

5 Relationships, Development, and Psychopathology

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Interpersonal relationships are pivotal for studying psychopathology in general and developmental psychopathology in particular. This is so at multiple levels of analysis, from defining psychopathology, to describing preconditions and contexts, and to understanding its origins and nature.

For example, relationship problems often are markers of disturbance, and the diagnosis of disorder often centers on relationship considerations. From social phobias to conduct problems to psychotic disorders, across the whole range of problems in childhood and adulthood, disturbances in interpersonal relationships are prominent criteria for classification in psychopathology. Thus, when there is psychological disturbance, interpersonal relationships also are likely to be disturbed. Given the critical importance of relationships in human adaptation, this is not surprising. This role of relationship problems as markers of pathology would, in and of itself, be sufficient grounds for emphasizing the developmental study of relationships for the field of psychopathology. But this is only the beginning.

Social relationships also are viewed by many theorists as important contexts within which psychopathology emerges and persists or desists. Psychogenic positions on pathology all focus on relationships, whether this be social learning experiences, the isolation and anomie emphasized by sociological models, or the emphasis on vital close relationships in psychodynamic and evolutionary positions (Lazare, 1973). Research on risk and protective factors in Psychopathology, as well as process-oriented research involving moderator and mediator variables, commonly grants a prominent role for relationship variables. For some problems, such as conduct disorders (Dodge, Chapter 24, this volume), relationship experiences clearly play a dominant role. But all disorders develop in context (e.g., Lewis, 1984; Sameroff, 1997; Sroufe, 1997), and relationships with caregivers, peers, and others are a critical part of the child's developmental context.

Finally, a more thoroughgoing point of view has been proposed by some theorists (see, e.g., Bowlby, 1973; Sameroff & Emde, 1989). In this perspective, vital early relationships are seen as the progenitors of disorders; psychopathology is the outgrowth of relationship disturbances. Relationship disturbances themselves may constitute the roots of pathological processes that only later are manifest in individual behavior in broader contexts. A pathway to pathology is initiated and maintained by critical relationships in which the child participates. This viewpoint has some kinship with family systems perspectives, in which disorder is seen in the relationship system and not the individuals (e.g., Jackson, 1977). But in this relationship perspective, the reality of individual disorder is granted. However, the prototype for this disorder may lie in the patterns of relationships previously experienced.

In summary, relationship issues are not only important for defining pathology but also for understanding the origins and course of disorder. From a wide array of theoretical vantage points, social relationships have a key role in the etiology, maintenance, and remediation of disturbed behavior. In the following sections, we discuss relationships in terms of markers of disorder and as risk factors, protective factors, and contexts with regard to pathology. We end with a discussion of relationship disturbances as initiating pathways to psychopathology.

RELATIONSHIP PROBLEMS AS CRITERIA FOR DISORDER

Interpersonal relationships may be defined as patterns of interaction with specific partners, such as parents or peers, that are carried out over time and entail some degree of investment by participants (Hinde, 1979). Our definition of relationship problems is more inclusive, including failures to form relationships, incompetent social behavior, social withdrawal, social anxiety; and behavior that is noxious to others.

Even casual perusal of the current psychiatric classification system for disorders (American Psychiatric Association, 1994) reveals the centrality of interpersonal relationship problems in major disorders. While social relationship criteria commonly are more extensive and more clearly delineated for disorders first diagnosed in childhood, they are also quite prevalent in major adult disorders. Moreover, for all major child disorders and many adult disorders (including, for example, Major Depressive Disorder and Bipolar Disorder), one criterion for diagnosis is "significant impairment" in social functioning.

Many major childhood and adult disorders have relationship disturbance criteria (see Table 5.1). The very first criterion for Autistic Disorder, for example, is "qualitative impairment in social interaction." Failure to develop peer relationships, lack of emotional sharing with others, lack of social or emotional reciprocity, and communication deficits are specifically cited.

