Urban Poverty and the Family Context of Delinquency: A New Look at Structure and Process in a Classic Study

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SAMPSON, ROBERT J., and LAUB, JOHN H. *Urban Poverty and the Family Context of Delinquency: A New Look at Structure and Process in a Classic Study.* CHILD DEVELOPMENT, 1994, **65**, 523–540. This paper reanalyzes data from the Gluecks' classic study of 500 delinquents and 500 nondelinquents reared in low-income neighborhoods of central Boston. Based on a general theory of informal social control, we propose a 2-step hypothesis that links *structure* and *process:* family poverty inhibits family processes of informal social control, in turn increasing the likelihood of juvenile delinquency. The results support the theory by showing that (1) erratic, threatening, and harsh discipline, (2) low supervision, and (3) weak parent-child attachment mediate the effects of poverty and other structural factors on delinquency. We also address the potential confounding role of parental and childhood disposition. Although difficult children who display early antisocial tendencies do disrupt family management, as do antisocial and unstable parents, mediating processes of informal social control still explain a large share of variance in adolescent delinquency. Overall, the results underscore the indirect effects of structural contexts like family poverty on adolescent delinquency within disadvantaged populations. We note implications for current debates on race, crime, and the "underclass" in urban America.

In 1950, Sheldon and Eleanor Glueck published their now classic study, *Unraveling Juvenile Delinquency.* In one of the most frequently cited works in the history of delinquency research, the Gluecks sought to answer a basic and enduring question—what factors differentiate boys reared in poor neighborhoods who become serious and persistent delinquents from boys raised in the same neighborhoods who do not become delinquent or antisocial? To answer this question, the Gluecks studied in meticulous detail the lives of 500 delinquents and 500 nondelinquents who were raised in the same slum environments of central Boston during the Great Depression era.

The research design of the Gluecks' study provides a unique opportunity to address anew poverty and its sequelae in adolescence. Namely, what is the *process* by which family poverty leads to delinquency within structurally disadvantaged urban environments? It is our contention that sociological explanations of delinquency have too often focused on structural background (e.g., poverty) without an understanding of mediating family processes, especially informal social control. Competing explanations based on behavioral predispositions (e.g., early conduct disorder) have also been neglected in structural accounts of delinquency. On the other hand, developmental models in psychology tend to emphasize family process and early antisocial behavior to the neglect of structural context and social disadvantage.

Based on our reconstruction and reanalysis of the Gluecks' original data, this article rejects a bifurcated strategy by uniting structure and process in an integrated theoretical framework. Our major thesis is that poverty and structural disadvantage influence delinquency in large part by reducing the capacity of families to achieve effective informal

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social controls. In this sense, we argue that scholars of child and adolescent development must come to grips with structural contexts of disadvantage and not just focus on families "under the roof."

The historical context of the Gluecks' data also serves as a baseline for assessing current research on children and poverty. The boys in the Glueck sample were born in the Depression era and grew to young adulthood in the context of a rapidly changing economy after World War II (1945–1965). This context raises interesting questions relevant to an understanding of how poverty influences developmental patterns of delinquency. For example, are the risk factors associated with crime similar across different structural contexts? Were characteristics of today's "underclass" (e.g., chronic joblessness, poverty) found among these earlier Boston families? Current debates, especially in public policy circles, seem to imply that criminal behavior is inevitably linked to race and drugs. Yet the delinquency problem in the historical context we are analyzing was generated not by blacks, but by white ethnic groups in structurally disadvantaged positions. And though drugs were not pervasive, delinquency and antisocial behavior were. Indeed, the boys in the Gluecks' delinquent sample were persistent and serious offenders, many of whom can be labeled "career criminals" using contemporary language. By analyzing a white sample that is largely "underclass" by today's economic definition (see Jencks, 1992; Wilson, 1987), we provide an alternative perspective to current thinking about race, crime, and poverty.

Family Process and Informal Social Control

The hypotheses guiding our analysis are derived from a general theory of age-graded informal social control over the life course (see Sampson & Laub, 1993). Our general organizing principle is that the probability of deviance increases when an individual's bond to society is weak or broken (Hirschi, 1969). In other words, when ties that bind an individual to key societal institutions (e.g., attachment to family, school, work) are loosened, the risk of crime and delinquency is heightened. Unlike formal sanctions, which originate in purposeful efforts to control crime, informal social controls "emerge as by-products of role relationships established for other purposes and are components of role reciprocities" (Kornhauser, 1978, p. 24).

Our theoretical conceptualization on the family is drawn in part from "coercion theory" as formulated by Patterson (1980, 1982). Unlike most sociological theories, coercion theory places a prominent etiological role on direct parental controls in explaining delinquency. In particular, the coercion model assumes that less skilled parents inadvertently reinforce their children's antisocial behavior and fail to provide effective punishments for transgressions (Patterson, 1982; see also Gottfredson & Hirschi, 1990, p. 99). Based on research designed to assess this perspective, Patterson argues that "parents who cannot or will not employ family management skills are the prime determining variables. . . . Parents of stealers do not track; they do not punish; and they do not care" (1980, pp. 88–89).

The emphasis on parent-child interaction in coercion theory shares much in common with Hirschi's (1969) social control theory. The model of Patterson differs mainly in the mediating mechanisms it emphasizes—that is, direct parental controls as found in discipline and monitoring practices. By contrast, Hirschi's (1969) original formulation of control theory emphasized indirect controls in the form of the child's attachment to parents. On balance, however, Patterson's model is consistent with social control theory because direct parental controls are likely to be positively related to relational, indirect controls (Larzelere & Patterson, 1990, p. 305). Moreover, Gottfredson and Hirschi (1990) include direct parental controls in a recent statement of control theory that relies heavily on Patterson's coercion model. Their reformulated theory of effective parenting includes monitoring the behavior of children, recognizing their misdeeds, and punishing (correcting) those misdeeds accordingly in a consistent and loving manner (Gottfredson & Hirschi, 1990, p. 97). In addition, Hirschi (1983) argues that parental affection and a willingness to invest in children are essential underlying conditions of good parenting, and hence, the prevention of misbehavior.

This view of families also corresponds to Braithwaite's (1989) notion of "reintegrative shaming," whereby parents punish in a consistent manner and within the context of love, respect, and acceptance of the child. The opposite of reintegrative shaming is stigmatization, where parents are cold, authoritarian, and enact a harsh, punitive, and often rejecting regime of punishment (1989, p. 56). When the bonds of respect are broken

by parents in the process of punishment, successful child rearing is difficult to achieve.

Given their theoretical compatibility, we draw on the central ideas of social control and coercion theory along with the notion of reintegrative shaming to develop a model of informal family social control that focuses on three dimensions—*discipline, supervision,* and *attachment.* In our view, the key to all three dimensions of informal social control lies in the extent to which they facilitate linking the child to family, and ultimately society, through emotional bonds of attachment and direct yet socially integrative forms of control, monitoring, and punishment. These dimensions of informal family control have rarely been examined simultaneously in previous research. Hence our theoretical model permits assessment of the relative and cumulative contributions of family process to the explanation of delinquency.

