

PSYCHOLOGY AND CRIME

Explanations of Criminal Behaviour

Study One

Raine A. and Lui (1998) Biological Predispositions to Violence and their implications for Biosocial Treatment and Prevention. *Psychology, Crime and Law*, Vol. 4, pp107-125

Aim: This review article describes four recent studies conducted by the authors that identify possible biological risk factors for violence and crime. One of these studies is the 'murderers' brains' study that you may have looked at in the OCR AS course and two of the other three studies are summarised below.

Study 1: Are low levels of physiological arousal a predictor of offending behaviour?

Sample 101 15 year old boys

Method: This is a correlational study which looked for a relationship between a number of physiological measures (skin conductance, EEG and heart rate) taken at age 15 and the numbers of offences that they had committed by the age of 24.

Results: The authors report a strong correlation between the two measures. Those committing crimes had significantly lower heart rates, reduced skin conductance and more slow wave EEG theta activity than non-criminals. The authors claim that these measures correctly classified 74.7% of all participants as criminal or non criminal.

Study 2: Are birth complications combined with early maternal rejection a predictor of offending behaviour?

Sample: 4,269 consecutive live male births in Copenhagen, Denmark

Method: the researchers collected data on the following:

birth complications (including breech, forceps and anoxia)

maternal rejection (mother not wanting pregnancy, attempted abortion or institutionalisation by 4 months)

Violent Crime (data collected when the sample were aged 18). These crimes included murder, attempted murder, assault, rape, armed robbery, illegal possession of a firearm and threats of violence

Results: Those boys who had experienced both birth complications and early childhood rejection were most likely to become violent offenders, although there was no effect for non-violent offending. There was also no interaction between poverty and birth complications. This is thought to be the first study to provide evidence from a large birth cohort to show that birth complications in association with rejection are associated with violent crime. The authors conclude by stating that although they have demonstrated a link between physiological functioning and criminal behaviour, it is the interaction between biological and social predisposition that is crucial to understanding violent crime.

Study Two

Eysenck, S.B.G, Rust, J. and Eysenck, H.J. (1977) Personality and the Classification of Adult Offenders. *British Journal of Criminology*. Vol. 17 No 2.

Aim: an attempt to classify criminal behaviour in relation to personality variables. The personality variables measured in this study are Extraversion, Neuroticism and Psychoticism. The authors argue that these variables show strong evidence of genetic determination as well as being linked with criminal behaviour.

Sample: 156 prisoners aged 18-38 divided into 5 groups on the basis of their crimes:

1. **Violent crimes:** Prisoners who had committed two or more violent crimes (but no sexual crimes)
2. **Property crimes:** Prisoners with three or more convictions for breaking and entering and other convictions for theft only.
3. **Confidence Crimes** (fraud). Prisoners with three or more convictions for fraud. No convictions for violent or sexual crimes.
4. **Inadequates:** Prisoners with ten or more convictions in three years and serving an average sentence of less than 18 months. No convictions for robbery and not more than one conviction for a violent or sexual offence.
5. **Residual:** Prisoners who did not fall into any of the above categories, i.e. who committed a variety of crimes in combination.

They were all tested on the Eysenck Personality Questionnaire (EPQ) and also on a variety of physiological measures including skin conductance, EEG and eye blink responses.

Results: The authors claim that it is possible to classify offenders by personality types. The first major distinction was seen with the Psychoticism scores, with the common having very low scores. Neuroticism scores separate the violent and property offenders (low scores) from the inadequates and the residuals (high scores). Finally the Extraversion scores distinguish between the violent and residual offenders (high scores) and the inadequates and property offenders (low scores) although this difference did not reach statistical significance.

Some physiological differences were also found between the property and inadequate offenders and the other three groups.

Study Three

Farrington, D.P., Barnes, G.C. and Lambert, S. (1996) The concentration of offending in families. *Legal and Criminological Psychology*, 1, 47-63

Aim: To test the hypothesis that problem families produce problem children. The research here is one part of a much larger longitudinal study, namely the Cambridge Study in Delinquent Development which has followed one group of males from the age of eight to thirty-two in interviews and from the age of ten to forty via their

criminal records. This paper attempts to relate convictions of these males to the convictions of their biological parents and full biological siblings.

Sample: 411 boys from inner city areas of London, mostly born in 1953. Participants were selected by taking all 8 and 9 year old boys from the registers of 6 state primary schools in one location in London. The boys were predominantly white and from working class families. As there were 14 pairs of brothers in the original sample (including five pairs of twins) there are 397 different families involved in the research. To avoid counting the same family more than once, one of each pair (the younger brother or a randomly selected twin) was excluded from this analysis.

Method: The Cambridge Study involved interviews with the children, their parents and questionnaires completed by their teachers. These results have been reported in numerous papers and books. In this study the focus is on criminal records. Searches were carried out in the central Criminal Record Office in London to locate evidence of convictions of the males, their biological fathers and mothers and their full brothers and sisters (and also their wives / partners but these findings are not discussed here). The Criminal Record Office contains records of all relatively serious offences committed in Great Britain or Ireland and also holds records of minor juvenile offences committed in London. The records would not include details of common assault, traffic violations and drunkenness. Most commonly the offences were theft, burglary and unauthorised taking of motor vehicles, although they also included violence, vandalism, fraud and drug abuse.

Results: Earlier reports from the Cambridge Study have confirmed the hypothesis that criminals are likely to have criminal relatives. When the original cohort were aged 20, 48% of those with convicted fathers also had convictions compared to 19% of those without convicted fathers. This was not dependent on when the father had committed the offence (before or after the son was born) suggesting that there was no direct behavioural influence. 54% of those with convicted mothers also had convictions compared to 23% of those with unconvicted mothers. This link remained even when males with both mother and father with convictions were removed from the analysis. These results are confirmed in this analysis which took place when the study males were aged 40. 64% of the families contained one convicted person or more, just 6% (23 families) of the families accounted for over half of all the convictions. Convictions of one family member is strongly linked to conviction of another family member. About 75% of convicted parents had a convicted child and having a sibling who had been convicted (especially an older sibling) was a strong predictor of conviction. These results are not the result of co-offending with family members. There were 26 study males who had co-offended with father, mother or sibling and when this data is excluded from the analysis the effect remains strong. Overall the results provide strong support for the notion that offending is concentrated in families and tends to be transmitted from one generation to the next. However, as the authors point out, these results do not establish whether this is due to the influence of nature or nurture.

Evaluation.

1. The Nature-nurture debate.

Considering the relative influence of nature and nurture in the determination of criminal behaviour is obviously crucial. We have looked at some research that considers the importance of genetic factors (Raine & Lui, Eysenck) and some that considers the importance of environment and upbringing (Farrington). Farrington's research clearly suggests that environment plays a major part in criminal behaviour and results from the Cambridge Study as a whole identify social / environmental factors such as poverty, low family income, large family size and poor child-rearing techniques as major influences. In the study reported here, it is clear that offending is concentrated in families and passes from generation to generation. However, this could be due to the kind of social / environmental factors mentioned above or it could be due to genetic factors. The research conducted does not allow us to discriminate between these two explanations. Raine and Lui offer strong support for role of genetic factors in determining criminal behaviour, although they stress that it is the interaction between these factors and social environment that is crucial. Interestingly, they suggest that poverty does not contribute significantly to criminal behaviours. It is unlikely that research will ever resolve this debate. Firstly it is likely that criminal behaviour (as all other behaviours) is the result of a complex interaction between both nature and nurture and the vast numbers of different crimes make it unlikely that one explanation fits all crimes. Secondly it is virtually impossible to think of a piece of research that could be conducted that would answer this question. The current viewpoint would appear to be that psychology has identified a number of genetic factors (physiological, neuro-physiological, personality etc) which appear to contribute to the likelihood of someone committing a criminal offence, but that these factors are mediated by a vast array of social and environmental factors.

2. Correlation not causation.

This is a very important evaluation issue to consider in many areas of criminal psychology. Most of the research in this area looks for correlations between measures of different aspects of behaviour (for example, between personality and offending behaviour, or between physiological measures and offending behaviour). Such research can only ever show a relationship between two variables and do not show cause and effect. The relationship may be spurious or there may be a third factor involved that has not been considered. For example, although Raine and Lui have shown a correlation between physiological measures and offending, this does not necessarily mean that physiological factors determine offending. There may be some environmental factor which has affected the physiological functioning of the individual which also contributes to an increased likelihood of offending. In a similar way, Farrington et al have shown a relationship between parental offending and offspring offending but they have not been able to explain the causal relationship. The only way to determine a cause and effect relationship between two variables is to conduct an experiment where you control one variable and measure its effect on another variable and for many practical and ethical reasons it is not possible to conduct this kind of research here.

3. Types of measurement:

The three studies reported here have all collected their data in very different ways. Raine and Lui have used a variety of physiological measures which are reliable measures and unlikely to be strongly affected by demand characteristics, although it is possible that having heart rate monitored and so on would make people anxious. They also collected medical details about births which are likely to be highly accurate. They correlated this data with official records of crimes which are less valid as a measure of offending behaviour. The data is actually a record of convictions, not criminal activity and it possible that people may have committed crimes that they have not been convicted of or been convicted of a crime that they did not commit. This last comment would also apply to the research conducted by Farrington et al as their data too came from the Criminal Record Office and may be inaccurate. However as part of the full Cambridge Study, the researchers did ask participants for their self reports of criminal activity and they state that these were remarkably similar to the official statistics. Finally, Eysenck uses the Eysenck Personality Inventory, a psychometric test that has been developed over a number of years. This test has been well validated and appears to be reliable. However there are problems with demand characteristics and social desirability bias in any psychometric test (although the EPI does contain a lie scale designed to pick up contradictory responses which might indicate that someone is lying).

