The Domain of Developmental Psychopathology

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Sroufe, L. Alan, and Rutter, Michael. The Domain of Developmental Psychopathology. CHILD DEVELOPMENT, 1984, 55, 17-29. It is the “developmental” component of developmental psychopathology that distinguishes this discipline from abnormal psychology, psychiatry, and even clinical child psychology. At the same time, the focus on individual patterns of adaptation and maladaptation distinguishes this field from the larger discipline of developmental psychology. In this essay a developmental perspective is presented, and the implications of this perspective for research in developmental psychopathology are discussed. A primary consideration is the complexity of the adaptational process, with developmental transformation being the rule. Thus, links between earlier adaptation and later pathology generally will not be simple or direct. It will be necessary to understand both individual patterns of adaptation with respect to salient issues of a given developmental period and the transaction between prior adaptation, maturational change, and subsequent environmental challenges. Some examples are discussed, with special attention to the case of depression.

Understanding the origins, nature, and course of psychological disorders at various ages presents researchers with inordinately challenging problems. For decades researchers and theorists have acknowledged the complexity of predicting adult psychopathology from measures in childhood. Freud (1920/1955, pp. 167-168), in fact, concluded that such prediction was “impossible”:

So long as we trace development from its final outcome backwards, the chain of events appears continuous, and we feel we have gained an insight which is completely satisfactory or even exhaustive. But if we proceed the reverse way, if we start from the premises inferred from the analysis and try to follow these up to the final result, then we no longer get the impression of an inevitable sequence of events which could not have been otherwise determined. We notice at once that there might have been another result, and that we might have been just as well able to understand and explain the latter. . . . Hence the chain of causation can always be recognized with certainty if we follow the line of analysis (i.e., reconstruction), whereas to predict it . . . is impossible.

Kohlberg, LaCrosse, and Ricks (1972), who viewed this problem of predictability as “the single most important area of study of clinical theory and practice with children” (p. 1217), were able to conclude 5 decades later that adult disorder was, in fact, predictable from broad indicators of early maladaptation (school failures, poor peer relations, pronounced antisocial behavior). Adult status was predictable from “various forms of competence and ego maturity rather than the absence of problems and symptoms as such” (p. 1274). At the time of their review little was known about specific processes by which child adaptation might lead to adult disorder or even how to best conceptualize early patterns of adaptation. In particular, the role of emotional factors was unclear. “In neither case is intrapsychic emotional disturbance a useful or basic aspect of the predictive picture, though emotional disturbance is involved in both schizophrenia and criminality. On emotional-disturbance grounds alone, however, prediction is currently impossible” (p. 1271).

This paper was supported in part by a program project grant from the National Institute of Child Health and Human Development (5POI-HD-05027). Send reprint requests to L. Alan Sroufe, Institute of Child Development, University of Minnesota, 51 East River Road, Minneapolis, Minnesota 55455.

Child Development, 1984, 55, 17-29. © 1984 by the Society for Research in Child Development, Inc. All rights reserved. 0009-3920/84/5501-0020$01.00
This task of predictability, now more broadly defined as understanding the changing manifestations of patterns of adaptation (or maladaptation) over time and the links between patterns of adaptation across time, remains a central task for the field of developmental psychopathology.

Not long ago developmental psychopathology was described as a field that "hardly exists yet" (Achenbach, 1974, p. 3). Even now, it might best be described as an "emergent" discipline. Still, one may discern the dimensions and shape—the domain—of the discipline. Sketching the extensions and boundaries of this special field of inquiry is the purpose of this essay.

The very name of the discipline provides a starting point for defining the scope and particular quality of this field. First, it is concerned with development and is therefore closely wedded to the whole of developmental psychology. The methods, theories, and perspectives of developmental psychology are important tools of inquiry. Second, the focus is on pathology, that is, developmental deviations. Developmental psychopathology may be defined as the study of the origins and course of individual patterns of behavioral maladaptation, whatever the age of onset, whatever the causes, whatever the transformations in behavioral manifestation, and however complex the course of the developmental pattern may be.

Bounding the Field

Developmental psychopathology is a special discipline within developmental psychology and is distinguished from this larger field in its emphases. It also is distinct from abnormal psychology and psychiatry in that its scope is broader than the description, differentiation, and treatment of disordered behavior, although it is related to these disciplines. And it is fundamentally distinct from clinical child psychology and child psychiatry, though interaction among these disciplines is important.

Developmental Psychopathology and Clinical Child Psychology

The discipline is distinct from abnormal child or clinical child psychology and child psychiatry for two basic reasons: (1) Within developmental psychopathology there is equal concern with child pathology, its relation to nondisordered behavior, and with the origins of disordered behavior that does not appear in clinical form until adulthood; and (2) differential diagnosis, treatment techniques, and prognosis—the stock and trade of the clinical child psychologist and child psychiatrist—are of secondary interest to the developmental psychopathologist. These endeavors are, of course, closely related. Differential diagnosis is critical for any research on psychopathology, and treatment course and prognosis often are linked to developmental changes. But there is a difference of emphasis. The developmental psychopathologist is concerned with the origins and time course of a given disorder, its varying manifestation with development, its precursors and sequelae, and its relation to nondisordered patterns of behavior.

