

In Advances in
Criminological Theory,
Vol. 7, edited by
Terry Thornberry (Developmental
Theories of Crime and
Delinquency). Transaction,
1997.

A Life-Course Theory of Cumulative Disadvantage and the Stability of Delinquency

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Although often lumped together, longitudinal and developmental approaches to crime are not the same. Longitudinal research invokes a methodological stance—collecting and analyzing data on persons (or macrosocial units) over time. Ironically, however, one of the objections to existing longitudinal research has been that it often looks like, or produces results equivalent to, cross-sectional research (Gottfredson and Hirschi 1987). Critics of longitudinal research have a valid point—many studies simply investigate between-individual relationships using a static, invariant conception of human development. For example, showing an “effect” of social class at time one on crime at time two requires a longitudinal design, but substantively such an effect says nothing about within-individual change, dynamic or sequential processes, or whether in fact “time” really matters. Hence longitudinal studies often borrow the tools of cross-sectional analysis but do not inform about how individuals progress through the life course. Perhaps most important, until recently longitudinal research has labored under the trinity of dominant crimino-

We thank Terry Thornberry for helpful comments on a previous draft. This paper stems from an ongoing project using the archives of Sheldon and Eleanor Glueck, and draws in part from our recent book *Crime in the Making: Pathways and Turning Points Through Life*. Financial support from the Russell Sage Foundation (grant #998.958) is gratefully acknowledged.

2 Developmental Theories of Crime and Delinquency

logical theories—strain, control, and cultural deviance—all of which are inherently static in their original conceptualization. It is little wonder that the mismatch of static theory with longitudinal data has produced unsatisfactory results.

By contrast, developmental approaches are inextricably tied to dynamic concerns and the unfolding of biological, psychological, and social processes through time. Rutter and Rutter (1993) propose an admittedly “fuzzy” but nonetheless useful definition of development as “systematic, organized, intra-individual change that is clearly associated with generally expectable age-related progressions and which is carried forward in some way that has implications for a person’s pattern or level of functioning at some later time” (1993: 64). Development is thus focused on systematic change, especially how behaviors set in motion dynamic processes that alter future outcomes.

With respect to crime, Loeber and LeBlanc (1990: 451) argue that “developmental criminology” recognizes both continuity and within-individual changes over time, focusing on “life transitions and developmental covariates...which may mediate the developmental course of offending.” This strategy has also been referred to as a “stepping stone approach” where factors are time ordered by age and assessed with respect to outcome variables (see Farrington 1986). A similar orientation can be found in interactional theory (Thornberry 1987), which embraces a developmental approach and asserts that causal influences are reciprocal over the life course.

In this paper, we take seriously the conceptions of time and systematic change implied by a developmental approach. We do so with reference to a particularly vexing problem that has led to much debate in criminology—continuity (or stability) in criminal behavior. As reviewed below, there is evidence that antisocial and criminal behaviors are relatively stable over long periods of the life course. Yet while most criminologists can agree on the basic facts, the implications of this stability are contentious. Namely, the fact of stability can be interpreted from both a developmental and a time-invariant, static perspective. Our purpose is to lay out these competing viewpoints on the issue from the perspective of our recent theoretical framework on age-graded informal social control (Sampson and Laub 1993). We specifically propose that sources of continuity stem in large part from developmental processes that we term “cumulative disadvantage” (Sampson and Laub 1993; Laub and Sampson

1993). The idea of cumulative disadvantage draws on a dynamic conceptualization of social control over the life course, integrated with the one theoretical perspective in criminology that is inherently developmental in nature—labeling theory.

Evidentiary Backdrop

The facts appear straightforward. For some time now research has shown that individual differences in antisocial behavior are relatively stable over time. For example, Olweus's (1979) review of sixteen studies on aggressive behavior revealed "substantial" stability—the correlation between early aggressive behavior and later criminality averaged .68 (1979: 854–55). Loeber (1982) completed a similar review of the extant literature in many disciplines and concluded that a "consensus" has been reached in favor of the stability hypothesis: "children who initially display high rates of antisocial behavior are more likely to persist in this behavior than children who initially show lower rates of antisocial behavior" (1982: 1433). In addition to earlier classic studies (e.g., Glueck and Glueck 1930, 1968; Robins 1966), more recent works documenting stability in delinquent behavior across time include West and Farrington (1977), Bachman et al. (1978), and Wolfgang et al. (1987).

The linkage between childhood delinquency and adult outcomes is also found across domains that go well beyond the legal concept of crime (e.g., excessive drinking, traffic violations, marital conflict or abuse, and harsh discipline of children). Huesmann et al. (1984) report that aggression in childhood was related not just to adult crime but marital conflict, drunk driving, moving violations, and severe punishment of offspring. Other studies reporting a coalescence of delinquent and "deviant" acts over time include Glueck and Glueck (1968), Robins (1966), and West and Farrington (1977). As Caspi and Moffitt (1993: 2) note, continuities in antisocial behavior have also been replicated in nations other than the United States (e.g., Canada, England, Finland, New Zealand, and Sweden) and with multiple methods of assessment (e.g., official records, teacher ratings, parent reports, peer nominations). Taken as a whole, these different studies across time, space, and method yield an impressive generalization that is rare in the social sciences.

To be sure, behavioral stability in criminal conduct is not perfect or inevitable. As we have reviewed elsewhere, there are considerable

4 Developmental Theories of Crime and Delinquency

discontinuities in crime throughout life that must be explained (Sampson and Laub 1992). For example, while studies do show that antisocial behavior in children is one of the best predictors of antisocial behavior in adults, "most antisocial children do not become antisocial as adults" (Gove 1985: 123; see also Robins 1978). Similarly, Cline (1980: 669–670) concludes that there is far more heterogeneity in criminal behavior than previous work has suggested, and that many juvenile offenders do not become career offenders. For these reasons we view intra-individual change and "turning points" as integral to developmental theories of criminal behavior (Laub and Sampson 1993). Nonetheless, we restrict our attention in this article to an explanation of the stability of delinquency from a developmental framework.