4. Usefulness / Implications.

Clearly, determining the causes of criminal behaviour is an extremely useful thing to do. In simple terms this could lead to the development of prevention programmes for children deemed to be at risk or to treatment programmes for offenders. You will see in the final section of this chapter that the reason many treatment programmes are unsuccessful is that they do not address the causes of the problem. However, there are several problems with this. Firstly, it is highly unlikely that there are single factors which can be identified as the causes of offending behaviours. It is far more likely that offending behaviour is the result of complex interactions between factors. This might make some of the research in this area reductionist and over simplistic. Secondly, there are ethical implications to consider. The type of research conducted by Raine could be applied to the development of 'screening' programmes. It would be very easy for children to be labelled as 'potential criminals' just because they have the type of physiological functioning identified by Raine and Lui, or the personality type of a conman as identified by Eysenck, or for children born to convicted parents to be treated very differently by teachers and social workers. This could lead to the self-fulfilling prophecy where children develop the behaviours attributed to them by others. Raine suggests more worrying possibilities. He suggests that the technology exists to change the brain functioning of individuals. This raises serious issues of social control and it is important that the results of research like that of Raine and Lui is treated with caution.

Criminal Thinking

Study One

Palmer, E. and Hollin, C. (2000) The interrelations of socio-moral reasoning, perceptions of own parenting and attributions of intent with self reported delinquency. *Legal and Criminological Psychology*, 5 201-218

Aim: to consider the relationships between moral reasoning, perceptions of parenting, attribution of intent and self reported delinquency among young male offenders and non-offenders.

Sample: Two groups of participants all from the Midlands area.

Group 1: 97 convicted male offenders aged between 13 and 21. The offences were typically burglary, car theft, joyriding and assault.

Group 2: 77 non offenders aged between 12 and 24.

Method: There are several different methodologies involved in this study. The researchers are looking for correlations between moral reasoning, perceptions of parenting and attribution of intent with self reported delinquency. They are also comparing two naturally occurring groups (offenders and non-offenders). Data was collected using a number of psychometric tests which are outlined below:

- Sociomoral Reflection Measure (short form). This tests moral reasoning by asking 11 questions such as whether keeping a promise is important and why. The scores show the level of moral reasoning that the individual has reached.
- Extracts from the Own Perceptions of Parenting (EMBU) which was developed in Sweden. This assesses perceptions of parenting (by mother and father separately) including rejection, emotional warmth and overprotection .
- Attribution of Intent. This tests investigates the explanations (attributions) that people give for others behaviour. It included 12 scenarios of which four involved someone acting with hostile intent, four involved someone acting with prosocial intent and four are ambiguous. Participants have to imagine themselves in the situation and suggest reasons for why people behaved as they did. These reasons could be a. to be mean or horrible, b. to be helpful or nice or c. not sure.
- Self reported delinquency checklist (SRD). This is a self report scale of 46 offences and respondents must indicate which offences they have committed and also how often they were committed.

Results: The SRD results confirm that the groups differ in terms of their offending behaviours. The modal score for the non-offender group was 6 and for the offender group it was 25. Some of the key findings included the fact that offenders were found to have less mature moral reasoning than non-offenders with the moral reasoning scores of the offender group being typically at the stage where moral decisions are made on the basis of rewards and punishments. It was also found that the offender group perceived both their fathers and their mothers as significantly more rejecting (although the effects were even stronger for paternal rejection). They also made more

hostile attributions of intent when the scenarios were ambiguous. Offending scores correlated strongly with paternal rejection and incorrect attributions of hostility and the researchers argue that these two variables are significant predictors for SRD scores.

Study Two

Palmer, Emma J and Hollin, Clive R. (2003) Using the Psychological Inventory of Criminal Thinking Styles with English prisoners. *Legal and Criminological Psychology*, 8, 175-187

Aim: The Psychological Inventory of Criminal Thinking Styles (PICTS) is a psychometric test which measures thinking patterns believed to be associated with a criminal lifestyle. The aim of the research was to evaluate the use of this test with English prisoners (research had only previously been conducted in the United States) and to consider the implications of this research for practice.

Sample: 255 male offenders from six different prisons in England. The most common convictions were for violent offences, burglary, theft and handling stolen goods.

Method: All prisoners completed the PICTS scale. This is an 80 item scale measuring the eight thinking styles that have been identified as maintaining a criminal lifestyle . These are:

- Confusion – psychological distress, mental confusion, poor reading ability.
- Defensiveness – defensive test taking style, attempting to conceal difficulties or deficiencies.
- Mollification – externalising blame, rationalising criminal behaviour
- Cut-off – low frustration tolerance, tendency to remove barriers to criminal behaviour with drugs, or short phrases such as ‘fuck it’.
- Entitlement – an attitude of privilege or ownership, tendency to misidentify wants as needs.
- Power Orientation – need for control over others
- Sentimentality –belief that one is really a ‘good person’ despite involvement in criminal behaviour.
- Super-optimism – belief that the negative consequences of crime can be avoided indefinitely
- Cognitive indolence – poor critical reasoning
- Discontinuity – inconsistencies between thinking and behaviour.

Results: There is a correlation between PICTS scores and offending behaviour. The PICTS scores were very similar to the American samples, although the scores in this study were higher. Age had an effect on scores, with older offenders having the lower scores. The earlier someone began their criminal career, the higher their scores were, suggesting that their criminal attitudes were deeply entrenched. Similarly, the number of criminal convictions someone had was positively correlated with their scores, suggesting stronger criminal thinking patterns. It was also discovered that PICTS

scores showed a significant positive change during a prison sentence. A sub group of 102 prisoners were tested on arrival in prison and just before release and their scores showed significant improvements in thinking styles.

The researchers conclude that PICTS is a sensitive measure that provides useful data on criminal thinking patterns and could be usefully employed to measure changes in thinking patterns. However, they state that more research is required to establish norms for use in the United Kingdom.

Study Three

Yochelson, S. and Samenow, S. (1984) *Inside the Criminal Mind*. Random House

Aim: This research is reported in a book rather than a journal article and is an account of the authors' work with mentally ill offenders. The authors claim that it is possible to describe thinking patterns that are common to the such offenders.

Sample: 255 male offenders resident in a psychiatric hospital in America.

They had variously been judged not guilty by reason of insanity, incompetent to stand trial or had been referred to the authors by agencies such as the courts, probation services or social services.

Method: Interviews within a Freudian therapeutic context.

Results: The authors suggest that criminals have quite distinct and erroneous thinking patterns that differentiate them from non-criminals. They concluded that they are essentially in control of their lives and their criminality is the results of choices made from an early age. Further, they suggest that offenders have cognitive processes which lead to a distorted self image and result not only in criminal choices but also in denial of responsibility.

They describe the criminal personality as characterised by 40 thinking errors that fall into three broad categories:

- **Criminal thinking patterns** which are characterised by fear and simultaneously a need for power and control. Other features in this category include a search for perfection, lying and inconsistencies or fragmentation of thinking and a lack of time perspective.
- **Automatic thinking errors** which include a lack of empathy and trust, a failure to accept obligations, a secretive communication style and a perception of themselves as the victim.
- **Crime related thinking errors** which include optimistic fantasising about specific criminal acts with no regard to deterrent factors. This also includes an unrealistic sense of invulnerability.

They are therefore suggesting that criminals are not necessarily impulsive, that they have planned and fantasised about their actions and that it is these thinking patterns which need to be confronted in treatment. Yochelson and Samenow claim high success rates in getting offenders to accept that they have a "criminal personality" and changing their thinking patterns.

Evaluation

1. Nature-Nurture / Personality – Situation.

The research by Palmer and Hollin (2000) suggests that moral reasoning may be related to social / environmental variables such as parenting. This would support a nurture argument as an explanation of moral reasoning. This is in direct contrast to the research reported by Yochelson and Samenow who argue that criminal behaviour is a choice and that offenders make rational decisions to commit crimes. They do not consider that criminal behaviour can be explained with reference to parents, society, poverty, violent television or any other social / environmental variables. Although they do not explicitly state that this is a nature argument, their arguments reject nurture explanations and certainly would support the ‘personality’ side of the personality – situation debate. The research by Palmer and Hollin (2003) identifies a variety of different thinking styles that have been associated with criminal behaviour. They do not attempt to explain whether these variables are the result of nature or nurture although they do report significant changes in thinking styles with age and with time served. These findings would suggest that thinking styles are dependent on nurture or situational influences.

2. Psychometric measures/ ways of collecting data.

The research by Palmer and Hollin (2000) used a range of psychometric measures (Socio-moral reflection measure, Extracts from Own Perceptions of Parenting, Attribution of Intent scale) These are standardised tests and should be both valid and reliable. However respondents may still give socially desirable answers or may be subject to demand characteristics. In responding to the Delinquency checklist, there is no way of knowing whether people are telling the truth or not. As a young offender you may not wish to admit to offences for which you had not been caught for fear of reprisals or you may say that you have committed many more offences than is actually true for the status that this would give you with your peers. Alternatively you may simply lie to mess up the research. Palmer and Hollin (2003) used PICTS to assess the thinking styles of offenders. They found a significant correlation between scores with an English population and with an American population although more work is necessary to establish norms for an English population. There would appear to be no problems with the reliability or validity of these scales and the researchers claim that it is a highly ‘sensitive’ measure. Finally, Yochelson and Samenow used Freudian techniques for conducting their clinical interviews and these would not have the same level of reliability or validity as a standardised psychometric test. Data collected in this way is interpreted by the psychiatrist and this may mean that a number of biases are present. Demand characteristics may also play their part here and as an inmate in a psychiatric institution you may have all sorts of reasons for telling the psychiatrist what you think he wants to hear.

