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The Family and Social Origins of Antisocial Behaviour

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Introduction

The 1940s saw two landmarks in the attempts to unravel the psychosocial orig of antisocial behaviour and delinquency in childhood: the first consisted of clini research and linked separation from mothers with juvenile delinquency (Bowl 1946); the second was based on multivariate analyses and this gave rise t suggested association between different types of antisocial behaviour w different kinds of family patterns (Hewitt and Jenkins, 1949). Both, while prelim ary, were seminal exercises which generated a multitude of questions a provoked widespread research. Subsequent advances were dependent on m precise definitions, diagnosis and the development of classifications which ha sounder scientific basis.

Description and Definition

Mischievous behaviour in childhood is not uncommon and is of greater conce to parents and teachers than to the children themselves. Nevertheless, only small proportion of such behaviour is sufficient to impair relationships with pe or adults or is seen as contravening social norms. Such disorders of condu include behaviour which is non-delinquent such as bullying, lying, disruption classroom, etc. and which may also include truancy and stealing. Inevitably, su behaviour will overlap with what is viewed officially as delinquent behavio Delinquency is a common and major problem, especially amongst disaffect youth of the inner neighbourhoods of industrialized cities. It is one variety conduct disorder in which the children enact potentially illegal behaviours, wi some of the acts being known to legal agencies, while others are known on through self-reports (Farrington, 1973).

In this chapter we confine ourselves to school-age delinquent and non-delinque conduct disorders. As to diagnosis, there is general agreement about the ran of symptoms which are subsumed under the category of conduct disorder su as lying, stealing, truancy, disobedience, destructiveness, aggression, po relationships and wandering. But there has been a lack of agreement about t

level or threshold of severity and duration of such symptoms (Offord *et al.*, 1986). The question arises as to when the constellation of symptoms should be considered as a disorder. The answer is, if the behaviour handicaps the child himself or his social or family environment. Furthermore, such behaviours may reveal themselves in either the *home* (1) or the *school* (2), or *both* (3) with the former (i.e. 1 or 2) being labelled *situational* and the latter (i.e. 3) *pervasive*.

Classification

One of the main subclassifications of antisocial behaviour disorders derives from multivariate approaches; factor analysis of child behaviour data invariably has demonstrated emotional and conduct disturbance patterns (Peterson, 1961; Wolff, 1971; Kolvin *et al.*, 1975). Such patterns emerge at all ages but it is only the classic endeavour by Hewitt and Jenkins (1949) that gave rise to a distinction between the so-called unsocialized aggressive behaviour and socialized group delinquency. This distinction has formed the basis of the scheme employed in the DSM-III, which defines a conduct disorder as a persistent pattern of conduct in which the basic rights of others and also major age-appropriate societal norms or rules are violated. Criteria for diagnosis include disturbance of at least six months' duration. In the DSM-III, a number of broad categories of conduct disorder are described. The first is the *under-socialized aggressive type*. This includes manifestations of such behaviours as physical violence against persons or property and theft outside the home. In addition, there is failure to establish a normal degree of affection, empathy or bond with others, as evidenced by no more than one of five indicators of social attachment (for instance, one or more lasting peer group friendships). The duration of such conduct disorder is defined as at least six months. The behaviour of youths over 18 can be labelled as conduct disorder provided that the behaviour does not meet the criteria for antisocial personality disorder.

The *second* category is conduct disorder of the *under-socialized non-aggressive type*. The diagnostic criteria consist, first, of repetitive and persistent patterns of non-aggressive conduct: these include chronic violation of a variety of social rules, repeated running away from home overnight and consistent serious lying and stealing not involving confrontation with the victim. Secondly, there is a failure to establish a normal degree of affection, empathy or bond with others. Thirdly, again there is a duration of at least six months.

A *third* category consists of conduct disorder, of the *socialized aggressive* type. In some ways, this overlaps with the previous category, but the main features are a repetitive and persistent pattern of aggressive conduct. On this occasion, there is evidence of social attachment to others as indicated by at least two of five patterns relating to social attachments.

The *fourth* category consists of conduct disorders that are *socialized non-aggressive*. This again overlaps with the others and has three main diagnostic criteria: first, a persistent pattern of non-aggressive conduct; secondly, evidence of social attachment to others; third, duration of at least six months; the youth must be

below the age of 18 if the conduct disorder is to fulfil the criteria for antisocial personality disorder.