The Developmental Status of Criminological Theory

How might criminological theory explain behavioral stability? The simple answer is that the question has been largely ignored by criminologists despite the long-standing evidence. Especially from a sociological framework, criminologists have not paid much attention to the developmental implications of early antisocial behavior and its stability through time and circumstance (Sampson and Laub 1992). This is not surprising, however, since traditional criminological theory is decidedly nondevelopmental in nature. Take, for example, the three dominant perspectives on crime—control, strain, and cultural deviance. Each of these perspectives seeks to explain why some individuals engage in crime and not others—a between-individual mode of inquiry.¹ Thus each tends to assign causal priority to the *level* of competing variables (e.g., degree of attachment to parents vs. delinquent definitions) among individuals, which are then tested for relative effects with cross-sectional designs (see Thornberry 1987 for a similar discussion).

When the evidence on stability has been seriously considered by criminologists, static explanations also predominate (for an overview see Sampson and Laub 1993). These generally involve the interpretation of stability as arising from a "latent trait" that is time invariant (e.g., extroversion, low IQ). But if a trait is time-invariant, do we need to follow persons longitudinally? Gottfredson and Hirschi (1990: 237) answer this very question in the negative and criticize developmental criminology for neglecting its own evidence on the stability of personal characteristics.

Specifically, Gottfredson and Hirschi (1990) interpret stability from the viewpoint of a personality trait—low self-control—that causes crime at all ages. In other words, Gottfredson and Hirschi's theory posits a trait of low self-control that differs among individuals but remains constant over time within a given person. Since within-individual change is excluded from the theory by definition, they view behavioral change as "illusory" or "alleged" (Hirschi and Gottfredson 1993: 51).²

The implications for a developmental strategy are profound. As Nagin and Farrington (1992: 501) trace them: "Once relevant time-stable individual differences are established, subsequent individual experiences and circumstances will have no enduring impact on criminal (or noncriminal) trajectories." The time-invariant or static viewpoint argues therefore that stability in crime over the life course is generated by population *heterogeneity* in an underlying criminal propensity that is established early in life and remains stable over time (see also Wilson and Herrnstein 1985). Precisely because individual differences in the propensity to commit crime emerge early and are stable, childhood and adult crime will be positively correlated. It then follows that the correlation between past and future delinquency is not causal but spurious because of population heterogeneity. The hypothesized sources of early propensity cover a number of factors, but in addition to self-control leading candidates in the criminological literature include temperament, IQ, and hyperactivity (Wilson and Herrnstein 1985).

A time-invariant or static interpretation is perhaps understandable when considered along with the larger intellectual history of developmental research. Following what Dannefer (1984) terms the "ontogenetic" model, the dominant view of human development has been one of "maturational unfolding" irrespective of context. That is, the environment is seen as the stage on which life patterns are played out—one that has no real bearing on the structure of development.³ Hence developmental approaches almost always look to the early childhood years as the shaper of all that follows. In an incisive essay, the psychologist Jerome Kagan (1980: 44) argues that this strategy represents a "faith in connectedness" where notions of stability comport with larger ideas on the universe as a rational order undisturbed by arbitrariness, contingency, and situation. He suggests that the assumption of stability of structures goes back to "the Greek notion that immutable entities lay behind the diversity and cyclicity in nature's rich display" (1980: 45). Kagan even asserts that a wide-

6 Developmental Theories of Crime and Delinquency

spread faith in connectedness by Western scholars has led developmentalists to be “permissive regarding the validity of supporting facts, and eager for any evidence that maintains the belief” (1980: 44). Like the existentialists who vigorously challenged the notion of continuity of experience, emphasizing instead the freedom of choice to abrogate one’s past, Kagan (1980: 53) views the hypothesis of a static, unbroken trail from childhood to adulthood as fundamentally flawed and rooted in philosophical belief rather than scientific fact.

Whatever the epistemological underpinnings, the dominant criminological theories of the last three decades—strain, control, and cultural deviance—have also been treated as largely static in their predictions. This is not to say that they are devoid of developmental *implications* (see especially Thornberry 1987; Loeber and Le Blanc 1990), only that the leading theoretical trio is rooted in “between-individual” rather than temporal thinking. Yet as we shall now see, there is one theoretical tradition, currently in eclipse, that was formed with developmental processes in mind.⁴

Labeling Theory Reconsidered

As Loeber and Le Blanc (1990: 421) have argued, labeling theory is the only criminological theory that is truly developmental in nature because of its explicit emphasis on processes over time. Although labeling theorists have addressed a number of diverse issues, of particular relevance for developmental theories of criminal behavior is the attention drawn to the potentially negative consequences of being labeled for understanding subsequent behavior. For example, Lemert (1951) maintained that societal reactions to primary deviance may create problems of adjustment that foster additional deviance or what he termed “secondary deviance.”

In general, labeling theorists have conceptualized this process as the “stigmatizing” and “segregating” effects of social control efforts (Paternoster and Iovanni 1989: 375). As Lemert has explained: Primary deviance is assumed to arise in a wide variety of social, cultural, and psychological contexts, and at best has only marginal implications for the psychic structure of the individual; it does not lead to symbolic reorganization at the level of self-regarding attitudes and social roles. Secondary deviation is deviant behavior, or social roles based upon it, which becomes means of defense, attack, or adaptation to overt and covert prob-

lems created by the societal reaction to primary deviation. In effect, the original "causes" of the deviation recede and give way to the central importance of the disapproving, degradational, and isolating reactions of society (Lemert 1972: 48).

