street, and that front gardens of tenements are not ‘invaded’ by young people.

There are areas within both Conan and Doyle where new properties have been built, or older ones upgraded, with ‘designing out crime’ as one of the priorities. Walkways and ‘rat runs’ have increasingly been removed, enclosed rather than open back greens have created defensible spaces within developments, strong fencing has prevented gaps appearing in boundaries, bushes and trees have been planted to improve the environment, new doors have been designed to reduce graffiti, clearly defined boundaries have been created between public and private space, and soft landscaping has been used to create pleasant public spaces. It is difficult to establish whether there have been more improvements of this kind in Doyle than in Conan. However, the one area that has seen the most radical and comprehensive investment in new housing stock with progressive design features lies in Conan, and yet is reported to be the area with the biggest problem of youth disturbances in either neighbourhood. This suggests that design features may not be the most critical influence at any rate on youth disturbances (they might have a more important influence on crime in general).

On balance, these findings suggest that the pattern of tenure and housing management may be a more important influence than the design of buildings and townscape. Some distinctions of tenure seem to be more important than others. As suggested above, former council tenants who have bought their properties and cannot now sell them may have a demoralising influence on a neighbourhood. But the distinction between local authority and housing association tenancy seems often unimportant. There is no ‘cultural divide’ between these categories of tenant. The local housing association does not ‘cherry pick’ tenants, and is required to re-house a wide range of families, including some evicted from properties elsewhere.

Social cohesion

Many of our respondents highlighted a difference in social cohesion between Conan and Doyle. We have seen in the last chapter that social cohesion on its own (as measured by questions to the 12 year old cohort members) was not consistently or strongly related to differences in crime rates between neighbourhoods, although this needs to be examined with stronger and richer data on social cohesion. This fits with Sampson’s version of collective efficacy theory, which emphasises the capacity of the community to organise

to deal with a threat, rather than its cohesiveness, as the main determining factor. Nevertheless, a number of our respondents thought that a greater degree of social cohesion in large parts of Doyle (not all of it) helped to explain the lower crime rate there. These respondents argued that social fragmentation and tensions were caused by a demographic profile with high proportions of both young and old people. The two groups had different sets of expectations and values. The older people had typically lived in the neighbourhood for many years, whereas the young people (particularly young adult tenants) were transient. They claimed that the age profile was more polarised in Conan than in Doyle. (This cannot be tested at present: the 1991 census found almost identical proportions of young people aged 10-24 in the two neighbourhoods, but there may have been significant demographic changes since then.)

It was argued that several other factors contributed to a difference in social cohesion between the two neighbourhoods. Doyle was said to have smaller and more 'friendly' squares where neighbours would interact, and parents could check on their children's behaviour. In contrast, in Conan, there were larger, more anonymous squares with a lack of utilised communal space, and less supervision of children.

It was argued that allocation policies had led to an increasing concentration of vulnerable people in both local authority and housing association properties in Conan, to an increasing concentration of young people, and to an increasing polarisation in the local population between young and old. As the area became regarded as undesirable, only those in the weakest position as applicants for housing would agree to go there: they would largely be vulnerable or problem families, and young adults. Families in the prime of life would then move out, whereas older people would tend to stay, because they had a longer history of living in the area, and were less equipped to deal with the upheaval of moving to a different home in another area. Attempts to avoid this cycle had always failed, at least in Conan. For example, because there were disturbances and inter-generational problems in one district within Conan, an 'over 35 years of age' allocation policy was introduced in that district. That reduced the local problem within that district, but displaced the problems to other districts within Conan.

Problems had most obviously been caused by housing allocation policies in Mycroft Park. This substantial new-build development was used to house a large number of people re-housed at the same time. It was argued that the first set of tenants included a large proportion of problem families and vulnerable young people, and that social networks never began to develop. A great deal of thought had been given to the physical design of the development (which echoes a fishing village), but neglect and disrepair quickly became a problem. The 'village' lacked a focal point, except for a single shop.

