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A Developmental Perspective on Antisocial Behavior

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Violence toward other people and willful destruction of property are disturbing crimes that shatter our trust in one another, regardless of the age of the perpetrators. However, when such acts are committed by youth, they strike an especially deep chord. What are the explanations for and origins of these behaviors? Developmental psychologists have examined these questions from many perspectives, including the role of peer relations, academic experience, and poverty. But by far the largest portion of research on this topic has focused on the role of family relations, especially parent-child interaction, as a determining factor in the development of conduct disorders. The research by Gerald R. Patterson and colleagues that is described in the following article offers a rich framework for understanding how parent-child interaction may influence the organization and development of delinquency.

A developmental model of antisocial behavior is outlined. Recent findings are reviewed that concern the etiology and course of antisocial behavior from early childhood through adolescence. Evidence is presented in support of the hypothesis that the route to chronic delinquency is marked by a reliable developmental sequence of experiences. As a first step, ineffective parenting practices are viewed as

determinants for childhood conduct disorders. The general model also takes into account the contextual variables that influence the family interaction process. As a second step, the conduct-disordered behaviors lead to academic failure and peer rejection. These dual failures lead, in turn, to increased risk for depressed mood and involvement in a deviant peer group. This third step usually

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occurs during later childhood and early adolescence. It is assumed that children following this developmental sequence are at high risk for engaging in chronic delinquent behavior. Finally, implications for prevention and intervention are discussed.

In 1986, more than 1.4 million juveniles were arrested for nonindex crimes (e.g., vandalism, drug abuse, or running away) and almost 900,000 for index crimes (e.g., larceny-theft, robbery, or forcible rape; Federal Bureau of Investigation, 1987). The United States spends more than \$1 billion per year to maintain our juvenile justice system. The yearly cost of school vandalism alone is estimated to be one-half billion dollars (Feldman, Caplinger, & Wodarski, 1981). These statistics are based on official records and may represent only a fraction of the true offense rate. Data on self-reported delinquent acts indicate that police records account for as little as 2% of the actual juvenile law violations (Dunford & Elliott, 1982).

Of course, not all costs can be counted in dollars and cents. Antisocial children are likely to experience major adjustment problems in the areas of academic achievement and peer social relations (Kazdin, 1987; Walker, Shinn, O'Neill, & Ramsey, 1987; Wilson & Herrnstein, 1985). Follow-up studies of antisocial children show that as adults they ultimately contribute disproportionately to the incidence of alcoholism, accidents, chronic unemployment, divorce, physical and psychiatric illness, and the demand on welfare services (Caspi, Elder, & Bem, 1987; Farrington, 1983; Robins, 1966; Robins & Ratcliff, 1979).

Antisocial behavior appears to be a developmental trait that begins early in life and often continues into adolescence and adulthood. For many children, stable manifestations of antisocial behavior begin as early as the elementary school grades (see Farrington, Ohlin, & Wilson, 1986; Loeber, 1982; and Olweus, 1979, for reviews). As Olweus noted, stability coefficients for childhood aggression rival the figures derived for the stability of IQ. Findings that early behaviors such as temper tantrums and grade school troublesomeness significantly predict adolescent and adult offenses suggest the existence of a single underlying continuum. If early forms of antisocial behavior are indeed the forerunners of later antisocial acts, then the task for developmental psychologists is to determine which mechanisms explain the stability of antisocial behavior and which control changes over time.

From a policy standpoint, a serious social problem that is predictable and understandable is a viable target for prevention. The purpose of this article is to present an ontogenic perspective on the etiology and developmental course of antisocial behavior from

early childhood through adolescence. Evidence is presented in support of the notion that the path to chronic delinquency unfolds in a series of predictable steps. This model is presented in detail by Patterson, Reid, and Dishion (in press). In this model, child behaviors at one stage lead to predictable reactions from the child's social environment in the following step. This leads to yet further reactions from the child and further changes in the reactions from the social environment. Each step in this action-reaction sequence puts the antisocial child more at risk for long-term social maladjustment and criminal behavior.

