# DISENTANGLING THE LINK BETWEEN DISRUPTED FAMILIES AND DELINQUENCY

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*The Cambridge Study in Delinquent Development is a prospective longitudinal survey of 411 South London males from age 8 to age 46. Delinquency rates were higher among 75 boys who were living in permanently disrupted families on their fifteenth birthday, compared to boys living in intact families. Results were very similar whether juvenile convictions, juvenile self-reported delinquency or adult convictions were studied. Delinquency rates were similar in disrupted families and in intact high conflict families. Boys who lost their mothers were more likely to be delinquent than boys who lost their fathers, and disruptions caused by parental disharmony were more damaging than disruptions caused by parental death. Boys from disrupted families who continued living with their mothers had similar delinquency rates to boys from intact harmonious families. These results are more concordant with life course theories rather than with trauma theories or selection theories of the effects of family disruption.*

## Broken Homes and Delinquency

Fuelled by the increasing instability of marital relationships since the 1960s, which has led to ever-increasing proportions of children experiencing disruption of their family life, the last three decades have witnessed a massive increase in research into the effect of parental separation and divorce on children. Within criminology, 'the topic of broken homes has been a central part of delinquency theory since the emergence of criminology in the 19th century' (Wells and Rankin 1991: 71). Rising juvenile crime rates coinciding with this increase in family instability provided an added impetus to carry out research into the link between disrupted families and delinquency. In this paper, we will discuss some of the complexities involved in analysing the association, and review explanations put forward to account for it. We will then test these explanations using data collected in the Cambridge Study in Delinquent Development, which is a prospective longitudinal study of 411 South London males from age 8 to age 46.

Early research up to the 1960s (e.g. Douglas *et al.* 1968; Glueck and Glueck 1950) revealed a considerably higher incidence of family disruption among delinquents convicted of criminal offences than among the non-delinquent population. American research from the 1950s suggested that a large part of the relation might reflect differential treatment by the police and courts (Wilkinson 1974); arguably, because two-parent homes were thought to be better able to provide supervision, youths from such homes were less often brought to court than were those from disrupted families. Nye's (1958) study of high school students in Washington State, for example, revealed that the relationship between broken homes and delinquency was much reduced using self-reports. An

ongoing debate ensued concerning the relative merits of self-reported delinquency and official statistics in testing the link between family factors and delinquency. Wells and Rankin (1991: 74) summed up the most commonly held position, at least in the United States: 'Clearly, self-reported measurements . . . have biases and limitations of their own, involving memory, deception, interpretation, and sampling of delinquent persons and acts. However, they avoid the family correlated biases of official records . . . Thus, self-reported measures provide a widely preferred, arguably superior, method of measuring juvenile delinquency in research on family dynamics.'

Nonetheless, Nye's (1958) research revealed that, even using self-reports, there was some relationship between broken homes and delinquency, and this relationship has been confirmed by all the major longitudinal studies (Coughlin and Vuchinich 1996; Ensminger *et al.* 1983; Fergusson *et al.* 1986, 1994; Mednick *et al.* 1990; Rosen 1985; Wadsworth 1979). The detailed review by Rodgers and Pryor (1998: 25) concluded that the risk of delinquency was doubled for children from broken homes compared to those from intact homes, and that the results were remarkably consistent over time and place. For example, Kolvin *et al.* (1988) found that 53 per cent of Newcastle boys experiencing divorce or separation in their first five years of life were convicted up to age 32, compared with 28 per cent of the remainder. Disrupted families seem to be as strong a predictor of self-reported and official delinquency as other major risk factors such as low family income, large family size, poor child-rearing, poor parental supervision, low IQ, low attainment and hyperactivity (Farrington 1992b: Table 6.1); odds ratios in all cases were of the order of 2.0–2.5.

'Broken homes' and 'disrupted families' are unsatisfactory terms, in that they include many different types of family experience. They are, however, difficult to avoid. Cernkovich and Giordano (1987: 297) expressed the frustration shared by a number of researchers, deploring the fact that while 'it appears to be generally accepted that harmonious yet physically broken homes are far less detrimental to the development and mental health of the child than are physically intact but psychologically broken homes . . . much of the research in this area turns to a dichotomous, structural variable— broken/unbroken home—as the major antecedent to delinquency'.

The real problem does not arise from focusing on family structure, but from the fact that the family structure variable most commonly employed rarely represents adequately the most relevant aspects of family functioning. A dichotomous variable (broken vs intact; two-parent vs lone-parent) ignores many important pre-disruption (e.g. reasons for disruption, timing of disruption, gender of the lost parent, level of conflict) and post-disruption (e.g. gender of the custodial parent, subsequent family reconstitution) characteristics of complex family disruption processes. As a result, families with very different experiences, many of which may perhaps cancel out in statistical analyses, are classified together. The main aim of this paper is to disentangle these different family experiences.

### Explaining the Relationship

Explanations of the relationship between disrupted families and delinquency fall into three major classes. *Trauma theories* suggest that the loss of a parent has a damaging effect on children, most commonly because of the effect on attachment to the parent. *Life*

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*course theories* focus on separation as a long-drawn-out process rather than a discrete event, and on the effects of the multiple stressors typically associated with separation. *Selection theories* argue that disrupted families are associated with delinquency because of pre-existing differences in, for example, family income or child-rearing methods.

The three classes of theory overlap to some extent. For example, life course theories focus on life course transitions and hence argue that separations are more damaging at some ages than others, while trauma theories (influenced by the idea of critical periods in development) suggest that separations in the first few years of life are more damaging than later separations. Life course theories focus on the important effects of parental conflict before and after the separation, while selection theories suggest that observed effects of separation are largely attributable to the pre-existing parental conflict in families who separate.