There is a *further* category of atypical conduct disorder that is a rag-bag of antisocial behaviours which cannot be included under the specified subtypes of conduct disorder.

Unfortunately, the validation of the above classification has proved difficult, so it is not surprising that the DSM-III-R suggests modifications—for instance conduct disorder is subdivided into three types: (1) a group type, in which most of the above behaviours occur in the company of peers; (2) a solitary, aggressive type, in which there is predominantly aggressive behaviour that is initiated by the child or adolescent alone; and (3) an undifferentiated type, for those children or adolescents with a mixture of clinical features that are not easily classified into any previous two subcategories. However, in addition, conduct disorders are assessed on a scale running from mild through moderate to severe, according to the number of problems in excess of those needed to make the diagnosis (i.e. over three) and the degree of general handicap or actual physical injury that is inflicted on the environment. It is not surprising that these amendments have been made, as Hewitt and Jenkins had based their research on a clinical population that was heavily weighted for delinquency. However, the details of these distinctions have not been widely replicated (Field, 1967).

The ICD-9 offers a variation of the above classifications (Rutter *et al.*, 1976). It defines conduct disorders as those mainly involving aggressive and destructive behaviours, and disorders involving delinquency. It is used at any age for abnormal behaviour that is not part of any other psychiatric condition. To be included, the behaviour needs to be frequent and severe, and it must be abnormal in its context. Such disorders differ from personality disorder in the absence of deeply ingrained maladaptive patterns of behaviour present from adolescence or earlier. The ICD-9 describes four subcategories: unsocialized disturbance of conduct; socialized disturbance of conduct; compulsive conduct disorder; and finally mixed disturbance of conduct and emotions.

The relationship of attention-deficit disorders and hyperkinetic disorders to conduct disorders merits clarification: there is, undoubtedly, a degree of overlap with conduct disorders but longitudinal research (Schacher *et al.*, 1981) suggests differences in outcome that would support such a distinction.

However, there is as yet no good evidence that non-delinquent and delinquent conduct disorders can be differentiated adequately in terms of behavioural features, family and social background and outcome (Moore *et al.*, 1979). Nor, indeed, is there as yet good evidence to support the division of conduct disorders into those with and without aggression. Nevertheless, the strength of the work of Hewitt and Jenkins was that behavioural patterns were found to be associated with family patterns similarly derived from multivariate analysis: unsocialized behaviour correlated with broken homes and family rejection; socialized delinquency correlated with parental neglect and social disadvantage, rather than rejection. But so far this work has not been replicated or validated adequately.

Origins

The origins of delinquency have been of central interest to psychologists and sociologists alike. Sociologists have been interested in the delinquent subculture and the fact that delinquents tend to be concentrated in the poorer areas of the inner city—areas with their own 'subculture'. One of the main advocates of the sociological theories which abounded in the mid-1950s stated that it was not sufficient to understand the delinquent subculture in negative terms as due to disorganization or even culture conflict, but rather that the delinquent feels that he has an inferior status in the wider community and when he meets others who are similarly afflicted, he acquires a new sense of self-esteem which allows the rejection of the values of a wider community (Cohen, 1956). One of the influential views advanced was one which suggested that delinquent acts reflected frustration generated by inequality in material goods. Other theories suggested that living in disadvantage gave rise to a belief that different social norms were permissible within a delinquent subculture (Cloward and Ohlin, 1960).

In summary, such theories suggest that the origins of delinquency reside mainly in endeavours to compensate for the influences of society that deny them equality in the social and material sense. Joining groups allows individuals to identify with group values and thus satisfy their needs by illegitimate means (West, 1985). West points out that such theories have become highly politicized.

On the other hand, one of the psychological explanatory theories advances the view that it is important to distinguish between the individual who has a psychological motivation or basis for becoming delinquent and the so-called 'sociologic delinquent' (Johnson, 1959). However, there has been a reaction against this position by those who consider that such theories lend support to the tendency to label those who are social rebels as psychologically ill or deviant.