A DEVELOPMENTAL PROGRESSION FOR ANTISOCIAL BEHAVIOR

Basic Training in the Home

There is a long history of empirical studies that have identified family variables as consistent covariates for early forms of antisocial behavior and for later delinquency. Families of antisocial children are characterized by harsh and inconsistent discipline, little positive parental involvement with the child, and poor monitoring and supervision of the child's activities (Loeber & Dishion, 1983; McCord, McCord, & Howard, 1963).

Two general interpretations have been imposed on these findings. Control theory, widely accepted in sociology (Hirschi, 1969), views harsh discipline and lack of supervision as evidence for disrupted parent-child bonding. Poor bonding implies a failure to identify with parental and societal values regarding conformity and work. These omissions leave the child lacking in internal control. Several large-scale surveys provide correlational data consistent with this hypothesis. The correlations show that youths who have negative attitudes toward school, work, and authority tend to be more antisocial (Elliott, Huizinga, & Ageton, 1985; Hirschi, 1969). The magnitude of these correlations tends to be very small. Because the dependent and independent variables are often provided by the same agent, it is difficult to untangle the contribution of method variance to these relations.

In contrast, the social-interactional perspective takes the view that family members directly train the child to perform antisocial behaviors (Forehand, King, Peed, & Yoder, 1975; Patterson, 1982; Snyder, 1977; Wahler & Dumas, 1984). The parents tend to be noncontingent in their use of both positive reinforcers for prosocial and effective punishment for

deviant behaviors. The effect of the inept parenting practices is to permit dozens of daily interactions with family members in which coercive child behaviors are reinforced. The coercive behaviors are directly reinforced by family members (Patterson, 1982; Snyder, 1977; Snyder & Patterson, 1986). While some of the reinforcement is positive (attend, laugh, or approve), the most important set of contingencies for coercive behavior consists of escape-conditioning contingencies. In the latter, the child uses aversive behaviors to terminate aversive intrusions by other family members. In these families, coercive behaviors are functional. They make it possible to survive in a highly aversive social system.

As the training continues, the child and other family members gradually escalate the intensity of their coercive behaviors, often leading to high-amplitude behaviors such as hitting and physical attacks. In this training, the child eventually learns to control other family members through coercive means. The training for deviant behaviors is paralleled by a lack of training for many prosocial skills. Observations in the homes of distressed families suggest that children's prosocial acts are often ignored or responded to inappropriately (Patterson, 1982; Patterson, Reid, & Dishion, in press; Snyder, 1977). It seems that some families produce children characterized by not one, but two problems. They have antisocial symptoms and they are socially unskilled.

A series of structural equation modeling studies by Patterson and his colleagues support the theory that disrupted parent practices are causally related to child antisocial behavior. They used multiple indicators to define parental discipline and monitoring practices, child coercive behavior in the home, and a cross-situational measure of the child antisocial trait. In four different samples, involving several hundred grade school boys, the parenting practices and family interaction constructs accounted for 30-40% of the variance in general antisocial behavior (Baldwin & Skinner, 1988; Patterson, 1986; Patterson, Dishion, & Bank, 1984; Patterson et al., in press). Forgatch (1988) used a quasi-experimental design based on data from families referred for treatment of antisocial boys. She showed that changes in parental discipline and monitoring were accompanied by significant reductions in child antisocial behavior. There were no changes in antisocial child behavior for those families who showed no changes in these parenting skills.

Social Rejection and School Failure

It is hypothesized that coercive child behaviors are likely to produce two sets of reactions from the social environment. One outcome is rejection by

members of the normal peer group, and the other is academic failure.

It is consistently found that antisocial children show poor academic achievement (Hawkins & Lishner, 1987; Wilson & Herrnstein, 1985). One explanation for this is that the child's noncompliant and undercontrolled behavior directly impedes learning. Classroom observations of antisocial children show they spend less time on task than their nondeviant peers (Shinn, Ramsey, Walker, O'Neill, & Steiber, 1987; Walker et al., 1987). Earlier classroom observation studies showed that they were also deficient in academic survival skills (e.g., attending, remaining in seat, answering questions) necessary for effective learning (Cobb, 1972; Cobb & Hops, 1973; Hops & Cobb, 1974). Two studies showed a significant covariation between antisocial behavior and failure to complete homework assignments (Dishion, Loeber, Stouthamer-Loeber, & Patterson, 1983; Fehrmann, Keith, & Reimers, 1987).