Thus, developmental psychopathologists may be just as interested in a group of children showing precursors of a disordered behavior pattern, but not developing the disorder proper, as the group that in time manifested the complete pathology. For example, Robins (1966, 1978) points out that 70% of adult antisocial disorders can be linked to antisocial behavior in childhood, an unusually direct connection. Still, half or more of antisocial children do not show antisocial disorders in adulthood, some showing quite different forms of adult pathology and some showing no apparent disorder at all. Moreover, while degree and variety of childhood problems are important predictors, some children with only mild (or no apparent) behavioral or emotional problems become severely disordered adults. Questions that arise concern both those antisocial (and other problem) children who are not disordered as adults and those children relatively free from problems who are disordered as adults. Through such comparative study, developmental psychopathologists seek to shed light on factors mediating and/or modifying the development of the disorder.

Descriptive research on the problems of children (e.g., Achenbach's, 1966, patterns of "externalizing" and "internalizing" behaviors) and research on specific childhood disorders such as Tourette syndrome (Cohen, Shaywitz, & Young, 1979; Quinn & Thompson, 1980) and childhood autism (Wing, 1976) are within the domain of developmental psychopathology, but such research is not coextensive with it. First, developmental psychopathologists are interested in childhood behavior problems but also in the ties between behavior problems and normal development and socialization, especially across time (e.g., that boys
generally are socialized toward “externalization”). Second, disordered behavior is examined in terms of its deviation from the normal developmental course. Disordered patterns of behavior are illuminated by considering usual patterns of adaptation vis-à-vis the developmental issues of a given period (see below). Third, some pathological conditions (such as autism) are characterized by a distortion of the developmental process. The developmental psychopathologist would be concerned both to investigate the nature of these developmental distortions and to do so in ways that threw light on the developmental interrelationships between different aspects of functioning—in the case of autism among cognition, conation, and affect (Rutter & Garmezy, 1983). Fourth, as stated above, developmental psychopathologists are interested in nonpathological childhood patterns as they may forecast later disorder and even patterns normally predictive of disorder but which, for reasons to be discovered, do not do so with a particular subgroup of subjects.

Abnormal Psychology and Psychiatry

The broad interest in individual patterns of adaptation also distinguishes the new field from abnormal psychology or psychiatry in general. In seeking to understand the development and manifestation of patterns of maladaptation, developmental psychopathologists must also understand developmental aspects of successful adaptation. Competence and incompetence, vulnerability and “invulnerability,” are two sides of the same coin (Garmezy, 1974b). Characteristics or histories that buffer individuals against stress or that provide them with attitudes, orientations, and skills that promote successful coping with stress, and how these change across development and circumstances, are of as much concern as factors that produce vulnerability to stress or coping failures.

Risk research is in many ways paradigmatic developmental psychopathology. Within prospective, longitudinal risk research one examines not only the different developmental course of risk subjects and controls but, especially, the development of those at-risk subjects who do and do not ultimately develop the disorder (Garmezy, 1974a; John, Mednick, & Schulsinger, 1982; Robins, 1978). By thoroughly understanding factors that pull subjects toward or away from increased risk at various age periods, one not only acquires a deeper understanding of development (one goal of this field) but one also gains valuable information for primary prevention. Thus, individuals who never show clinically disordered behavior may offer as much to our inquiry as those who are severely maladapted.

Developmental Psychology

Despite this interest in competence as well as incompetence, and individual adaptation of all forms, developmental psychopathology certainly does not encompass all of developmental psychology. Developmental psychology has been concerned with the universal processes of normal development. This includes not only the age range and sequences generally surrounding the emergence of certain capacities, but also the changing manifestation of a capacity with development, the changing impact of context on a given capacity, and its changing organization with other capacities (Collins, 1982). The developmentalist studying attachment, for example, would focus on the changing organization of attachment behaviors in the first year, the timing of their integration into a specific attachment, witnessed by separation distress and integrated greeting reactions, and stability and variation across cultures (e.g., Ainsworth, 1967). As another example, the ability to take the perspective of another (role taking) is studied by examining its precursors, its changing dependence on context, its movement toward a more particularized understanding of the other, its relation to other aspects of cognitive development, and its other correlates (Damon, 1977; Selman, 1980). Or, finally, peer relations are traced from roots in earlier interaction into the preschool and elementary school years, where qualitative changes occur and “friendship” emerges, with deeper understanding of reciprocity and equity (Hartup, 1983). In all cases the concern is with the general trends—the normative developmental process.