3. Sampling Issues.

Although Yochelson and Samenow have included data from 255 male offenders in their research, they do not have a control group. This means that there is no way of knowing whether the same proportion of the non-offending population may also show these thinking patterns. It has also been suggested that their sample represented a particular sub-group of the criminal population, namely psychopaths and it has been well documented that psychopaths are highly skilled at manipulation and are able to tell psychiatrists and other professionals exactly what they want to hear. This might suggest that change has not actually taken place. In a similar way the research by Palmer and Hollin (2003) does not include a control group although in this case the purpose of the research was to compare the results from English prisoners to the norms already established in American research. In contrast the research by Palmer and Hollin (2000) compares a sample of young offenders to a comparison group of non-offenders. Matching on all possible variables would be almost impossible in this kind of research but the inclusion of a comparison group is essential. It could also be argued that in all of this research it is only convicted offenders who are studied and their thinking patterns may differ from offenders who have never been caught as much as they differ from non-offenders. Finally, all the research described here studied males only. This would make generalising to females very difficult.

4. Usefulness.

The research described in this section is very useful. The research conducted by Palmer and Hollin gives useful insights into the variables that correlate with moral reasoning and offending scores. Although these are not causal relationships, they do suggest that parenting may be a significant factor in the development of offending behaviour. This would be confirmed by the research conducted by Raine and Lui in the first section. This might lead to practical suggestions for interventions by social services but may also generate useful strategies for changing the way people think. From this perspective the research by Yochelson can also be seen to have practical applications. The researchers claim high levels of success in changing the way people think and argue that punishment is essential to rehabilitation. However it is important to remember that there are a number of reasons why these results may not be accurate (see above). Finally, the research conducted by Palmer and Hollin (2003) may have identified a useful tool for the measurement of change. This would allow accurate measurement of the effectiveness of programmes designed to change the way offenders think.

Crime - Victim Interaction

Study One

The British Crime Survey (2000)
Home Office.

Aim: The British Crime Survey is a huge survey of crime against people living in private household in England and Wales. It is conducted every two years. Comparison with official police statistics reveals some interesting findings (see below).

Sample: The 2000 survey (which measured crime in 1999) used a sample of 19,500 people (and an 'ethnic booster sample' of a further 3,800 people). The sample was randomly selected from the Post Office list of addresses.

Method: Participants are questioned in their own homes. Interviewers use a computer program that specifies the questions and the range of permissible answers. All information is given in confidence and no names and addresses are included with the answers. Participants are assured that no information will be passed on and for some of the questions not even the interviewer sees the answers that the participant gives on the computer.

Results: There are numerous results from a survey this size. Some of the key ones include:

- Approximately four and a half times more crime is reported via the British Crime Survey than is recorded by the police.
- There was a fall in crime since the last survey (down 13%), with the exception of robbery and theft from the person.
- However, people are more pessimistic about crime. One third believed that the national crime rate had increased when both the BCS and police figures show a decrease.
- Fear of crime is higher among those living in high crime areas, those who are recent victims and those who are socially vulnerable (see studies by Donaldson and Beaton this section). Age, sex and ethnicity all affect levels of fear of crime. Women are more worried about all types of crime, older people are much more anxious about crime and Black and Asian respondents showed higher levels of fear of crime than white respondents.

STUDY TWO

Heath, L. (1984) Impact of Newspaper Crime Reports on Fear of Crime: Multimethodological Investigation. *Journal of Personality and Social Psychology*. Vol 47, No 2, 261-276

Aim: to examine the effect of newspaper reporting on fear of crime

Sample: 62 local newspapers representing all the local press in 42 American cities for one week. 335 participants were selected randomly and interviewed by phone. Participants were aged 16-83.

Method 1: Content analysis: The researchers analysed the crime reports in the newspapers in terms of the proportion of the following:

Local crime: did the crime occur in the geographical area served by the newspaper or not?

Random crime: did the report contain any information that suggested that the victim took any action that made him or her more vulnerable? If not, this is categorised as a random crime.

Sensationalist crime: was the crime extremely violent or bizarre?

Method 2: Telephone interviews covered newspaper reading habits and various aspects of fear of crime.

Results: Those participants who read newspapers that printed a high proportion of local crime reported higher levels of fear if the crime was described as random or sensationalist. The researchers also conducted a follow up experiment in which 80 students read fictional accounts of crimes. If these were local and random, participants expressed higher levels of fear. Interestingly, if the crimes were non local but random and sensationalist, participants expressed lower levels of fear. The authors suggest that this is due to the reports making people feel safer in their own area. This could perhaps be understood using concepts such as Belief in a Just World.

Study Three

Donaldson. R. (2003) Experiences of Older Burglary Victims. *Home Office. Research, Development and Statistics Directorate. Findings 198.*

Aim: People over 60 are statistically far less at risk of burglary than any other age group. However it is argued that older victims will suffer more severe consequences if they are victims of crimes. This research examines the effects of burglary on victims living in sheltered accommodation.

Sample: Two groups of participants were used.

Group 1: 56 people over 60 who had been the victims of domestic burglary. There were 36 females and 20 males with an average age of 81. All lived in sheltered accommodation and received regular visits from a warden. The accommodation was all managed by Flintshire Care-Link in North Wales.

Group 2: A comparison sample of 53 people living in the same sheltered accommodation but who had not been the victims of burglary. This group consisted of 34 females and 19 males with an average age of 80.

The researchers note that many other victims were not interviewed as initial contact with relatives suggested that the interviews would be too distressing.

Method: This was a natural experiment comparing the naturally occurring variable of domestic burglary. Data was collected through semi-structured interviews. These

interviews explored general health, circumstances surrounding the burglary, support needed with daily tasks, walking aids, medication and sleeping patterns. Interviews were conducted in the presence of a warden and comments and suggestions from the warden and from relatives were also sought.

Results: The results are disturbing. 2 years and 8 months after the burglary, 11 of the sample had died and a further 9 had moved to residential care. In the comparison group, 6 had died and 2 had moved to residential care. Relatives typically described the victims' health as deteriorating faster than had been anticipated, victims became increasingly anxious and nervous, and many became housebound or spent more and more time with family in order to avoid returning to the sheltered accommodation. Although the sample size is small these results do suggest that those who had been burgled were more likely to die or become increasingly dependent as a result of their ordeal.

Study Four

Beaton et al (2000) The Psychological Impact of Burglary. *Psychology, Crime and Law*. Vol 6, pp33-43

Aim: To assess the psychological impact of burglary.

Sample: Two groups of participants were included.

Group 1: 20 victims of residential burglary aged between 23 and 69 (12 male and 8 female). They were approached initially via a Victim Support Scheme in Swansea, South Wales.

Group 2: A comparison group matched by neighbourhood, age, gender and marital status.

Method: This was a natural experiment comparing the naturally occurring variable of domestic burglary. Data was collected using questionnaires. Questionnaires were administered twice, first between 1 and 2 weeks after the crime and secondly one month afterwards. Questionnaires were administered by trained victim support counsellors.

Results: Victims of crime were more anxious, hostile, depressed, tired, confused and generally more distressed than the controls. One month later there was some improvement in these scores but these were still significantly different from the comparison group.

Evaluation

1. Strengths and weaknesses of self-report measures.

The studies included in this section use a variety of self-report measures including fixed response questionnaires and semi-structured interviews. Self report measures have a number of strengths and weaknesses. The strengths are that you are collecting data 'first hand', that is you are actually asking people directly about their experiences, which has more validity than trying to infer something from their behaviour. However, people may lie or exaggerate information, they may be prone to demand characteristics or social desirability bias, or the questions may lead people or force them into pre-determined categories of responses. The British Crime Survey suggests that there are 4.5 times as many crimes committed as reported to the police which means that either people are not reporting crimes to the police or that they are making up a lot of information for the Crime Survey interviewers. Both of these explanations may have elements of truth. In the study with older victims of domestic burglary (Donaldson) it is possible that demand characteristics may have accounted for some of the findings. If people are anxious, scared and lonely, it is possible that they would exaggerate their fears in order to keep the interviewer with them for longer or to try and get some additional support. Of course, it is also possible that some people might do the opposite in order to appear more capable than they actually are. The same point may also be true of the victims of crime studied by Beaton.

2. Sampling Issues

The British Crime Survey uses a very large and randomly selected sample of participants. This means that it is highly likely to be representative of the population of England and Wales. However you could argue that there are a significant number of people without permanent homes or living on the streets who are likely to be at much greater risk of crime and their voices are not being heard. In comparison, the study by Donaldson uses a very small sample of participants from one area of Wales. This might make it harder to generalise the findings of this study to other areas although this research can still be regarded as useful (see below). Further, Donaldson excluded any potential participants who might have found the questioning too distressing and this may reduce the representativeness of his sample further (although this is the correct ethical procedure). It could also be argued that there might have been differences between his burgled and non-burgled group which cannot be controlled for, for example the non-burgled group may have been security conscious and therefore less likely to be victims of burglary. However to counter this it could be argued that as they all lived in similar warden controlled accommodation security should have been good for all participants. Beaton also used a very small sample in his research although the comparison group were well matched on a number of variables and this increases the reliability of the findings. Finally Heath used a large sample of participants in her research and they were randomly selected. However a comparison group of non local paper readers would have been interesting.