Labeling may thus lead to an alteration of one's identity, exclusion from "normal routines" or "conventional opportunities," and increased contact with and support from deviant subgroups. All three, in turn, may lead to further deviance. Contrary to past characterizations of labeling theory, Paternoster and Iovanni emphasize the contingent nature of these developmental processes (1989: 375–381; see also Tittle 1975). Similar to historical sociologists' concerns with contingency and "path dependency" (Aminzade 1992), they stress that "we should not expect labeling effects to be invariant across societal subgroups" (1989: 381). Paternoster and Iovanni also note that the "stigmatizing and exclusionary effects" of labeling "act as intervening variables in the escalation to secondary deviance" (1989: 384).

The role of the criminal justice system in the labeling process is especially important. Garfinkel (1956) describes this process as a "status degradation ceremony." From a developmental perspective, formal degradation ceremonies like those surrounding felony trials are most salient with respect to later behavioral outcomes. For example, successful degradation ceremonies that lead to felony convictions may increase the probability of negative job outcomes in later life. As Becker argues, the designation of "deviant" or "criminal" often becomes a "master status" whereby "the deviant identification becomes the controlling one" (1963: 33–34). The concept of a deviant career thus suggests a stable pattern of deviant behavior that is sustained by the labeling process (Becker 1963: 24–39). In a similar vein, Schur (1971) refers to this process as *role engulfment*.

In a recent review of the empirical research on labeling theory, Paternoster and Iovanni (1989) argue that the "secondary deviance hypothesis" has not been adequately tested. In large part this is because the complexities of labeling theory have not been fully explicated in extant research. In particular, Paternoster and Iovanni (1989: 384) contend that "by failing to consider the requisite intervening effects, the bulk of these studies do not constitute a valid test of labeling theory." From a developmental perspective, it is also notable that the follow-up periods in most tests of labeling have been quite short and rarely include the develop-

8 Developmental Theories of Crime and Delinquency

mental transition from adolescence to adulthood (but see Farrington et al. 1978). For example, a common scenario has been to test the effects of police contacts or court referrals on future delinquency *within* the juvenile career (see e.g., Thomas and Bishop 1984; Smith and Paternoster 1990).

Recent research by Link (1982; 1987; Link et al. 1989; 1987) on mental health may provide guidance for criminologists interested in alternative conceptualizations of labeling theory compared to those found in criminology (see also Paternoster and Iovanni 1989). Link developed a "modified labeling theory," which like Paternoster and Iovanni, moves beyond simplistic statements about the direct effects of labeling and provides a specification of the intervening mechanisms and developmental process. Building on Scheff's (1966) labeling theory, Link argues that official labeling and subsequent stigmatization generate negative consequences regarding social networks, jobs, and self-esteem in the lives of mental patients (see Link et al. 1989).

The first step in this model is a focus on beliefs about devaluation and discrimination. The key idea is that individuals (patients and nonpatients) internalize societal conceptions and beliefs about mental illness. The result is that "patients' expectations of rejection are an outcome of socialization and the cultural context rather than a pathological state associated with their psychiatric condition" (Link et al. 1989: 403). The second step is official labeling through contact with treatment providers. This step is important because the label applied at the individual level personalizes societal beliefs about devaluation and discrimination towards patients. The third step in Link's model focuses on the patients' responses to their stigmatizing status, including secrecy and withdrawal. The fourth step emphasizes the consequences of the stigma process on patients' lives. Although potentially beneficial, secrecy and withdrawal may also have negative consequences for individual patients by limiting life chances. This effect is consistent with the idea of secondary deviation as developed by Lemert (1951). The fifth and final step in the process is vulnerability to future disorder. As a result of earlier processes, patients may suffer from poor self-esteem, diminished network ties, and experience unemployment (or underemployment) as a result of their own and others' reaction to their label. These deficits increase the risk of further disorder in the future.

Link and his colleagues have demonstrated empirical support for this modified conception of labeling processes (see Link 1982; 1987; Link et al. 1989; 1987). Most important for our purposes is the finding that

labeling has negative consequences in the lives of psychiatric patients regarding work status, income, friendships, family relations, and mate selection. Link's program of research steers attention away from static and "deterministic" aspects of labeling and focuses instead on the more subtle—and clearly indirect—consequences of labeling for later behavior. This emphasis is consistent with a developmental, stepping-stone perspective. In fact, Link (1982: 203, n.2) notes that labeling effects are produced "incrementally," and should be thought of as "a series of reinforcing conditions." While it may be the case (as critics of labeling theory have long contended) that the labeling of deviance is initially the result of actual differences in behavior (see e.g., Gove 1980), this fact is not inconsistent with the notion that such labeling may causally influence the later direction of developmental trajectories over the life course.

Despite its obvious affinity to a life course, developmental framework, labeling theory has rarely been viewed from this perspective. For the most part, research on labeling has consisted of cross-sectional studies or panel studies entailing modest follow-up periods *within* rather than *across* developmental phases. With their focus on deviant identity and "psychic change," labeling analysts have also undertheorized the role of social structural constraints. As described more below, structural effects of labeling may emerge through social allocation mechanisms that have nothing to do with a redefinition of the self or other social-psychological processes that operate within the individual. In particular, the structural consequences of labeling during adolescence (e.g., long-term incarceration as a juvenile) on later adult outcomes have not been fully incorporated into extant labeling theory. Although we suspect much more is at work in the form of ideological resistance, these lacunas have no doubt contributed to the received wisdom that labeling theory is "discredited." We think otherwise, and thus turn to an integration of the dynamic aspects of labeling theory with social control theory, and then apply this perspective to findings of stability produced by criminological research. As a backdrop, we first provide a brief overview of the social control portion of our theory.