Bowlby (1951) popularized the most influential trauma theory in psychology. In his research, he found that delinquents were significantly more likely than comparison children to have suffered a complete and prolonged separation from their mothers during their first five years of life. He argued that mother love in infancy and childhood was just as important for mental health as were vitamins and proteins for physical health. He thought that it was essential that a child should experience a warm, loving and continuous relationship with a mother figure. If a child suffered a prolonged period of maternal separation during the first five years of life, this would have irreversible negative effects, including delinquency. Such deprived children tended to become 'affectionless characters', failing to develop loving ties with other children or with adults, and hence having no close friendships and no deep emotional feelings in their relationships.

A clear prediction of trauma theories is that the cause of the parental separation is unimportant. However, several studies suggest that parental death has fewer adverse effects than separation or divorce (Amato and Keith 1991; Glueck and Glueck 1950; Wadsworth 1979). A clear prediction of Bowlby's theory is that separation from the mother is more damaging than separation from the father. Because separation from the mother is relatively uncommon, most community surveys have focused on separation from the father (e.g. McCord 1982) and have not tested this prediction. Nevertheless, the small amount of available data supports Bowlby's prediction. In the National Survey of Health and Development, Wadsworth (1979) found that the mother's death was associated with a higher risk of delinquency than the father's death. In the Woodlawn study of African American youth in Chicago, Ensminger (1990) noted that the proportion of adolescents reporting problem behaviours (sexual behaviour, alcohol and drug use, and assault) was greater in mother-absent families than in other family types.

In criminology, the most influential variety of trauma theory is Hirschi's control theory. Hirschi (1969: 88–94) suggested that three aspects of attachment to conventional parents acted to protect children from delinquency: identification, intimacy of communication, and supervision. Hence, the higher rates of delinquency among children with disrupted family lives were primarily caused by the damaging effects of separation and divorce on attachment. Children from broken homes were more at risk of delinquent behaviour because resentment towards their parents made them less affectionate and communicative and because custodial parents would provide less supervision and have less control over the types of friends they made. Subsequent research has tested or refined this model, adding to or qualifying the elements of 'attachment', and examining how they mediate the relationship between family breakdown and delinquency

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(Coughlin and Vuchinich 1996; Free 1991; Hoffman 1993, 1995; Rankin and Wells 1990; Rosen 1985; Sokolkatz *et al.* 1997). Overall, support for the attachment/control perspective is strong. No matter how they are measured, close ties to parents 'are moderately and inversely related to self-reported delinquency' (Rankin and Kern 1994: 497).

Life course theories view divorce 'as a process characterized by a sequence of potentially stressful experiences that begin before physical separation and continue after it' (Morrison and Cherlin 1995: 801). Such factors as parental loss, poor parenting, parental conflict and a reduced standard of living are viewed as stressors in their own right. The life course perspective 'emphasizes that it is not a single stressor, but the accumulation of negative events, that may result in problems for children' (Amato 1993: 33). In other words, the more disruptive life events a child experiences, the more stressful and damaging will be the effects. While enjoying growing popularity in research focusing specifically on the effects of marital disruption on children's well-being (Amato 1993; Haurin 1992; Morrison and Cherlin 1995), this approach is rarely seen in criminology, in which family disruption is viewed primarily as one of the risk factors that predict delinquency.

The life course perspective suggests that the timing of life course transitions is important, and hence that the effects of parental separation will vary according to the age of the child. Unfortunately, tests of this prediction do not yield consistent results. Wadsworth's (1979) research demonstrated that, the younger the child at the time of family breakdown (and especially under age 5), the higher the risk of delinquency. Pagani *et al.* (1997) also found that experiencing parental divorce during early childhood, compared with later in life, led to increased behavioural disturbance. McCord (1982), on the other hand, found no association between age at the time of separation and delinquency. Mednick *et al.* (1990) reported the highest rates of delinquency for boys whose parents separated after age 12, while Fergusson *et al.* (1994) concluded that children aged between 6 and 10 at the time of disruption were less at risk of delinquency than either younger children or adolescents.

The life course perspective also suggests that the post-separation family history is important, and especially that the arrival of a stepfather will have a different effect compared with remaining in a lone mother family. According to control theory, remarriage should act as a protective factor against delinquency, with two parents available once again to provide the necessary care and supervision. Research results, however, generally find the opposite (Coughlin *et al.* 1996; Fergusson *et al.* 1986; Hanson *et al.* 1996; Haurin 1992; Hoffman 1995). Pagani *et al.* (1998) showed that the arrival of a stepfather during a boy's adolescence increased his risk of delinquency above that of boys in intact, single-parent or step-families established at an earlier age. Wadsworth (1979) reported the highest rates of delinquency were among children in step-families who were over four years old when their biological parents separated.

Summarizing the effects of the post-separation family trajectory is difficult, not only because of the scarcity of relevant data but also because of the variety of possible family histories. The life course perspective suggests that, the greater the instability, the more damaging will be the effect; the number of family transitions provides a simple measure of instability. Mednick *et al.* (1990) carried out a longitudinal study of patterns of family instability and crime in a Danish birth cohort of males. They demonstrated that changes in a child's family during adolescence (whether or not these occurred earlier in life as

well) more than doubled the risk of conviction, compared to boys with a stable family history during adolescence. They also investigated the degree of post-divorce instability during adolescence, showing conviction rates of 28 per cent among boys with stability during adolescence, 42 per cent among boys experiencing one family change, and 65 per cent among boys with more than one change. These results could not be explained by changes in socio-economic status, despite a clear association between changes in SES and offending independent of family instability.