Earlier research concentrated on single-factor theories, seeking factors which seemed to be of predominant importance; these included maternal separation, family criminality and other family patterns. However, the specificity of identified patterns has not been validated and further there is a consensus that this approach was far too simplistic. More often than not it has been found that there are multiple factors operating simultaneously; and it has proved difficult to pull apart those variables that usually act in concert (Rutter and Wolkind, 1985). Thus in the last decade the trend has been to appreciate that few factors operate in isolation and to view delinquency as being multifactorially determined and to attempt to highlight the relative importance of these family and parental factors. It is these themes that this chapter addresses. They include personality and criminality; the possibility of a genetic basis; social deprivation and inequality; family disruption; inadequate or weak family relationships; questionable quality of care; questionable child-rearing practices; and, finally, the question of models of conduct.

Family criminality

There is a striking link between a child's delinquency and parental criminality or social deviance (Farrington and West, 1981, Offord, 1982); for instance, 40% of

the sons of recidivist fathers also proved to be recidivist (West, 1985). These are important studies but need to be supplemented by twin and adoption studies when trying to explore the possibility of genetic influence (Shields, 1977; Hutchings and Mednick, 1977; Bohman, 1978): such studies report only a small genetic influence regarding juvenile delinquency. However, it would seem that parental criminality is not the decisive factor, as the association applies as well to persistent parental personality and social difficulties, often represented by drinking problems and a poor work record. In these circumstances, it is not surprising that more recent reviews suggest that both heredity and environment influence delinquency and that genetic factors act by making the individual more vulnerable to adverse environmental influences.

Disadvantage and poverty

Conduct disorders, including delinquency, occur more frequently in the lower social strata (West and Farrington, 1977). At least a moderate link is often reported between low social status and delinquency: the Newcastle Study (Kolvin *et al.*, 1988, 1990) reveals a close relationship between offences and occupational status of the family breadwinner, rising from 5% of males from Class I to 26% from Class III and 42% from Class IV and V and lower strata. In their review of the evidence, Rutter and Giller (1983), conclude that the relationship resides mainly at the extremes of the social scale; they question, as well, the extent to which the differences can be accounted for in terms of the differential attitudes to treatment of working class juveniles by the legal system. However, the Newcastle figures relate to more serious delinquency where there is less possibility of variations in legal management and hence such associations are less likely to be explicable in terms of attitudinal and management differences by legal agencies. Furthermore, an even stronger association is found for family deprivation and delinquency, which suggests at least some direct effect of adverse family influences. Indeed, this research links antisocial behaviour more closely with environmental deprivation than with social class (Kolvin *et al.*, 1989).

The question therefore arises of whether poverty has a direct bearing on deliquency (Rutter and Giller, 1983). They note that the major increase in the standard of housing this century does not seem to have been accompanied by a corresponding reduction in crime. However, this is a superficial observation as it would appear that more people are living in poor conditions than are exhibited in the face of official statistics and that community expectations have risen with changing patterns of experience (Townsend, 1979). These factors, taken together, suggest that it is inequality in income rather than overall level of wealth, that may predispose to crime.

Deprivation

This gives rise to the question of the relationship between deprivation and offending. Such issues need to be examined in longitudinal studies. In the Newcastle Study, the proportion of males who offended varied according to the

degree of deprivation, ranging from one in six males from non-deprived families to six in ten from families in multiple deprivation. Thus, offending appears to be 'dose-related', i.e. related to the degree of severity of family deprivation in the pre-school years. The above research suggests that some forms of family deprivation appeared less harmful than others; for instance, the criminality rate was relatively lower in the case of parental illness than where there was poor quality of parenting and poor care of the home and children. Moreover, there were significant correlations between the two latter criteria of deprivation, which implies that they are not independent of each other and it is not easy to estimate the relative importance of such explanatory factors in the genesis of delinquency.

Family and parenting variables

A wide number of parenting variables correlate with delinquency. The question arises as to which of these are causal or are most of them a reflection of a third factor common to all (Rutter and Giller, 1983)? With the complexity of such family interactions, care must be taken to avoid *a priori* assumptions regarding the significance of any particular variable. A good example of this is *family size*, where West (1985) revealed that 42% of persistent delinquents came from families with more than seven children. However, as Rutter and Giller (1983) have pointed out, the fall in the fertility rate over the past two decades does not seem to have induced a corresponding fall in crime, which suggests that any assumed link between large families and delinquency is indirect. The crucial link may not be the family size itself but associated factors such as overcrowding, socioeconomic disadvantage, less intensive family interactions, poor child discipline and supervision—all of the above may be underpinned by a lack of parental skills, foresight or planning.