Extending an Age-Graded Theory of Informal Social Control

The central idea of social control theory—that crime and deviance are more likely when an individual's bond to society is weak or broken—is an organizing principle in our theory of social bonding over the life course

(Sampson and Laub 1993). The life course has been defined as “pathways through the age differentiated life span” (Elder 1985: 17), in particular the “sequence of culturally defined age-graded roles and social transitions that are enacted over time” (Caspi et al. 1990: 15). Two central concepts underlie the analysis of life course dynamics. A *trajectory* is a pathway or line of development over the life span such as worklife, parenthood, and criminal behavior. Trajectories refer to long-term patterns of behavior and are marked by a sequence of transitions. *Transitions* are marked by life events (e.g., first job or first marriage) that are embedded in trajectories and evolve over shorter time spans (see also Elder 1985: 31–32).

Following Elder (1985), we differentiate the life course of individuals on the basis of age and argue that the important institutions of both formal and informal social control vary across the life span. However, we emphasize the role of age-graded informal social control as reflected in the structure of interpersonal bonds linking members of society to one another and to wider social institutions (e.g., work, family, school). Unlike formal sanctions that 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: 24).

Although traditional control theory (e.g., Hirschi 1969) is static, we believe its integration with the life course framework may be used to understand the dynamics of both continuity and change in behavior over time. In particular, a major thesis of our work is that social bonds in adolescence (e.g., to family, peers, and school) and adulthood (e.g., attachment to the labor force, cohesive marriage) explain criminal behavior regardless of prior differences in criminal propensity—that age-graded changes in social bonds explain changes in crime. We also contend that early (and distal) precursors to adult crime (e.g., conduct disorder, low self-control) are mediated in developmental pathways by key age-graded institutions of informal and formal social control, especially in the transition to adulthood (e.g., via employment, military service, marriage, official sanctions).

In uniting continuity and change within the context of a sociological understanding of crime through life, a major concept in our framework is the dynamic process whereby the interlocking nature of trajectories and transitions generate *turning points* or a change in life course (Elder 1985:

32). Adaptation to life events is crucial because the same event or transition followed by different adaptations can lead to different trajectories (Elder 1985: 35). That is, despite the connection between childhood events and experiences in adulthood, turning points can modify life trajectories—they can “redirect paths.” For some individuals, turning points are abrupt—radical “turnarounds” or changes in life history that separate the past from the future (Elder et al. 1991: 215).

For most individuals, however, we conceptualize turning points as “part of a process over time and not as a dramatic lasting change that takes place at any one time” (Pickles and Rutter 1991: 134; Rutter 1989; Clausen 1993). The process-oriented nature of turning points leads to a focus on incremental change and age-related progressions and events, which carry forward or set in motion dynamic processes that shape future outcomes (Rutter and Rutter 1993: 64). In our theoretical model, turning points may be positive *or* negative because they represent “times of decision or opportunity when life trajectories may be directed on to more adaptive or maladaptive paths” (Rutter and Rutter 1993: 244). As Rutter and Rutter recognize, “Life-span transitions have a crucial role in the processes involved, strengthening emerging patterns of behavior or providing a means by which life trajectories may change pattern” (1993: 109; see also Maughan and Champion 1990: 310). This variability results because life transitions do not have the same impact on everyone. For instance, getting married may be beneficial or deleterious depending on “*when* a person marries, *whom* a person marries, the *quality* of the relationship formed and whether or not *changes* in social group and life patterns are involved” (Rutter and Rutter 1993: 356, emphasis in the original). Although not usually thought of as such, some turning points are thus negative, serving to exacerbate early trajectories of antisocial conduct.

Cumulative Disadvantage

We believe that a developmental conceptualization of labeling theory, integrated with the age-graded theory of informal social control previously outlined, provides an alternative way of thinking about trait-based interpretations of behavioral stability. Consider first an often neglected fact about stability. As reviewed by Rutter and Rutter (1993: 77–79), psychological traits usually thought of as having the greatest biological

basis—e.g., activity level and temperament—in fact show relatively low stability from childhood to adulthood. By contrast, even though aggression is arguably less likely than these studied traits to result from biological differences, it shows the *highest* stability.

Why should this be so? A clue is that aggression is a social behavior that, by definition, involves interpersonal interaction. Moreover, aggression and conduct disorder often generate immediate and harsh responses by varying segments of society compared to most personality traits. As we shall elaborate, aggression tends to foster physical counterattacks, teacher and peer rejection, punitive discipline, parental hostility, and harsh criminal justice sanctions. The common feature to all these responses is retaliation and attempts at control and domination.

Logically, then, the fact that much delinquency starts early in the life course implies that retaliatory efforts to suppress it also begin early. These repressive efforts accrete incrementally over time to produce developmental effects. Specifically, we argue that antisocial children replicate their antisocial behavior in a variety of social realms in part because of the differing reactions that antisocial behavior brings forth (Caspi 1987). Maladaptive behaviors are “found in interactional styles that are sustained both by the progressive accumulation of their own consequences (cumulative continuity) and by evoking maintaining responses from others during reciprocal social interaction (interactional continuity)” (Caspi et al. 1987: 313, emphasis added). The combination of interactional and cumulative continuity over time is thus inherently a social process.