Essentially, then, the argument put forward by a number of respondents was that allocation policies had created a social mix in certain areas that led to fragmentation, a lack of common values, and conflict. Whether there is a major contrast in social mix between Conan and Doyle we have not yet been able to establish: it certainly does not appear from the outdated census data (the index of deprivation was in fact considerably higher in Doyle than in Conan) although the contrast may have developed since 1991.

Whether any such contrast was brought about by allocation policy is also dubious, because it is not clear that any allocation policy can avoid the development of local concentrations of vulnerable or problem families, given that people cannot be forced to accept offers of accommodation. Our future research will aim to collect more quantitative information on the composition of families living in case study neighbourhoods, and to trace the historical processes that led to the concentration of vulnerable families in particular areas.

Control by housing managers

In these two neighbourhoods, housing managers have sometimes played an active role in trying to control youth disorder. Some respondents suggested that because housing association tenants in Doyle have assured tenancies, whereas local authority tenants have insured tenancies, it may be technically easier to evict housing association tenants, so it is easier for housing managers to put pressure on them to control their children. However, this does not seem to be the case, because the local authority managers had been at least as active as the housing association in dealing with disorder. One housing officer said that ‘the local authority has got tougher with the onus on responsibilities as well as rights’. This approach had led to meetings with parents, and curfews imposed by parents on local children. Schools and social work teams had been involved in this process, which (it was claimed) had helped to reduce cases of youth disorder.

Housing managers thought a sense of engagement was essential for the development of networks of trust and co-operation. One manager suggested that ‘tenure is not the issue in developing a sense of ownership and social control; it is giving local people control over housing and facilities. People are less likely to damage things they own to some extent.’ In general, both police and housing managers thought control could be established by encouraging local people to take ownership of the problem. In one district within Doyle, residents fund-raised and gathered business donations for a memorial garden. This garden was said to be an important source of pride for local people. Teenagers were given responsibility for looking after this and have been effective in doing this, stopping others from walking on flowerbeds, causing vandalism etc. One police officer remarked: ‘There is a pride in getting their own job responsibility. It is vital to have this community ownership of space and involvement in design as it needs to be seen “to be ours” before it will be informally managed by the community’. Similarly, there is very little vandalism at one of the youth centres where young people are given responsibility for organising activities there.

Naturally, the actors that we interviewed, who included police officers and housing managers, thought that their efforts to control, and to take charge by ceding control to local residents, had some effect. However, there was no indication that this could help to explain the contrast in crime rates and youth disorder between Conan and Doyle.

Community organisations

There are many voluntary groups operating in both neighbourhoods, and the number and strength of these organisations seems to be similar in both. Although formal community organisations may well help to provide a basis for collective efficacy, they do not help to explain the contrast in crime rates between Conan and Doyle.

Informal social control

Sampson's version of collective efficacy theory would predict that people would be more likely to intervene in Doyle than in Conan to stop unwanted behaviour or small signs of disorder. We have not been able to carry out a systematic study of the likelihood of intervention, but the evidence from informal observations and interviews is consistent with the prediction. Most respondents thought there was a greater concentration of vulnerable people in Conan than in Doyle, and that this created a culture in which unwanted behaviour would not be stopped. Another common view was that a culture of utilising official agencies was especially pronounced in Conan, because so many people were dependent on the state, and this weakened people's capacity to deal with problems themselves. When an incident flared up, residents would immediately involve the housing association, the local authority, or the police, rather than first try to resolve them themselves.

Neighbourhood councils undertake an informal 'policing' role in some areas, and may often encourage tenants to take responsibility for maintaining the local environment. They seem to be equally active in Conan and Doyle, although some respondents argued that they are more effective in Doyle, because there is more social cohesion. However, these councils involve a small number of dedicated volunteers, and it is unclear to what extent they have wider contact or influence. The level of informal social control exerted by others in either of the two neighbourhoods is low. One respondent referred to 'a core of long-term residents and activists and a turning periphery of transient population'. Low aspirations quickly result in defeatism and demoralisation. Apathy is widespread amongst the wider community. Through the estate, the adult population 'keep themselves to themselves'. Young people seem to believe that they have ownership of the areas where they congregate. Many residents are said to be scared to tackle or challenge them. Some respondents see adult intervention as an 'unattainable ideal' because adults do not feel empowered to intervene.