Poverty and Family Process

The second part of our theory posits that structural background factors influence delinquency largely through the mediating dimensions of family process (see also Laub & Sampson, 1988). Our specific interest in this article is the indirect effect of family poverty on delinquency among those children living in disadvantaged communities. Although examined in the developmental psychology literature (for a recent review see McLoyd, 1990), it is ironic that sociological research on delinquency often fails to account for how structural disadvantage influences parenting behavior and other aspects of family life. As Rutter and Giller (1983, p. 185) have stated, "serious socio-economic disadvantage has an adverse effect on the parents, such that parental disorders and difficulties are more likely to develop and good parenting is impeded" (see also McLoyd, 1990, p. 312). Furthermore, Larzelere and Patterson (1990, p. 307) have argued that many lower-class families are marginally skilled as parents, in part because they experience more stress and fewer resources than do middle-class parents. McLoyd (1990, p. 312) has also expressed the view that "poverty and economic loss diminish the capacity for supportive, consistent, and involved parenting." In reviewing the extant literature, she found that economically disadvantaged parents and those parents who experience economic stress are more likely to use punitive, coercive parenting styles, that is, use of physical punishment, as opposed to reasoning and negotiation. Low-income parents also face heightened risks of spousal violence, drug and alcohol abuse, and criminal involvement (McLoyd, 1990), behaviors that undermine socially integrative parent-child relationships and interactions.

Equally important and relevant here is the large body of literature establishing the effects of stressors such as economic crises and divorce on parenting behavior. For example, Patterson (1988) has shown that stressful experiences increase the likelihood of psychological distress, which in turn leads to changes in parent-child management practices. Specifically, Patterson (1988) found that distressed mothers are more likely to use coercive discipline, thereby contributing to the development of antisocial behavior in children (see also Patterson, DeBaryshe, & Ramsey, 1989, p. 332). Elder and Caspi (1988) examined the effects of stressful economic circumstances on parents and their children. They found that in times of economic difficulty, aversive interactions between parents and children increase while the ability of parents to manage their children diminishes. Using more recent data, Conger et al. (1992) confirmed that economic hardship was indirectly linked to adolescent development largely through its effect on parenting behavior.

It seems clear that poverty and the accompanying stresses resulting from economic deprivation influence parent-child relationships and interactions within the family. Integrating this viewpoint with our general theory of informal social control, we thus hypothesize that the effect of poverty and disadvantaged family status on delinquency is mediated in large part through parental discipline and monitoring practices.

Antisocial Children: Reconsidering Family Effects

Two research findings raise questions regarding unidirectional models that attribute the development of delinquency as flowing solely from parental influence. The first is empirical research establishing the early onset of many forms of childhood misbehavior (Robins, 1966; West & Farrington, 1973; White, Moffitt, Earls, Robins, & Silva, 1990). In one of the best studies to date, White et al. (1990) examined the predictive power of behavior measured as early as age 3 on antisocial outcomes at ages 11 and 13. They found that teacher and/or parent-reported behavioral measures of hyperactiv-

ity and restlessness as a young child (age 3), difficulty in management of the child at age 3, and early onset of problem behaviors at age 5 predicted later antisocial outcomes. White et al.'s (1990) research shows the extent to which later delinquency is foreshadowed by early misbehavior and general difficulty among children.

Second, there is evidence that styles of parenting are in part a reaction to these troublesome behaviors on the part of children. Lytton (1990) has written an excellent overview of this complex body of research, which he subsumes under the theoretical umbrella of "control systems theory." This theory argues that parent and child display reciprocal adaptation to each other's behavior level (see also Anderson, Lytton, & Romney, 1986), leading to what Lytton calls "child effects" on parents. One reason for these child effects is that reinforcement does not work in the usual way for conduct-disordered children. As Lytton (1990, p. 688) notes, conduct-disordered children "may be underresponsive to social reinforcement and punishment." Hence, normal routines of parental child rearing become subject to disruption based on early antisocial behavior—that is, children themselves differentially engender parenting styles likely to further exacerbate antisocial behavior.

The behavior that prompts parental frustration is not merely aggressiveness or delinquency, however. Lytton (1990, p. 690) reviews evidence showing a connection between a child being rated "difficult" in preschool (e.g., whining, restlessness, inadaptability to change, strong-willed resistance) and the child's delinquency as an adolescent—a relation that holds independent of the quality of parents' child-rearing practices. For example, Olweus (1980) showed by a longitudinal path analysis that mothers of boys who displayed a strong-willed and hot temper in infancy later became more permissive of aggression, which in turn led to greater aggressiveness in middle childhood. Moreover, there is intriguing experimental evidence that when children's inattentive and noncompliant behavior is improved by administering stimulant drugs (e.g., Ritalin), their mothers become less controlling and mother-child interaction patterns are nearly normalized (Lytton, 1990, p. 688). All of this suggests that parenting, at least in part, is a reaction to the temperament of children, especially difficult ones.

Further evidence in favor of "child effects" from the criminological literature is found in West and Farrington's (1973) well-known longitudinal study. They showed that boys' "troublesomeness" assessed at ages 8 and 10 by teachers and peers was a significant predictor of later delinquency, independent of parental supervision, parental criminality, and family size. However, the reverse was not true—parental effects on delinquency disappeared once early troublesomeness was taken into account. As Lytton observes, this finding "suggests the primacy of child effects" (1990, p. 690).

In short, there is a sound theoretical and empirical basis for expanding our model by introducing early childhood effects. Lytton's review suggests a strategy to ascertain the relative importance of parent and child influences. Namely, one can test the effects of early childhood factors on later delinquency, with parent factors held constant, against the prediction of parents' effects on delinquency, with early childhood factors held constant. The relative strength of each set of variables would be an index of the importance of the main independent variables—child or parent (1990, p. 694). Put more simply, the key question is whether our family process model holds up after we consider early childhood difficulty and antisocial predispositions. If parenting or family effects on delinquency are spurious, then our model should collapse once childhood behaviors are controlled. On the other hand, if control systems theory is correct, we are liable to see both child *and* parent effects on the outcome of adolescent delinquency. We assess our theoretical model of structure and family process by employing this strategy.

Method

The present article is based on data from the first wave of the Gluecks' original study of juvenile delinquency and adult crime among 1,000 Boston males born between 1924 and 1935 (Glueck & Glueck, 1950, 1968). As part of a larger, long-term project we have reconstructed and computerized these data, a process that included the validation of key measures found in the original files. For a full description of these efforts and other procedures taken to address prior criticisms of the Gluecks' study, see Sampson and Laub (1993).

The Gluecks' delinquent sample comprised 500 10–17-year-old white males from Boston who, because of their persistent delinquency, had been recently committed to

one of two correctional schools in Massachusetts (Glueck & Glueck, 1950, p. 27). The nondelinquent or "control-group" sample was made up of 500 white males age 10–17 chosen from the Boston public schools. Nondelinquent status was determined on the basis of official record checks and interviews with parents, teachers, local police, social workers, recreational leaders, and the boys themselves. The Gluecks' sampling procedure was designed to maximize differences in delinquency, an objective that by all accounts succeeded (Glueck & Glueck, 1950, pp. 27–29).

A unique aspect of the *Unraveling* study was the matching design. The 500 officially defined delinquents and 500 nondelinquents were matched case-by-case on age, race/ethnicity (birthplace of both parents), measured intelligence, and neighborhood deprivation. The delinquents averaged 14 years, 8 months, and the nondelinquents 14 years, 6 months when the study began. As to ethnicity, 25% of both groups were of English background, another fourth Italian, a fifth Irish, less than a tenth old American, Slavic, or French, and the remaining were Near Eastern, Spanish, Scandinavian, German, or Jewish. As measured by the Wechsler-Bellevue Test, the delinquents had an average IQ of 92 and nondelinquents 94. The matching on neighborhood ensured that both delinquents and nondelinquents grew up in disadvantaged neighborhoods of central Boston. These areas were regions of poverty, economic dependency, and physical deterioration, and were usually adjacent to areas of industry and commerce (Glueck & Glueck, 1950, p. 29).