Invoking a state dependence argument (see Nagin and Paternoster 1991), our theory incorporates the causal role of prior delinquency in facilitating adult crime through a process of “cumulative disadvantage.” The state dependence component implies that committing a crime has a genuine behavioral influence on the probability of committing future crimes. In other words, crime itself—whether directly or indirectly—causally modifies the future probability of engaging in crime (Nagin and Paternoster 1991: 166). Although this role is potentially direct, we emphasize a developmental model where delinquent behavior has a systematic attenuating effect on the social and institutional bonds linking adults to society (e.g., labor force attachment, marital cohesion). For example, delinquency may spark failure in school, incarceration, and weak bonds to the labor market, in turn increasing later adult crime (Tittle 1988: 80). Serious sanctions in particular lead to the “knifing off” (Moffitt 1993) of

future opportunities such that labeled offenders have fewer options for a conventional life.

The cumulative continuity of disadvantage is thus not only a result of stable individual differences in criminal propensity, but a dynamic process whereby childhood antisocial behavior and adolescent delinquency foster adult crime through the severance of adult social bonds. From this view, similar to what Thornberry (1987) has termed interactional theory, weak social bonding serves as a mediating and hence causal sequential link in a chain of adversity between childhood delinquency and adult criminal behavior. We further believe that this process of cumulative disadvantage is linked to four key institutions of social control—family, school, peers, and state sanctions.

Family

The importance of family management and socialization practices (e.g., monitoring and supervision, consistent punishment, and the formation of close social bonds among parents and children) for explaining crime and delinquency has been well established (see e.g., Loeber and Stouthamer-Loeber 1986: 29). When considering the role of families and crime, however, criminologists generally view childrearing in a static framework that flows from parent to child. This static view ignores the fact that parenting styles are also an adaptation to children in a process of reciprocal interaction. An example of interactional continuity in the family is when the child with temper tantrums provokes angry and hostile reactions in parents, which in turn feeds back to trigger further antisocial behavior by the child. In support of this idea, there is evidence that styles of parenting are very sensitive 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, 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: 688) notes, conduct disordered children “may be underresponsive to social reinforcement and punishment.” Hence normal routines of parental childrearing become subject to disruption based

on early antisocial behavior—i.e., 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: 690) reviews evidence showing a connection between a child being rated “difficult” in preschool (e.g., whining, restlessness, strong-willed resistance) and the child’s delinquency as an adolescent—a relation that holds independent of the quality of parents’ childrearing practices. For example, Olweus (1980) showed that mothers of boys who displayed a strong-will and hot temper in infancy later became more permissive of aggression, which in turn led to greater aggressiveness in middle childhood. Moreover, there is experimental evidence that when children’s inattentive and noncompliant behavior is improved by administering stimulant drugs, their mothers become less controlling and mother-child interaction patterns are nearly normalized (Lytton 1990: 688). All of this suggests that parenting, at least in part, is a reaction to children’s temperament, especially difficult ones.

Although rarely studied directly, it seems likely that delinquent behavior and other deliberate violations of parental authority spark retaliation in the form of harsh physical punishment and, in some cases, parental abuse. In turn, child abuse and violent punishment have been linked to later violent offending on the part of victims (Widom 1989). To the extent that children’s appraisals of themselves are powerfully influenced by negative parental labeling (Matsueda 1992), the consequences of violent interactional styles, parent-child conflict, and violent punishment for later life are potentially quite large.

In any case, our point is that interactional continuity begins in the family. This is not a simultaneous relationship at one point in time so much as a reinforcing cycle that builds over time to further increase the probability of antisocial behavior (see also Thornberry 1987: 869). In Nagin and Paternoster’s (1991) terminology, this process captures the state dependence effect of prior delinquency on future crime.

School and Peers

Many years ago, the Gluecks observed that poor school attachment may be a consequence of misbehavior more than a cause (1964: 23). Teachers may be particularly sensitive to unruly and difficult children, leading to rejection of the child or at least a strained teacher-student

relationship. This rejection undermines the attachment of the child to the school, and ultimately, the child's performance in the school. More recent evidence on the reciprocal relationship between delinquency and school attachment has been uncovered in research by Liska and Reed (1985), Olweus (1983), and Thornberry et al. (1991).

Similar processes have been revealed for peer interactions. For instance, children who are aggressive are more likely to be rejected by their peers compared with less aggressive children (see Cairns and Cairns 1992; Coie et al. 1991; Dodge 1983; Patterson et al. 1989). This process creates a vicious cycle of negative interactions and is consistent with Caspi's (1987) idea of interactional continuity. Dishion and his colleagues (1991) have also found that poor family practices, peer rejection, and academic failure at age ten increased the likelihood of involvement with antisocial peers at age twelve. In this sense, peer rejection and the deviant peer group contribute to the maintenance of antisocial behavior through mid-adolescence (see also Thornberry et al. 1994). Although further discussion is beyond the scope of this article, the existing evidence thus suggests that the reciprocal interactional dynamics of teacher and peer rejection contribute to the continuity of aggression and other forms of delinquent behavior.

Criminal Justice and Institutional Reaction

Cumulative disadvantage is generated most explicitly by the negative structural consequences of criminal offending and official sanctions for life chances. The theory specifically suggests a "snowball" effect—that adolescent delinquency and its negative consequences (e.g., arrest, official labeling, incarceration) increasingly "mortgage" one's future, especially later life chances molded by schooling and employment. For example, it has long been the case that many jobs formally preclude the hiring of ex-prisoners (Glaser 1969: 233–238). Experimental studies have also shown that employers are reluctant to consider ex-offenders as potential employees (Boshier and Johnson 1974; Dale 1976; Finn and Fontaine 1985).