3. Ethics.

The British Crime Survey adheres to all ethical guidelines. No one has to take part, confidentiality is guaranteed and participants can refuse to answer any questions. It could still be argued that this is a potentially distressing experience and some people may be affected by the experience. Donaldson admits that some potential participants were excluded as the interview process was thought to be too distressing. This shows

adherence to the guideline Protection of Participants as does the presence of the warden whilst the interviews were conducted. However it could still be argued that the remaining participants in both groups may have been distressed by the interview and perhaps even became more anxious about crime as a result of their participation. This is similar to the research by Beaton which used trained victim support counsellors to conduct the interviews. This would ensure that the appropriate action could be taken if someone was to become very distressed or reveal information that required further interventions. In conclusion, this type of research does not appear to be highly unethical but there are a number of issues that should be considered by researchers.

Usefulness.

The British Crime Survey is undoubtedly a very useful tool for providing alternative views of crime to the official statistics. The results suggest that many people do not report crimes to the police and this may be that they feel that the police will not be able to do anything to help. The BCS also gives us very useful information about people's fear of crime and their misperceptions of the crime rate. The study by Heath may go some way to explaining why people hold these misperceptions. If you read lots of local crime reports which appear sensationalist or random, your fear of crime will increase. When asked to consider whether crime has increased or decreased in recent years, nearly everyone believes that it has increased when in fact it has decreased. It may be that increased reporting partly contributes to this. The research by Donaldson highlights the need for increased support for elderly victims of crime who may suffer extreme effects. This research also found that victims were often not kept up to date with the progress of their case, in one case not even knowing that the offender had been caught. Elderly people who are very frightened deserve more than anyone to be told when the offender has been caught. Police should be encouraged to visit elderly victims on a regular basis in order to reassure them. The studies by Donaldson and by Beaton show us how people respond to being the victim of crime. Even in relatively minor cases such as indecent exposure, victims can become increasingly concerned about becoming the victim of other crimes. This could lead to counsellors being trained to reassure people that their fears are understandable although their likelihood of becoming a victim is no greater than it was before.

Offender Profiling

Study One

Mokros, Andreas & Alison, Laurence J (2002) Is offender profiling possible? Testing the predicted homology of crime scene actions and background characteristics in a sample of rapists. *Legal and Criminological Psychology*. 7, 25-43

Aim: To test the notion that the more similar the background characteristics of offenders are the greater the resemblance in their crime scene behaviour.

Sample: 100 male British offenders convicted of stranger rape. 61 were assumed to be 'one-off' rapists (one victim statement in police records) and the other 39 were known to have offended more than once (more than one victim statement in police records).

Methods: Crime scene actions were assessed from victim statements. Where more than one victim statement existed (see above) the earliest and latest were used. In total 139 victim statements were analysed using content analysis. 28 crime scene actions were coded and these included the use of disguise, the theft of personal property, verbal violence, apologies, use of blindfold, use of weapon and so on. Information on the offenders' background characteristics were extracted from police files and included age at time of offence, ethnicity, employment status, educational level, marital status and previous criminal record (further analysed by type).

Results: No correlation was found between any of the variables. In other words, rapists who offend in similar fashions are not similar with respect to age, socio-demographic features or criminal records. The authors conclude that the notion of socio-demographic similarity is too simplistic and they suggest that future research should consider a framework for offender profiling that is grounded in personality psychology.

Study Two

Kocsis, Richard N et al (2002) Investigative Experience and Accuracy in Psychological Profiling of a Violent Crime. *Journal of Interpersonal Violence*, Vol 17 (8) 811-823

Aim: to investigate the hypothesis that investigative experience gives individuals the ability to construct accurate psychological profiles. In other words, will experienced detectives produce better profiles than other groups?

Sample: Six different groups of participants took part in this study. They included 31 senior detectives, 12 experienced homicide detectives, 19 trainee detectives, 50 police recruits, 50 police students and 31 undergraduate students majoring in Chemistry.

Method: All participants were given a case description of an actual solved murder. This included details about the crime scene, sketches and photographs, forensic information and information about the victim. Once participants had read the material

they were asked to complete a 45 item multiple choice checklist which asked them to assess the offender's physical characteristics, cognitive processes, offence behaviours and social history and habits. The participants were also asked to sign a declaration stating that they had no prior knowledge of the case.

Results: The results are surprising. The most accurate profiles were produced by the Chemistry students, followed by the police recruits and then the experienced senior detectives. This would offer little evidence to suggest that "investigative experience is the quintessential skill for effective psychological profiling". Further as both the Chemistry students and the police recruits were studying at Higher Education level there is the suggestion that the educational level of these groups may have some bearing on the results and further research into this variable is clearly required.

Study Three

Pinizzotto A.J. and Finkel N.J. (1990) Criminal Personality Profiling: An Outcome and Process Study. *Law and Human Behaviour*, 14 (3) 215-233

Aim: To compare the accuracy of FBI profilers to detectives, psychologists and students.

Sample: Four trained FBI profilers, six experienced detectives trained in profiling, six experienced detectives without profiling training, six Clinical Psychologists and six undergraduate students.

Method: Each participant was asked to draw up a profile for two crimes. These were solved crimes so that the accuracy of the profile could be assessed. The first crime was a sex offence and the second crime was a homicide.

Results: Overall the researchers conclude that the profilers wrote richer profiles with more detail. Specifically the profilers produced more accurate profiles for the sex offence case particularly in relation to the sex, age and educational background of the offender. There were no significant differences in the profiles drawn up by each group for the homicide although the detectives were slightly more accurate in identifying the employment status of the offender and his relationship to the crime scene. Therefore this study would suggest that there is some evidence to support the notion that profiling training and detective experience lead to the skills necessary to identify offender characteristics.

Evaluation

1. Effectiveness of profiling.

There are mixed results here and it should be remembered that profiling is a relatively new science and is still being developed. There are a number of different profiling methods in current use (in particular you should be able to compare the approaches used in the United Kingdom with the approaches used in the United States). It is also difficult to assess the effectiveness of profiling with some surveys suggesting that profiling adds 'direction' to an investigation rather than directly identifying the offender. What do the studies summarised in this

section tell us? First, it is clear that the results found by Kocsis et al contradict the results found by Pinizotto and Finkel. Pinizotto and Finkel found that trained profilers produced more accurate profiles than less experienced police officers or naïve participants. This was not a very strong finding however and was only confirmed in one of the two cases that they used. Kocsis et al found that, surprisingly, it was the Chemistry students that produced the most accurate profiles in their research compared to senior detectives. It is interesting to note that the police officers used in this study were not trained profilers. It is not clear how these findings can be explained although they clearly indicate the need for further research. The research by Mokros and Alison suggests that looking for socio-demographic similarities between offenders is too simplistic and they suggest an approach that is more grounded in personality psychology (see usefulness below).

2. Ecological Validity / Validity of Measurements

Is the type of research we are considering a valid way of testing effectiveness? This is a very difficult question to answer. The studies by Kocsis et al and by Pinizotto and Finkel both asked participants to read case summaries and then produce a profile. Accuracy was assessed by the number of correct judgements made about the offender's personal characteristics. It may be that some of these judgements are more useful to police than others and it may be that experienced profilers / police are better at identifying certain pieces of information. For example, correctly identifying a number of socio-demographic variables may not be that much help to police but correctly identifying geographic location or personality characteristics might be. Police surveys have revealed that often it is a single piece of information or the general direction given by the profiler that is useful rather than the number of accurate pieces of information that they identified. Finally the research by Kocsis and by Pinizotto and Finkel was conducted as an experimental study which may reduce its ecological validity somewhat (although the cases used were real, solved cases) whereas the research by Mokros and Alison was a statistical analysis of a large number of known offenders.

3. Ethics / Ethical Implications.

The research described here does not raise a large number of ethical issues although it could be argued that particularly for the non-police the case summaries may have been distressing as they included photographs and detailed information of sex crimes and homicide. However, the ethical implications of offender profiling does need to be assessed. The danger in developing a general profile of, for example, a serial sex offender could lead to innocent people being identified as suspects. Remember that if someone matches a profile this does not mean that they are the offender. Mokros and Alison's research highlights the need for more than socio-demographic variables to be included in a profile and this may help to prevent inaccurate accusations. There have been some notable cases in which the use of offender profiling has been heavily criticised (the 'entrapment' of Colin Stagg as a suspect in the murder of Rachel Nickell led to the case being dropped and the police and the profiler being severely criticised for inappropriate behaviour).

Of the three studies described here, one finds no significant correlation between variables typically used in profiles, one finds that experienced profilers write more

detailed profiles than non-experienced people and the third finds that Chemistry students do better than experienced police. Clearly the ethical implications of using profiles at present should be considered very carefully indeed.

4. Usefulness

Despite all the criticism raised above, this research is clearly very useful. It suggests that there is some merit in the use of profiles but that further development of the techniques is still necessary. It is clear that trying to correlate socio-demographic variables with offences is overly simplistic. Profiling should be more firmly rooted in psychological theory and this is a criticism made of the FBI approach to profiling by the UK's leading profiler David Canter. Canter has also pioneered 'geographic profiling' which has also had some notable successes. The research described here also highlights the fact that it is not clear what makes someone a good profiler. It would seem as though experience in police work does not necessarily help, whereas the ability to study at Higher Education might. This is an obvious route for further research. If researchers could identify the cognitive processes used by those who create accurate profiles (including psychological variables) then this could be incorporated into training programmes. In conclusion, remember that offender profiling is still developing and some of the research here should be seen as reflecting a stage in that development.