The most popular type of selection theory suggests that the association between family disruption and delinquency is a spurious one, with parental conflict preceding, and responsible for, both the broken home and the delinquency (Amato 1993; Cherlin *et al.* 1991). Amato and Keith's (1991) meta-analysis found strong support for this position. In the Christchurch study, Fergusson *et al.* (1992) cited mounting evidence showing that exposure to parental discord, rather than family structure, was the critical factor leading to behaviour problems in children. Generally, however, while conflict is an important risk factor for delinquency, it cannot explain all the effect of family disruption (Amato and Keith 1991; Fergusson *et al.* 1994; McCord 1982; Najman *et al.* 1997). McCord's (1982) study, for example, while revealing higher delinquency rates among boys in intact conflictual families than among those living with affectionate mothers in lone-parent families, found the highest crime rates among boys from broken homes with unaffectionate mothers.

While selection theories are concerned with pre-existing factors that might explain away the relationship between disrupted families and delinquency, life course theories are concerned with pre-existing factors that might moderate or mediate the effects (Baron and Kenny 1986). For example, children exposed to poor child rearing before the separation may be affected more than those brought up well. Other pre-separation factors that might influence the relationship between disrupted families and delinquency include paternal criminality or alcoholism and maternal coldness (McCord 1982; Mednick *et al.* 1987). It is possible that separation from an antisocial parent might be beneficial rather than damaging. Children might also differ in pre-existing vulnerability or resilience. For example, a history of early conduct problems might make children particularly susceptible to parental discord (Fergusson *et al.* 1994).

*Hypotheses to be Tested*

The most basic hypothesis to be tested is, of course:

(1)  Is delinquency more common among boys from permanently disrupted families (broken homes) compared to boys from intact families?

Two hypotheses particularly relevant to trauma theories are as follows:

(2)  Are delinquency rates higher among boys from families disrupted by parental disharmony rather than death?
(3)  Are delinquency rates higher among boys who lose their mother as opposed to their father?

Four hypotheses particularly relevant to life course theories are as follows:

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(4) How does the boy's age at the time of the family disruption affect his risk of delinquency?

(5) Are delinquency rates different according to whether the boy remains with the mother or the father after the separation? (This is, of course, linked to hypothesis 3.)

(6) Are boys who remain with lone mothers less delinquent than boys with mothers and stepfathers?

(7) How does the post-disruption family trajectory influence delinquent development? How is delinquency affected by the number and type of post-disruption family transitions?

Two hypotheses particularly relevant to selection theories are as follows:

(8) Is delinquency more common among boys from disrupted families than among boys in high-conflict intact families?

(9) Do relationships between family disruption and delinquency disappear after controlling for other important predictors of delinquency, such as low family income, criminal parents, poor parental supervision, and hyperactivity, troublesomeness and low intelligence of the boy?

The final hypothesis is important in view of the history of criminological research on broken homes and delinquency:

(10) Do results obtained with juvenile convictions differ from those obtained with juvenile self-reported delinquency or adult convictions?

### *Method*

#### *Design*

The Cambridge Study in Delinquent Development is a prospective longitudinal survey of the development of offending and antisocial behaviour in 411 males. At the time they were first contacted in 1961–2, these males were all living in a working-class inner-city area of South London. The sample was chosen by taking all the boys who were then aged 8–9 and on the registers of six state primary schools within a one-mile radius of a research office that had been established. Hence, the most common year of birth of these males was 1953. In nearly all cases (94 per cent), their family breadwinner at that time (usually the father) had a working-class occupation (skilled, semi-skilled or unskilled manual worker). Most of the males were white (97 per cent) and of British origin. At age 8, only 6 per cent had no operative father, and only 1 per cent had no operative mother. The study was originally directed by Donald J. West, and it has been directed since 1982 by David P. Farrington, who has worked on it since 1969. The major results can be found in four books (West 1969, 1982; West and Farrington 1973, 1977), in more than 60 papers listed by Farrington and West (1990), and in a summary paper by Farrington (1995). These publications should be consulted for more details about the variables used in this paper.

A major aim in this survey was to measure as many factors as possible that were alleged to be causes or correlates of offending. The males were interviewed and tested at about ages 8, 10 and 14 in their schools, at about 16, 18 and 21 in a research office and at about 25 and 32 in their homes. They are currently being interviewed at age 46. The tests in schools measured individual characteristics such as intelligence, attainment, personality, and psychomotor impulsivity, while information was collected in the interviews about such topics as living circumstances, employment histories, relationships with females, leisure activities such as drinking and fighting, and offending behaviour.

In addition, interviews with the boys' parents were carried out by psychiatric social workers who visited their homes. These took place about once a year from when the boy was about 8 until when he was aged 14–15 and was in his last year of compulsory education. The primary informant was the mother, although most fathers were also seen. The parents provided details about such matters as family income, family size, their employment histories, their child-rearing practices (including attitudes, discipline, and parental disharmony), their degree of supervision of the boy, and about all his temporary or permanent separations from them. Thus, information about separations was collected by psychiatric social workers in repeated interviews with the boy's parents.

The teachers also completed questionnaires when the boys were aged about 8, 10, 12 and 14. These furnished data about their troublesome and aggressive school behaviour, their attention deficits, their school attainments and their truancy. Ratings were also obtained from the boys' peers when they were in the primary schools, about such topics as their daring, dishonesty, troublesomeness and popularity.

### Measures of delinquency

Searches were carried out in the central Criminal Record Office (National Identification Service) in London to try to locate findings of guilt of the males, of their parents, of their brothers and sisters, and (in recent years) of their wives and cohabitees. The minimum age of criminal responsibility in England is 10. The Criminal Record Office contains records of all relatively serious offences committed in Great Britain or Ireland, and also acts as a repository for records of minor juvenile offences committed in London. In the case of 18 males who had emigrated outside Great Britain and Ireland by age 32, applications were made to search their criminal records in the eight countries where they had settled, and searches were actually carried out in four countries. Since most males did not emigrate until their twenties, and since the emigrants had rarely been convicted in England, it is likely that the criminal records are quite complete.