The stigma associated with arrest and conviction extends to membership in trade unions, "bonding" applications, and licensing restrictions (see Davidenas 1983). For example, many trade unions deny membership to ex-offenders (Dale 1976: 324), while the standard commercial

blanket bond contains a provision that nullifies coverage if employers have knowingly hired any person with a criminal record (Dale 1976: 326). The result is that ex-offenders are barred from employment where bonding is required (e.g., security guards, hotel workers). Of course, these are precisely the sort of low-skilled jobs that are compatible with the educational and work-history profiles of most offenders.

The licensing of government-regulated private occupations yields even more structural constraints on the reintegration of ex-offenders. As an example, in only four states can an ex-offender work as a barber without interference by the state licensing agency because of criminal conduct (Dale 1976: 330). Although there is considerable state-by-state variation, licensing boards bar ex-offenders from literally hundreds of other occupations, including apprentice electrician, billiards operator, and plumber (Singer 1983: 246 and Dale 1976). Again, these seem to be primary "escape routes" from a disadvantaged past were it not for the criminal record.

Arrest, conviction, and imprisonment are clearly stigmatizing, and those so tarnished face structural impediments to establishing strong social ties to conventional lines of adult activity—regardless of their behavioral predispositions (see also Schwartz and Skolnick 1964; Thornberry and Christenson 1984; Burton et al. 1987). Drawing on the thesis of cumulative disadvantage, there is thus support for hypothesizing that incarceration has negative effects on job stability and employment in adulthood (see especially Bondeson 1989; Freeman 1991). The logic of this theoretical perspective in turn points to a possible *indirect* role of delinquency and official sanctioning in generating future crime.

Although long-term assessments are rare, there is some developmental evidence that bears on this thesis. As part of a larger project, we have analyzed the natural histories originally gathered by Glueck and Glueck (1950 1968) of 500 delinquents and 500 control subjects matched on age, IQ, ethnicity, and neighborhood deprivation (see Sampson and Laub 1993 for details). To test the cumulative disadvantage thesis, we examined the role of job stability at ages seventeen–twenty-five and twenty-five–thirty-two as an intervening link between incarceration and adult crime. In doing so we controlled for theoretically relevant factors in the etiology of job stability. As Gottfredson and Hirschi (1990) argue, those individuals with low self-control and tendencies toward crime are also the same individuals likely to have unstable histories in employment and

other conventional lines of activity. Accordingly, we controlled for official arrest frequency, unofficial delinquency, and sample attrition risk. Moreover, previous research (e.g., Robins 1966; Vaillant 1983) in conjunction with our own qualitative analysis revealed the important role of drinking in understanding patterns of job stability—heavy or abusive drinkers tend to either drift from job to job or be fired from their jobs at a rate much higher than nondrinkers. Excessive drinking that began in adolescence (age nineteen or younger) was thus also controlled. Finally, we used empirical methods that took into account persistent unobserved heterogeneity in criminal behavior (Nagin and Paternoster 1991).

Using this multimethod, multimeasure approach, we found that length of juvenile incarceration had the largest overall effect on later job stability—regardless of prior crime, excessive adolescent drinking, and exclusion risk. Even though all the delinquent boys were incarcerated at some point, those incarcerated for a longer period of time had trouble securing stable jobs as they entered young adulthood compared to delinquents with a shorter incarceration history. Since unofficial propensity to deviance, sample selection bias, drinking, unobserved heterogeneity, and prior criminal history were controlled (the latter influencing the length of confinement), it seems unlikely that the result is spurious.

Our analyses also underscored the deleterious role that incarceration may play in developmental trajectories of employment in later periods of adulthood (ages twenty-five–thirty-two). Length of incarceration in both adolescence *and* young adulthood had significant negative effects on job stability at ages twenty-five–thirty-two (Sampson and Laub 1993: 167–168). These results are noteworthy not only because confounding “propensity” factors were taken into account (e.g., crime and drinking), but also for the long-term negative consequences of juvenile incarceration independent of adult incarceration (Laub and Sampson 1994). Apparently, the structural disadvantages accorded institutionalized adolescents are so great (e.g., through dropping out of high school, record of confinement known to employers) that their influence lingers throughout adult development. We tested the idea of cumulative effects by also examining the duration of incarceration from adolescence (< seventeen) through the transition to young adulthood (ages seventeen–twenty-five). As the total time served in juvenile and adult correctional facilities increased, later job stability decreased (controlling for prior record and unofficial deviance).

Although limited, the data thus suggest that looking only at the direct effects of official sanctions is misleading. Length of incarceration—whether as a juvenile or adult—has little direct bearing on later criminal activity when job stability is controlled. This does not imply unimportance, however, for there is evidence that the effect of confinement may be indirect and operative in a developmental, cumulative process that reproduces itself over time (see also Hagan and Palloni 1990). Consistent with the theoretical idea of cumulative continuity and state (duration) dependence (Nagin and Paternoster 1991; Featherman and Lerner 1985), incarceration appears to cut off opportunities and prospects for stable employment later in life. This “knifing off” has important developmental implications—job stability and also marital attachment in adulthood are significantly related to changes in adult crime (Sampson and Laub 1993: ch. 7). Namely, the stronger the adult ties to work and family, the less crime and deviance among both delinquents and controls. Therefore, even if the direct effect of incarceration is zero or possibly even negative (i.e., a deterrent), its indirect effect may well be criminogenic (positive) as structural labeling theorists have long argued.

Other Evidence

Although infrequently studied over significant periods of human development, there is additional evidence of cumulative continuity arising from state sanctions and the attenuation of social bonds to employment. Based on the Cambridge Study in Youth Development, Farrington (1977) found that convictions increased the probability of future offending. Using the same longitudinal data, research by Nagin and Waldfogel (1992) supports the cumulative continuity thesis in showing a destabilizing effect of convictions on the labor market prospects of London boys. More recently, and again using the Cambridge data, Hagan (1993) has shown that delinquency increases the probability of future unemployment, regardless of prior differences in criminal propensity. Thornberry and Christenson (1984) have similarly shown a lagged positive effect of criminal involvement on future adult unemployment, controlling for prior propensities to unemployment.