One or two individuals do attempt to exert some community control over young people but are regularly met with abuse and intimidation. There are examples of this resulting in vandalism to these people's property. It is difficult for people to approach children's parents because of likely defensive reaction and 'getting a mouthful of abuse'. The people who tell children off may become the enemy; parents naturally tend to defend their children. It is thought to be dangerous or impossible to approach certain families about their children's behaviour. People therefore approach agencies, and often they see a change of house as the solution. Similarly, Neighbourhood Watch schemes have not

been effective due to the difficulty of getting witnesses because of intimidation and the fears of reprisal.

All of these things may vary systematically between Conan and Doyle, although very detailed research would be needed to demonstrate that they do.

Formal control through the police

Given the impediments to informal social control that exist in these neighbourhoods, the interface between informal control processes and formal social control agencies is crucial to tackling youth disturbances. To the extent that 'self-policing' occurs, it is most effective where there are low barriers between the community and local agencies. For example, in Conan troublesome neighbours received warning letters and this led to an improvement. Also meetings set up through tenancy violation mechanisms have taken place between housing, police and parents of young people involved in disorder, and this resolved issues and led to the summer 'being calm'.

However, there is still widespread mistrust of agencies and in particular a lack of trust in the Police. The Police set up a substation in the shopping centre that closed after six months as people would not be seen to go into it for fear of being seen as 'friends of the police.' The drugs help line is underused. Part of this mistrust is simply the belief that the Police cannot adequately protect people. The common perception of police powers may over estimate them, and this can lead to frustration in those who do report things to the Council, housing association and police that 'nothing gets done.' People wish to remain anonymous, which allows limited scope for police intervention, thereby causing a cycle whereby people are disillusioned with the lack of action and do not call again.

There is thought to be a feeling of invincibility amongst persistent young offenders, a knowledge that 'nothing can be done'. There are very limited powers of injunction, and a lack of belief in the children's hearing system amongst local organisations and residents.

Local people also don't want things coming 'back to my door.' People will not contact agencies because they are concerned that by reporting crime they will become the victims of crime. Similarly, there is little challenging of anti-social neighbours. The culture of 'not grassing' exists from a very early age. Where people are alleged to have informed the police, their name has appeared in graffiti labelling them a grass across the whole estate. There is mistrust between neighbours and fear of intimidation and victimisation, even though actual physical intimidation or retaliation is very rare. Community activists have never been threatened because they were seen to co-operate with the police or other agencies.

We have not been able to detect an important difference between Conan and Doyle in the level of communication and co-operation with the police and other official agencies. Such a difference might be revealed by more extensive and quantitative research.

Conclusions

These case studies have not succeeded in establishing a convincing explanation for the remarkable contrast in crime rates between these two deprived neighbourhoods. However, an explanation in the terms of Sampson's collective efficacy theory would be entirely consistent with the findings. The case studies advance our understanding by describing in some detail a whole range of processes that may underlie the difference in crime rates, and which need to be investigated more fully in our future programme of research. In particular, they point to the need to understand the historical processes that lead to the concentration of vulnerable and problem families in particular areas, and how these relate to structural features of social housing allocation systems. There is a need to define the forms of association, or social networks, that are necessary in order to support effective regulation of themselves by local communities.

Finally, we need to analyse the relationships between formal controls by the police and other official bodies and informal self-regulation, specifically in fragmented, deprived neighbourhoods, where many families and individuals have special problems and vulnerabilities. The conditions of collective efficacy in those neighbourhoods may be very different from those in middle class areas. This suggests that comparisons between the full range of neighbourhoods may provide only part of the picture. It emphasises the need for more detailed research in deprived areas, using the research strategy adopted in this chapter, but based on fuller and more complete information.