Police and Crime

Study One

Adlam, KRC (1985) The Psychological characteristics of Police Officers. In Thackrah, J.R. (eds.) *Contemporary Policing*. London. Sphere Reference
Cited in Brewer, Kevin (2000) *Psychology and Crime*. Heinemann.

Aim: To discover whether British Police Officers show certain personality traits.

Sample: 304 police inspectors, chief inspectors and superintendents at the Police Staff College.

Method: Psychometric testing. Police were tested using the Myers Briggs Type Indicator (MBTI) which was developed from the work of Carl Jung and measures four personality dimensions. These are:

- Extraversion - Introversion (EI)
- Sensing - Intuition (SN)
- Thinking - Feeling (TF)
- Judging - Perceiving (JP)

These four dimensions interact to produce sixteen different personality types.

Results: The most common types found in the above sample were ISTJ (38%) and ESTJ (22%). Both these personality types are described as practical, realistic, unemotional, organised and good administrators. Interestingly, there were few NF combinations which tend to be more imaginative personalities. This would suggest that there are specific personality types in the police force.

Study Two

Vrij, A and Mann, S (2001) Who killed my relative? Police Officers ability to detect real life high stake lies. *Psychology, Crime and Law*, Vol. 7, pp 119-132

Aim: To examine the ability of police officers to detect deception.

Sample: 52 uniformed police officers from the Netherlands. 28 male and 28 female with a mean age of 31 and a mean length of service of 9 years. The majority were tested while attending a lecture on interviewing suspects at a Dutch Police School and the remainder were tested at local police stations.

Method: The researchers had collected eight short clips from videotaped press conferences where people were asking the general public for help in finding their relatives or the murderers of their relatives. Five of the clips were of people who had

later been convicted of the crime and three clips were assumed to contain no deception. These were used as 'filler' items and are not included in the analysis.

The officers had to watch each clip and then indicate

1. whether they thought the person was lying. YES / NO
2. How confident they were with their decision (1-7 scale)
3. whether they could understand what the person was saying (clips were in English) YES/NO
4. any behavioural cues that prompted their decisions

Results

Three officers were right 80% of the time, 25 were right 60% of the time, 20 were right 40% of the time, 3 were right 20% of the time and 1 officer was wrong on every occasion. By chance, you would expect a score of 50% and the authors claim that this means that those scoring 40% and 60% are therefore scoring at the chance level. This means that 49 of the 52 officers do no better than would have been expected by simply guessing.

Age, length of service, level of experience in interviewing suspects and confidence had no effect on the accuracy scores. However, there was a correlation between level of experience in interviewing suspects and being confident in detecting deception (but not being any more accurate). Finally men were better at detecting deception than women. The conclusion given here is that detecting deception is a difficult task at which even police officers are not very good.

Study Three

Horselenberg, R, Merckelbach, H and Josephs, S (2003) Individual Differences and False Confessions: A Conceptual Replication of Kassin and Kiechel (1996). *Psychology, Crime and Law*, Vol. 9, pp 1-8

Aim: Kassin and Kiechel (1996) falsely accused students of causing a computer crash and found that 69% of them were willing to sign a false confession, 28% of them internalised the guilt and 9% confabulated detail to support their false beliefs. Kassin and Kiechel claim that their study demonstrates how easy it is to elicit false confessions. However, Horselenberg et al point out that there were no negative consequences to signing this false confession and so this study lacks ecological validity. Their study is a replication of Kassin and Kiechel with the addition of negative financial consequences for falsely confessing. They also examine whether personality differences are associated with false confessions.

Sample: 34 female undergraduate students with a mean age of 18.6 years. They were told that they were participating in a study to evaluate a new type of keyboard configuration and were paid for their participation.

Method: Participants were asked to type characters as they appeared on a computer screen. They were told not to touch the 'shift' key as this would cause the computer to crash and lose all the data. Part way through the test, the computer was made to crash and the experimenter accused the participant of touching the shift key, saying that she

had seen it 'with her own eyes' (false incriminating evidence). Then the experimenter asked participants to sign a hand-written confession stating that the data were lost because the participant hit the shift key and would therefore forfeit 80% of the promised fee (negative consequence).

Results:

- 27 / 34 signed the confession
- 14 internalised the guilt
- 19 confabulated details

These results show how easy it is to elicit a false confession from someone. Individual differences as tested for with the psychometric tests did not appear to have any effect on false confessions. This suggests that false confessions are more likely to be a result of situation than personality.

Study Four

Fisher, R.P, Geiselman, R.E, and Amador, M (1989) Field Test of the Cognitive Interview: Enhancing the Recollection of Actual Victims and Witnesses of Crime *Journal of Applied Psychology*, Vol. 74 No 5, 722-727

Aim: to compare the performance of experienced detectives pre and post training in cognitive interviewing techniques and to compare their performance post training with a control group

Sample: 16 experienced detectives in Florida, 7 completed the cognitive interviewing course and their performance was compared to 9 untrained controls.

Method: All 16 detectives tape recorded several interviews. Each detective recorded between 5 and 7 interviews over a period of 4 months and a total of 88 interviews were recorded. These were mainly with victims of commercial robbery or purse snatching. At the end of this stage the two groups were created. 7 detectives underwent 4 1 hour sessions of training. After training these 7 detectives and 6 of the remaining 9 recorded between 2 and 7 interviews. A total of 47 interviews were recorded over 7 months. Note: the numbers fell at this stage as several of the original sample were unable to complete the training or the remaining interviews due to work commitments. Interviews were transcribed and scored by independent judges and the number of relevant, factual and objective statements were recorded.

Results:

1. Comparison pre and post training:
 - 47% more information was recorded in the post training interviews.
 - Six of the seven detectives in this group did better post training with only one doing worse and the authors note that this detective was not using the suggestions given during training.
2. Comparison of trained group and control group:
 - 63% more information recorded in the interviews conducted by the trained detectives.

These results clearly show the effectiveness of the cognitive interviewing technique over traditional interviewing methods and it could also be suggested that this training is relatively easy to provide.

Evaluation.

1. Personality - Situation

The research described here raises several issues associated with the theme of personality-situation and you could also consider the issue of nature-nurture in relation to these studies. The study by Adlam suggests that there are typical personality types within the police force. However, this research did not measure the personality of these individuals before they joined the police force and so it is not possible to determine whether certain types of people join the police or whether police officers develop these personality characteristics the longer they are in the job (referred to as the 'canteen culture'). Further, you might suggest that as participants completed the questionnaires in a work environment that the situation might have influenced the way in which they responded. The research by Horselenberg et al also raises the issue of personality versus situation. In this research the authors conclude that it is situation and not personality which determines whether someone makes a false confession. This has obvious implications for the way people are questioned (see Usefulness, below). From the perspective of nature – nurture you could also examine the other two studies covered in this section. The study by Vrij et al and the study by Fischer et al consider specific skills associated with policing. Vrij suggests that police do not have the skills associated with identifying deception naturally and the study by Fischer suggests that interviewing skills can be learned. This might suggest that there are not specific personality types within the police and that the qualities associated with being a good police officer can be learned (see section on Offender Profiling for more on this). However, this does not explain why some people are attracted to police work and others are not. As with most topics in psychology, the answer is likely to be that nature and nurture, as well as personality and situation interact in complex ways to produce behaviour.

2. Ecological validity

The study by Vrij and Mann has high ecological validity as it used video of real press conferences. Whilst you may argue that assessing deception from a video may have lower ecological validity than in a face to face situation, it is clearly better to use actual press conference video rather than actors. Participants in this study were also tested in normal work related environments which would also increase the ecological validity of the study.

In contrast the study by Horselenberg et al has low ecological validity. It was conducted in laboratory conditions and was an artificially created situation. Whilst the authors may be right in claiming that their study has more realism than the original piece of research by Kassin and Kiechel, the negative consequences were nothing like the potential negative consequences of falsely confessing to a crime. However, this does not detract from the study's conclusion that false confessions are more likely to be due to situational factors than to personality factors. The research by Fischer et al was an analysis of real interviews conducted by police officers pre and post training in

cognitive interviewing techniques and this clearly gives the research high levels of ecological validity. However drawing conclusions from this research should be done with caution as there are such small numbers of participants involved and demand characteristics may have played a part.

3. Ethics.

The research in this section raises several ethical issues. Probably the biggest ethical issue to consider is deception. Horselenberg et al deceived their participants by insisting that they had done something that they hadn't. This may have made the participants feel stressed and anxious about the possible repercussions. Clearly this is necessary to give the study any ecological validity but the effects of this experience on the participants should be considered carefully when deciding whether a piece of research should go ahead. In their defence, the authors debriefed their participants fully and they did not lose their payment. In contrast the study by Adlam raises very few ethical issues as participants were simply asked to complete psychometric tests. The study by Vrij and Mann raises different issues. Participants were not deceived as to the aim of the research but you could consider the longer-term effects of realising how poorly you had done at the task of detecting deception. This could have significant effects on your feelings of confidence in relation to your job, and placing people in this type of situation should only be done after careful consideration.

4. Usefulness.

The study by Vrij and Mann highlights the need for training of police officers in detecting lies, although the authors do not suggest how this might be achieved. This study also suggests that confidence is unrelated to ability and this may have considerable effects in the courtroom. If an experienced police officer claims that someone is lying, this may carry a lot of weight with the jury. If the defence presented this research in their evidence, this could seriously undermine the credibility of an authority figure. The Horselenberg et al study is very useful and could be used to demonstrate to police how easy it is to elicit a false confession from someone and hopefully lead to training designed to prevent this. It may also be useful for defence solicitors where they are defending someone who claims that they made a false confession. Fischer et al's research has obvious implications for training of police officers as all but one of the experimental group elicited more information using the cognitive interview technique. Finally, Adlam's study is more difficult to evaluate. If indeed there are personality differences between police officers and others then this might prove a useful tool for recruitment. However, if these differences are the result of many years in the police force then psychometric testing may be useful for identifying the traits that lead to successful policing and considering ways of developing these.