In perhaps the most impressive set of findings, Richard Freeman has analyzed the National Longitudinal Survey of Youth (NLSY) to estimate effects of jail time, probation, conviction, and arrests (charges) on whether

individuals were employed (and for how many weeks) for each year from 1980 to 1988. Control variables included sociodemographic characteristics (e.g., education, region, age) and self-reported use of drugs and alcohol. Net of these factors, Freeman's results showed that serious involvement with the criminal justice system had large long-term effects on employment. Specifically, men in jail as of 1980 had lower employment in all succeeding years than other men with comparable characteristics (Freeman 1991: 11). Similar results obtained for the number of weeks worked in the years previous to the interview follow-up. Interestingly, there was no effect of conviction but very large effects for jail time. As Freeman concludes: "The relation between incarceration and employment is "causal" rather than the result of fixed unobserved personal characteristics that are correlated with crime and employment: proportionately fewer youths who had been incarcerated worked years afterward than did nonincarcerated youths with similar initial employment experiences" (1991: 1).

Freeman also investigated these relationships using the Boston Youth Survey of out-of-school young men conducted during the height of the Boston labor market boom in the 1980s. To adjust for individual differences, Freeman's analyses controlled for age, race, education, grades in school, living arrangements, public housing, marital status, religious attendance, household size, alcohol use, and gang membership. Similar to the NLSY findings, his results showed that criminal offending and sanction experiences—especially jail time—severely restricted future opportunities in the labor market. In fact, Freeman's multivariate analyses "confirm that having been in jail is the single most important deterrent to employment" (1991: 13). This result held up when unobserved heterogeneity in individual differences in employment proclivities were controlled.

Freeman's consistent research findings from very different samples underscore the fact that we do not necessarily need to assume that personal "identities" change as a result of labeling and state sanctions. Rather, we take a more rational choice approach that focuses on endogenous decisions about the utility of labor market participation and adherence to conventional norms (see also Cook 1975). In other words, once severe sanctions like incarceration have been imposed, labor market decisions take on new meaning—especially when weighed against the opportunities provided by the innovation and expansion of drug economies in recent years (Freeman 1991: 22). From this view, labels work cumulatively

through the structural transformation of one's stake in conformity to conventional society.

Structural Location and Continuity

To this point we have examined how involvement in delinquent behavior and criminal sanctioning during the transition from adolescence to young adulthood constrains subsequent development. Although this is certainly a developmental issue, Jessor et al., (1991: 252) argue "that there might well be very different outcomes of the same attribute, depending on the stage of the life course, the time in history, the particular cultural and social context, and the relevant aspects of the larger social setting." In their recent longitudinal study, Jessor and his colleagues (1991) found that despite continuity in problem behavior from adolescence to young adulthood, there was little evidence of "spillover" effects into other areas of adult life (e.g., work, education, family, friendships, and mental health). For this sample, delinquency does not appear to be a major handicap with respect to adult outcomes. However, the participants of Jessor et al.'s study (1991: 268) consisted largely of middle-class youth drawn from a "normal" sample.

Along similar lines, Hagan's (1991) research suggests that the deleterious effect of adolescent deviance on adult stratification outcomes is greatest among lower class boys, especially as mediated by police contacts. Middle-class boys who escaped the negative consequences of official labeling did not suffer impairment in adult occupational outcomes as a result of their adolescent delinquency. Avoiding the snares of arrest and institutionalization thus provided opportunities for prosocial attachments among middle-class youth to take firm hold in adulthood.

Recent experimental research on domestic violence provides even more compelling evidence of the interaction of structural location and sanctions. Randomized experiments in Milwaukee, Miami, Colorado Springs, and Omaha all revealed that arrest reduced repeat violence among the employed but *increased* it among the unemployed (Sherman 1992; 1993: 10). In other words, sanctioning tends to aggravate crime when administered in populations with low "stakes in conformity." Much like Braithwaite's (1989) theory of reintegrative shaming, Sherman (1993) argues that stigmatizing punishment among the disaffected works only to increase "defiant" recidivism. In particular, he posits that criminal

justice sanctions provoke future defiance of the law when offenders have weak social bonds to both sanctioning agents and the wider community.

These studies suggest that the concepts of knifing off and cumulative continuity are most salient in explaining the structurally constrained life chances of the disadvantaged urban poor. In other words, cumulative disadvantage, state-dependence, and location in the class structure appear to interact. Among those in advantaged positions that provide continuity in social resources over time, both nondelinquents and delinquents alike are presumably not just more motivated, but better able structurally to establish binding ties to conventional lines of adult activity (Laub and Sampson 1993: 307). If nothing else, incumbency in prosocial middle-class roles provides advantages in maintaining the status quo and counteracting negative life events (e.g., being fired). Legal deterrents work better here, reducing future offending as classical theory suggests they should (Sherman 1992).

Among the disadvantaged, things seem to work differently. Deficits and disadvantages pile up faster, and this has continuing negative consequences for later development in the form of "environmental traps" (Maughan and Champion 1990: 308). Perhaps most problematic, the process of cumulative disadvantage restricts future options in conventional domains that provide opportunities for social "interdependence" (e.g., stable employment) while simultaneously encouraging options within subcultures that "reject the rejectors" (Braithwaite 1989: 102). Maughan and Champion (1990: 308) argue that this process takes on the characteristics of a "conveyor belt" that is extremely difficult to manage or jump off—especially for the disadvantaged. Thus one cannot ignore the effects of larger social contexts (social structure and living conditions) on development (Rutter and Rutter 1993: 34–37).