CHAPTER 16: CONCLUSIONS

The general purpose of the Edinburgh Study is to understand crime—both offending and victimisation—in the context of the increasingly arduous adolescent transitions from childhood to adult status. Our dual aim is to understand these transformations as an aspect of the psychology of the individual, but in the context of the sociology of the neighbourhood, the community, the local economy, and the city. The study is designed, through its large sample size, to show why a few, among all those whose early childhood development made them criminally inclined, are converted into serious, long-term criminals, whereas many others, apparently equally criminally inclined, are not. In time, we shall be just as interested in showing why some give up the habit of crime much sooner than others. The study is specifically designed to show whether female offending must be explained by a different model, a different set of processes, a different pattern of meanings and relationships, from male offending. In exploring that question, we hope to advance towards explaining the striking difference in offending, and also victimisation, between men and women.

This report is a first summary of findings from the first two annual sweeps of data collection. All of the substantive issues touched on here will be investigated more thoroughly in a series of papers on specific topics. It is obvious from the present report that the techniques of statistical modelling must be used to make sense of the rich body of information already generated by the study. However, it is important to set out the findings from a tabular and correlational analysis in a detailed way as the basis for planning multivariate analysis, and that is what we have attempted in the present report.

Validation of methods

The study places considerable weight on self-reports as a method of finding out about offending. The great advantage of the self-report method is that it captures far more delinquent acts than any other source, so it provides a fuller and more detailed account, and one less subject to systematic bias. The Edinburgh Study already provides impressive support for the validity of the self-report method. Cross-checks with children's hearing records show a strong correlation, although they also confirm that the great majority of delinquent acts committed by 12 or 13 year olds do not become known to the authorities: which is why self-reports are an indispensable method of finding out about them. Very detailed comparisons show that it is extremely rare for a child with a children's hearing record to deny all involvement in delinquency. Unfortunately, it is impossible to check the extent of over-claiming in the same rigorous way, but our detailed pilot work, much of it using informal interviewing methods, produced no indications that over-claiming was a serious problem. Cross-checks with teachers' ratings of children's behaviour provide another external test of validity. Here again there is a fairly strong correlation, although it is not as strong as it might be, simply because the scale used in the teachers' questionnaire was not intended to be a measure of delinquency, but taps a range of 'strengths and difficulties' in the child. This report provides massive internal evidence of the validity of self-reports: for example, their high correlations with certain personality dimensions.

This study is also heavily reliant on a particular approach to the analysis of social geography. We have set out to divide Edinburgh into neighbourhoods that are internally homogeneous, and have boundaries that run along natural fault-lines in the social landscape. There are many indications that this enterprise has succeeded. There are considerable contrasts between the 91 neighbourhoods in terms of social composition and crime rates. Moreover, there is a highly consistent pattern of relationships between the different neighbourhood characteristics.

Information collected about individual cohort members can be used to characterise the neighbourhoods where they live: for example, we have computed the mean level of self-reported offending within each neighbourhood. Equally, information drawn from other sources, such as the census, to describe neighbourhoods can also be used to characterise the individual cohort members living there: for example, a cohort member can be described as living in a neighbourhood of high or low deprivation. The analysis shows a high level of consistency between the information drawn from different sources: for example, areas with high police-recorded offending tend also to have high self-reported delinquency. This constitutes another impressive validation of the self-report method.

Delinquency and risk behaviours

Our findings paint a picture of delinquency at the age of 12 or 13 as a diverse range of behaviours including a considerable proportion that are fairly serious. A large proportion of young people engage in them: for example, well over half of respondents at sweep 2 admitted to two or more kinds of delinquency within the past 12 months. A hard core of 12 or 13 per cent accounted for half of the incidents, which were overwhelmingly group activities. It is very difficult to predict which individuals will be most involved in delinquency from the social class or income of their family, their family structure, or whether their parents are in work.

Smoking and drinking were closely linked with delinquency, and increased sharply from sweep 1 to 2. There was also a substantial increase in use of illegal drugs between the two sweeps. At the age of around 13, 8 per cent of respondents said they had used drugs in the past year, most commonly cannabis, glue, or gas, and speed. Use of drugs was closely linked to other forms of delinquency, although, because it was much rarer than delinquency as a whole, it did not predict delinquency particularly well.