Other factors can be examined in a similar way (Rutter, 1985). For instance, at one time, *family disruption or broken homes* were seen as central to delinquency, but Rutter (1971) quite rightly pointed to the alternative explanation, that the underlying determinant may be pre-existing and continuing family discord and quarrelling. Rutter and Giller (1983) advance evidence that divorce and separation are strongly associated with delinquency, whereas death is only weakly associated. They also point out that discord in both broken and unbroken homes appears to be strongly associated with delinquency and conclude that discord is more important than family breakdown.

They also go on to pose the question of why divorce is still associated with the continued increased risk of delinquency and point out that divorce does not necessarily mean resolution of marital conflict (Wallerstein and Kelly, 1980). Thus, children are particularly vulnerable if they live in homes where divorce has been preceded by seriously discordant family relationships (Rutter and Giller, 1983).

Family relationships

One key theoretical issue has been the subject of the effects of separation from parents on a child (Bowlby, 1946, 1951, 1969). Rutter (1980) suggests that it is

the context and circumstances of separation rather than the mere fact of separation that are important—it is the quality of the relationship prior to the separation as well as the quality of care subsequent to the separation. Disturbances of emotions and behaviour are more evident when separations arise because of family discord and disruption (Rutter, 1971). Thus, the persistent effects of separation stem from the prior chronic family discord rather than from the separation experience, *per se*; or it could be a consequence of the subsequent poorer quality of child care (Yarrow and Klein, 1980). In addition, admission to foster care is associated with an increased rate of psychiatric disorder when such admissions occur with children from disharmonious and disadvantaged families (Wolkind and Rutter, 1973). A single admission to hospital has not been shown to be related to later psychiatric difficulties, but when there are multiple hospital admissions (and such circumstances are more likely to be related to family disadvantage), then there is a significant increase in subsequent conduct disorder and delinquency (Quinton and Rutter, 1976; Douglas, 1975). A major question is the subject of affectionless psychopathy, originally described by Bowlby (1946, 1951). More recent evidence concerning this derives from Roy (1983), Wolkind (1974), Tizard and Tizard (1971), Tizard and Reese (1975) and Tizard and Hodges (1978), all relating to institutionalized children. The balance of evidence from the above researches implicates disturbed social behaviour of the exposed children which, although different from the controls, especially in their school settings, does not amount to the type of behaviour originally described as affectionless psychopathy. This has given rise to the conclusion that early lack of bonding experiences did not inhibit these children from making true attachments in later childhood but did appear to influence other social relationships (Rutter and Wolkind, 1985). This brings us back to the question of attachments and relationships which are crucial issues in child psychiatry and psychology.

There is good evidence (Campos *et al.*, 1983; Sroufe, 1983) that securely attached infants are more sociable with adults and show greater competence with peers, more positive affect and a higher self-esteem (Rutter and Wolkind, 1985). There remains the issue of whether the quality of attachments in infancy predicts adult relationships and adult psychological functioning. In a review of the evidence, Rutter and Wolkind (1985) point out that discordant family relationships in early life, including a lack of parental affection, are associated with a greater likelihood of emotional and personality disorders in adult life (Brown *et al.*, 1986; Quinton and Rutter, 1985; Wolkind and Kruk, 1984). Furthermore, at any point in time, an individual's social behaviour is likely to reflect both current social circumstances and previous social experiences (Rutter and Wolkind, 1985).

Moving away from attachments in early life, Rutter (1985) points out that weak family relationships are often found to be associated with delinquency. He goes on to point out that it is important to make a distinction between family discord and weak family relationships. One setting in which there is a lesser amount of discordant and quarrelsome interactions is institutional; but here the children are less likely to form close attachments with their care-takers. All the evidence suggests that conduct disorders are commoner amongst children reared from infancy in such institutional settings (Rutter *et al.*, 1983; Wolkind, 1974).

Rutter therefore concludes that 'Weak family relationships are important in their own right, quite apart from their association with discord'. It is not only that children who lack secure attachments in infancy are going to have impaired social relationships in adolescence, but also that the development of internal controls appears to depend on an affectional identification with parents. Evidence in support of such notions is moderately strong.