The latest search of conviction records took place in the summer of 1994, when most of the males were aged 40. Between ages 10 and 16 inclusive (the years of juvenile delinquency in England at that time), 85 males (21 per cent) were convicted. Altogether, up to age 40, 164 males (40 per cent) were convicted (Farrington *et al.* 1996, 1998). Hence, excluding juvenile convictions, 79 males (24 per cent of the remaining 326 males) were first convicted as adults. Convictions were only counted if they were for offences normally recorded in the Criminal Record Office, thereby excluding minor crimes such as common assault, traffic infractions and drunkenness. The most common offences included were thefts, burglaries and unauthorized takings of vehicles, although there were also quite a few offences of violence, vandalism, fraud and drug abuse.

In order not to rely exclusively on official records for information about offending, self-reports of offending were obtained from the males at every age from 14 to 32. At age 14, the boys were asked to indicate (by sorting cards) if they had ever committed each of 38 delinquent and fringe-delinquent acts (Farrington 1973).

Three measures of offending are used in the present paper: juvenile convictions (age 10–16), adult convictions (age 17–40, excluding those convicted as juveniles), and juvenile self-reported delinquency (age 14). The 'self-reported delinquents' are those in the top quartile, admitting 14 or more different acts out of 38.

*Previous studies of separations in the Cambridge study*

The main measure of disrupted families used previously in the Cambridge study concerned temporary or permanent separations from natural or operative parents lasting more than one month and occurring before the boy's tenth birthday. West and Farrington (1973: 71) reported that 20 per cent of boys who were separated because of death or hospitalization were convicted as juveniles, compared with 32 per cent of boys separated for other reasons (principally parental disharmony), and 16 per cent of unseparated boys. Hence, they concluded that separations caused by death or illness were not particularly criminogenic. They also found that separations between birth and age 5 were not more damaging than later separations up to the tenth birthday.

Multivariate analyses showed that separation for other reasons was an independent predictor of convictions in least-squares multiple regression (Farrington 1990) and logistic regression (Farrington 1993a) analyses. Also, there was an interaction between separation and family income in predicting early convictions (age 10–14): boys from low income families were less likely to be convicted if they were separated, whereas boys from higher income families were more likely to be convicted if they were separated (Farrington 1994b). Separation also predicted juvenile self-reported delinquency (Farrington 1992b) and adult convictions (Farrington 1992a), but did not predict chronic versus non-chronic offenders (Farrington and West 1993).

Regarding other behavioural outcomes, separation predicted truancy at age 12–14 (Farrington 1996) and spouse assault at age 32 (Farrington 1994a) independently of all other variables. It also predicted official and self-reported violence, but not independently of all other variables (Farrington 1997). Separation did not significantly predict bullying (Farrington 1993b). Studies of the men's own conjugal lives showed that separation from their wives led to an increase in their offending, just as getting married had led to a decrease (Farrington and West 1995).

In the Cambridge study, broken homes (permanent separations) have been studied less than the above separation variable, for the statistical reason that there were few broken homes up to the boy's tenth birthday (only 31 caused by reasons other than death), and because of the interest in predicting later convictions using truly predictive variables measured up to the tenth birthday. However, West and Farrington (1973: 70) compared broken homes up to the fifteenth birthday with juvenile convictions. They found that 21 per cent of 28 boys from homes broken by parental death were convicted, compared with 38 per cent of 48 boys from homes broken for other reasons, and 18 per cent of 335 boys from unbroken homes. The present paper takes this result as its starting point and analyses the concept of broken homes or disrupted families in more detail.

*Results*

*Disrupted families versus delinquency*

For the present analyses, the original social worker case files were re-read and all disrupted family variables were newly coded and computerized. The 76 boys previously coded as coming from broken homes up to the fifteenth birthday (West and Farrington 1973: 70) became 75 boys from permanently disrupted families (separated from a biological parent) in the present paper. Four new cases were added where the family disruption occurred at age 14 and where previous coders had been unsure whether it was permanent. Three cases were excluded because the parents never separated from each other, although the boy had been separated from his parents. Two other cases were excluded where the permanent separation occurred after the boy's first conviction, to ensure that permanent separations (here referred to as family disruptions) were always *predictive* of convictions.

Table 1(a) shows that, compared with boys from intact families, delinquency was more common among the 75 boys from disrupted families: 29 per cent of these boys were convicted as juveniles, a significant difference from the 18 per cent of boys from intact families convicted (Odds Ratio or OR = 1.9, 95% Confidence Interval or CI = 1.1 to 3.3; odds ratios are used throughout to measure strength of effect. Here, the odds of conviction for boys from disrupted families = 22/53 or 0.415, while the odds of conviction for boys from intact families = 60/274 or 0.219, so OR = 1.9. As a rule of thumb, odds ratios greater than 2.0 indicate strong relationships.) Similarly, boys from disrupted families were more likely to be self-reported delinquents (OR = 2.1, CI = 1.2 to 3.7) and to be convicted as adults (OR = 1.8, ns). Clearly, family disruption predicted delinquency in the Cambridge study.

Family conflict among boys from intact families also predicted delinquency. Family conflict was rated by the social workers, and referred to chronic tension or disagreement in many fields between the operative parents when the boy was aged 8 (23 boys from intact families were not known on family conflict). Table 1(b) shows that, compared with low family conflict, high family conflict strongly predicted juvenile convictions (OR = 2.8, CI = 1.5 to 5.4) and self-reported delinquency (OR = 2.4, CI = 1.3 to 4.4), but not adult convictions (OR = 1.3).

An important issue is whether delinquency rates are higher in disrupted families than in intact but conflictual families. Table 1(c) shows clearly that boys from these types of families were not significantly different in their delinquency rates (OR = 1.0 to 1.4). Previous research suggested that the loss of the mother was more damaging than the loss of the father. Table 1(d) confirms this. Despite the small numbers, all three odds ratios were significant: for juvenile convictions, OR = 3.7 (CI = 1.3 to 10.5); for self-reported delinquency, OR = 5.9 (CI = 2.0 to 17.1); for adult convictions, OR = 4.8 (CI = 1.3 to 18.1).