At the first sweep, the ratio of male to female delinquency was well under 2:1 on any measure, whereas in adults the contrast is much greater. Surprisingly, the gap between girls and boys narrowed from age 12 to 13. We expect it to widen again at a later stage, but it remains to be seen just when that will happen. A possible explanation for the narrowing gap up to age 13 is that girls enter the stage of rapid adolescent development earlier than boys. Smoking also increased much more rapidly in girls than boys from age 12 to age 13. Up to the age of 12, delinquent boys were far more likely than girls to be caught by the police, but this gap narrowed dramatically between the two sweeps. This could mean that the police start paying more attention to delinquent girls around the age of 13, but this change is not reflected in a separate set of questions about adversarial police contact.

Victimisation

Our study covers crime victimisation (theft, threats, robbery, assault, and attacks with a weapon); bullying; and harassment by adults. Each of the three types of victimisation affected around half of 12 and 13 year olds. Each covered a wide range of seriousness, but included a considerable number of serious incidents. It seems likely from these findings that victimisation is a major influence on the development of many or most young people.

The findings show that a strong relationship between victimisation and delinquency is already well established before the teenage years. Although multivariate analyses have yet to be carried out, it is likely that victimisation will be one of the most important predictors of delinquency.

Victimisation (theft, threats, robbery, attacks) was much higher among boys than girls: about twice as high on the basis of the average number of incidents. This is similar to the finding, for adults, that males are victims of assaults more often than females. The difference in victimisation is certainly connected with the difference in delinquency, and may help to explain it. On the other hand, whereas the gap in delinquency between girls and boys decreased between age 12 and 13, the gap in victimisation increased.

By contrast with theft, threats, robbery and attacks, experience of bullying was about the same among boys and girls, whereas harassment by adults was significantly higher among girls than boys. These findings show that the three broad types of victimisation measure are tapping widely different kinds of experience.

As victimisation is closely bound up with delinquency, so are many of its correlates similar. In particular, victimisation, like delinquency, is only weakly related to family background and social class, but more strongly related to experience of being in care.

These findings emphasise the need to understand how experience of crime as victim and offender are common and closely related features of adolescent development. For example, when considering the mutual interactions between a factor such as moral reasoning and delinquency, it will always be important to trace its interactions with victimisation as well.

Personality

Like other studies, this one has found a clear pattern of relationships between three personality characteristics and delinquency. Impulsivity, or lack of impulse control is strongly related to delinquency; and alienation, or feelings of persecution, is also clearly related to delinquency, although less strongly than impulsivity. There is also a relatively weak association between delinquency and low self-esteem. The same personality attributes are also related to victimisation, although the pattern is different in detail. These findings fit with the idea that personality, delinquency, and victimisation are linked together in a sequence of interactive processes, and mutually influence one another.

Obviously, lack of self-control and inability to foresee consequences may expose people to risks of victimisation as well as leaving them free to offend. Less obviously, feelings of fear, anxiety, and persecution (characteristic of those who score highly on alienation) may both arise from victimisation and make further victimisation (such as bullying) more likely; and some forms of delinquency may be a way of expressing or dealing with such feelings, for example by exacting retribution from actual or imagined attackers, or from the world in general. In particular, it has been argued from earlier research (e.g. Moffitt et al, 1995) that it is the *combination* of low impulse control with alienation (often a consequence of victimisation) that often leads to delinquency. A central purpose of the Edinburgh Study as it develops will be to contribute to current debate about the exact nature of the interactions between personality characteristics, the social environment, and delinquent or risk-taking behaviour. Because the study is designed to measure the social context (see Chapter 14) a particularly important aim is to show whether deprived or dangerous neighbourhoods make it more likely that impulsive or retributive tendencies will be expressed in behaviour; this could set up a sequence of interactions if delinquent behaviour then reinforces longer lasting dispositions.