Such basic developmental research is of great importance to developmental psychopathologists, but it is not exclusively part of our domain. Rather, knowing that formation of attachment is a salient issue during late infancy, that commonly various capacities (role taking, empathy, self-control) are integrated in serving beginning peer relations in the preschool, and so forth provides the springboard for the developmental psychopathologist’s own research. Once salient issues are defined for a given developmental period, individual patterns of adaptation with respect to those issues (and their consequences) may be examined. Once usual
processes of behavior coordination and integration (and changing organization with development) are established, failures to achieve such organization or atypical patterns of organization may be defined (Sroufe, 1979). All of this is within the domain of developmental psychopathology.

A Developmental Perspective

Numerous investigations previously have related developmental psychology to psychiatry and to the study of psychopathology. Of particular importance for historical perspective are Hartmann’s (1950) “Psychoanalysis and Developmental Psychology,” Anthony’s (1956) “The Significance of Jean Piaget for Child Psychiatry,” and Wolff’s (1960) “The Developmental Psychology of Jean Piaget and Psychoanalysis.” Each of these authors points to the importance of a developmental perspective for understanding disordered behavior. Only by understanding the nature of the developmental process—with progressive transformation and reorganization of behavior as the developing organism continually transacts with the environment—is it possible to understand the complex links between early adaptation and later disorder.

More recently, Eisenberg (1977) and Rutter (1980) have discussed the concept of development as an integrating theme in psychiatry. Rutter summarized it this way:

It is not just that some disorders involve a distortion of personality development, or that some have their roots in physical or experiential traumata in childhood or that some involve a genetically determined interference with the normal developmental process, or that some last for so many years that considerations of developmental causes and consequences are unavoidable. Rather it is that the process of development constitutes the crucial link between genetic determinants and environmental variables, between sociology and individual psychology, and between physiogenic and psychogenic causes. Development thus encompasses not only the roots of behavior in prior maturation, in physical influences (both internal and external) and in the residues of earlier experiences, but also the modulations of that behavior by the circumstances of the present. [P. 1]

In this section we will provide a brief outline of what is meant by a developmental perspective. We will point out the implications of a developmental perspective for the problems of continuity and change in behavior (the problem of prediction). And we will illustrate how a developmental perspective is different from merely seeking congruences between early and later disorders or a cataloguing of disorders at different ages.

Guiding Propositions Underlying a Developmental Perspective

While there is no single developmental theory, there are a number of agreed-upon guiding propositions that underlie all major developmental positions. These propositions, which in a sense define a developmental perspective, have been summarized by Santostefano (1978):

Holism.—This is the proposition that the meaning of behavior can only be determined within the total psychological context. Thus, two “manifestly similar” behaviors may have quite different meanings (pathological or otherwise), while quite dissimilar behavior may be equivalent in different contexts (see also Sroufe & Waters, 1977).

Directedness.—Critical here is the idea that persons do not simply react passively to environmental input. Even at the outset there are built-in biases and thresholds such that some stimulation more likely receives a response (“psychological givens”), and in time the person becomes an increasingly active shaper of the environment (Sroufe, 1979). Later experience is not a random influence on individuals because persons selectively perceive, respond to, and create experience based on all that has gone on before. A child that isolates himself is not experiencing the same nursery school class as the child who engages other children.

Also relevant here is the idea that development does not occur as a series of linear additions. Rather, development is characterized by reorganization of both old and new elements. Thus reorganized, even previously existing elements are transformed. The “same” behavior may have totally new meaning with development, just as it may have different meanings in different contexts.

Differentiation of modes and goals.—In general, individuals develop both toward increasing flexibility and increasing organization. “The availability of multiple means and alternative ends frees the individual from the demands of the immediate situation, enabling him to express behavior in more delayed, planned, indirect, organized, stage-appropriate terms and to search for detours that acknowledge opportunities and limitations of the environment while permitting successful adaptation” (Santostefano, 1978,
This concept of increasingly flexible behavioral organization provides a criterion for examining individual differences in adaptation and, in particular, developmental deviations.

Mobility of behavioral functions.—With development, earlier forms of behavior become hierarchically integrated within more complex forms of behavior (Werner, 1957). "Although subordinated, earlier forms of behaving remain potentially active" (Santostefano, 1978, p. 24). The individual does not operate only in terms of behaviors that define a single stage. Especially in periods of stress, early modes of functioning may become manifest. It is assumed that more recently integrated patterns of behavior are most susceptible to disruption, giving way to the earlier, less differentiated forms. A clear implication here is that a disordered pattern of adaptation may in many circumstances lay dormant, only to be manifest in periods of increased stress or in very particular circumstances. Suomi and his colleagues (Suomi, in press) have identified a group of at-risk monkeys who show disordered behavior that changes in form with age. However, disordered behavior is shown only during periods of marked transition. At other times these monkeys appear indistinguishable from others.