A wealth of information on social, psychological, and biological characteristics, family life, school performance, work experiences, and other life events was collected on the delinquents and controls in the period 1939–1948. These data were collected through an elaborate investigation process that involved interviews with the subjects themselves and their families as well as interviews with key informants such as social workers, settlement house workers, clergymen, schoolteachers, neighbors, and criminal justice and social welfare officials. The home-interview setting also provided an opportunity to observe home and family life (Glueck & Glueck, 1950, pp. 41–53).

Interview data and home investigations were supplemented by field investigations that meticulously culled information from the records of both public and private agencies that had any involvement with a subject or his family. These materials verified and amplified the materials of a particular case investigation. For example, a principal source of data was the Social Service Index, a clearinghouse that contained information on all dates of contact between a family and the various social agencies (e.g., child welfare) in Boston. Similar indexes from other cities and states were utilized where necessary. For *Unraveling*, the Gluecks employed two case collators to sift through the several thousand entries over the 7½-year project.

The Gluecks also searched the files of the Massachusetts Board of Probation, which maintained a central file of all court records from Boston courts since 1916 and from Massachusetts as a whole from 1924. These records were compared and supplemented with records from the Boys' Parole Division in Massachusetts. Out–of-state arrests, court appearances, and correctional experiences were gathered through correspondence from equivalent state depositories. Of equal importance was the Gluecks' collection of self-reported, parental-reported, and teacher-reported delinquency of the boy.

Measures

Descriptive statistics and intercorrelations for the full set of measures are displayed in Table 1. To tap the central concept of *family poverty*, we created a scale from information on the average weekly income of the family and the family's reliance on outside aid. The latter measures whether the family was living in comfortable circumstances (having enough savings to cover 4 months of financial stress), marginal circumstances (little or no savings but only occasional dependence on outside aid), or financially dependent (continuous receipt of outside aid for support). The resulting standardized scale of poverty was scored so that a high value represents the combination of low income and reliance on public assistance. Although the Gluecks' matching design controls for neighborhood deprivation, there is still considerable variation among families in poverty (see Table 1).

Five additional features of the structural background of families are introduced as control variables.[1] *Residential mobility* is an

[1] Controls were selected on both theoretical grounds (see also Sampson & Laub, 1993, chap. 4) and empirical significance in preliminary analysis.

TABLE 1

DESCRIPTIVE STATISTICS AND CORRELATIONS

Variable	Mean	SD	Minimum	Maximum	Valid *N*
Structural context:					
Family poverty[a]	.00	1.64	−3.64	3.45	998
Residential mobility	6.75	4.72	1	16	999
Family size	5.08	2.21	1	8	999
Family disruption	.47	.50	0	1	1,000
Maternal employment	.40	.49	0	1	993
Foreign born	.60	.49	0	1	987
Parent/child disposition:					
Parental deviance	1.45	1.27	0	4	1,000
Parental instability	.62	.72	0	2	972
Child difficult/antisocial	.72	.80	0	3	884
Family process:					
Erratic/harsh discipline[a]	−.02	1.73	−3.24	3.14	856
Maternal supervision	1.97	.86	1	3	989
Parental-child attachment	3.72	1.21	1	5	960
Adolescent delinquency:					
Official status	.50	.50	0	1	1,000
Self-parent-teacher reported	8.44	6.67	1	26	1,000

PAIRWISE PEARSON CORRELATION COEFFICIENTS

	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Family poverty	.40	.26	.21	−.04	−.07	.38	.25	.20	.35	−.32	−.34	.34	.33
2. Residential mobility		.05	.40	.18	−.18	.50	.35	.27	.28	−.44	−.43	.41	.41
3. Family size			−.09	−.20	.13	.08	.02	.01	.23	−.11	−.02	.16	.17
4. Family disruption				.19	−.13	.38	.24	.15	.13	−.27	−.46	.26	.28
5. Mother's employment					−.02	.17	.16	.08	.10	−.28	−.16	.14	.16
6. Foreign born						−.21	−.10	−.03	.07	.05	.04	−.04	−.07
7. Parental deviance							.35	.22	.36	−.48	−.44	.41	.41
8. Parental instability								.25	.30	−.39	−.31	.36	.34
9. Child difficult/antisocial									.35	−.30	−.30	.45	.45
10. Erratic/harsh discipline										−.51	−.40	.52	.50
11. Maternal supervision											.49	−.63	−.62
12. Parent-child attachment												−.50	−.49
13. Official status													.86
14. Self-parent-teacher reported													

[a] Standardized scale based on *z* scores.

interval-based measure of the number of times the boy's family moved during his childhood and ranges from none or once to 16 or more times. *Family size* is the number of children in the boy's family and ranges from one to eight or more. *Family disruption* is coded one when the boy was reared in a home where one or both parents were absent because of divorce, separation, desertion, or death. *Maternal employment* is a dichotomous variable where housewives were coded 0 and working mothers (full time or part time) were coded 1. *Foreign-born* indexes whether one or both parents were born outside the United States.

It is possible, of course, that the poverty status and other structural characteristics of families resulted from prior differences among parents that are correlated with dysfunctional family management (Patterson & Capaldi, 1991). To address this possible confounding, we control for the criminality and drinking habits of mothers and fathers as determined from official statistics and interview data. Criminality refers to official records of arrest or conviction, excluding minor auto violations and violation of license laws. Alcoholism/drunkenness refers to intoxication and includes frequent, regular, or chronic addiction to alcohol, and not to very occasional episodes of overdrinking in an atmosphere of celebration. Not surprisingly, there were strong relations between crime and heavy drinking and between mother's and father's crime/drinking. Hence we formed a summary scale ranging from 0 to 4 that measures the extent of what we term *parental deviance* (see Table 1). For example, a subject whose mother and father both had a criminal record and a history of excessive drinking received a score of 4.

The Gluecks also collected data on each parent's mental condition and temperament from official diagnoses and medical reports from hospitals and clinics, and on occasion from unofficial observations made by social workers (Glueck & Glueck, 1950, p. 102). The ordinal variable labeled *parental instability* reflects whether none (0), one (1), or both (2) of the boy's parents were diagnosed with "severe mental disease or distortion" including "marked emotional instability," "pronounced temperamental deviation," or "extreme impulsiveness." Taken together, the parental deviance and instability measures capture key dispositional characteristics that have been argued to underlie family poverty and other disadvantaged outcomes.[2]

Family process.—The three intervening dimensions of family process are style of discipline, supervision, and parent-child attachment. Parenting style was measured by summing three variables describing the discipline and punishment practices of mothers and fathers. The first constituent variable concerns the use of physical punishment and refers to rough handling, strappings, and beatings eliciting fear and resentment in the boy—not to casual or occasional slapping that was unaccompanied by rage or hostility. The second constituent variable measures threatening or scolding behavior by mothers or fathers that elicited fear in the boy. The third component taps erratic and negligent discipline, for example, if the parent vacillated between harshness and laxity and was not consistent in control, or if the parent was negligent or indifferent about disciplining the boy.