Psychology of Testimony

Study One

Morris, Valerie and Morris, Peter E. (1985) The influence of question order on eyewitness accuracy. *British Journal of Psychology*. 76, 365-371

Aim: to investigate how question order effects memory. The authors propose that asking participants questions which follow the order of events will lead to better recall.

Sample: 96 people aged 18 - 44. This was an opportunity sample of friends and neighbours of the authors. Participants were volunteers and were not paid for participating.

Method: This is an experiment with independent measures. Two groups of 48 participants were shown one of two short films each of which culminated in a chase scene. Two films used to ensure than effects would generalise beyond a single film sequence. One was a 5 minute clip of Starsky and Hutch and the other was of unfamiliar people. Both clips involved two central characters being pursued and culminated in a chase sequence and the main event. Both clips were approximately 5 minutes long. Participants were testes at home or in the experimenters' home, either individually or in small groups. All Ps were first asked to write a free narrative account of the film.

Each group then sub divided in 4 equal groups of 12

- 1. Random order** - question order randomised by use of a random number table
- 2. Time Sequence** - questions asked in order
- 3. Central character** - all questions about central character first, followed by the rest in time sequence
- 4. Main Event** - all questions about the chase asked first, rest following time sequence

Twenty five questions were asked on each film. Questions covered a range of detail from what was said by major and minor characters, their appearance and behaviour and other details about the scene.

Participants were tested at home or in experimenters home, either individually or in small groups.

Results: Free narrative accounts were scored by giving one mark for each correct detail. Less than one incorrect detail per person was recorded. Mean scores were 30.8 (film A) and 28.6 (film B)

Results from the questions showed that **Time sequence** led to the best recall.

	Question order			
	time sequence	central character	main event	random
% correct	69	66	60	58

Study Two

Yuille, John C and Cutshall, Judith L (1986) A Case Study of Eyewitness Memory of a Crime.
Journal of Applied Psychology. 1986 Vol. 71, no 2, 291-301

Aim: to examine eye witness accounts of a real event (as opposed to the numerous laboratory studies of video / staged events)

Sample: 21 witnesses to a gun-shooting incident were interviewed by police after the incident. 20 were contacted later and 13 agreed to be interviewed (refusals included 2 who had moved away and 5 who did not wish to 'relive' the experience, one of whom was the victim). The 13 included all the major witnesses with the exception of the victim and one other who was in prison at the time of the research. 10 were male and 3 female and their ages ranged from 15-32.

Method: Case study of a real event (shooting). The initial police interviews were made available to the researchers and included a verbatim account of the event in the witness's words and their responses to a series of questions designed to clarify aspects of the event. The research was conducted with the full co-operation of the Royal Canadian Mounted Police.

Research interviews were conducted 4 - 5 months after the event at a time and place chosen by the witness (usually their home or place of work). Interviews were between 45 and 90 minutes long and followed the same procedures as the police interview: an account in the witness's own words followed by questions to clarify earlier points and solicit specific details. The questions included two misleading questions. One misleading question asked about a broken headlight (following Loftus, 1974). 6 of the witnesses were asked if they had seen 'the busted headlight' and the remainder were asked if they had seen 'a busted headlight' (there was no broken headlight). Another similar question was asked about a differently coloured panel on the car. These questions were chosen because although the car was in full view of all the witnesses the car did not play a major part in the event.

Scoring: The event was reconstructed from police evidence (photographs, confiscated weapons, witness descriptions etc) and reports of other professionals attending the scene (ambulance men etc).

Each detail recalled was awarded one point.

Results:

The research interview elicited considerably more detail than the police interview

police interview	research interview
number of details recalled	number of details recalled
649.5	1056.5

- ◆ Misleading questions had no effect. This is a very different finding to most of the laboratory research conducted into EWT.
- ◆ Small amount of information reported that never happened (2.93% of action details reported to police, 3.23% in research interviews). Again this is lower than often reported by laboratory research.

Study Three

Christie, Donald & Ellis, Hadyn (1981) Photofit Constructions versus Verbal Descriptions of Faces. *Journal of Applied Psychology*, Vol 66.

Aim: to compare the effectiveness of verbal recall of faces with that of ‘photofit’ technique used by the police.

Sample: 36 participants recruited from Psychology department subject panel and included 27 women and 9 men aged between 29-63 years.

Method: This was an experiment conducted in two stages:

1. Face recall by description and by photofit construction
2. Evaluation (by ‘judges’) of their respective accuracy.

Participants were shown a target face (6 different faces were used) and then, from memory gave a verbal description and then constructed a photo-fit likeness. Photographs were colour and all showed a young adult male, looking straight ahead and all were photographed in surgical gowns and against the same plain background.

A standard male Caucasian Photofit Kit was used for the construction of the photofit. This divides the face into five features: forehead/hairstyle, eyes, nose, mouth and chin and each feature is selected from a visual index. All participants were tested individually and were shown the target face for 60 seconds. They were then asked to describe the face and all the details were recorded. At the end of the description if the participant had not mentioned any of the five features listed above they were prompted to do so. This description was used as a general guide to the range of relevant features in the kit. The subject then constructed a visual likeness using the photofit kit. The final likeness was photographed for use in the evaluation stage. Times taken to produce the verbal description and the photofit were recorded.

Accuracy was assessed in two judgement tasks: identification and sorting

1. **Identification.** Verbal descriptions were typed on cards (in sets of six, one description of each photograph) using the feature headings to make them easier to follow. Photofits were also arranged in sets of 6 containing one construction of each face. A new array of 24 colour faces of young adult males was constructed, containing the original 6 faces with an additional 18 new faces.

All this was set up at various points around the University campus. Volunteer judges were sought from students, staff and visitors. Each 'judge' was randomly assigned one set of either verbal descriptions or photofits and asked to identify the target for each description / photofit from the array of 24. Each set of six descriptions / photofits was judged by 10 judges (5 male and 5 female) and each description / photofit received a score between 0 and 10 depending on the number of people who correctly identified the target face.

2. **Sorting task.** Two further groups of 16 'judges' (8 male and 8 female) were recruited from a student subject panel. In the first group, each judge was given a pack containing the 36 verbal descriptions together with the original six photographs. Their task was to sort the descriptions into 6 groups of 6 corresponding with the photographs. The same procedure was followed by judges in the second group for the photofits. The score was the number of times each description / photofit was correctly 'sorted'.

Results

Analysis of both the identification and the sorting tasks suggest a marked superiority for verbal descriptions over Photofit constructions. This has obvious implications for police procedure as it suggests that recording a detailed description of the person should be given priority over the creation of a Photofit image.

EVALUATION

- 1. Ecological Validity.** A great deal of the research conducted in eye witness testimony is experimental research conducted in the laboratory. The research described above by Morris and Morris is an example of this kind of research as is the study by Loftus and Palmer that you would have studied during your AS course. Such research tends to lack ecological validity as it differs from a real life situation in a number of important ways. These include the fact that the participants watch an event on a screen rather than in real life and will probably be expecting to have to answer questions afterwards. Events on television are not as stressful as they would be in real life and all the participants would have been paying attention and viewing the scene from the same distance away. Again this is unlikely to be the case in real life. If an accident happens, some people may turn around at the sound of the accident or only start watching part way through and this would obviously affect the accuracy of their testimony. They may also be extremely distressed by what they are viewing, and may be attempting to help in some way. All of these factors would have an effect on their later testimony and support the argument that research like that conducted by Morris and Morris lacks ecological validity. In contrast, the research by Yuille and Cutsall studied a real event and questioned real witnesses. This gives this study much higher levels of ecological validity (although it could also be argued that it also means that there are much lower levels of control in this research). Interestingly this research suggests that people are able to give very accurate reports and are not affected by leading questions. This would shed doubt on the usefulness of laboratory research in this area (see below). Finally the research by Christie and Ellis is a complex design with many realistic features: participants used genuine photo-fit technology and naïve participants attempted to match the descriptions / photofits to the photographs. However this was not a 'real' event, participants were expecting to have to recall the face and they would not have had the same emotional involvement in what they were doing.
- 2. Sampling .** The study by Morris and Morris used an opportunity sample of friends and neighbours. This is likely to be a biased sample in a number of ways. It is unlikely that you would get a representative sample in this way and friends and neighbours may be more likely to respond to demand characteristics and try and behave in the way that they think the experimenters want them to behave. Generalising from these results would have to be done with reservations. In contrast, the study by Christie and Ellis recruited participants from a subject panel which would give a wider variety of ages and occupations (and may allow researchers to select a representative sample) but may also be biased as all of the participants are those who have expressed an interest in volunteering for psychological research and this may have an effect on the way that they respond. It has been suggested for example that volunteers are slightly more compliant than non volunteers. The sample used by Yuille and Cutsall could also be discussed here. The participants here were 'real' witnesses to a real crime which had taken place four or five months previously. The researchers were able to track down a large proportion of the original witnesses but some crucial ones were not prepared to take part in the research. This may have implications for the validity of this research.