Some of the present results fit well with Moffitt's (1993) distinction between adolescence-limited and life-course persistent offending. On this theory, life-course persistent offending is linked with personality characteristics originating in early childhood, whereas adolescence-limited offending is not. We find that personality characteristics are more strongly correlated with delinquency at sweep 1 than at sweep 2, which would be predicted from Moffitt's theory, as the proportion of adolescence-limited delinquents increases at the age of 13.

The analysis so far conducted provides no support for the idea that delinquency, smoking, or drug taking are ways of enhancing self esteem, but they are consistent with the idea that drinking alcohol is used in that way. However, more detailed analysis is needed to pursue this question thoroughly; this will make use of the repeated measures of self-esteem at the two sweeps, and will investigate the effects of association with peers.

Relationships with parents

At present, relationships with parents can be described only from the perspective of the children, although the survey of parents to be carried out in the autumn of 2001 will later provide an assessment from the parents' perspective also. Three dimensions of the parental relationship were assessed at both sweeps 1 and 2: supervision, trust/autonomy, and conflict. Delinquency was strongly associated with low levels of supervision and high levels of conflict between parents and child; it was moderately associated with low levels of trust or autonomy. It is likely from these findings that trust, supervision, and low conflict all go together, and are jointly associated with low levels of delinquency. In some ways, this is counter-intuitive. If supervision is to be effective, there must be moments of conflict where the child is not allowed to do what he or she wanted to. Again, if supervision is a form of control, it may seem paradoxical that it is associated with trust and autonomy.

However, this pattern of findings does fit with broader theoretical ideas about how power is exercised and order achieved. Ultimately, people cannot be forced to conform, even in a prison, because if they are physically forced they are no longer choosing agents. Power is

exercised through persuasion, negotiation, and ideological invasion, so that for a variety of reasons people choose to do what is demanded of them. Our findings suggest that parents who successfully control their children's behaviour do so by persuading them that they ought to respect their rules and precepts, and that while frequently checking that the children are staying within bounds, they manage to persuade them that the choice is theirs. This is what has been described in other contexts as 'negotiated order'. Both the rules themselves and the conduct of individuals on particular occasions are open to discussion and negotiation between the parties, but this whole process is used to consolidate the power structure.

It is likely from these preliminary analyses that styles of parenting will be one of the strongest predictors of delinquency.

Friends and leisure activities

At sweeps 1 and 2, respondents were asked about their friends' delinquency, and this was the only source of information about the influence of friends. An obvious limitation of this approach is that young people may attribute delinquency to their friends in order to excuse their own delinquency. At sweep 3, in a bid to overcome that problem, respondents were asked to name their friends, and where these are also cohort members, there will be an independent source of information about them. At present the analysis is confined to the results from the two earlier sweeps.

Very high correlations were found between friends' and own delinquency at both sweeps. There is some evidence that this is not just an attribution effect. Many respondents did not attribute the same delinquency to their friends that they admitted themselves and, moreover, there were indications that some respondents under-reported their friends' delinquency. At this age, many young people spend much of their leisure time hanging about with other young people in groups, often quite large ones. It is that kind of unsupervised interaction with friends which is associated particularly strongly with delinquency.

There is of course a strong tradition of theorising in criminology, starting from Sutherland's 'differential association', that makes peer influence the primary explanation of offending. There is an obvious logical problem with this as a foundational theory of crime (what then explains my friend's offending?). Nevertheless, learning from others must be one of the basic processes underlying any satisfactory theory. Unfortunately, it is extremely difficult to disentangle the processes at work, since, notoriously, groups of friends tend to be alike because people choose like-minded associates. We need to find ways of separating that selection effect from the influence that associates have on one another. As the study continues, we will use the longitudinal design to that end.