One of the more influential theories about the origins of delinquency was Hirschi's (1969) control theory which asserts that lack of attachment to parents, peers and school gives rise to a lack of conventional attitudes and eventually juvenile delinquency. Aspects of this theory have been examined in a number of large-scale studies in senior schools the United States utilizing self-administered, self-report delinquency measures and usually self-report measures of parent–child relationships. Three important findings emerge. First, closeness to father (rather than to mother) may be a better predictor of delinquent behaviour, especially amongst males (Johnson, 1987). Second, that parental and school attachment, conventional beliefs and involvement in youth subculture activities contribute to only low levels of variance of delinquency (Wiatrowski and Anderson, 1987). However, this poor explanatory power of the data in the last study may well be due to an insufficiency of variation of delinquent behaviour, especially at extremes when using a population of high school sophomores. For instance, when combining high school and juvenile correctional institution data Hirschi's model was only supported when delinquent companions were included as an additional explanatory factor in the causal path analysis (Thompson *et al.*, 1984). Furthermore, the latter authors contend that the findings are more consistent with a social learning than a control theory. However, irrespective of whether the findings are construed within a control or a learning theory model, the contribution of positive attachments in protecting children from delinquent behaviour is again confirmed.

Quality of parenting

Another theme concerns quality of parenting. The Newcastle research highlights the importance of poor-quality parenting, especially poor mothering (Kolvin *et al.*, 1990). However, it is not only quality of care that is likely to be important: parental supervision has a particularly strong influence as well (Farrington and West, 1981; Patterson, 1982). West and Farrington (1973, 1977) speculate that poor parental supervision and the associated freedom from restraint, together with police practice, are contributory factors in the determination of levels of delinquency, with poor family and social circumstances playing some part, however marginal, in police decisions to prosecute. Patterson (1982) suggests four ways in which the behaviour of children may be influenced by family rearing patterns: there may be, first, no clear expectations of acceptable child behaviour; second, a lack of monitoring of child behaviour; third, a lack of strategies for following through disciplinary plans in a logical way; fourth, lack of problem-solving techniques in the face of family crises. Thus, some families do not appear

to know what their children are doing and their disciplinary management techniques are not very efficient (Rutter, 1985).

Models of behaviour

Here, the implication is that parents of children with antisocial behaviour often have provided a model of antisocial attitude and conduct with which the children can identify or which they can copy (Rutter, 1985; Kelvin, 1969).

Evidence from longitudinal studies

The plethora of ideas which have emerged from cross-sectional studies reflect the difficulties of separating the contribution of different types of family influences. However, longitudinal studies have proved more fruitful. For instance, changes in family circumstances may influence a delinquent outcome—improvement in family relationships (Rutter, 1971) or reduction in family deprivation (Kolvin *et al.*, 1990) is associated with a reduced rate of conduct disturbance in the case of the former and of delinquency in the case of the latter. Such fluctuations become even more impressive if it can be demonstrated that increases and decreases in family pathology are associated with changes in subsequent offending. In the Newcastle Study (Kolvin *et al.*, 1990) if families moved into deprivation, there was a 50% increase in the rate of subsequent offending by their male offspring; if they moved out of deprivation, there was a 40% decrease. This suggests that there are certain factors which serve to counter the motivation to crime, despite youths coming from high-risk backgrounds. In the Newcastle Study, resilience in the face of deprivation was characterized by a number of factors operating on the junior school years. Most prominent amongst these was a good care-giving environment and hence it is argued that good parenting protects youths against the acquisition of a criminal record, irrespective of poverty or other forms of social deprivation. Other studies suggest close personal supervision of boys by parents is similarly protective and beneficial (West and Farrington, 1973, 1977).

Statistical analyses

Modern methods of analysis address themselves to the converse of pulling apart of those variables which usually act in concert and consist of putting them together in order to ascertain any identifiable patterns on the one hand or important predictors within any set of predictors of conduct disorder or delinquency on the other. Finally there are attempts to ascertain pathways to antisocial behaviour, which may contribute to identifying relevant processes and mechanisms. Let us start with predictions. Earlier attempts to develop formulae that would give reasonably accurate predictions of delinquency have not fulfilled the anticipated promise (Glueck and Glueck, 1950, 1964) as subsequent attempts to use the indices that were developed have shown poor predictive performance (Dootjes, 1972). Furthermore, in these early studies, much of the original data was