The concept of "mobility of function" puts a new perspective on the psychoanalytic concept of "regression." One need not posit a going back in time. Previous modes of function are currently available and are part of the person's ongoing adaptation, at times promoting improved fit to the environment, though at other times compromising growth. Not the presence or even the employment of less differentiated, early modes connotes pathology, but rather their inflexible use with regard to the ongoing adaptational task.

The Problems of Continuity and Change

Perhaps the central proposition underlying a developmental perspective is that the course of development is lawful. Not only is it posited that there is a common general course of development, followed by normal and retarded individuals alike (Cicchetti & Sroufe, 1978), but that there is a coherence to the course of each individual's development. Such a position is not incompatible with the notions of discontinuity or plasticity (Rutter, in press—a).

Such an expectation of coherence is distinct from an expectation of behavioral stability over time, which rarely obtains. Some time ago Kohlberg et al. (1972) outlined some of the complexities in predicting adult mental health from childhood behavior. Among other things, they pointed to the lack of stability of particular "emotional symptoms," the manifestation of which would be influenced by situation as well as by developmental level. Still they argued, with substantial support, that the child's general pattern of adaptation would better predict later pathology. More useful than specific symptoms would be assessment of the child's "awareness of, and mode of coping with, the developmental task in question" (p. 1246). In criticizing the then widely used GAP diagnostic categories for implying a "trait stability of prognosis," they pointed to more complex developmental models of continuity. "In these more complex models, a childhood conflict is maintained as a theme in later development but its relationship to type of pathology, or indeed its healthy or unhealthy resolution is determined by developmental events up through adulthood" (p. 1227).

Within the notion of coherence, both change and continuity, in a broad sense, are embraced. Hinde (1982) provides an enlightening example of continuity in the face of dramatic change. The caterpillar is "adapted as a growing machine and also adapted to change dramatically to fulfill the functions of adulthood. But even where the tissues are almost completely broken down and the body is redeveloped in a new form, continuity is not totally absent: larval experience may affect the subsequent behavior of the moth" (p. 91). Equally complex examples may be cited for humans, as when reliable contact seeking in infants predicts self-reliance in preschool children and when girls reared in institutions later marry men with severe psychosocial problems (51% compared to 13% in control subjects) (see Rutter, in press—a, and Sroufe, 1979, for numerous examples in later and early development, respectively). The continuity lies not in isomorphic behaviors over time but in lawful relations to later behavior, however complex the links.

The proposition is that individual functioning is coherent across periods of discontinuous growth and despite fundamental transformations in manifest behavior. Disordered behavior generally does not simply spring forth without connection to previous quality of adaptation, or without changing environmental supports or altered environ-
mental challenges. Even where qualitative change in functioning occurs, as when a well-functioning individual later shows severely disordered behavior (due to environmental and/or physiological factors), it is presumed that the particular form of maladaptation will be related to the adaptational history. Change, as well as continuity, is lawful and therefore reflective of coherent development.

Inflexible employment of modes of functioning and limitations (or distortions) in perceiving opportunities or challenges in the environment compromise later environmental transactions in particular ways. Inflexible, undifferentiated behavior, while perhaps not leading to manifest pathology in a given benign environment, would forecast later pathology in more challenging environments. And the particular pattern of adaptation would forecast specific vulnerabilities in the face of given environmental challenges (Greenspan, 1981; Murphy & Moriarty, 1976; Sroufe, 1983).

The Link between Early Adaptation and Later Disorder

Rutter (1981, in press–a) previously has listed a number of ways in which early experience (early adaptation) might be connected to later disorder. These include rather direct connections, for example, where (1) experience leads to disorder at the time, which then persists; (2) experience leads to bodily changes that influence later functioning; and (3) there are altered patterns of behavior at the time, which only later take the form of disorder. Others are less direct: (4) early events may change the family circumstances, which in time produce disorder; (5) sensitivities to stress or coping styles are modified, which then later “pre-dispose” the person to disorder (or buffer the person against stress); (6) experiences alter the individual’s self-concept or attitudes, which, in turn, influence the response to later situations; and (7) experience influences behavior through effects on the selection of environments or on the opening up or closing down of opportunities.

Here, we would elaborate a complex developmental view of the person-experience transaction and its connection to later disordered behavior. First, a series of developmental issues (Table 1), based on the collective experience of numerous developmentalists, may be outlined (Erikson, 1963; Kohlberg et al., 1972; Kopp, 1982; Piaget & Inhelder, 1969; Sander, 1962; Sroufe, 1979; Sullivan, 1953). These issues are broadly integrative, cutting across affective, cognitive, and social domains. For example, effective peer relations is more than a set of skills; affective components play a central role in social competence (Sroufe, Schork, Motti, Lawroski, & LaFreniere, in press). Moreover, issues at one developmental period also are seen as laying the groundwork for subsequent issues. Sander (1975), for example, has described the movement from dyadic regulation within the caregiver-infant system toward self-regulation and sees this as the major adaptational task of early development.