- 3. Ethics** Is it ethical to show people films that may distress them? If you had been involved in an accident or a similar type of situation would you want to be reminded of this? The research by Morris and Morris showed participants video footage that was unlikely to be very distressing (but there may have been individual differences here). Research into real cases such as that conducted by Yuille and Cutsall raises different ethical issues. The participants in this study had already experienced the stressful event and it may have been distressing for them to discuss it again. Arguably, the researchers followed the guidelines by not pressurising people to take part and it may be assumed that those who did participate were happy to do so. However, they should ensure that any follow up help such as counselling was made available to the participants if they found the research more distressing than they had anticipated.

- 4. Usefulness / Practical Applications.** Research into areas of Applied Psychology should generate useful findings and the research into testimony is no exception. You could consider whether research that is low in ecological validity can be useful or not. Loftus and Palmer (AS course) and Morris and Morris showed that participants are strongly affected by leading questions and by question order. This would generate the useful suggestion that police and other interviewers take care to avoid leading questions and follow 'event order' when questioning witnesses. Recent developments in 'cognitive interviewing' would support these claims. However, it could also be argued that research by Yuille and Cutsall would suggest that laboratory research does not reveal how witnesses respond in real life cases. This might lead you to the suggestion that laboratory research in this area has only a limited application and more research into real cases is necessary. The research by Christie and Ellis has some surprising results, demonstrating that people's written descriptions were of more use than their photo-fit images in identifying the target face. This could be used to argue that police should not rely entirely on photo-fit images and should pay at least equal amounts of attention if not more attention to a witness's description.

Psychology of the Courtroom

Study One

Stewart, J.E. (1985) Appearance and Punishment: The Attraction - Leniency Effect in the Courtroom. *The Journal of Social Psychology*, 125(3), 373-378

Aim: to look for a correlation between the attractiveness of a defendant and the severity of the punishment awarded. The authors are predicting a negative correlation: that is, as the attractiveness of defendants increases, the severity of punishment will decrease.

Sample: 60 Criminal trials were observed in Pennsylvania, USA. The defendants were a range of ages, 56 were male and only 4 were female. 27 were black, 3 were Hispanic and 30 were white. Eight observers were used (all white) and each was given a standard rating form (see below). Each trial was observed by at least two observers.

Method: Observers rated the defendants on a range of scales. These included Physical Attractiveness, Neatness, Cleanliness and Quality of Dress. These four items were combined to produce an Attractiveness Index. Several other ratings were also done and the most important of these was Posture.

Results: No significant correlation was found between race and attractiveness index and the inter-rater reliability for observer ratings was high (.78). However, attractiveness Index was negatively correlated with punitiveness, that is, the less attractive the defendants were judged to be the more severe their punishment was. The fifth item, Posture, also showed this negative correlation.

Study Two

Pennington, D.C (1982) Witnesses and their Testimony: Effects of ordering on juror verdicts. *Journal of Applied Social Psychology*, 12,4 pages 318-333

Aim: To examine whether there is a Primacy Effect or a Recency Effect in relation to witness testimony. Much previous research had found recency effects, demonstrating that the later information had the most powerful effect on jury decisions. However Pennington claims that such research does not adequately simulate a real courtroom and he predicts that the results will be different in his simulated courtroom procedure.

Sample: 192 Undergraduate students (96 male and 96 female). All were eligible for jury service in the UK and any that were not were excluded from this study.

Method: A simulated courtroom procedure. This is an experimental design with independent measures. Some participants heard witnesses give 'guilty' testimonies first and others heard witnesses give 'innocent' testimony first. Overall each participant was exposed to exactly the same material but in different orders.

Results: The group that heard the guilty witnesses first produced more guilty verdicts than the other group. They were also more confident in their judgements. This suggests strong primacy effects in courtroom decision making.

Study Three

Broeder, D (1959) The University of Chicago jury project. *Nebraska Law Review*, 38, 744-760

Aim: to examine the effect of information being ruled inadmissible by a judge. Is it possible that for at least some jury members, being told to disregard information makes it even more important?

Sample: The research was conducted at the University of Chicago Law School. The individuals who participated were actually on jury service at the time and agreed to serve on 'experimental (mock) juries' formed by the researchers.

Method: These experimental juries then listened to tapes of evidence from previous trials and were asked to deliberate as if they were hearing the case. In one part of this research, 30 experimental juries listened to the case of a woman who was injured by a car driven by a careless male driver.

Results: When the driver said that he had liability insurance, the jurors awarded the victim an average of \$4000 more than when he said he had insurance (\$37000 versus \$33000). This suggests that juries make larger awards to victims if an insurance company will have to pay.

The second finding is the more interesting one. If the driver said he was insured and the judge ruled that evidence inadmissible (directing the jury to disregard it) the average award to the victim increased to \$46000. In other words, when juries learned that the driver was insured, they increased the damage payment by \$4000. When they were told they must officially disregard this information, they used it even more, increasing the damage payment by \$13000. This research is supported by many other social psychological studies that demonstrate that banned information acquires greater salience.

Study Four

Ross, D.F. et al (1994) The impact of protective shields and videotape testimony on conviction rates in a simulated trial of child sexual abuse. *Law and Human Behaviour*, Vol. 18, No 5.

Aim: To examine the effects on conviction rates if children give evidence in sexual abuse cases in court or with a protective shield or via videotape.

Participants: 300 students 150 male and 150 female. The majority were white and middle class.

Method: Simulation of a sexual abuse trial. This was based on actual court transcripts and video taped in a real courtroom using legal professionals. The video lasted two hours.

The independent variable was the way in which the child (a ten year old girl) gave her evidence. In condition 1 she gave her evidence in court directly confronting the defendant. In Condition 2 she gave her evidence in the courtroom but with a protective shield. In Condition 3 she gave evidence on video.

Study One: In the first study, the participants watched the whole video and were then asked to judge the guilt of the defendant

Results: the type of testimony had no effect on conviction rates although there was a tendency for females to return more guilty verdicts than males.

Type of testimony	% guilty verdicts	% not guilty verdicts
Open Court	51	49
Protective Shield	46	54
Video	49	51

Study Two: In the second study, the same procedure was followed with a new sample of 300 students. However the video was stopped immediately after the child gave her evidence and the participants were asked to make their judgement at this point.

Results: When evidence was given in open court more convictions were returned than either the protective shield or the video conditions.

However, it is the effect on the final decision that is crucial and this study demonstrates that the use of video or protective shields does not significantly reduce the likelihood of a conviction.

Evaluation

1. Ecological validity:

The study by Stewart has high ecological validity as this was an observation of real trials. The observers were rating real defendants in real courtrooms. This is in contrast to numerous studies in this area which simply ask people to read a summary of a trial and then state how they would vote. Pennington's study is an exception to this as it has much higher ecological validity than many other courtroom studies as it followed the exact procedures of a courtroom. However participants made independent judgements about the guilt of the defendant rather than discussing this in a jury and once again they know that it is not a real case and that the decisions they make have no real consequences. These differences are important and it is highly unlikely that participants respond in the way that they would if they were on a real jury. Ross' study also has good ecological validity as it was based on a real case, filmed in a real courtroom and used legal professionals as actors. However participants watched this trial on video and this may have significantly affected the realism of the experience. In fact this means that all participants watched evidence on video and some watched a video of someone giving evidence on a video which may have affected not only the ecological validity of the research but also the conclusions that can be drawn. Finally Broeder's study is more difficult to assess. Participants listened to tapes of evidence which would have low ecological validity but the fact that they were serving on juries (see sampling, below) at the time may have made the whole experience more realistic to them and this may have affected their responses.

2. Sampling:

There are several issues that could be discussed under the heading of sampling and these include the size of the sample, the choice of participants and the effects of these on the generalisability and representativeness of the sample. The sample sizes of the studies described above vary. The four experimental studies used from 192 participants (Pennington) to 300 (Ross). All of these samples are an adequate or better size but there are other factors to consider. Pennington and Ross used undergraduate students for their studies and there are many ways in which this would not be considered representative of society as a whole. There are possible race, class, age, and general life experiences to consider. Pennington points out that the sample he selected were all eligible for jury service and this does increase the representativeness of this sample to an extent. The sample used by Broeder has definite advantages over the other experimental studies as all these participants were actually serving on real juries at the time of the study. This would mean that they had all gone through the very rigorous process of jury selection that is common in the US. This would also create greater ecological validity for this study. It is worth also considering the sample size used by Stewart. This study observed 60 trials which is a relatively small number to generalise from. Further, this sample included only 4 females although it did include a range of different races.

3. Ethics.

Psychological research should protect participants from harm or distress. It is possible that some of the details of the crimes considered by this research may

have distressed the participants. In particular the study by Ross may have been very distressing for many participants and it is not clear whether any screening took place to exclude participants who had been victims of abuse, or indeed whether they were told of the content of the trial before they agreed to participate. A related ethical issue could also relate to the process of filming the mock trial. This may have been a distressing experience for the child actor involved. The issue of consent and observation might also be considered in relation to the study by Stewart. It could be argued that a courtroom is a public place and that it is therefore appropriate for defendants to be observed in this way but you could also argue that observations like this one invade a person's privacy and should not be conducted.