retrospective and therefore the claims about predictive utility must be viewed with caution. Unfortunately, more modern research suggests that multiple regression techniques give, if anything, worse prediction than the simpler methods originally utilized (Farrington, 1983). It is likely that this relatively poor prediction has more to do with the insensitivity of the predictor measures than the statistical techniques employed. The limitation of prediction studies has been well summarized by Rutter and Giller (1983), who draw two conclusions: first, that many youths theoretically at high risk do not necessarily become delinquent; second, that a substantial minority not at high risk do become delinquent. Nevertheless, some researchers have demonstrated the potency of prediction analysis utilizing early life psychosocial data: for instance, the Newcastle Study (Kolvin *et al.*, 1990) report that some two-thirds of boys coming from multiply deprived homes subsequently become delinquent. In addition, in the Cambridge Study, only two behavioural measures and five background measures were found to be independently predictive of delinquency: delinquents tended to be among those boys who were rated troublesome and daring at school; boys who were at risk coming from poorest or largest families; had criminal parents or parents who supervised them poorly or who had low IQs (West and Farrington, 1973, 1977). Further, the Newcastle group (Kolvin *et al.*, 1990) report that the only measure representing family environment that made an independent significant contribution to prediction of criminality was poor child care and mothering. Factors that failed to make a significant independent contribution were marital disruption, parental illness, those representing adverse social circumstances, parental personality, mother's age at marriage, occupational status and neighbourhood influences. However, an index of deprivation derived from the summing of scores of deprivation proved to be a good predictor of subsequent criminality. So too, was family size, which probably directly reflects poor home circumstances. Furthermore, in a series of analyses, prior juvenile delinquency proved to be the most powerful predictor of later criminality.

Finally, there is some evidence of specificity in relation to two types of family experiences. First, whereas marital disruption and parental illness were predictive of offences committed during the school years only, poor mothering was a significant predictor of criminality after the age of 15 years (Kolvin *et al.*, 1990). In the United States, McCord (1979) reported that, whereas home atmosphere was reliably related to criminal behaviour, parental absence failed to distinguish the criminal from the non-criminal, which again supports the notion that mere separation, or absence of parents, on its own does not have a significant effect on antisocial behaviour.

Summary

Although some of the evidence is conflicting, a number of facts have become established and these in turn have given rise to a diversity of theories to explain the associations between offending, antisocial behaviour and family and social influences. Certain theories have social and family and others psychological bases,

yet others seek genetic explanations. However, previously fashionable single factor theories are now considered too simplistic and have given way to multifactorial explanations. Furthermore, while longitudinal approaches have helped to clarify a number of the important issues, as have the application of multivariate analyses, the correlations that are found account for an important but not a substantial proportion of the variance.

References

Bohman, M. (1978). Some genetic aspects of alcoholism and criminality, *Arch. Gen. Psychiat.* **35**, 269–276.

Bowlby, J. (1946). *Forty-Four Juvenile Thieves: Their Characters and Home-Life*. London: Baillière, Tindall and Cox.

Bowlby, J. (1947, 1951). *Maternal Care and Mental Health*. Geneva: World Health Organisation.

Bowlby, J. (1969). *Attachment and Loss: I. Attachment*. London: Hogarth Press.

Brown, G.W., Harris, T. and Bifulco, A. (1986). Long-term effects of early loss of parent. In: M. Rutter, C. Izard and P. Read (eds) *Depression in Childhood: Developmental Perspectives*, New York: Guilford Press.

Campos, J.J., Barrett, K.C., Lamb, M.E., Goldsmith, H.H. and Stenberg, C. (1983). Socio-emotional development. In: M.M. Haith and J.J. Campos (eds) *Infancy and Developmental Psychobiology*, Vol. 2, Handbook of Child Psychology, 4th edn, pp. 783–915. New York: Wiley.

Cloward, R.A. and Ohlin, L.E. (1960). Differential opportunity and delinquent sub-cultures. In: *Delinquency and Opportunity: A Theory of Delinquent Gangs*. New York: Free Press.

Cohen, A. (1956). *Delinquent Boys*. London: Routledge & Kegan Paul.

Dootjes, I. (1972). Predicting juvenile delinquency, *Austral. NZ J. Criminal.* **5**, 157–171.

Douglas, J.W.B. (1975). Early hospital admissions and later disturbances of behaviour and learning. *Dev. Med. Child Neurol.* **17**, 456–480.

Farrington, D.P. (1973). Self-reports of deviant behaviour: productive and stable? *J. Crim. Law Criminol.* **64**, 99–110.