Second, individual adaptation may be viewed with respect to these salient developmental issues. As examples, each infant forms an attachment with the caregiver, each relationship having its particular qualities. Each toddler evolves a particular way of dealing with both the fact of its separateness from the caregiver and its continued dependency. Each child develops a par-

<table>
<thead>
<tr>
<th>Age (Years)</th>
<th>Issues</th>
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<tr>
<td>0–1</td>
<td>Biological regulation; harmonious dyadic interaction; formation of an effective attachment relationship</td>
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<tr>
<td>1–2½</td>
<td>Exploration, experimentation, and mastery of the object world (caregiver as secure base); individuation and autonomy; responding to external control of impulses</td>
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<tr>
<td>3–5</td>
<td>Flexible self-control; self-reliance; initiative; identification and gender concept; establishing effective peer contacts (empathy)</td>
</tr>
<tr>
<td>6–12</td>
<td>Social understanding (equity, fairness); gender constancy; same-sex chumships; sense of “industry” (competence); school adjustment</td>
</tr>
<tr>
<td>13+</td>
<td>“Formal operations” (flexible perspective taking; “as if” thinking); loyal friendships (same sex); beginning heterosexual relationships; emancipation; identity</td>
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*SOURCE.*—Adapted from Sroufe, 1979.
ticular orientation toward peers and styles of engaging and responding to them. For each child these adaptations (the accomplished “fit” between the child and this aspect of environment) are unique. They are based on the given characteristics of the child and the environment with which the child reciprocally interacts. This adapted organism then faces subsequent developmental issues and subsequent experiences from within that unique adaptation, thus transforming as well as being transformed by later experience.

It is in this way that an adaptation that may be serviceable at one point in development (e.g., avoiding an abusing caregiver, blunting or controlling emotional experiences, etc.) may later compromise the child’s ability to maximally draw upon the environment in the service of more flexible adaptation. Thus, a given pattern of early adaptation could lead a child to isolate himself from peers or to alienate them, to avoid emotionally complex and stimulating social commerce, or to respond to such complexity in an impulsive or inflexible manner. Even such patterns may not be viewed as pathological (in the clinical sense) and certainly may be viewed as “adapted,” in the sense that the child continues to strive toward a “fit” with the environment. But if the adaptation compromises the normal developmental process whereby children are increasingly able to draw emotional support from age-mates (as well as give it), and to stay engaged in social commerce despite the frequent emotional challenge of doing so, the individual may be sacrificing an important buffer against stress and, ultimately, psychopathology. Inadequate peer relations is a powerful predictor of later psychopathology (John et al., 1982; Kohlberg et al., 1972; Roff & Ricks, 1970). This may be both because it is a sign of early adaptational failure, broadly defined, and because of the role of social relations (social support) as buffers against stress in later life.

Within this view the “unifying” quality of the developmental perspective may be seen. Regardless of whether particular patterns of early adaptation are to a greater or lesser extent influenced by inherent dispositions or by early experience, they are nonetheless the patterns of adaptation. Their consequences are of interest. The developmentalist is interested in the “how” of person-biology-experience interactions more than trying to determine which is more important (Anastasi, 1958). Even given late-arriving genetic influences, contemporary and ongoing adaptation nonetheless remains an important consideration. And even granting the importance of changing environment, the person nonetheless engages that environment in terms of previous adaptation. The tendency of the person to assimilate new environments to former patterns of adaptation, and the particular accommodation (change) the person achieves within a changing environmental context, both require an understanding of the adaptational history.

Implications for Research in Psychopathology

What are the implications of a developmental perspective for research on childhood disorders and the developmental antecedents of adult psychopathology?

First, normal processes of development are viewed with respect to what they may contribute to an understanding of disordered behavior. As just one example, Bobbitt and Keating (in press), drawing upon the work of Dodge (e.g., Dodge & Frame, 1982), have discussed the case of childhood aggression. Aggressive boys, it seems, show a deviation from usual attributional processes, attributing hostile intent in the face of ambiguous provocations directed at them. “Thus the attributional error is a potentially dysfunctional social cognitive skill that mediates aggressive activity in these boys” (Bobbitt & Keating, in press, p. 43). In general, one would examine the malfunctioning child in terms of deviation from normal development in addition to manifest symptomatology.

The concern with normal developmental processes includes consideration of sex differences and, especially, differences in the socialization of males and females. Both symptomatology and behavior patterns predictive of later disorders differ for males and females. For example, in the John et al. (1982) study it was found that teacher reports of undercontrol (“emotional reactions persist”), irritability, disturbing and inappropriate behavior, and disciplinary problems predicted later schizophrenia in high-risk males, but not females. Being “nervous,” not reacting when praised, and being “content with isolation” were predictive for females but not males. Ineffective peer relations (being “lonely and rejected”) was predictive for both males and females. These findings are consistent with the cul-
tural tendency to socialize males toward “externalizing” and females toward “internalizing” patterns of behavior (Block, Note 1) (and also point to the broad significance of peer effectiveness as an indicator of quality of adaptation).