The summation of these constituent variables resulted in two ordinal measures tapping the extent to which parents used inconsistent disciplinary measures in conjunction with harsh physical punishment and/or threatening or scolding behavior. In Braithwaite's (1989) scheme, these measures tap the sort of punitive shaming and negative stigmatization by families that engender delinquency. The validity of measures is supported by the high concordance between mother's and father's use of erratic/harsh discipline (gamma = .60). For example, of fathers who employed harsh physical punishment, threatening behavior, and erratic discipline (code = 3), 44% of the mothers were also coded 3. By contrast, less than 1% of boys' fathers coded 0 on the erratic/harsh scale had mothers coded high (3) in erratic/harsh discipline. For reasons of both theoretical parsimony and increased reliability, we created standardized scales that combined mother and father's *erratic/harsh discipline.*

Maternal supervision is an ordinal variable coded 3 if the mother provided supervision over the boy's activities at home or in the neighborhood. If unable to supervise the boys themselves, mothers who made ar-

[2] Evidence of the validity of the instability measure is suggested by its significant positive correlation with parental deviance (.35, see Table 1) and also an indicator of low parental IQ (data not shown). By comparison, low IQ was weakly related to our family-process measures, and thus we control for the more direct indicator of volatile and impulsive parental temperament.

rangements for other adults to watch the boy's activities were also assigned a 3. A code of 2 was assigned to those mothers providing partial or fair supervision. Supervision was considered unsuitable (code = 1) if the mother left the boy on his own, without guidance, or in the care of an irresponsible person.[3]

As the Gluecks originally observed, attachment is a "two-way street"—parent to child and child to parent (Glueck & Glueck, 1950, p. 125). Accordingly, the Gluecks gathered interview-based information from both the parents and boys themselves on emotional attachment and rejection. For example, the Gluecks developed a three-point ordinal indicator of the extent to which the boy had a warm emotional bond to the father and/or mother as displayed in a close association with the parent and in expressions of admiration. Similarly, the Gluecks measured whether the parents were loving and accepting of the child or were rejecting in emotional attention—that is, whether parents were openly hostile or did not give the child much emotional attention. Because the parent-child and child-parent indicators of attachment were strongly related (gamma = .58), we combined them into a single ordinal scale labeled *parent-child attachment* that ranges from 1 (low) to 5 (high).

Child effects.—Although the *Unraveling* study was not longitudinal, there are retrospective data on three key dimensions of troublesome childhood behavior. From the parent's interview there is an indicator distinguishing those children who were overly restless and irritable from those who were not. A second measure reflects the extent to which a child engaged in violent temper tantrums and was predisposed to aggressiveness and fighting. The Gluecks' collected data only on habitual tantrums—when tantrums were "the predominant mode of response" by the child to difficult situations growing up (1950, p. 152). This measure corresponds closely to one validated by Caspi (1987).[4] The third variable is the boy's self-reported age of onset of misbehavior. We created a dichotomous variable where a 1 indexes an age of onset earlier than age 8. Those who had a later age of onset *and* those who reported no delinquency (and hence no age of onset) were assigned a zero.

As expected, all three measures are significantly correlated. For example, of those children rated difficult in childhood, 34% exhibited tantrums, compared to 13% of those with no history of difficultness. Similarly, for those with an early onset of misbehavior, 47% were identified as having tantrums, compared to 20% of those with no early onset (all p's $< .05$). To achieve theoretical and empirical parsimony, we summed the three indicators to form an ordinal scale that measures *child difficult/antisocial behavior.* The scale ranges from 0, indicating no signs of early conduct disorder or difficulty in child rearing, to a score of 3, indicating that a child was difficult and irritable, threw violent temper tantrums, and engaged in antisocial behavior prior to age 8.

There is evidence of the predictive validity of our child-effects measure derived from self, parent, and teacher reports. Fully 100% of those scoring high on child antisocial behavior were arrested in adolescence, compared to 25% of those scoring low (gamma = .69). More importantly, the child-effects measure predicts criminal behavior well into adulthood. Using data on adult crime collected by the Gluecks as part of a follow-up study (Glueck & Glueck, 1968), 60% of those scoring high on childhood antisocial behavior were arrested at ages 25–32, compared to less than 25% with no signs of early disorder. Perhaps most striking, there is a rather strong monotonic relation between childhood antisocial disposition and arrests even at ages 32–45 (gamma = .37). Hence, although early antisocial behavior was determined by retrospective reports, the techniques used by the Gluecks appear valid (see also Sampson & Laub, 1993, pp. 47–63).

Delinquency.—The outcome of adolescent delinquency is measured using both the official criterion of the Gluecks' research design (1 = delinquent, 0 = control group) and "unofficial" delinquency derived by summing self, parent, and teacher reports.

[3] The Gluecks did not collect data on father's supervision. This focus reflects the era in which the Gluecks' study was conceived, wherein mothers assumed primary responsibility for the supervision of children.

[4] The tantrum measure is taken from a combined parent/teacher-reported interview. As Lytton (1990) notes, the fact that it is typical to derive ratings of a child's early temperament and of parental practices from the parent interview alone makes for methodological confounding. We avoid this through multiple sources of measurement (self, parent, and teacher).

In preliminary analysis we also examined measures for particular offenses (e.g., truancy as reported by parents, teachers, and self) and the total amount of delinquency for all crime types reported by a particular source (e.g., self-report total, parent-report total). Because the results were very similar, the present analysis is based on the sum of all delinquent behaviors that were measured consistently across reporters. That is, we eliminated incorrigibility (e.g., vile language, lying) and other behaviors that were only asked of one source (e.g., teacher reports of school vandalism). The unofficial measure thus reflects adolescent delinquency measured by parents, teachers, and the boys themselves.

Reliability and Validity

Because of their strategy of data collection, the Gluecks' measures pertain to multiple sources of information that were independently derived from several points of view and at separate times. The level of detail and the range of information collected by the Gluecks will likely never be repeated given contemporary research standards on the protection of human subjects. As Robins et al. (1985, p. 30) also point out in their analysis of social-science data from an earlier era analogous to the Gluecks: "In conformity with the precomputer era of data analysis, the coding was less atomized than it would have been today. Consequently, we have only the coders' overall assessment based on a variety of individual items."

This method of data collection limits the extent to which reliability can be determined by traditional criteria (e.g., intercoder reliability). As described above, however, our basic measurement strategy uses multiple indicators of key concepts and composite scales whenever possible and theoretically appropriate. Note also that the Glueck data are different in kind from survey research where measurement error, especially on attitudes, is large. That is, the Glueck data represent the comparison, reconciliation, and integration of multiple sources of information even for individual items (see Glueck & Glueck, 1950, pp. 70–72; 1968, pp. 205–255). Moreover, our measures refer to behavior (e.g., discipline, supervision) and objective structural conditions (e.g., poverty, broken homes)—not attitudes.

To verify the coding of the family-process variables, we also conducted a validation test for the purposes of this article. Selecting a 10% random sample of the delinquent subjects ($N = 50$), we coded from the original interview narratives the three key elements of family process—supervision, parenting style, and parental attachment—blind to the actual codes of the Gluecks. We then compared our scores with those of the Gluecks and in general found excellent correspondence. For example, the correlation (gamma) between our coding and the Gluecks for parental supervision, father's rejection, and mother's rejection was .87, .92, and .98, respectively. We found significant levels of agreement for other key indicators of family process as well, using both gamma and kappa statistics on percent agreement corrected for chance.