The association between antisocial behavior and rejection by the normal peer group is well documented (Cantrell & Prinz, 1985; Dodge, Coie, & Brakke, 1982; Roff & Wirt, 1984). Experimental studies of group formation show that aggressive behavior leads to rejection, not the reverse (Coie & Kupersmidt, 1983; Dodge, 1983). Rejected children are also deficient in a number of social-cognitive skills, including peer group entry, perception of peer group norms, response to provocation, and interpretation of prosocial interactions (Asarnow & Calan, 1985; Dodge, 1986; Putallaz, 1983).

It is often suggested that academic failure and peer rejection are causes rather than consequences of antisocial behavior. However, a stronger case may be made that antisocial behavior contributes to these negative outcomes. For example, some investigators have predicted that successful academic remediation will lead to a reduction in antisocial behavior (e.g., Cohen & Filipczak, 1971). However, it has been repeatedly demonstrated that programs improving the academic skills of antisocial youths have not achieved reductions in other antisocial symptoms (Wilson & Herrnstein, 1985); similar findings have been obtained for social skills training (Kazdin, 1987).

Deviant Peer Group Membership

Antisocial behavior and peer group rejection are important preludes to deviant peer group membership (Dishion, Patterson, & Skinner, 1988; Snyder, Dishion, & Patterson, 1986). These analyses also suggest that lax parental supervision also accounts for unique variance to the prediction of deviant peer affiliation.

A large number of studies point to the peer group as the major training ground for delinquent acts and substance use (Elliott et al., 1985; Hirschi, 1969; Huba & Bentler, 1983; Kandel, 1973). Peers are thought to supply the adolescent with the attitudes, motivations, and rationalizations to support antisocial behavior as well as providing opportunities to engage in specific delinquent acts. There are, however, only a small number of studies designed to investigate the hypothesized training process. One study in an institutional setting showed that delinquent peers provided considerable positive reinforcement for deviant behavior and punishment for socially conforming acts (Buehler, Patterson, & Furniss, 1966).

It seems, then, that the disrupted family processes producing antisocial behavior may indirectly contribute to later involvement with a deviant peer group. This particular product may function as an additional determinant for future antisocial behavior. In effect, the deviant peer group variable may be thought of as a positive feedback variable that contributes significantly to maintenance in the process. Common adult outcomes for highly antisocial youths include school dropout, uneven employment histories, substance abuse, marital difficulties, multiple offenses, incarceration, and institutionalization (Caspi et al., 1987; Huesmann, Eron, Lefkowitz, & Walder, 1984; Robins & Ratcliff, 1979).

Figure 1 depicts the relation among the concepts discussed up to this point.

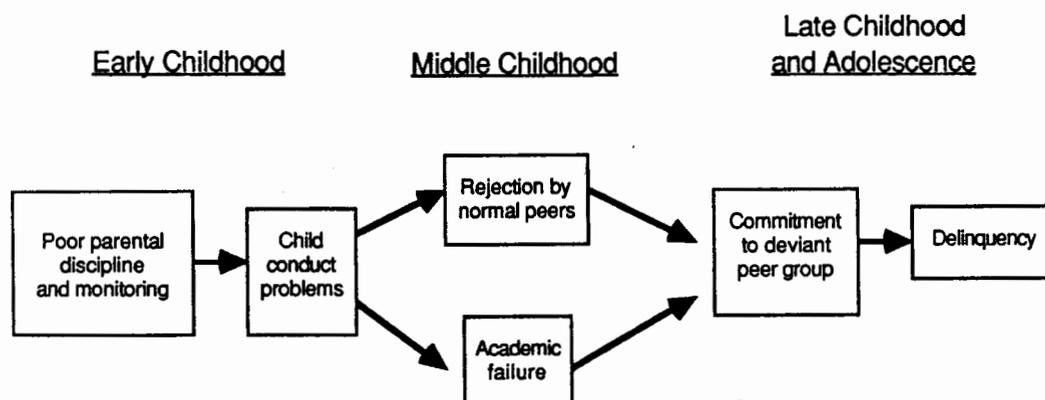


FIGURE 1 A developmental progression for antisocial behavior.