Second, it is clear that a developmental perspective dictates a new approach to the problems of classification and categorization of children. Current diagnostic classification schemes pay scant attention to development. Apart from (or in addition to) clinical diagnosis, it is important that children be assessed in terms of their patterns of adaptation with respect to issues of the given age. While some gesture in this direction was made in the multiaxial approach of DSM III, much further work is needed in this regard. Considerable effort will be required to define patterns of adaptation, to group them meaningfully, and to validate them against both contemporaneous and cross-age criteria. Ainsworth (Ainsworth, Blehar, Waters, & Wall, 1978) has shown the feasibility of this task with her classification scheme of infant-caregiver attachment, and beginning efforts at classification of patterns of adaptation through the preschool years have been made (Greenspan, 1981; Sroufe, 1983).

Third, and perhaps most fundamental, the nature of the developmental process itself, characterized by progressive adaptation and transformation, provides a unique orientation for conducting research on the origins and course of late-appearing psychopathology. This perspective alerts researchers to broaden the search for antecedents of pathology away from phenotypically similar patterns of behavior in early life and toward particular adaptational failures that are defined in terms of salient issues of the given age period. The adaptational solution at a given developmental period is examined in its own terms. Antisocial behavior and overdependency are not salient issues in infancy; therefore, it is not surprising that such assessments bear little relation to later behavior (Kagan & Moss, 1962). Overdependency in the preschool period does predict later behavior. Moreover, a failure to show the expected progression from emotional dependency to instrumental dependency (using adults and peers as resources) may be most predictive of all. To some extent the adaptational precursors of most disorders are yet to be empirically determined. Therefore, at this time, we would do well to categorize patterns of adaptation (and maladaptation) in terms of the child’s management of salient age-period issues, leaving open the question of how direct links to later behavior may be. For example, “Attention Deficit Disorder” may or may not be related to early hyperactivity, distractibility, or impulsiveness, or such characteristics may be differentially imbedded in an overall adaptational pattern for children later bearing this diagnosis.

The power of this focus on age-defined adaptational issues already has been demonstrated in general developmental studies. Flexible impulse control, high self-esteem, relative absence of behavior problems, and effective peer relations in the preschool all have been predicted strongly by assessments focused specifically on the salient issues of earlier periods, for example, the quality of infant-caregiver attachment (e.g., Sroufe, 1983). These are the very factors suggested to show strong links to later behavior, including disorder (Kohlberg et al., 1972; Butter, in press-b). It does not seem likely that measures of infant-infant play would bear much relation to later peer competence. Similarly, the strongest predictors of later pathology are not likely to be early replicas of the behavioral indicators of adult pathology. The strongest predictors likely will be adaptational failures, defined in age-appropriate terms.

Tracing the course of a particular disorder would necessarily be complex, given the nature of development, and will require theoretically guided, longitudinal research. Early patterns of adaptation influence later adaptation, but not in a simple, linear manner. Both general developmental advances as well as changing circumstances interact with prior adaptation in producing subsequent adaptation. Transformation is the rule. An infancy predictor of aggression in the preschool years is avoidance of the mother following a brief laboratory separation (Main & Weston, 1982; Sroufe, 1983). Thus, a failure of emotional expression (clinging), when such would have been expected, predicted later hostile aggression. Pommeling the caregiver (another form of maladaptation in this context) does not predict later hostile aggression, though it does predict other forms of later maladaptation, including low frustration tolerance and ineptness with peers. Avoidance of the caregiver in infancy also predicts strong dependency on preschool teachers (Sroufe, Fox, & Pancake, 1983). This is paradoxical only if one assumes isomorphism of behavior over time. When one rather looks at patterns of adapta-
tion in terms of how they equip the child to face subsequent developmental issues, such developmental findings (and predictions) become understandable.¹

Robins (1966) provided an early example of how developmental transformation may emerge in studies of pathology. When children seen at psychiatric clinics were followed into adulthood, there was, indeed, a higher incidence of severe pathology in comparison to a control group. Childhood problems even predicted adult schizophrenia. But it was not the shy, withdrawn child that tended to manifest schizophrenia in adulthood. (Indeed, such childhood symptoms were not associated with adult pathology at all.) Rather, it was children characterized by impulsiveness, aggression, and antisocial behavior who were over-represented in the schizophrenia group. Schizophrenia was predicted by childhood maladaptation, but the developmental link was complex. These results are supported by the findings of John et al. (1982) for males, discussed above. Interestingly, at-risk males who later were borderline schizophrenics (vs. schizophrenia proper) were earlier described as “anhedonic, isolated, and distant.”