Farrington, D.P. (1983). Offending from 10 to 25 years of age. In: K. van Dusen and S.A. Medrick (eds) *Prospective Studies of Crime and Delinquency*. Boston: Kluwer-Nijhoff.

Farrington, D.P. and West, D.J. (1981). The Cambridge study in delinquent development. In: S.A. Medrick and A.E. Baert (eds) *Prospective Longitudinal Research: An Empirical Basis for the Primary Prevention of Psychosocial Disorders*, pp. 137–145. Oxford: Oxford University Press.

Field, E. (1967). *A Validation of Hewitt and Jenkins' Hypothesis*. Home Office Research Unit Report No. 10. London: HMSO.

Glueck, S. and Glueck, E. (1950). *Unravelling Juvenile Delinquency*. Cambridge, MA: Harvard University Press.

Glueck, S. and Glueck, E. (1964). Potential juvenile delinquents can be identified: What next?, *Br. J. Criminal.* **4**, 215–226.

Hewitt, L.E. and Jenkins, R.L. (1949). *Fundamental Patterns of Maladjustment: The Dynamics of Their Origin*. Springfield, IL: Michigan Child Guidance Institute.

Hirschi, T. (1969). *Causes of Delinquency*. San Francisco, CA: University of California Press.

Hutchings, B. and Mednick, S. (1977). Criminality in adoptees and their adoptive and biological parents. In: R.O. Christianson and S. Mednick (eds) *Biosocial Basis of Criminal Behaviour*, pp. 127–141. New York: Gardner Press.

Johnson, A.M. (1959). Juvenile delinquency. In: S. Arieti (ed.) *American Handbook of Psychiatry*, pp. 840–856. New York: Basic Books.

Johnson, R.E. (1987). Mothers versus Father's role in causing delinquency. *J. Adolescence* **22**, 305–315.

Kelvin, P. (1969). *The Bases of Social Behavior: An Approach in Terms of Order and Value.* London: Holt, Rinehart and Winston.

Kolvin, I., Wolff, S., Barber, L.M., Tweddle, E.G., Garside, R., Scott, D.M. and Chambers, S. (1975). Dimensions of behaviour in infant school-children. *Br. J. Psychiat.* **126**, 114–126.

Kolvin, I., Miller, F.J.W., Fleeting, M. and Kolvin, P.A. (1988). Social and parenting factors and offending. *Br. J. Psychiat.* **152**, 80–90.

Kolvin, I. *et al.* (1989). Parent, child, grandchild, the transmission of deprivation. In: E.J. Anthony and C. Chilland (eds) *The Child in His Family*. New York: Wiley.

Kolvin, I., Miller, F.J.W., Scott, D., Gatzanis, S. and Fleeting, M. (1990). *Continuities of Deprivation? The Newcastle 1000 Family Study*. Aldershot: Avebury.

McCord, J. (1979). Some child-rearing antecedents of criminal behaviour in adult men. *J. Personal. Social Psychol.* **9**, 1477–1486.

Moore, D.R., Chamberlain, P. and Mukai, L.H. (1979). Children at risk for delinquency. *J. Abnorm. Child Psychol.* **1**, 345–355.

Offord, D.R. (1982). Family backgrounds of male and female delinquents. In: J. Quinn and D.P. Farrington (eds) *Abnormal Offenders, Delinquency and The Criminal Justice System*, pp. 129–151. Chichester: Wiley.

Offord, D.R., Alder, R.J. and Boyle, M.H. (1986). Prevalence and sociodemographic correlates of conduct disorder. *Am. J. Social Psychiat.* **6**, 272–278.

Patterson, G.R. (1982). *Coercive Family Process*. Eugene, Oregon: Castalia.

Peterson, D.R. (1961). Behaviour problems of middle childhood. *J. Consult. Psychol.* **25**, 205–209.

Quinton, D. and Rutter, M. (1976). Early hospital admissions and later disturbances of behaviour: an attempted replication of Douglas' findings, *Dev. Med. Child Neurol.* **18**, 447–459.

Quinton, D. and Rutter, M. (1985). Parenting behaviours of mothers raised "In Care". In: A.R. Nicol (ed.) *Longitudinal Studies in Child Psychology and Psychiatry: Practical Lesson from Research Experience*. Chichester: Wiley.

Roy, P. (1983). *Is continuity enough?: Substitute care and socialization.* Paper presented at Spring Scientific Meeting, Child and Adolescent Psychiatry Section, Royal College of Psychiatry, March 1983.