Previous research also suggested that families disrupted by disharmony were more criminogenic than families disrupted by parental death. Table 1(e) shows that this was indeed true for juvenile and adult convictions (OR = 2.0 and 1.9 respectively), but not for self-reported delinquency (OR = 1.2). The relative sizes of odds ratios suggested that whether the father or mother was lost was more important than whether the cause of the disruption was death or disharmony.

This was confirmed by disaggregating Tables 1(d) and 1(e). Odds ratios were greatest for the comparison of father and mother dying, followed by the comparison of father and

TABLE 1   *Disrupted family variables versus delinquency*

| Variables | % Juvenile SRD (23) | % Juvenile Conviction (20) | % Adult Conviction (24) |
|---|---|---|---|
| (a)  Intact family (334) | 20 | 18 | 22 |
| Disrupted family (75) | 35 | 29 | 34 |
| OR | 2.1* | 1.9* | 1.8 |
| (b)  Intact, low conflict (247) | 17 | 13 | 21 |
| Intact, high conflict (64) | 31 | 30 | 27 |
| OR | 2.4* | 2.8* | 1.3 |
| (c)  Intact, high conflict (64) | 31 | 30 | 27 |
| Disrupted family (75) | 35 | 29 | 34 |
| OR | 1.1 | 1.0 | 1.4 |
| (d)  Loss of father (50) | 22 | 20 | 25 |
| Loss of mother (25) | 63 | 48 | 62 |
| OR | 5.9* | 3.7* | 4.8* |
| (e)  Cause—death (29) | 32 | 21 | 26 |
| Cause—disharmony (46) | 37 | 35 | 40 |
| OR | 1.2 | 2.0 | 1.9 |
| (f)  Father died (21) | 19 | 14 | 17 |
| Mother died (8) | 71 | 38 | 60 |
| OR | 10.6* | 3.6 | 9.0 |
| (g)  Father left (29) | 24 | 24 | 32 |
| Mother left (17) | 59 | 53 | 63 |
| OR | 4.5* | 3.5 | 3.6 |
| (h)  Father died (21) | 19 | 14 | 17 |
| Father left (29) | 24 | 24 | 32 |
| OR | 1.4 | 1.9 | 2.3 |
| (i)  Mother died (8) | 71 | 38 | 60 |
| Mother left (17) | 59 | 53 | 63 |
| OR | 0.6 | 1.9 | 1.1 |
| (j)  Disrupted at age 0–4 (29) | 45 | 35 | 42 |
| Disrupted at age 5–9 (20) | 21 | 20 | 25 |
| Disrupted at age 10–14 (26) | 35 | 31 | 33 |
| OR (5–9 vs. 0–4) | 3.0 | 2.1 | 2.2 |
| OR (5–9 vs. 10–14) | 2.0 | 1.8 | 1.5 |
| OR (10–14 vs. 0–4) | 1.5 | 1.2 | 1.5 |
| (k)  No. parental transitions |  |  |  |
| 1 (44) | 26 | 21 | 26 |
| 2 (19) | 42 | 32 | 46 |
| 3 or more (12) | 58 | 58 | 60 |
| OR (1 vs 2 or more) | 2.7* | 2.8* | 2.9 |
| (l)  Post-disruption continuity |  |  |  |
| With mother (39) | 18 | 13 | 24 |
| With father (13) | 58 | 46 | 43 |
| Other (23) | 52 | 48 | 58 |
| OR (mother vs rest) | 5.4* | 6.1* | 3.6* |
| (m) Post-disruption trajectory |  |  |  |
| Lone mother, father died (15) | 13 | 7 | 7 |
| Lone mother, father left (14) | 21 | 14 | 33 |
| Lone mother then stepfather (10) | 20 | 20 | 38 |
| Lone father (13) | 58 | 46 | 43 |
| Always relatives (10) | 40 | 20 | 50 |
| Some non-relatives (13) | 62 | 69 | 75 |

TABLE 1    continued

| Variables | % Juvenile SRD (23) | % Juvenile Conviction (20) | % Adult Conviction (24) |
|---|---|---|---|
| (n)  Intact, low conflict (247) | 17 | 13 | 21 |
| Intact, high conflict (64) | 31 | 30 | 27 |
| Disrupted, with mother (39) | 18 | 13 | 24 |
| Disrupted, not with mother (36) | 54 | 47 | 53 |
| OR (ILC vs DWM) | 1.1 | 1.0 | 1.1 |
| OR (ILC vs DNWM) | 5.9* | 6.0* | 4.1* |
| OR (IHC vs DNWM) | 2.5* | 2.1 | 3.0* |
| OR (DWM vs IHC) | 2.2 | 2.9 | 1.2 |

OR = Odds ratio; * = Confidence interval does not include 1.0 (Odds ratio significant at p< .05); ILC = Intact, low conflict; IHC = Intact, high conflict; DWM = Disrupted, with mother; DNWM = Disrupted, not with mother; SRD = Self-reported delinquency

mother leaving (Tables 1(f) and 1(g)). Despite the small numbers, the ORs for self-reported delinquency were both significant, and the OR of 3.5 for father left vs mother left predicting juvenile convictions was of borderline significance (CI = 0.98 to 12.7). The ORs for father died vs father left, predicting juvenile and adult convictions were substantial (1.9 and 2.3 respectively), as was the OR of 1.9 for mother died vs. mother left, predicting juvenile convictions (Tables 1(h) and 1(i)). However, whether the father died or left, or whether the mother died or left, did not predict self-reported delinquency.