The general point is that developmental psychopathologists would be open to non-isomorphic antecedents and complex routes to adult disorder. In the sense of a direct tie between adult disorder and the same disordered behavior in childhood, it is clear already that often little connection exists (with exceptions such as antisocial disorders; Robins, 1978). But the likelihood of more complex antecedents, especially in the sense of childhood patterns of adaptation that leave individuals differentially vulnerable to adult disorders, remains very real indeed.

To return to the question of predicting adult disorder from childhood assessments, we may now summarize the existing literature as follows: (1) Broad-based indicators of adaptational failure (inadequate peer relations, antisocial behavior, achievement problems) during the school years do predict adult disorders with some power. This likely is due to their integrative nature, encompassing socioemotional and cognitive aspects, and to their ties to major developmental issues. (2) These broad-band indices, especially peer relations and general conduct disturbances, predict adult disorders broadly, rather than specifically. (3) Specific patterns of emotional development, in the absence of general adaptational failure, do not predict adult disorder at all well.

The implication of this set of findings is that future research should be aimed at the predictive power of specific patterns of behavioral/emotional organization within the context of general, developmentally appropriate assessments of adaptational failure.

The Case of Depression

For a number of reasons depressive disorders provide a useful case for illustrating the nature and utility of a developmental perspective (Rutter, in press–b). First, there are notable, age-related changes that surround the manifestation of depression that call for analysis within the framework of normative developmental psychology. Second, depression seems rather clearly to have both biological and experiential determinants, thus calling upon the integrative role of a developmental perspective. Finally, while depressive disorders apparently exist in childhood, they are far more prevalent in adulthood, making it clear that there can be no simple link between childhood and adult conditions.

Salient age dependencies with regard to depressive phenomena include the following: (1) prior to the second half of the first year, infants show no grief reaction in the

¹ A system of early dyadic regulation, which has as one of its principles infant avoidance of the caregiver in times of stress, precludes a smooth transition to self-regulation (Sander, 1975). An infant within this system has little opportunity to evolve flexible modes of psychological contact seeking, expectations of adult availability, or gradually increasing self-reliance. Being required to provide one's own emotional reassurance (or flexible arousal modulation) in times of stress is beyond the 1-year-old's capacity. Only a rigid blocking of the emotional response is possible, a strategy which leaves the child much in need of the physical and emotional closeness central to the infancy period. When emotionally responsive adults later are available, such a child expresses these strong biological needs for contact, which, although deflected, have not been extinguished. While in stressful circumstances these children also avoid their preschool teachers, at other times they show desperate and intense contact. Children with histories of secure attachment do not exhibit high emotional dependence in the nursery school, presumably because they have evolved more age-appropriate (flexible) modes of functioning vis-à-vis teachers (Sroufe, Fox, & Pancake, 1983).
face of loss; (2) infantile sequences of protest, despair, and detachment in the face of loss remain in force until about age 4-5 years; (3) disorders with both the cognitive and affective components of depression probably first appear after infancy, being somewhat more common in boys; (4) there is a sharp increment in the frequency of depression with puberty, depression then being notably more common in girls; (5) depression becomes even more common in adulthood. These age changes are of interest in their own right, but they are of even greater interest when viewed within a broader developmental perspective. The proneness toward depression in girls in the face of adolescent challenge becomes more sensible in light of differential socialization patterns. Girls in our culture are socialized toward compliance, inhibition, passivity, and reliance on others (Block, Note 1). Thus, the depressive pattern of symptom expression is congruent with their socialization history. Viewing events as outside of their own control (Seligman's [1975] learned helplessness) may be a critical feature. The earlier depression in boys, which may or may not be a different phenomenon, is generally nested within a constellation of other conduct-disturbance problems. This again highlights the importance of differential socialization, boys being shaped toward externalizing symptomatology and away from expression of tender feelings. It also calls on the developmental literature on self-concept and self-esteem. Here, one may be tapping feelings of low self-worth, which may be separate from factors of vulnerability and helplessness experienced by adolescent girls (or a different kind of vulnerability).

The age changes cited above also stimulate hypotheses concerning biological factors—hormonal changes with puberty, endorphin functioning in adults, and so forth. A developmental perspective is not in competition with genetic or other biological positions. But the emphasis is on the integration of the biological and psychological. No doubt in part due to hormonal and other developmental changes, the adolescent girl has an increased consciousness of her vulnerability, a vulnerability which now includes sexual exploitation, pregnancy, and its consequences for a young, ill-prepared woman. It is these increased vulnerabilities and their differential meaning that may be the key to understanding why puberty is associated with depression in only some girls. Neither genes nor hormonal changes directly cause depression.