Implications

Our synthesis of cumulative disadvantage and state dependence recasts in a structural and developmental framework the original contentions of labeling theory that official reactions to primary deviance (e.g., arrest) may create problems of adjustment (e.g., unemployment) that foster additional crime in the form of secondary deviance (e.g., Lemert 1951; Becker 1963). Similar to Becker's concept of a deviant career sustained by the labeling process, Hagan and Palloni (1990) suggest that continu-

ity in delinquent behavior may result from a structural imputation process that begins early in childhood (see also Tittle 1988: 78–81; Laub and Sampson 1993). Indeed, the stability of behavior may reflect more the stability of social *response* than the time-invariance of an individual trait. As we have argued, aggression is a social behavior embedded in ongoing social interactions with salient others.

Taking a similar position, Dannefer (1987: 216) argues that most developmental research is too quick to attribute continuity to time-stable traits and social-psychological processes rather than “structured mechanisms of social allocation producing similar differentiating tendencies in successive cohorts.” The channeling of prior differences and the tendency toward cumulation of both advantage and disadvantage is so general that it has been referred to as the “Matthew effect”—“To him who hath shall be given; from him who hath not shall be taken away that which he hath” (see Dannefer 1987: 216). The Matthew effect underscores what Smith (1968) has called “vicious and benign circles” of development. Or as John Clausen puts it—“early advantages become cumulative advantages; early behaviors that are self-defeating lead to cumulative disadvantages” (1993: 521).

Patterson (1993) has offered the most telling metaphor for understanding the developmental risks of cumulative disadvantage—the “chimera.” Patterson and his colleagues (1989) have examined the developmental course of antisocial behavior and delinquency across a developmental trajectory involving family, school, and peers. Their model consists of a series of action-reaction sequences across the developmental stages of early childhood, middle childhood, and late childhood and adolescence. Patterson argues that antisocial behavior leads to a “cascade” of secondary problems (e.g., school failure, peer rejection, depressed mood, and involvement with deviant peers) and he is quite explicit that “for problems produced at later stages, antisocial behavior is only an indirect determinant” (Patterson and Yoerger 1993: 145).

Appropriately, then, Patterson (1993) refers to the antisocial trait as a “chimera”—a hybrid where qualitative shifts in problem behavior (e.g., academic failure, peer rejection, etc.) as well as new forms of antisocial behavior (e.g., substance abuse) are “grafted” onto a core antisocial trait. From our perspective, the grafting process, the “piling up” of disadvantage, and the resultant chimera of a persistent criminal career is likely to interact with race and structural location (Hagan 1991; Jessor et al. 1991;

Thornberry 1987). Namely, there is increasing evidence that the probability of adolescent risks becoming transmuted into adverse adult circumstances is greatest among those in disadvantaged racial and economic positions.

On a final note, we stress that our theorizing of cumulative continuity and the causal role of salient life experiences in adulthood does not negate the potential importance of self-selection and individual differences. By distinguishing self-selection from cumulative continuity we incorporate the independent effects of both early delinquency (or individual propensity) and the dimensions of adult social bonding on adult crime. This distinction is consistent with recent research on homophily in social choices across the life course. As Kandel et al. (1990: 221) state: "although individual choices are made, in part, as a function of the individual's prior attributes, values, and personality characteristics, involvement in the new relationship has further effects and influences on that individual." Similarly, Rutter et al. (1990) and Quinton et al. (1993) found homophily in the choice of marital partners but also a substantial effect of marital cohesion and stable family life that held after taking planning of marriage partners into account. We found a similar phenomenon in our re-analyses of the Gluecks' data (see Sampson and Laub 1993; Laub and Sampson 1993).

An important roadblock to integrating trait-based models with life-course theory is thus conceptual and turns on what we believe is an incorrect interpretation of homophily. To assume that individual differences influence the choices one makes in life (which they certainly do), does not mean that social mechanisms emerging from those choices can then have no causal significance.⁵ Choices generate constraints *and* opportunities that themselves have effects not solely attributable to individuals. As situational theorists have long pointed out, the same person—with the same attributes and traits—acts very different in different situations. For these reasons, the integration of rational choice, situational, and social control theories with a life-course perspective that respects yet is not reducible to individual differences seems a promising avenue of future advances in criminological theory (see also Nagin and Paternoster 1993).

Notes

1. Even if we grant the argument that strain and cultural deviance theories are macro-level in nature (e.g., Bernard 1987), most applications still pose static

24 Developmental Theories of Crime and Delinquency

- questions (e.g., whether between-societal differences in crime rates are associated with variations in income inequality).
2. It is with no small irony that stability can only be established with longitudinal data, yet its existence had led to static explanations.
 3. Life-span developmental psychology does incorporate historical change, although developmental processes are still usually treated as invariant *within* cohorts (Dannefer 1984: 105).
 4. One might also argue that social learning theory is developmental in nature, since it deals with processes that unfold over time. Still, the causal variables emphasized in social learning theory to date (e.g., deviant peers) tend to be static just like those in strain, control, and cultural deviance. Perhaps this is not surprising given the theoretical compatibility of social learning and cultural deviance theories (see Kornhauser 1978). In any event, the developmental cast of social learning theory, although beyond the scope of this paper, deserves consideration in future theoretical work.
 5. We should also note that even homophily, though usually attributed to self selection, is profoundly shaped by structural constraints beyond the pale of individual choice (see generally Blau 1977).

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26 **Developmental Theories of Crime and Delinquency**

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