Prior research relating the age of the child on disruption to delinquency produced inconsistent results. Table 1(j) suggests a possible reason for this, in showing that the relationship was curvilinear. Delinquency rates were highest for disruptions in infancy (age 0–4) and adolescence (age 10–14) and lowest for disruptions in childhood (age 5–9). The odds ratios were substantial (over 2.0) for the comparison of ages 0–4 and 5–9.

### Post-disruption trajectories

Table 1(k) supports previous research suggesting that delinquency rates increased with the number of parental transitions. A parental transition is defined here as a change of operative parents. For example, if the mother died, that would be one parental transition; if the boy was later sent off to live with his grandmother, that would be a second; if the boy then returned to live with his father, that would be a third; and if the father then acquired a partner (the boy's stepmother), that would be a fourth. Comparing one transition with two or more, all three odds ratios indicated strong relationships: with juvenile convictions, OR = 2.8 (CI = 1.01 to 7.8); with self-reported delinquency, OR = 2.7 (CI = 1.02 to 7.3); with adult convictions, OR = 2.9 (ns because of smaller numbers).

Consistent with the less damaging effect of paternal loss compared with maternal loss, continuously living with the mother after the disruption was associated with lower delinquency rates than continuously living with the father or with others (relatives or non-relatives; see Table 1(l)). Living with the mother compared to others significantly predicted juvenile convictions (OR = 6.1, CI = 1.9 to 19.1), self-reported delinquency (OR = 5.4, CI = 1.9 to 15.6) and adult convictions (OR = 3.6, CI = 1.1 to 12.0).

Table 1(m) displays six post-disruption trajectories, showing living arrangements from the moment of disruption until the fifteenth birthday. The results for juvenile convictions and self-reports are shown graphically in Figure 1. Living continuously in a lone mother family following the father's death predicted the lowest delinquency rates— lower even than living in an intact low conflict family. This was followed by two trajectories with similar rates: living in a lone mother family after the father left, and living with a lone mother and then a stepfather. Delinquency rates were higher if the boy lived with a lone father (including two boys with stepmothers) or with relatives (usually maternal grandmothers or aunts), and highest if the boy lived with non-relatives (usually in the care of the social services or with foster parents).

The trajectory variable incorporates elements of the other variables shown in Table 1, none of which was important independently of the post-disruption trajectory. The trajectory includes whether the cause of the disruption was death or disharmony and whether the father or mother was lost. It was confounded with the number of parental transitions, because the 29 lone mother and 11 truly lone father cases comprised the majority of the 44 boys with only one parental transition. It was only weakly related to the age on disruption; 13 of the 29 lone mother boys were disrupted at age 10–14, whereas 13 of the 23 boys living with relatives or non-relatives were disrupted at age 0–4. Logistic regression analyses showed that which parent was lost, the cause of the disruption, the age on disruption, the number of parental transitions and post-disruption continuity (with mother or not) did not predict any of the three delinquency measures
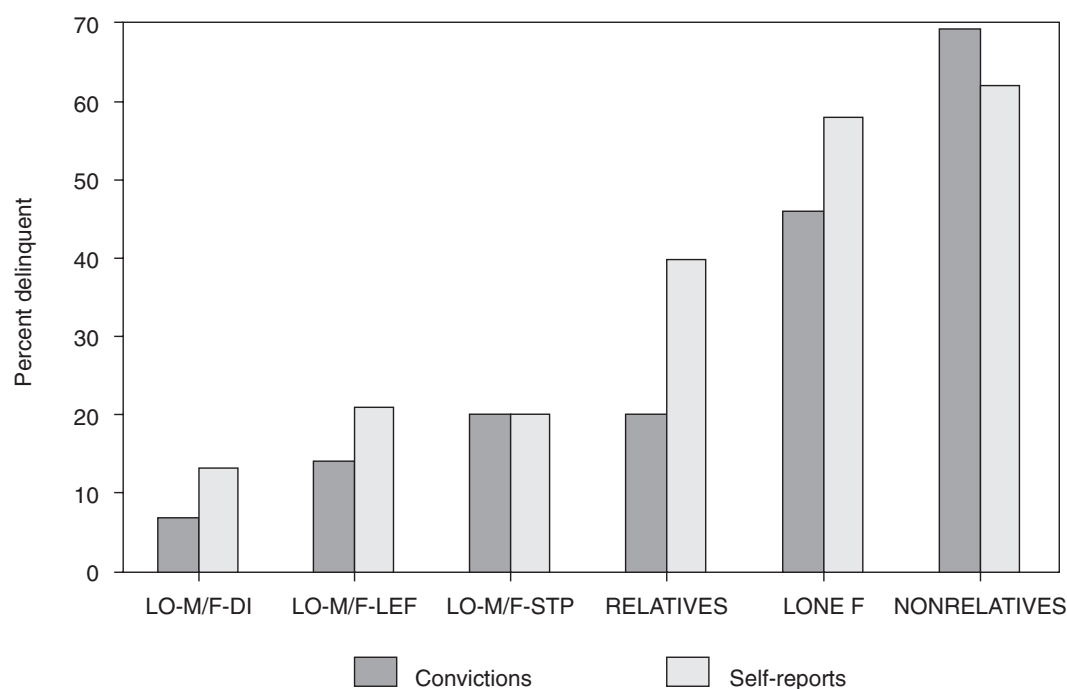


FIG. 1   Post-disruption trajectories

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independently of the post-disruption trajectory. Therefore, the post-disruption trajectory variable essentially summarizes all the key results.