Finally, the correlations in Table 1 reveal that our key measures are related in a manner consistent with theory and past research. In particular, erratic/harsh discipline is negatively related to supervision and parent-child attachment ($-.51$ and $-.40$, respectively, $p < .05$), whereas maternal supervision is positively related to parent-child attachment (.49, $p < .05$). These and other significant correlations in the predicted and expected direction (see Table 1) support standard criteria for construct validation.

Results

Our analysis begins in Table 2 with an overview of the bivariate association between family process and delinquency as measured by official records and total unofficial delinquency. The magnitude and direction of relationships support the informal social-control model. All relationships are in the expected direction, quite large, and maintain whether one considers official or unofficial delinquency. For example, both official and unofficial delinquency increase monotonically as erratic/harsh discipline increases (gammas = .70 and .59., respectively). Delinquency also declines monotonically with increasing levels of supervision and attachment. In fact, 83% of those in the low supervision category were delinquent, compared to only 10% of those in the high category (gamma = $-.84$). The unofficial criterion shows an even greater differential. Parental attachment is similarly related to both official and unofficial delinquency.

We next consider the extent to which the three dimensions of informal social control potentially mediate the effect of more distal, structural factors. To accomplish this goal, Panel A of Table 3 displays the results

TABLE 2

BIVARIATE ASSOCIATION BETWEEN FAMILY PROCESS AND DELINQUENCY

	DISCIPLINE ERRATIC/HARSH			MATERNAL SUPERVISION			PARENT-CHILD ATTACHMENT		
	Low (288)	Medium (224)	High (334)	Low (382)	Medium (252)	High (355)	Low (414)	Medium (194)	High (352)
Officially delinquent (%)	18	51	74	83	58	10	77	47	21
Gamma		.70*			−.84*			−.73*	
Unofficially delinquent[a] (%)	10	39	53	60	39	5	57	32	13
Gamma		.59*			−.72*			−.62*	

[a] Percent unofficially delinquent refers to the trichotomized "high" category.

* $p < .05$.

TABLE 3

OLS Linear Regression Models of Family Process on Structural Context and Parent/Child Disposition

A. Structural Context and Parental Disposition (N = 800)	Family Process: Erratic/Harsh Discipline β	Erratic/Harsh Discipline t ratio	Maternal Supervision β	Maternal Supervision t ratio	Parent-Child Attachment β	Parent-Child Attachment t ratio
Family poverty	.17	4.66*	−.09	−2.84*	−.15	−4.28*
Residential mobility	.07	1.81	−.21	−5.85*	−.17	−4.59*
Family size	.16	4.90*	−.13	−4.30*	−.01	−.29
Family disruption	−.05	−1.35	−.04	−1.16	−.22	−6.75*
Maternal employment	.05	1.54	−.20	−7.04*	−.03	−1.04
Foreign born	.13	4.30*	−.07	−2.60*	−.11	−3.81*
Parental deviance	.23	6.01*	−.24	−7.12*	−.18	−4.86*
Parental instability	.17	4.96*	−.19	−6.26*	−.10	−3.21*
Adjusted R^2	.26		.41		.32	

B. Adding Child Effects (N = 716)	Family Process: Erratic/Harsh Discipline β	Erratic/Harsh Discipline t ratio	Maternal Supervision β	Maternal Supervision t ratio	Parent-Child Attachment β	Parent-Child Attachment t ratio
Family poverty	.16	4.38*	−.06	−1.64	−.17	−4.58*
Residential mobility	.03	.73	−.18	−5.06*	−.15	−3.94*
Family size	.18	5.41*	−.16	−5.26*	−.02	−.58
Family disruption	−.06	−1.56	−.01	−.42	−.19	−5.55*
Maternal employment	.07	2.12*	−.22	−7.29*	−.02	−.70
Foreign born	.13	4.09*	−.08	−2.70*	−.12	−3.77*
Parental deviance	.20	4.90*	−.24	−6.80*	−.19	−4.83*
Parental instability	.13	3.79*	−.16	−5.01*	−.05	−1.44
Child diff./antisocial	.22	6.67*	−.15	−4.94*	−.13	−3.96*
Adjusted R^2	.30		.43		.34	

* $p < .05$.

of ordinary-least-squares (OLS) models of family process variables regressed on structural background factors and parental disposition. The results support the theoretical prediction that structural poverty has significant effects on informal social control. For example, the data in columns 1 and 2 show that poverty, in addition to large families, parental deviance, parental instability, and foreign-born status, contributes significantly to erratic use of harsh/punitive discipline (β = .17, t ratio = 4.66).[5]

The results for maternal supervision are also consistent with our general social control framework—poverty significantly reduces effective monitoring (t ratio = −2.84). In addition to parental disposition, other features of structural context are salient too, especially residential mobility, family size, and employment by mothers. There has been much debate about the effect of mother's employment outside of the home on delinquency, but relatively little on how supervision might mediate this structural factor (see Hoffman, 1974; Laub & Sampson, 1988; Maccoby, 1958). In the Glueck data and time era (circa 1940), employment by

[5] Statistical significance tests—including the use of one-tailed hypothesis tests appropriate for theoretical predictions—are not strictly applicable given the Gluecks' nonprobability sampling scheme. As a general rule of thumb, we thus focus on coefficients that are greater than twice their standard errors, which approximates a .05 level of significance. Among "significant" coefficients, our interest is the relative magnitude of effects.

mothers outside of the home appears to have a significant negative effect on mother's supervision.[6] This is exactly the pattern supportive of a social control framework and confirmed by other empirical research (see Maccoby, 1958; Wilson, 1980). It remains to be seen whether employment outside of the home by mothers has any direct effect on delinquency. It is also worth noting that mother's employment has no discernible effect on erratic/harsh discipline and parent-child attachment.

In columns 5 and 6 we turn to the relational dimension of family social control—emotional attachment and bonding between parent and child. Substantively, the results suggest that in families experiencing marital disruption, frequent residential moves, disadvantaged financial/ethnic position, and a pattern of deviant or unstable parental conduct, parents and children are more likely to exhibit indifference or hostility toward each other. Interestingly, these effects are rather substantial and much larger than those associated with family size and maternal employment.

Panel B displays the replication models that add "child effects" to the explanation of family process.[7] The results suggest that difficult and antisocial childhood behavior disrupts effective parenting. Specifically, children who were rated difficult, habitually engaged in violent tantrums, and exhibited early misbehavior tended to generate lower levels of supervision by their mothers during adolescence. Consistent with a control-systems perspective, troublesome childhood behavior also significantly predicts the erratic/harsh use of discipline by parents and weakened attachment between parent and child. These results support Lytton's (1990) arguments regarding the endogeneity of parental styles of discipline and control of children, especially direct controls. Simply put, parents appear responsive to early behavioral difficulties—angry temperamental children who misbehave provoke in their parents a disrupted style of parenting and control.

Considering the central role of childhood behavior, the finding that the effects of structural context remain largely intact becomes all the more impressive. Indeed, the rationale for introducing child effects was not to establish conclusively the validity of "control systems" theory, but rather to test the validity of our theoretical conceptions about the indirect effects of poverty on adolescent delinquency. In this regard, note that family poverty, independent of child disposition, continues to exert significant and relatively large effects on erratic/harsh discipline and parent-child attachment. Moreover, it is possible that the reduced effect of poverty on supervision in Panel B (t ratio $= -1.64$, $p < .10$) reflects in part an indirect effect whereby poverty increases early antisocial behavior, which further disrupts parenting. In any case, the data support a structure-process model—poverty and structural context explain informal social control by families, regardless of parental disposition and childhood antisocial behavior.