School

Attitudes to school, relationships with teachers and behaviour in school are all very closely related to delinquency, which suggests that school factors may play a role in the complex interactions leading to delinquency. However, we cannot yet construct a model of these relationships because we do not know whether it is more important that delinquent youngsters come to dislike school, or that disliking school causes them to become delinquent

In future, we may be able to analyse different paths of development among children at different schools, so as to establish whether particular schools exert an influence. It is expected that we will discover more about school differences in rates of delinquency and whether such factors as teachers' attitudes towards young people, school disciplinary codes and school support for young people who struggle actually matter. However, we are limited in what we can do because we do not have the resources to collect detailed information about school ethos and functioning.

Moral judgements and values

Our findings illustrate the close links between moral reasoning and beliefs and delinquent behaviour. At sweep 1, these strong correlations could partly arise because of influences of one set of questions on another: respondents turned their attention to the moral reasoning questions soon after completing a long set of questions about their own delinquency. At sweep 2, however, the moral reasoning questions were not repeated, yet we still find strong correlations between moral reasoning and beliefs at sweep 1 and delinquency at sweep 2 (even though these correlations are weaker than those within the sweep 1 data). These findings strongly suggest that moral perceptions are a part of the causal explanation of delinquency, although of course the causal influences are certainly reciprocal: that is, people who have committed offences tend to justify themselves by adopting moral standards to suit; but those who think a kind of behaviour is acceptable are more likely to engage in it as a consequence. The process of becoming delinquent involves a series of interactions, in which trials of delinquent or criminal acts are accompanied by a relaxing of moral standards, perhaps followed by a more permanent change in moral perceptions, then by further delinquent acts, and so on.

Our findings also suggest that at this age (12 to 13) perceptions of when it is acceptable to fight with someone, or hurt them physically, are a particularly important influence on delinquent behaviour of all kinds. This suggests a deep connection between delinquency and physical threat, or the need to respond to insults with physical force.

The findings also show a fairly strong link between moral neutralisation and experience of being a victim. Multivariate analysis will shortly be used to show whether this is merely a statistical association that arises because victimisation and offending are closely related. It is likely from earlier studies that this will show some direct relationship, since experience of being victimised may tend to erode beliefs in standards of good conduct, for example through arousing punitive feelings. It will be important to establish whether these effects of victimisation on moral perceptions and beliefs are mediated by the personality dimension of alienation that was discussed in chapter 6.

Gender

The difference in rates of delinquency between boys and girls at the age of 12 (a ratio of well under 2:1) is less than we expect it to be in late adolescence or early adulthood. Despite that, the gap actually narrowed rather than widened between the ages of 12 and 13. Smoking also increased much more rapidly in girls than boys over this period, and in fact by sweep 2 smoking was more common among girls than boys. This illustrates the fact that the timing of

the developmental process is significantly different for boys and girls. The early findings also show that the societal reaction to delinquency changes as boys and girls grow older in rather different ways. For example, there was a sudden increase between sweeps 1 and 2 in the proportion of delinquent girls who had been caught by the police, which was not paralleled in the case of boys. The result was that whereas before the age of 12, delinquency was far more likely to come to police attention in boys than in girls, by the age of 13 the difference was much less marked. Similarly, there was a large gap at sweep 1 between the proportion of girls and boys referred for behavioural reasons to the children's hearings, but this gap narrowed considerably at sweep 2.

A general question that that study aims to address is whether a different theory and set of causal mechanisms is needed to explain offending in females, compared with males. From the present findings, there is no indication that this is so. Wherever this has been tested, the pattern of relationships between explanatory variables and delinquency has been essentially similar in girls and boys. This is true, for example, of personality attributes, friendship patterns, relationships with parents, school factors, and moral perceptions. Although this finding is clear-cut, it also leaves us without a convincing explanation for the difference in rates of delinquency between boys and girls. In principle, it could be, for example, that parental supervision reduces the likelihood of delinquency in both boys and girls, but girls are more closely supervised (and similarly for other explanatory variables). However, present findings suggest that, instead, levels of delinquency are lower among girls than among boys with similar levels of parental supervision. In other words, the pattern of relationships is the same, but the base rate of offending is different. If that result is replicated for all of the other explanatory variables, it implies that none of the factors covered by the study constitutes the explanation for the difference in offending between boys and girls. This is something that we plan to investigate more rigorously in future analyses.