Table 1(n) includes 247 boys from intact, low conflict (ILC) families and 64 boys from intact, high conflict (IHC) families with the 39 boys from disrupted families who stayed with their mothers following disruption (DWM) and the 36 who did not (DNWM). Interestingly, delinquency rates were almost identical for boys from intact, low conflict families and for boys from disrupted families who stayed with their mothers. Compared with boys from intact, low conflict families, boys from disrupted families who did not stay with their mothers were far more likely to be convicted as juveniles (OR = 6.0, CI = 2.8 to 12.9), self-reported delinquents (OR = 5.9, CI = 2.8 to 12.4) and convicted as adults (OR = 4.1, CI = 1.6 to 10.6). Compared with boys from intact, high conflict families, boys from disrupted families who did not stay with their mothers were significantly more likely to be self-reported delinquents (OR = 2.5, CI = 1.1 to 5.8) and convicted as adults (OR = 3.0, CI = 1.0 to 9.3), and substantially more likely to be convicted as juveniles (OR = 2.1, ns). Compared with boys from disrupted families who stayed with their mothers, boys from intact, high conflict families were more likely to be convicted as juveniles (OR = 2.9, ns) but not more likely to be convicted as adults (OR = 1.2).

### Possible intervening variables

Ten important predictors of delinquency in this study were included in analyses as possible moderating or mediating variables. According to regression analyses, the most important predictors at age 8–10 fell into six categories of constructs (Farrington 1990). *Low family income* and *large family size* (four or more full biological siblings), both based on social worker interviews, were considered to be measures of socio-economic deprivation. *A convicted biological parent*, derived from searches of criminal records, was a measure of family deviance. *Poor parental supervision* or monitoring of the boy, based on social worker interviews, was a measure of child-rearing. The other main measure of poor child-rearing used previously in the study was a combination of three variables: parental attitude (warm and loving vs cruel, passive or neglecting), parental discipline (normal vs harsh or erratic) and parental disharmony, all based on social worker interviews. Because parental disharmony was included in the disrupted family variables, *the attitude and discipline of the custodial parent* was used in the present paper (see also Farrington 1991).

*Low non-verbal IQ* (score 90 or less on the Progressive Matrices) and *low junior school attainment* (based on tests of Arithmetic, English and Verbal Reasoning) were measures of academic difficulties. *Hyperactivity* (teacher ratings of poor concentration or restlessness in class) and *daring* (parent and peer ratings of risk-taking) were measures of hyperactivity-impulsivity-attention deficit. *Troublesomeness* (teacher and peer ratings of getting into trouble) was a measure of childhood antisocial behaviour. The major problem of interpretation with these analyses is that the risk factors were measured at age 8–10, whereas the family disruptions could occur before or after this age.

Logistic regression analyses demonstrated that a disrupted as opposed to an intact family (the basic dichotomous variable shown in Table 1(a)) significantly predicted juvenile convictions after controlling simultaneously for all ten important predictors (Likelihood Ratio Chi-Squared or LRCS = 4.98, 1 df, p = 0.026). Similarly, a disrupted family significantly predicted juvenile self-reported delinquency after controlling for all ten important predictors (LRCS = 6.28, 1 df, p = 0.012). However, a disrupted family did

not significantly predict adult convictions after controlling for all ten important predictors (LRCS = 2.10, 1 df, ns).

Logistic regression analyses also demonstrated that the four-category variable shown in Table 1(n) (ILC, IHC, DWM, DNWM) was a stronger predictor of delinquency after controlling for all ten important predictors than was the simple disrupted/intact dichotomy: for juvenile convictions, LRCS = 12.58, 3 df, p = 0.006; for juvenile self-reported delinquency, LRCS = 15.95, 3 df, p = 0.001; for adult convictions, LRCS = 7.00, 3 df, p = 0.072). This confirms the greater usefulness of the four-category variable.

It is still possible that the higher delinquency rates of boys from disrupted families who did not stay with their mothers (DNWM) compared with boys from disrupted families who stayed with their mothers (DWM) is moderated or mediated by one or more of the important predictors of delinquency. Since low family income predicts delinquency, for example, it is conceivable that the DNWM boys had lower family incomes than the DWM boys, and that this explained the link between DNWM boys and delinquency.

Table 2 shows that the DNWM boys were not more likely to possess any of these ten risk factors than the DWM boys. For example, the DWM boys were more likely to come from low income families than the DNWM boys (41 per cent compared with 33 per cent: OR = 0.7); the 29 boys with lone mothers had the lowest incomes, as well as the 13 boys with non-relatives. Importantly, DNWM boys were not markedly more likely to experience cold or harsh discipline or poor supervision than DWM boys, suggesting that these child-rearing factors did not explain the higher delinquency rate of DNWM boys. It was interesting that the highest rate of criminal parents (70 per cent) was in the lone mother-stepfather families, and boys from these families were the most hyperactive (56 per cent) and troublesome (50 per cent) and had the lowest attainment (50 per cent). The DNWM boys had somewhat higher rates of daring and troublesomeness than the DWM boys (OR = 1.8 and 1.7 respectively), so these factors could be stepping stones in the causal chain between being disrupted/not staying with mother and delinquency. Logistic regression analyses confirmed that being a DNWM or DWM boy predicted all three measures of delinquency after entering all ten risk factors in the equation; hence, the effect of DNWM vs DWM was not explainable by the moderating or mediating effects of these risk factors.

Table 2    *Characteristics of boys in post–disruption trajectory categories (%)*

|  | ILC (247) | IHC (64) | ORI | DWM (39) | DNWM (36) | ORD |
|---|---|---|---|---|---|---|
| Low income | 14 | 36 | 3.4* | 41 | 33 | 0.7 |
| Large family | 22 | 38 | 2.1* | 21 | 22 | 1.1 |
| Criminal parent | 22 | 38 | 2.1* | 33 | 33 | 1.0 |
| Harsh discipline | 22 | 52 | 4.0* | 38 | 43 | 1.2 |
| Poor supervision | 12 | 41 | 4.8* | 21 | 28 | 1.4 |
| Low IQ | 23 | 34 | 1.7 | 21 | 25 | 1.3 |
| Low attainment | 18 | 35 | 2.4* | 23 | 31 | 1.5 |
| Hyperactive | 15 | 30 | 2.4* | 26 | 17 | 0.6 |
| Daring | 24 | 40 | 2.1* | 31 | 44 | 1.8 |
| Troublesome | 17 | 34 | 2.5* | 21 | 31 | 1.7 |

ORI = Odds ratio comparing ILC and IHC; ORD = Odds ratio comparing DWM and DNWM; * = Confidence interval does not include 1.0 (Odds ratio significant at p<.05); ILC = Intact, low conflict; IHC = Intact high conflict; DWM = Disrupted, with mother; DNWM = Disrupted, not with mother.