Rutter, M. (1971). Parent–child separation: psychological effects on the children. *J. Child Psychol. Psychiat.* **121**, 233–260.

Rutter, M. (1980). Attachment and the development of social relationships. In: M. Rutter (ed.) *Scientific Foundations of Developmental Psychiatry*, pp. 267–279. London: Heinemann.

Rutter, M. (1985). Family and school influences: meanings, mechanisms and implications. In: R. Nicol (ed.) *Longitudinal Studies in Child Psychology and Psychiatry*. London: Wiley.

Rutter, M. and Giller, H. (1983). *Juvenile Delinquency: Trends and Perspectives*. Harmondsworth, Middx: Penguin.

Rutter, M. and Wolkind, S. (1985). Separation, loss and family relationships. In: *Child and Adolescent Psychiatry—Modern Approaches*. London: Blackwell.

Rutter, M.L., Shaffer, D. and Sturge, C. (1976). *A Guide to Multi-axial Classification Scheme for Psychiatric Disorders in Childhood and Adolescence*. London: Institute of Psychiatry.

Rutter, M., Quinton, D. and Liddle, C. (1983). Parenting in two generations. Looking backwards and looking forwards. In: N. Madge (ed.) *Families at Risk*. London: Heinemann.

Schacher, R., Rutter, M.L. and Smith, A. (1981). The characteristics of situational and pervasively hyperactive children: implications for syndrome definition. *J. Child Psychol. Psychiat.* **22**, 375–392.

Shields, J. (1977). Polygenic influences. In: M. Rutter and L. Hersov (eds) *Child Psychiatry: Modern Approaches* pp. 22–46. Oxford: Blackwell Scientific.

Sroufe, L.A. (1983). Wariness of strangers and the study of infant development. *Child Dev.* **48**, 731–746.

Thompson, W.E., Mitchell, J. and Dodder, R.A. (1984). An empirical test of Hirschi's control theory of delinquency. *J. Deviant Behav.* **5**(1–4), 11–22.

Tizard, B. and Hodges, J. (1978). The effect of early institutional rearing on the development of eight-year-old children. *J. Child Psychol. Psychiat.* **19**, 99–118.

Tizard, B. and Rees, J. (1975). The effect of early institutional rearing on the behaviour problems and affected relationships of four-year-old children. *J. Child Psychol. Psychiat.* **16**, 61–74.

Tizard, J. and Tizard, B. (1971). The social development of two-year-old children in residential nurseries. In: H.R. Schaffer (ed.) *The Origins of Human Social Relations*, pp. 147–163. New York: Academic Press.

Townsend, P. (1979). *Poverty in the United Kingdom*. Harmondsworth, Middx: Penguin.

Wallerstein, J.S. and Kelly, J.B. (1980). *Surviving the Breakup: How Children and Parents Cope with Divorce*. New York: Basil Books; London: Grant McIntyre.

Wiatrowski, M.D. and Anderson, K.L. (1987). The dimensionality of the social bond. *J. Quant. Criminol.* **3**(1), 65–81.

West, D. (1985). Delinquency. In: M. Rutter and L. Hersov (eds) *Child and Adolescent Psychiatry—Modern Approaches*. London: Blackwell.

West, D.J. and Farrington, D.P. (1973). *Who Becomes Delinquent?* London: Heinemann Educational.

West, D.J. and Farrington, D.P. (1977). *The Delinquent Way of Life*. London: Heinemann.

Wolkind, S. (1974). The components of 'affectionless psychopathy' in institutionalized children. *J. Child Psychol. Psychiat.* **15**, 215–220.

Wolkind, S.N. and Kruk, S. (1984). From child to parent: early separation and the adaption to motherhood. In: A.R. Nicol (ed.) *Longitudinal Studies in Child Psychology and Psychiatry: Practical lessons from research experience*. Chichester: Wiley.

Wolkind, S. and Rutter, M. (1973). Children who have been 'In Care'—an epidemiological study. *J. Child Psychol. Psychiat.* **14**, 97–105.

Wolff, S. (1971). Dimensions and clusters of symptoms in disturbed children. *Br. J. Psychiat.* **118**, 421–427.

Yarrow, L.J. and Klein, R.P. (1980). Environmental discontinuity associated with transition from foster to adoptive homes. *Intern. J. Behav. Dev.* **3**, 311–322.