Explaining Delinquency

Panel A of Table 4 displays the effects of structural context, parental disposition, and family process on adolescent delinquency.[8] The first two columns of data list the ML logistic results for the official delinquency criterion. Columns 3 and 4 list the OLS results for the summary measure of unofficially reported delinquency. In general the results are invariant across method and measurement of delinquency. The majority of structural context and parental disposition factors have insignificant direct effects on delinquency, operating instead through the family process variables. The main exception is family size, which has a direct positive effect

[6] Bearing in mind this historical context, the Gluecks' concern with working mothers and single parents was that children would be deprived of maternal supervision (see Glueck & Glueck, 1950, p. 112). Again, such views reinforce traditional gender roles of women as housewives and mothers by defining their primary role as nurturing children.

[7] Because of missing data on child effects, there are almost 100 fewer cases available for analysis in Panel B. Changes in parameter estimates from Panel A may thus reflect in part a slightly different sample composition.

[8] The dichotomous nature of official delinquency violates the assumptions of OLS regression. Maximum-likelihood (ML) logistic regression is thus used, preserving the ordinal and interval-based nature of predictor variables. The unstandardized logistic coefficients in Table 4 represent the change in the log-odds of official delinquency associated with a unit change in the exogenous variable. Because the units of measurement of the independent variables are not uniform, we also present the ML t ratios of coefficients to standard errors. The self-parent-teacher summary index of delinquency ranges from 1 to 26, and is estimated with OLS regression.

TABLE 4

OLS Linear and ML Logistic Regression of Delinquency on Structural Context, Family Process, and Parent/Child Disposition

A. Structural Context and Parental Disposition (N = 800)	Delinquency: Official Status, ML Logistic[a] b	Official Status, ML Logistic[a] t ratio	Self-Parent-Teacher Reported, OLS Linear β	Self-Parent-Teacher Reported, OLS Linear t ratio
Family poverty	.10	1.36	.04	1.46
Residential mobility	.03	1.20	.07	2.21*
Family size	.14	2.63*	.08	2.82*
Family disruption	.32	1.36	.06	2.10*
Maternal employment	−.14	−.62	−.02	−.64
Foreign born	.04	.18	−.03	−1.32
Parental deviance	−.00	−.04	.01	.23
Parental instability	.21	1.36	.05	1.60
Erratic/harsh discipline	.38	5.26*	.17	5.25*
Maternal supervision	−1.27	−8.15*	−.36	−9.89*
Parent-child attachment	−.47	−4.51*	−.15	−4.70*
	ML Model χ^2 = 485, 11 df		OLS R^2 = .48	

B. Adding Child Effects (N = 716)	Delinquency: Official Status, ML Logistic[a] b	Official Status, ML Logistic[a] t ratio	Self-Parent-Teacher Reported, OLS Linear β	Self-Parent-Teacher Reported, OLS Linear t ratio
Family poverty	.09	1.18	.02	.64
Residential mobility	.01	.33	.07	1.97*
Family size	.18	3.04*	.10	3.59*
Family disruption	.33	1.24	.07	2.23*
Maternal employment	−.00	−.00	.01	.26
Foreign born	.01	.04	−.03	−1.25
Erratic/harsh discipline	.35	4.22*	.13	3.87*
Maternal supervision	−1.21	−7.06*	−.33	−8.77*
Parent-child attachment	−.50	−4.24*	−.15	−4.54*
Parental deviance	.03	.25	.01	.28
Parental instability	.10	.61	.02	.76
Child difficult/antisocial	1.09	6.35*	.19	6.72*
	ML Model χ^2 = 475, 12 df		OLS R^2 = .52	

[a] Entries for ML Logistic "b" are the raw maximum-likelihood coefficients; "t ratios" are coefficients divided by SE.

* $p < .05$.

on both official and self-parent-teacher-reported delinquency. Residential mobility and family disruption also have small direct effects on unofficial delinquency.

On the other hand, the three family-process variables exhibit significant effects on delinquency in the predicted theoretical direction. Several of these effects are quite large, especially the negative effect of maternal supervision on delinquency (OLS β = −.36, ML t ratio = −8.15). At the same time, erratic/punitive discipline and parent-child attachment have independent effects on delinquency of similar magnitudes (β = .17 and −.15, respectively). Net of back-

ground variables and parental disposition, then, both direct family controls (discipline and monitoring) and indirect social control (affective bonding between child and parent) distinguish nondelinquents from serious, persistent delinquents.

The initial results support the predictions of our theoretical strategy—when an intervening variable mediates the effect of an exogenous variable, the direct effects of the latter should disappear. For the most part that is what Table 4 yields. Moreover, when OLS and ML logistic regression models are estimated without the hypothesized mediating variables, virtually all structural context factors have large, significant effects on delinquency in the expected manner. In particular, the reduced-form t ratio for the effect of poverty on unofficial delinquency is 4.96 (further underscoring the between-family variations in poverty). But, as seen in Table 4, the significant effect of poverty on delinquency is eliminated when discipline, supervision, and attachment are controlled. The calculation of indirect effect estimates reveals that of the total effect of all structural context and parental disposition factors on delinquency, approximately 67% is mediated by family process. The results thus demonstrate the importance of considering indirect effects of poverty and other dimensions of structural background.[9]

Panel B of Table 4 displays two replication models of structural background, parental disposition, family process, and child effects on delinquency. The results suggest three substantive conclusions. First, much like earlier models, family poverty and most other structural background factors influence delinquency largely through the mediating dimensions of family process. Second, the child-effects measure has a significant direct effect on delinquency that is unaccounted for by family process and structural context. Third, and most important from our perspective, are the robust results regarding family process. Despite controlling for childhood and parental disposition, the dimensions of parental discipline, attachment, and supervision all continue to influence delinquent conduct in the manner predicted by our informal social-control model. Mother's supervision has by far the largest effect on self-parent-teacher-reported delinquency, with a standardized coefficient almost double the child effect ($\beta = -.33$).

On balance, then, our theoretical model remains intact, surviving a test that controls for early childhood antisocial behavior. Hence one way of interpreting Table 4 is that variations in adolescent delinquency unexplained by early propensity to deviance are directly explained by informal processes of family social control in adolescence. The magnitude of the family-process effects is especially noteworthy—for example, independent of all other factors including childhood antisocial behavior, a one-unit increase in mother's supervision (on a three-point scale) is associated with over a 50% decrease in official delinquency. The magnitudes of the standardized effects on unofficial delinquency tell the same story.[10]

Structural Equation Models

To this point in the analysis it is clear that structural context, parental disposition, and child antisocial behavior have similar effects on supervision, attachment, and erratic/harsh discipline. This pattern suggests that the three family-process measures are tapping the same latent construct. Further evidence for this specification was seen earlier in Table 1—all three indicators are highly intercorrelated—in fact, the smallest correlation is $-.40$ between attachment and erratic/harsh discipline. Thus, even though supervision, attachment, and erratic/harsh discipline exhibited independent effects in the OLS regression models, there are both theoretical and empirical reasons to consider an alternative strategy that specifies all three measures as underlying a latent construct of informal social control.