SOME IMPLICATIONS OF THE DEVELOPMENT PERSPECTIVE

Early Versus Late Starters

Boys starting their criminal career in late childhood or early adolescence are at the greatest risk of becoming chronic offenders (Farrington, 1983; Loeber, 1982). Studies of prison populations have shown that recidivists are generally first arrested by age 14 or 15, whereas one-time offenders are first arrested at a later age (Gendreau, Madden, & Leipziger, 1979). Farrington found that boys first arrested between 10 and 12 years of age average twice as many convictions as later starters (Farrington, Gallagher, Morley, St. Ledger, & West, 1986); this comparison holds into early adulthood.

One implication of the aforementioned developmental perspective is that early forms of age-prototypic antisocial behavior may be linked to the early onset of official juvenile offenses. Following this logic, the child who receives antisocial training from the family during the preschool and elementary school years is likely to be denied access to positive socialization forces in the peer group and school.

On the other hand, the late starter would be someone committing his or her first offense in middle to late adolescence. This individual lacks the early training for antisocial behaviors. This implies that he or she has not experienced the dual failure of rejection by normal peers and academic failure.

Only about half the antisocial children become adolescent delinquents, and roughly half to three quarters of the adolescent delinquents become adult offenders (Blumstein, Cohen, & Farrington, 1988; Farrington, 1987; Robins & Ratcliff, 1979). At some point in late adolescence, the incidence of delinquent acts as a function of age group begins to drop; the drop continues into the late 20s. One interpretation of these data is that many of the delinquent offenders drop out of the process. We assume that many of these dropouts are late starters, but more research is clearly needed to specify what factors determine the probability of an individual's dropping out of the antisocial training process. A proper developmental theory of antisocial behavior must delineate not only the variables that lead a child into the process but those that cause some of them to drop out of it.

CONTEXTUAL VARIABLES FOR FAMILY DISRUPTION

Because parent-child interaction is a central variable in the etiology of antisocial behavior, it is important to determine why a minority of parents engage in highly maladaptive family management practices. A number of variables, which shall be referred to as disruptors, have negative effects on parenting skill. These variables also correlate with the probability of children's antisocial behavior. Thus, the effect of disruptors on children's adjustment is indirect, being mediated through perturbations in parenting. Potential disruptors include a history of antisocial behavior in other family members, demographic variables representing disadvantaged socioeconomic status, and stressors—such as marital conflict and divorce—that hamper family functioning.

Antisocial Parents and Grandparents

There is a high degree of intergenerational similarity for antisocial behavior (Farrington, 1987; Robins & Ratcliff, 1979). As a predictor of adult antisocial personality, having an antisocial parent places the child at significant risk for antisocial behavior; having two antisocial parents puts the child at even higher risk (Robins & Earls, 1985). Concordance across three generations has also been documented (Elder, Caspi, & Downy, 1983; Huesmann et al., 1984; Robins, West, & Herjanic, 1975).

There is considerable evidence that parental discipline practices may be an important mediating

mechanism in this transmission. Our set of findings shows that antisocial parents are at significant risk for ineffective discipline practices. Ineffective discipline is significantly related to risk of having an antisocial child. For example, Elder et al. (1983) found a significant relation between retrospective accounts of grandparental explosive discipline and paternal irritability. Irritable fathers tended to use explosive discipline practices with their own children who tended to exhibit antisocial behavior. Patterson and Dishion (1988) also found a significant correlation between retrospective reports of grandparental explosive reactions in the home and parental antisocial traits. Furthermore, the effect of the parents' antisocial trait on the grandchildren's antisocial behavior was mediated by parental discipline practices.