In general, depression may be viewed in terms of the interaction of experience, stress, and age-related biological and psychological factors. It is not likely due to stress alone, since similar stressors (at least on the surface) are not as likely to lead to depression in children, nor do all adults develop depression in the face of similar stressors. It cannot be due to biological factors alone, because certain experiences (especially loss of a parent before age 11) predispose women to adult depression (Brown & Harris, 1978). Yet most persons who experience a loss do not show depression later, so particular experiences cannot be considered causal (sufficient) either. While this may, in part, reflect greater biological vulnerability in some individuals, it also seems likely that the meaning of the early loss experience—the pattern of adaptation with respect to the loss by the individual and her family—leaves individuals more or less vulnerable in the face of later stress experiences (Bowlby, 1980). Failure to grieve or pathological patterns of mourning may leave the individual ill-equipped to deal with later loss or other stress.

Finally, we come to perhaps the most important implication of the developmental perspective—its role in the search for developmental antecedents of adult depression. Certain facts are germane: (1) children diagnosed as depressive are not likely to be so diagnosed as adults, and when adult depression has been preceded by a psychiatric disorder, the child generally had not been diagnosed as depressed; and (2) on the other hand, when presence of specific affective symptoms is used as a predictor, setting aside childhood diagnosis, a strong link can be shown between manifest depression in child clinic cases and adult depression in these same subjects (Zeitlin, 1972, 1982).

These apparently paradoxical findings are readily reconciled from within a developmental perspective. In children, depressive features occur within a broader constellation of behaviors, including aggression, school failure, anxiety, antisocial behavior, and poor peer relations. These latter characteristics dominate the diagnostic process. Such adaptational failures are of broad significance, as suggested by the fact that poor peer relations persist even when the child's depression subsides. Adaptational failures in childhood, defined in terms of salient developmental issues (inadequate development of self-control, ineffective peer relations), will predict adult disorder, but they are not sufficiently specific for the pre-
dition of adult depression. Thus, most children with conduct disorders are not depressed as adults. Only when the more specific pattern of adaptation is considered (poor peer relations, conduct disturbances, and specific affect disturbances) is adult depression predicted. Note that the children studied by Zeitlin all had been psychiatric cases; it is unlikely that the specific affect aberration, in the absence of the broader adaptational failure, would predict adult depression. Rather, presence of both the general, age-related adaptational failure and the particular pattern of maladaptation are required for predicting the adult disorder.

The developmental psychopathologist would look broadly for the antecedents of later depression, with an appreciation for the complexity of developmental transformations. Beyond childhood depression itself, our interest is in the various outcomes of childhood depression, even if adult depression is not well represented among them, and in the roots of adult depressive reaction, whatever they may be and however they may change with age.

But the search for antecedents is not random or totally empirical. It is guided by considerations of developmental theory and established developmental knowledge. Perhaps most central is consideration of the salient socioemotional issues during various periods of development. Knowing, for example, that the 1-year-old has the capacity for specific loss reaction, one might look to atypicalities in affective reactions to separations at that time. It is noteworthy that some infants react to very brief separations with detachment, a pattern shown normally only following prolonged separation. As another example, knowing that the 4-5-year period is a time of notable reorganization with respect to the control and expression of feelings would suggest that short-term longitudinal observations be undertaken to examine patterns of self-regulation and modification of affect surrounding this transition. The manner of controlling and expressing both anger and sadness change at this time, and there are wide individual differences in patterns of adaptation observed (Block & Block, 1979; Greenspan, 1981). While linkages in patterns of adaptation across the early years have been established in several samples of children (Sroufe, 1979, 1983), the significance of atypical patterns of affect expression and self-regulation for later pathology remains to be explored more fully. It would be expected that early patterns of adaptation, characterized by overcontrol, undercontrol, or poorly modulated affect expression, would be related, albeit complexly, to later affective disorders.

Conclusion

When the "developmental" aspect of developmental psychopathology is underscored, distinctions between this discipline and abnormal child psychology and child psychiatry become clear. Basically, in developmental psychopathology the focus is on the ontogenetic process whereby early patterns of individual adaptation evolve to later patterns of adaptation. The aim is to understand the origins and course of disordered behavior, whether disorder emerges in earliest childhood or not until adulthood. At times, studying the course of adaptation in selected nondisordered individuals also is of great interest, since such study may shed light on protective factors and on the development of disorder in others.

Ultimately, there is more to developmental psychopathology than even establishing links between pathology and earlier or later behavior; rather, the focus is on understanding processes underlying both continuity and change in patterns of adaptation. How does the prior adaptation leave the individual vulnerable to, or buffered against, certain kinds of stresses? How do particular patterns of adaptation, at different developmental periods, interact with a changing external environment (or physiology) to produce subsequent adaptation? What mechanisms yield certain patterns of adaptation relatively impervious to change, while others are readily changed, and how do these mechanisms change with development?

These and other such complex developmental questions likely will come to center stage in the next decade of research in developmental psychopathology. Generally, these studies will require costly and taxing longitudinal research (Kohlberg et al., 1972). But in the end, such research can yield valuable information for guiding early intervention and primary prevention. Such goals provide the central justification for the existence of this special discipline.

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