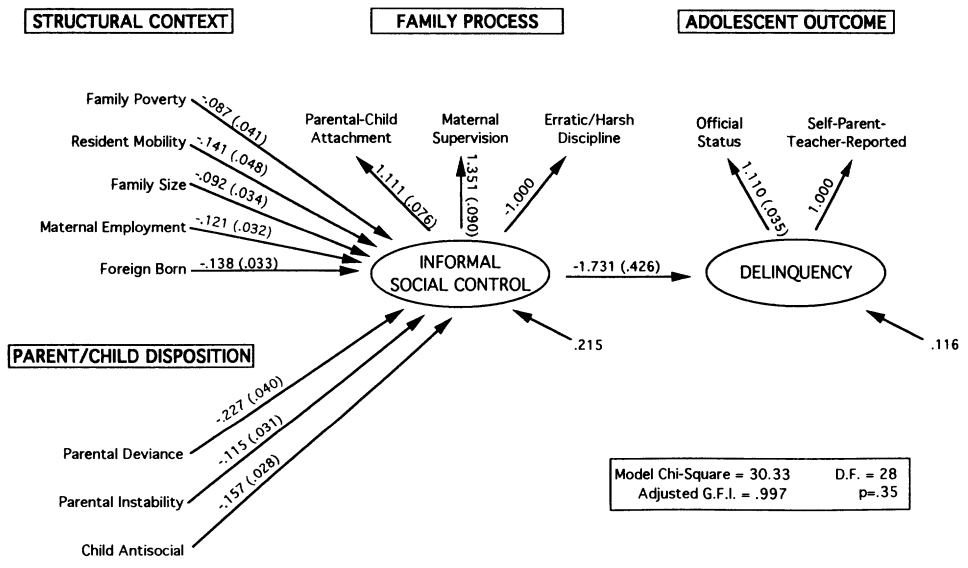
[9] Even when the unofficial delinquency measure is broken down by reporter (self, parent, teacher) and offense types, the same general pattern emerges (data not shown). Consistent with Table 4, for example, mother's supervision has the largest effect on truancy, runaway, larceny, smoking/drinking, vandalism, and motor-vehicle theft.

[10] To assess the robustness of results, we introduced additional control variables and examined mean-substitution and pairwise-deletion models where we entered a dichotomous variable for missing cases. For example, we controlled for residual differences in the matching variables of age and IQ, along with mesomorphy and extroversion, two "constitutional" variables emphasized by the Gluecks. Family-process effects retained their significant predictive power. We also examined attachment to delinquent peers and ethnic group differences in family process (using dichotomous variables for Italian, English, and Irish background). Again, the major substantive results remained intact (see also Sampson & Laub, 1993, pp. 94–95, 118–121).

To estimate this alternative conception, we take advantage of recent advances in Jöreskog and Sörbom's (1989) LISREL 7.20 and PRELIS 1.20 programs for maximum-likelihood (ML) estimation of linear covariance-structure models with data that are non-normally distributed. The basic specification of our covariance structure model is shown in Figure 1 (for a similar specification see Larzelere & Patterson, 1990). Both delinquency and informal social control are specified as latent constructs. The former is measured with official delinquency and self-parent-teacher reports, whereas the latent construct of informal social control is hypothesized to generate the correlations among erratic/harsh discipline, parent-child attachment, and maternal supervision. The direction and magnitude of factor loadings support the validity of specified variables as indicators of the latent constructs. As before, structural context and child/parent disposition are treated as exogenous observed variables. However, family disruption was insignificant in the initial LISREL estimation, and was thus dropped to improve the model fit.

Figure 1 presents the ML weighted-least-squares LISREL estimates of all significant path coefficients. The model fits the data very well, yielding a chi-square of 30 with 28 degrees of freedom (p = .35). Indeed, as seen in the adjusted goodness-of-fit index (.99), there is an excellent match between the observed covariances and our theoretical specification of family process. Informal social control also has a large and significant negative effect on the latent construct of delinquency (t ratio = −4.06). Perhaps most striking, the latent family construct now mediates all prior effects of structural context and parent/child disposition. Calculating indirect effect estimates, we find that 68% of the total effect of exogenous factors on delinquency is mediated by informal social control. Note, for example, that poverty has a significant negative effect on informal social control (t ratio = −2.12) net of other context variables and parent/child disposition. This finding substantiates earlier OLS analyses. Similarly, both parental deviance and instability independently reduce informal social control, in turn increasing delinquency.

Interestingly, however, note that the child-disposition measure has a large negative effect (t ratio = −5.61) on informal social control but no direct effect on delinquency. This is the only major finding that does not comport with earlier regression analyses—once a family-process measurement model is specified, the influence of childhood antisocial behavior on delinquency works solely through attenuated informal social control. Although this finding needs to be replicated in future analysis, it



Note: All parameter estimates are significant at p<.05 (standard errors in parentheses)

FIG. 1.—ML weighted-least-squares covariance-structure model of structural context, parent/child disposition, informal social control, and delinquency (N = 716).

does support the control-systems hypothesis (Lytton, 1990) that child effects are important primarily for their influence on family management. Similarly, the lack of a direct effect on delinquency suggests that the correlation between childhood and adolescent delinquency is less an indication of a latent antisocial trait than a *developmental process* whereby delinquent children systematically undermine effective strategies of family social control, in turn increasing the odds of later delinquency. In any case, the more general message in Figure 1 is that the latent construct of informal social control is the primary factor in explaining adolescent delinquency.

Discussion

Our major finding is that family process mediated approximately two-thirds of the effect of poverty and other structural background factors on delinquency. Whether analyzed with standard regression techniques or covariance structure models, the data paint a consistent picture. Namely, poverty appears to inhibit the capacity of families to achieve informal social control, which in turn increases the likelihood of adolescent delinquency.

The data thus support the general theory of informal social control explicated at the outset. We believe that this theory has significance for future research by positing how it is that poverty and structural disadvantage influence delinquency in childhood and adolescence. A concern with only direct effects conceals mediating relations and may thus lead to misleading conclusions regarding the theoretical importance and policy relevance of more distal structural factors such as poverty (see also Conger et al., 1992; Larzelere & Patterson, 1990; McLoyd, 1990). More generally, families do not exist in isolation (or just "under the roof") but instead are systematically embedded in social-structural contexts—even taking into account parental predispositions toward deviance and impulsive temperament.

The data further point to the complex role of social selection and social causation in the genesis of delinquency. Although difficult children who display early antisocial tendencies do appear to self select or sort themselves into later states of delinquency, family processes of informal social control still explain a significant share of variance in adolescent delinquency. Moreover, the covariance structure analyses further suggest that the effect of childhood antisocial/difficult behavior is mediated by family process. Although "child effects" are clearly present, a full understanding of delinquency thus requires that we also come to grips with the socializing influence of the family as reflected in disciplinary practices, supervision and direct parental controls, and bonds of attachment.

Not only do our results point to the indirect effects of poverty on adolescent delinquency, they simultaneously suggest that strong family social controls may serve as an important buffer against structural disadvantage in the larger community. Recall that all boys were reared in economically deprived neighborhoods of central Boston in the Great Depression era, conditions similar to disadvantaged "underclass" communities in many inner-city areas today (see Wilson, 1987). Yet there were marked variations in both family poverty and delinquency risk within these structurally deprived areas of Boston in the 1930s and 1940s, just as there are in the worst inner cities of today. Cohesive families characterized by consistent, loving, and reintegrative punishment, effective supervision, and close emotional ties appear to have overcome these disadvantaged conditions in producing a low risk of adolescent delinquency. In this sense it is mistaken to assume that residents of concentrated poverty areas (e.g., the "underclass") face homogeneous odds—whether it be for negative *or* positive outcomes.