Family Demographics

Demographic variables such as race, neighborhood, parental education, income, and occupation are related to the incidence of antisocial behavior, particularly in its more severe forms (Elliott et al., 1985; Rutter & Giller, 1983; Wilson & Herrnstein, 1985). We presume that the effect of social class on child adjustment is mediated by family management practices.

The empirical findings linking social class to parenting practices are not consistent. But, in general, middle-class parents seem more likely to use reasoning and psychological methods of discipline, allow their children more freedom of choice and self-direction, show egalitarian parenting styles, express positive affect toward their children, verbalize, and support cognitive and academic growth (Gecas, 1979; Hess, 1970). Lower class parents are more likely to use physical discipline, be controlling of their child's behavior, exhibit authoritarian parenting styles, and engage in less frequent verbal and cognitive stimulation.

The findings from the at-risk sample at the Oregon Social Learning Center are in keeping with the trends in the literature (Patterson et al., in press). Uneducated parents working in unskilled occupations were found to be significantly less effective in discipline, monitoring, problem solving, positive reinforcement, and involvement.

Family Stressors

Stressors impinging on the family such as unemployment, family violence, marital discord, and divorce are associated with both delinquency (Farrington,

1987) and child adjustment problems in general (Garmezy & Rutter, 1983; Hetherington, Cox, & Cox, 1982; Rutter, 1979). Although stressors may well have direct and independent effects on child behavior, we assume that the major impact of stress on child adjustment is mediated by family management practices. If the stressors disrupt parenting practices, then the child is placed at risk for adjustment problems. For example, in the case of divorce, postseparation behavior problems occur with diminished parental responsiveness, affection, and involvement, and increased parental punitiveness and irritability (Hetherington et al., 1982; Wallerstein & Kelley, 1981). Structural equation modeling using data from a large sample of recently separated families provided strong support for the relation among stress, disrupted discipline, and antisocial behavior for boys (Forgatch, Patterson, & Skinner, in press).

We assume that antisocial parents and parents with marginal child-rearing skills are perhaps most susceptible to the disrupting effects of stressors and socioeconomic disadvantage. Elder, Caspi, and Nguyen (in press) described this interaction as an *amplifying effect*. External events are most disabling to those individuals who already exhibit negative personality traits or weak personal resources because stressors amplify such problems in adjustment. The interaction between the aforementioned disruptors and parental susceptibility is presented in Figure 2.

When antisocial parents or parents with minimal family management skills are faced with acute or prolonged stress, nontrivial disruptions in family management practices are likely to occur. It is these disruptions that are thought to place the child at risk for adjustment problems. A recent study by Snyder (1988) provided strong support for the mediational hypothesis. Roughly 20 hours of observation collected in the homes of three mother-child dyads showed significant covariation across days between stress and both disrupted maternal discipline and maternal irritability. Days characterized by high stress prior to the observation showed higher rates of disrupted behavior for the mother and increased child problem behaviors. A similar covariation was shown in the study by Wahler and Dumas (1984).

Is Prevention a Possibility?

Reviews of the literature summarizing efforts to intervene with antisocial adolescents invariably lead to negative conclusions (Kazdin, 1987; Wilson & Herrnstein, 1985). At best, such interventions produce short-term effects that are lost within a year or two of treatment termination. For example, efforts to apply behavior modification procedures in a halfway house setting (Achievement Place) showed no treatment effects after youths returned to their homes and communities (Jones, Weinrott, & Howard, 1981).