In some respects, the problem is even more difficult than implied by the foregoing analysis. Where differences *are* found between boys and girls in the pattern of relationships, these make it *more* difficult to understand why offending levels should be different. For example, girls are far more likely than boys to claim they belong to mixed-sex friendship groups. On the face of it, the claim seems paradoxical, because if girls belong to a mixed-sex friendship group, boys must belong to one too. However, if we accept the claim at face value, it should lead to an equalisation of levels of delinquency among boys and girls, since there is such a high correlation between own and friends' delinquency. It would be much easier to understand the development of lower levels of delinquency in girls if they associated mainly with other girls. This illustrates how difficult it is, at present, to explain the gender difference in rates of delinquency, which is already marked by the age of 12.

Family background and social class

As other studies have also found, social class was only weakly related to self-reported delinquency at the age of 12 or 13. Relationships with other aspects of family background, such as single-parent families, parents out of work, were also fairly weak. There was, however, a marked tendency for children who had been in care to have higher rates of delinquency and victimisation than others.

By contrast, contact with the official systems appeared to be quite strongly related to social class. For example, boys from lower class backgrounds were more likely to come into contact with the police than others, a fact not explained in full by their involvement in delinquency. Whether this arises from police targeting of lower class neighbourhoods, or from targeting of individuals, is unclear at present. It is significant that the groups who tended to be targets of police activity (boys from lower class groups) tended to be more critical of the police than others. Again, lower class individuals are much more likely to have children's hearing and social work records than others, which for the most part cannot be explained by a difference in rates of delinquency.

So far, therefore, the findings clearly support the view that delinquency itself is weakly related to social class in 12 and 13 year olds, but criminalisation is strongly related to it.

Edinburgh's neighbourhoods

High correlations are found at the neighbourhood level between various indicators of deprivation and the level of crime, whether this is measured by crimes recorded by the police, or by self-reported delinquency among cohort members. By contrast, at the individual level, relationships between the same indicators of deprivation and self-reported delinquency are weak. This apparent paradox implies that there is a clear pattern of differences in neighbourhood crime rates, which is driven by mechanisms that we aim to investigate as the study continues. Yet these neighbourhood differences have a relatively modest influence on the behaviour of individuals, because there is so much variation among individuals living in the same neighbourhood. A major task for this programme in the future is to specify the individual and neighbourhood influences as accurately as possible.

In the attempt to understand the mechanisms that underlie neighbourhood differences, we rely at present on the accounts of cohort members at the age of 12. Much better information will later be available from a survey of residents planned for 2002. The present findings show that perceptions of safety, incivilities, and social control in the neighbourhood among cohort members are quite strongly related to neighbourhood levels of crime, but perceptions of social cohesion are not. This supports the theory that the critical factor influencing neighbourhood crime rates is not the density of social networks, but the capacity of residents to mobilise their connections for the specific purpose of controlling crime and disorder.

Case studies were carried out of two adjoining neighbourhoods with similar social composition and widely different crime rates. Although they did not succeed in *establishing* a convincing explanation for the difference, an explanation in the terms of Sampson's collective efficacy theory would be entirely *consistent* with the findings. The case studies advance our understanding by describing in some detail a whole range of processes that may underlie the difference in crime rates, and which need to be investigated more fully in our future programme of research. In particular, they point to the need to understand the historical processes that lead to the concentration of vulnerable and problem families in particular areas, and how these relate to structural features of social housing allocation systems. There is a need to define the forms of association, or social networks, that are necessary in order to support effective regulation of themselves by local communities.

Finally, we need to analyse the relationships between formal controls by the police and other official bodies and informal self-regulation, specifically in fragmented, deprived neighbourhoods, where many families and individuals have special problems and vulnerabilities. The conditions of collective efficacy in those neighbourhoods may be very different from those in middle class areas. This suggests that comparisons between the full range of neighbourhoods may provide only part of the picture. It emphasises the need for more detailed research in deprived areas, using the case study strategy, but based on fuller and more complete information.

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