Despite the consistency of results, we recognize that limitations of the data preclude definitive conclusions. Because the Gluecks used a sample of institutionalized delinquents and neighborhood socioeconomic status as one of the matching variables, our conclusions are limited to the relative effects of family poverty on serious and persistent delinquency within a disadvantaged sample (for a critique of this aspect of the Gluecks' research design, see Reiss, 1951). Whether our results hold for adolescents (including noninstitutionalized delinquents) drawn from a wider range of socioeconomic positions is an important issue for future research. Many of the measures we used in the present analysis were also retrospective in nature and may have been confounded by the original coders' global impressions. Issues of temporal order and discriminant validity thus cannot be resolved with certainty (see Bank, Dishion, Skinner, & Patterson, 1990). In particular, a richer set of prospective child-effects and

parental-disposition measures is needed to assess more rigorously the role of individual differences. Whether child effects are fully mediated by family processes of informal social control (see Fig. 1) would seem to be an especially salient question for future work.

Nevertheless, it bears emphasis that our findings on family process are consistent with much previous research—including key observations of the Gluecks some 40 years ago. Note also the recent meta-analysis by Loeber and Stouthamer-Loeber (1986, p. 37) where they found that aspects of family functioning involving direct parent-child contacts are the most powerful predictors of delinquency and other juvenile conduct problems. Apparently, the fundamental causes of delinquency are consistent across time and rooted not in race (e.g., black inner-city culture) but generic family processes—such as *supervision, attachment,* and *discipline*—that are systematically influenced by family poverty and structural disadvantage. We hope that future research will address further the connections we have emphasized between poverty and mediating family processes, especially as they bear on both risk and avoidance of adolescent delinquency in disadvantaged communities.

References

Anderson, K., Lytton, H., & Romney, D. (1986). Mothers' interactions with normal and conduct-disordered boys: Who affects whom? *Developmental Psychology,* **22,** 604–609.

Bank, L., Dishion, T., Skinner, M., & Patterson, G. (1990). Method variance in structural equation modeling: Living with "glop." In G. Patterson (Ed.), *Depression and aggression in family interaction* (pp. 248–279). Hillsdale, NJ: Erlbaum.

Braithwaite, J. (1989). *Crime, shame, and reintegration.* Cambridge: Cambridge University Press.

Caspi, A. (1987). Personality in the life course. *Journal of Personality and Social Psychology,* **53,** 1203–1213.

Conger, R., Conger, K., Elder, G. H., Jr., Lorenz, F., Simons, R., & Whitbeck, L. B. (1992). A family process model of economic hardship and adjustment of early adolescent boys. *Developmental Psychology,* **63,** 526–541.

Elder, G. H., & Caspi, A. (1988). Economic stress in lives: Developmental perspectives. *Journal of Social Issues,* **44,** 25–45.

Glueck, S., & Glueck, E. (1950). *Unraveling juvenile delinquency.* New York: Commonwealth Fund.

Glueck, S., & Glueck, E. (1968). *Delinquents and nondelinquents in perspective.* Cambridge, MA: Harvard University Press.

Gottfredson, M., & Hirschi, T. (1990). *A general theory of crime.* Stanford, CA: Stanford University Press.

Hirschi, T. (1969). *Causes of delinquency.* Berkeley: University of California Press.

Hirschi, T. (1983). Crime and the family. In J. Wilson (Ed.), *Crime and public policy* (pp. 53–68). San Francisco: Institute for Contemporary Studies.

Hoffman, L. W. (1974). Effects of maternal employment on the child: A review of the research. *Developmental Psychology,* **10,** 204–228.

Jencks, C. (1992). *Rethinking social policy: Race, poverty, and the underclass.* Cambridge, MA: Harvard University Press.

Jöreskog, K., & Sörbom, D. (1989). *LISREL VI: A guide to the program and applications.* Chicago, IL: Scientific Software.

Kornhauser, R. (1978). *Social sources of delinquency.* Chicago: University of Chicago Press.

Larzelere, R., & Patterson, G. (1990). Parental management: Mediator of the effect of socioeconomic status on early delinquency. *Criminology,* **28,** 301–323.

Laub, J. H., & Sampson, R. J. (1988). Unraveling families and delinquency: A reanalysis of the Gluecks' data. *Criminology,* **26,** 355–380.

Loeber, R., & Stouthamer-Loeber, M. (1986). Family factors as correlates and predictors of juvenile conduct problems and delinquency. In M. Tonry & N. Morris (Eds.), *Crime and justice* (Vol. 7, pp. 29–150). Chicago: University of Chicago Press.

Lytton, H. (1990). Child and parent effects in boys' conduct disorder: A reinterpretation. *Developmental Psychology,* **26,** 683–697.

Maccoby, E. (1958). Children and working mothers. *Children,* **5,** 83–89.

McLoyd, V. C. (1990). The impact of economic hardship on black families and children: Psychological distress, parenting, and socioemotional development. *Child Development,* **61,** 311–346.

Olweus, D. (1980). Familial and temperamental determinants of aggressive behavior in adolescent boys: A causal analysis. *Developmental Psychology,* **16,** 644–660.

Patterson, G. (1980). Children who steal. In T. Hirschi & M. Gottfredson (Eds.), *Understanding crime: Current theory and research* (pp. 73–90). Beverly Hills, CA: Sage.

Patterson, G. (1982). *Coercive family process.* Eugene, OR: Castalia.

Patterson, G. (1988). Stress: A change agent for family process. In N. Garmezy & M. Rutter

(Eds.), *Stress, coping, and development in children* (pp. 235–264). Baltimore: Johns Hopkins University Press.

Patterson, G., & Capaldi, D. (1991). Antisocial parents: Unskilled and vulnerable. In P. Cowan & M. Hetherington (Eds.), *Family transitions* (pp. 195–218). Hillsdale, NJ: Erlbaum.

Patterson, G., DeBaryshe, B., & Ramsey, E. (1989). A developmental perspective on antisocial behavior. *American Psychologist,* 44, 329–335.

Reiss, A. J., Jr. (1951). Unraveling juvenile delinquency: II. An appraisal of the research methods. *American Journal of Sociology,* **57**, 115–120.

Robins, L. N. (1966). *Deviant children grown up.* Baltimore: Williams & Wilkins.

Robins, L. N., Schoenberg, S., Holmes, S., Ratcliff, K., Benham, A., & Works, J. (1985). Early home environment and retrospective recall: A test for concordance between siblings with and without psychiatric disorders. *American Journal of Orthopsychiatry,* **55**, 27–41.

Rutter, M., & Giller, H. (1983). *Juvenile delinquency: Trends and perspectives.* New York: Guilford.

Sampson, R. J., & Laub, J. H. (1993). *Crime in the making: Pathways and turning points through life.* Cambridge, MA: Harvard University Press.

West, D., & Farrington, D. P. (1973). *Who becomes delinquent?* London: Heinemann.

White, J., Moffitt, T., Earls, F., Robins, L., & Silva, P. (1990). How early can we tell? Predictors of childhood conduct disorder and adolescent delinquency. *Criminology,* **28**, 507–533.

Wilson, H. (1980). Parental supervision: A neglected aspect of delinquency. *British Journal of Criminology,* **20**, 203–235.

Wilson, W. J. (1987). *The truly disadvantaged: The inner city, the underclass, and public policy.* Chicago: University of Chicago Press.