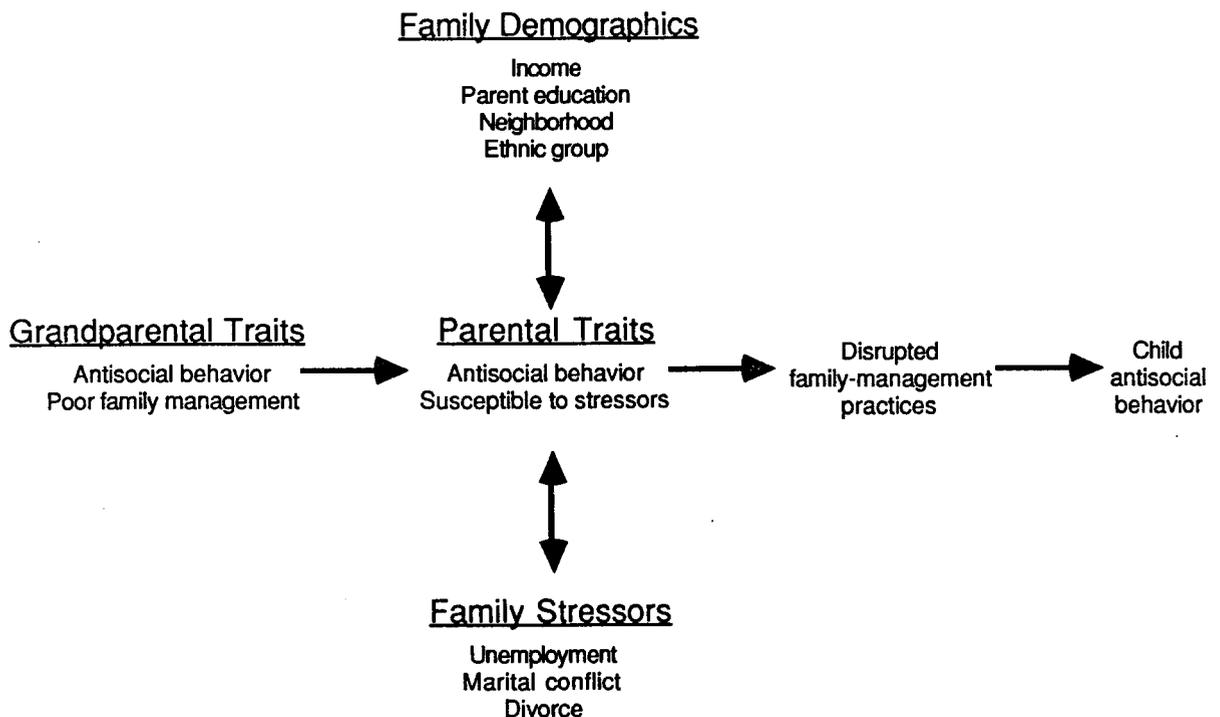


FIGURE 2 Disruptors of effective parenting.

Similarly, systematic parent training for families of delinquent adolescents produced reductions in offenses, but this effect did not persist over time (Marlowe, Reid, Patterson, Weinrott, & Bank, 1988).

Successful intervention appears to be possible for preadolescents, with parent-training interventions showing the most favorable outcomes (Kazdin, 1987). Parent training refers to procedures in which parents are given specific instructions in ways to improve family management practices (e.g., Forehand, Wells, & Griest, 1980; Patterson, Reid, Jones, & Conger, 1975). As shown in the review by Kazdin (1987), the parent-training programs have been evaluated in a number of random assignment evaluation studies including follow-up designs (six-month to four-year intervals). In general, the findings support the hypothesis that parent training is

effective when applied to younger antisocial children. That several major studies failed to show a treatment effect led most investigators to conclude that parent training techniques *and* soft clinical skills are necessary for effective treatment. Current intervention studies have expanded their scope to include teaching academic and social-relational skills in addition to parent training. In order to alter both the problem child's lack of social skills and his or her antisocial symptoms, it seems necessary to design these more complex interventions.

We believe that prevention studies are now feasible. It seems reasonable to identify children in the elementary grades who are both antisocial and unskilled. Successful programs would probably include three components: parent training, child social-skills training, and academic remediation.

Questions

1. How does stress effect parents' ability to manage children's behavioral problems and how might this affect the development of antisocial behavior?
2. What factors, possibly passed across generations in a family, may affect the development of antisocial behavior in children?

3. How might socioeconomic or social status, together with family factors, be related to the incidence of antisocial behavior?

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