In contrast, the boys from intact, high conflict (IHC) families differed from those from intact, low conflict (ILC) families on all these risk factors, with only low IQ having a non-significant odds ratio (Table 2). Logistic regression analyses confirmed that being an IHC or ILC boy did not predict any measure of delinquency after entering all ten risk factors in the equation. Therefore, several of these risk factors could explain away the effect of conflict in intact families.

In order to test whether family disruption might be beneficial for some boys, the effects of family disruption on delinquency were studied separately for those with or without a criminal parent. However, boys who were separated from a criminal parent (father or mother) were more delinquent than boys who were not separated from a criminal parent.

## *Discussion*

These results confirm that disrupted families in general are associated with relatively high delinquency rates. However, they also show the need for a sophisticated analysis of different kinds of family configurations. Our results are limited by small numbers (only 75 boys from disrupted families). Nevertheless, they suggest that life course theories are more plausible than trauma or selection theories in explaining the link between disrupted families and delinquency.

Contrary to trauma theories, the cause of the family disruption mattered: disruptions caused by disharmony were associated with higher delinquency rates than disruptions caused by death. However, Bowlby's (1951) theory was supported by the fact that the loss of the mother was associated with higher delinquency rates than was the loss of the father. Contrary to selection theories, the higher delinquency rates of boys from disrupted families held up independently of important predictors of delinquency. However, in agreement with selection theories, delinquency rates of boys from intact high conflict families were similar to delinquency rates of boys from disrupted families.

In agreement with life course theories, events before and after the family disruption were important. The delinquency rate varied dramatically according to the post-disruption trajectory, which was the most important summary variable. Delinquency rates of boys with lone mothers whose fathers had died were less than delinquency rates of boys in intact low conflict families. In contrast, delinquency rates of boys who were not with their mother were very high, partly because the absence of the mother often led to family instability and several parental transitions. Boys with stepfathers did not have higher delinquency rates than boys with lone mothers whose fathers had left, but they did have higher delinquency rates than boys with lone mothers whose fathers had died. Family disruptions in infancy (under age 5) or adolescence (age 10–14) seemed to be more damaging than family disruptions in childhood (age 5–9).

Interestingly, almost all of our results were very similar, no matter whether juvenile convictions, self-reported delinquency or adult convictions were studied. In particular, it was not true in general that relationships were weaker with self-reported delinquency than with juvenile convictions. There were only two important differences. First, while conflict within intact families strongly predicted juvenile convictions and self-reports, it did not predict rates of first conviction as an adult. This possibly might be explained if the experience of parental conflict has an immediate effect that decreases with time. Second,

marital disharmony compared with death predicted higher rates of both juvenile and adult first convictions, but did not significantly predict self-reported delinquency. This might possibly be interpreted as indicating more sympathetic police action for a boy whose parent had died compared with a boy whose parent had left.

Our results suggest that the loss of the mother is more important than the loss of the father in fostering high delinquency rates, and conversely that staying with the mother after family disruption is more important in fostering low delinquency rates. These findings may be specific to a particular time period. Forty years ago, when these boys were young, it is likely that the mother would have taken the major role in child-rearing, because the family division of labour was more clearly divided along gender lines than nowadays and almost all of the boys were living with two operative parents. Compared with the loss of a father, losing a mother much more often meant living with relatives, in residential care or in foster homes. Even boys remaining in their father's household were very often cared for by sisters or other relatives, or had themselves to care for the family. This may explain why boys living continuously with their fathers were more than three times at risk of juvenile conviction or self-reported delinquent acts as those continuously cared for by their mothers.

It seems probable that modern fathers, more involved in the home and family than in the past, would be better prepared for lone fatherhood and better able to provide a stable home. However, even if this were the case, it might not lead to a narrowing of the gap in delinquency rates, for a quite unconnected reason: custody is generally awarded to the father only if the mother is proved to be very inadequate. Hence, higher delinquency rates of children brought up by their fathers might be attributable to a previously unhealthy family life irrespective of the father's ability to provide a stable home after separation or divorce.

Our results throw some light on the problems involved in studying the link between disrupted families and delinquency, and indicate that the inconsistencies and questionable conclusions of previous studies may be a consequence of their insufficiently detailed classification system for family histories. Differences in delinquency rates within intact families, between high and low conflict families, were often as great as differences between intact and disrupted families. However, differences among the various types of disrupted families were even greater than those between intact and disrupted families. Therefore, it would be a mistake to conclude that disrupted families in general have criminogenic effects.

Our post-disruption trajectory classification seems the most useful, but would not necessarily be the best for a different historical period. More recent studies would certainly need to include different custody arrangements, and the post-separation conjugal arrangements of both biological parents, including the presence of step and half siblings. The effects of family disruption on delinquency may depend on the prevalence of divorce and long-term lone parenthood in society. Up-to-date research on family disruption and delinquency, taking account of the type of distinctions revealed in our work, is greatly needed.

We conclude that some kinds of disrupted families are criminogenic (e.g. those where the boy does not remain with the mother), just as some kinds of intact families are criminogenic (e.g. those characterized by high parental conflict). Equally, some kinds of disrupted families (e.g. those where the boy remains with a lone mother) are no more criminogenic than intact harmonious families.

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