4. Usefulness

The study by Stewart would have many useful applications for people who have to appear in court. Not only do the results show that appearing neat clean and well dressed is likely to reduce your sentence, it could also be suggested that the same effect may be found for witnesses. Witnesses scoring high on Attractiveness Index measures are likely to be perceived more favourably by jurors and their evidence taken more seriously. Pennington's study is very useful as it contradicts many earlier research studies which found strong recency effects. Pennington argues that this is due to the unnatural conditions used in such research. This relates to the issue of ecological validity discussed above. Results from research with low ecological validity should be applied cautiously. Pennington's research could also suggest useful strategies for lawyers deciding how to present evidence and may also highlight biases in the standard courtroom procedure which presents prosecution evidence first. The study by Broeder would also suggest that lawyers could turn the inadmissibility of evidence to their own advantage. It would appear that it is worth stating something that you know will be ruled inadmissible as it will in fact assume greater weight when jurors are making their final decisions. Finally, Ross' study has many useful applications as it suggests that the use of protective shields / video does not put the defendant at a higher or lower risk of conviction than testifying in open court and this means that the experience of court for child witnesses can be made much safer and less traumatic.

Punishments and Treatments

Study One

Farrington, D.P, Ditchfield, J, Howard, P and Jolliffe, D (2002) Two intensive regimes for young offenders: a follow up evaluation. *Home Office Research, Development and Statistics Directorate Research Findings No. 163.*

Aim: To test the impact of demanding, highly structured regimes on reconviction rates two years after release.

Sample: Young offenders: male, aged between 18 and 21 with approximately 6 months sentence left to serve and considered suitable for open prison (no previous escape or sex offences) and considered mentally and physically able to cope with the regime.

Method: Two institutions were studied. Both were styled on USA 'boot camp' regimes.

1. Thorn Cross High Intensity Training Centre (opened July 1996) This centre offers a highly structured 25 week, 16 hours a day programme of activities including military drilling.
2. Colchester Young Offender Institution (opened in Feb 1997) This has a 26 week programme based on the military regime and ethos at the Military Corrective Training Centre at Colchester.

The expected reconviction rates were calculated and these were compared to actual reconviction rates two years after release. Reconviction rates were also compared to a control group of young offenders in 'standard regime' institutions.

Results

Thorn Cross HIT : Although there were no significant differences in the proportion of offenders who were reconvicted when comparing the Thorn Cross experimental group and the control group, the experimental group took longer to reoffend and committed significantly fewer crimes. The authors conclude that the cost of the regime was more than recouped by the savings made by the smaller number of crimes committed and estimate that approximately £5 was saved for every £1 spent on the regime.

Colchester: Although the Colchester experimental group committed slightly fewer crimes than a control group, their crimes were more costly and the authors estimate that this regime was not cost effective . However, the Colchester experimental group had significantly more positive attitudes towards staff and other inmates and were more hopeful about the future.

Conclusion: The authors conclude that the success of the Thorn Cross regime in reducing reconviction rates was probably due to the education, employment, mentoring and 'through-care' components rather than to the drilling and physical

training components as the Colchester regime which emphasised physical activities was not successful.

Study Two

Friendship, C, Blud, L, Erikson, M and Travers, R (2002) An evaluation of cognitive behavioural treatment for prisoners. *Home Office Research, Development and Statistics Directorate Research Findings No. 161*

Aim: to evaluate the success of cognitive behavioural treatments for prisoners.

Sample: 670 adult male offenders serving a custodial sentence of two years or more and who voluntarily participated in one of two cognitive skills programmes run by HM Prison Service between 1992 and 1996.

Method: The programme is referred to as the Cognitive Skills Programme and consists of two multi modal programmes focussing on correcting maladaptive or faulty thinking patterns which have been linked with offending behaviour. The programmes were Reasoning and Rehabilitation (36 sessions totalling 72 hours) and Enhanced Thinking Skills (20 sessions totalling 40 hours). Taken together, the aims of the programme are:

- Self control (thinking before acting)
- Inter-personal problem solving skills
- Social perspective taking
- Critical reasoning skills
- Cognitive style
- Understanding the rules which govern behaviour

Reconviction rates were compared to a group of 1801 male offenders who had not participated in any programme.

Results: The results showed a significant drop in reconviction rates. Reconviction rates after two years were up to 14% lower than the comparison groups. The authors suggest that based on the number of prisoners expected to complete a cognitive skills programme in 2002-2003, this reduction represents almost 21,000 crimes prevented.

Study Three

Sugg, D, Moore, L and Howard, P (2001) Electronic monitoring and offending behaviour - reconviction results for the second year of trials of curfew orders. *Home Office Research, Development and Statistics Directorate Research Findings No. 141*

Aim: to examine the effectiveness of electronic monitoring curfew orders

Sample: 261 offenders from Norfolk, Manchester and Reading who had been given curfew orders with electronic monitoring between July 1996 and June 1997 (the

second year of the 'tagging' trials). 91% of the sample were male and most were mid to late twenties. Typical offences were theft, burglary and driving offences. The average number of previous convictions was eight.

Method: The probability of the sample being re-convicted was calculated using OGRS2. This is a Home Office algorithm which predicts the probability of an offender being re-convicted based on age, criminal history and time in youth custody. This suggested that the sample could be considered to be of medium to high risk of reconviction. The analysis suggested 67% would be re-convicted at the end of two years. This prediction was then compared with actual reconviction rates.

Results: 72.8% (190/261) had been re-convicted with two years and 166 of those re-convicted were within one year. The researchers also compared the reconviction rates of the 'tagged' group with a matched comparison group of offenders sentenced to community service orders (the most likely alternative had tagging not been available). There was no significant difference between these two groups. 160 of the 261 also had community service orders running in addition to the tagging. There was also no significant difference between this sub-group and the remaining 101 offenders in terms of reconviction rates.

Conclusions: the authors conclude that curfew orders have no significant effect on offending behaviour and they argue that this is because such orders do not address the real problems. However they cite evidence to suggest that curfew orders can be useful in conjunction with other programmes such as cognitive-behavioural programmes not least because they tend to increase attendance on such programmes.

Study Four

Honess, T and Charman, E (1992) Closed Circuit Television in Public Places: Its acceptability and perceived effectiveness. *Police Research Group Crime Prevention Unit Series. Paper No 35.* Home Office Police Department

Aim: This report examines a range of issues to do with public perceptions of CCTV and the research was conducted in 1991 when CCTV was relatively uncommon. For the purposes of this summary, we will just consider the issues of perceived acceptability and effectiveness

Sample: 798 people approached randomly on the streets of four large cities (Birmingham, Cardiff, Bristol and Coventry). Managers of sites with CCTV (such as car parks and shopping centres) were also asked how effective they thought that CCTV had been.

Method: This was a large scale attitude survey with most questions using likert type scales.

Results: The majority of respondents were aware of at least one site with CCTV and this was most commonly in building societies. There was a generally positive response to the installation of CCTV although concerns were raised that systems might be abused and that CCTV represented a gradual erosion of our civil liberties.

CCTV was seen as more acceptable in sites such as shopping centres and car parks than out in the street. Respondents also had some concerns about who should be allowed to install CCTV and who should be allowed access to the tapes? However, most respondents agreed that CCTV did make them feel safer.

Site managers tended to regard CCTV as part of their general management, allowing them to monitor traffic flow, deliveries and so on and listed crime prevention as only one function of CCTV. The general public on the other hand tended to regard CCTV as having a primarily crime detection purpose. Managers commented on the increased security (not possible to cover such a wide area with security staff so CCTV represented large cost savings) and some mentioned advantages such as reduction in costs for replacing broken windows or other incidents. However most comments were more general and included 'public reassurance' and the creation of a safe and secure environment.

Conclusion: The authors conclude that 'public acceptance is based on limited and partially inaccurate knowledge of the functions and capabilities of CCTV systems in public places.' They suggest that there is a need for guidelines and procedures that will ensure the effectiveness of CCTV, minimise threat to civil liberties and make possible an informed public acceptance.

Evaluation

1. Effectiveness of treatments and punishments.

The research presented here is generally positive about the effectiveness of the treatments described. Although the intensive regimes regimes described by Farrington et al are not as effectiveness as you might imagine, this research does highlight education, employment, mentoring and 'through-care' as the variables which ensure success. Interestingly the physical activities which are a key component of such intensive regimes appeared not to have desired effect without the variables mentioned above. Friendship et al demonstrate a highly effective outcome from their Cognitive Skills Programme with reconviction rates after two years significantly lower than a control group who did not participate in any programme. However, electronic monitoring was not found to be successful, with no significant differences between the expected re-conviction rates without electronic monitoring and the actual rates. However neither is it unsuccessful as it produces similar results to other punishments and is presumably very much cheaper. The authors suggest that using electronic monitoring in conjunction with other programmes may be successful and this is discussed under Usefulness (below)

2. Research Methods / Measuring Effectiveness

It is difficult to conduct research into this area. All research is conducted 'in the field' as clearly it would not be possible to conduct laboratory style research in this area. Researchers then have a choice about how to design the research. Farrington et al chose a comparison between two regimes with effectiveness measured by reconviction rates, Friendship et al included a 'no treatment' control group and also used reconviction rates as a measure of success. Sugg et al took a slightly different approach with actual reconviction rates being compared to predicted conviction rates. These studies obviously all have the problem of confounding variables and lack of control but the main issue that we shall discuss here is the use of reconviction rates as a measure of success. There are a number of problems with reconviction rates: firstly, they are not a measure of re-offending. It is possible that people are committing crimes that they are not being convicted for, and it is also possible that due to stereotyping they are being convicted of crimes that they have not committed. It might also be possible that some of these treatments are not stopping people from re-offending but are making them less likely to be caught (or less likely to be convicted if they are caught). People may also reconvict because they return back to the same environment they lived in before, with the same peer group and all the same reasons for committing crimes. Without increased employment or educational opportunities it is highly likely that re-offending will occur. This does not necessarily mean that the treatment or punishment has had no effect, rather that other factors also come into play. For example, cognitive therapy may change the way someone thinks but not change their behaviour. Finally reconviction rates do