The Attention Deficit, Disruptive Behavior Disorders all have social features. While perhaps not obvious criteria of Attention Deficit/Hyperactivity Disorder, relationship features are nonetheless germane. As with many childhood problems, it is the impact of the child's behavior on others that leads to referral and diagnosis. Specific symptoms include "interrupting,"

DSM-IV Diagnostic Criteria with Implications for Relationships

DSM-IV disorder	Examples of relevant DSM-IV diagnostic criteria
Autistic Disorder	Qualitative impairment in social interaction. Delays or abnormal functioning in (1) social interaction, (2) language as used in social communication, or (3) symbolic or imaginative play.
Attention-Deficit/ Hyperactivity Disorder	Often does not seem to listen when spoken to directly. Often interrupts or intrudes on others (e.g., butts into conversations or games)
Conduct Disorder	Often bullies, threatens, or intimidates others; often initiates physical fights; has been physically cruel to people.
Oppositional Defiant Disorder	A pattern of negativistic, hostile, and defiant behavior lasting at least 6 months.
Separation Anxiety Disorder	Developmentally inappropriate and excessive anxiety concerning separation from home or from those who whom the individual is attached.
Reactive Attachment Disorder of Infancy Early Childhood	Markedly disturbed and developmentally inappropriate social relatedness in most contexts.
Substance Abuse	Continued substance use despite having persistent or recurrent social or inter personal problems caused or exacerbated by the effects of the substance.
Schizophrenia	Social/occupational dysfunction.
Social Phobia	A marked and persistent fear of one or more social or performance situations in which the person is exposed to unfamiliar people or to possible scrutiny by others. The avoidance, anxious anticipation, or distress in the feared social or performance situation(s) interferes significantly with the person's normal routine.
Posttraumatic Stress Disorder	Feelings of detachment or estrangement from others.

"intruding," or "not listening" to others. In the case of Conduct Disorders, the child's bullying, threatening, cruel, or aggressive behavior toward others is often central. The severity specifications for this disorder explicitly refer to effects (especially amount of harm) caused to others. Oppositional Defiant Disorder, of course, is defined by arguing with, annoying, defying, and refusing to comply with parents, teachers, or other adults.

Separation Anxiety Disorder and Reactive Attachment Disorder were included in the DSM system specifically to capture explicit forms of relationship problems. The former entails excessive distress in the face of separation from an attachment figure or excessive worry with regard to possible or upcoming separations that may be manifest in a variety of ways. Reactive Attachment Disorder is defined by inappropriate social relatedness manifest either in (1) failure to appropriately initiate or respond to social encounters or (2) indiscriminate sociability or diffuse attachment. It is noteworthy that presumed pathogenic care also is a defining criterion for this disorder.

An array of adult disorders likewise have relationship problems as central features. From Social Phobias and Generalized Anxiety Disorders to psychosis, impairments in social relationships are prevalent. For example, one increasingly prominent anxiety disorder, Posttraumatic Stress Disorder PTSD is characterized by feelings of detachment or estrangement from others. The social withdrawal and inappropriate social behavior associated with many forms of schizophrenia are well known. Relationship problems are especially prominent in the personality disorders. All personality disorders, from Schizoid to Multiple Personality Disorder, are characterized by markedly deviating functioning in interpersonal relationships and/ or affectivity (dependency, antisocial behavior, etc.). Borderline Personality Disorder is characterized by profound abandonment worries and extreme lability in relationships, in which partners are alternately idealized and devalued. Those with Narcissistic Personality Disorder have superficial relationships and demand to be idealized.

Even disorders that on the surface are defined outside of the interpersonal domain often entail relationship criteria. Substance abuse, for example, requires for diagnosis continued use of the substance despite persistent or recurrent "social or interpersonal problems" caused or exacerbated by the effects of the substance (e.g., physical fights or arguments with spouse about the consequences of substance use).

In summary, throughout the DSM system, relationship problems play a key role in both determining that there is a problem warranting diagnosis and in determining the specific classification. This is testimony both to the centrality of social relationships in human functioning and to the merit of research in developmental psychopathology focusing on relationship issues. (A more complete tabular summary of relationship criteria for disorders is available from the authors.)

RELATIONSHIPS AS CONTEXTS FOR PSYCHOPATHOLOGY

When child problems and relationship problems co-occur, it is often difficult to establish causality. Clearly, child disturbance would have an impact on relationships with parents and peers, as implied by the preceding discussion of relationship criteria. Moreover, there is documentation of such child effects in the literature; for example, changes in parental behavior following reduction in child symptomatology (Hinshaw & McHale, 1991; Sroufe, 1997). Many models of child problems entail concepts of ongoing, mutual influence of parents and child (e.g., the work of Patterson, discussed later; see also Dodge, Chapter 24, this volume). Still, a persuasive case may be made for the role of relationships in the onset and course of psychopathology. Relationship disturbances often precede the manifestation of individual pathology, and relationship strengths predict differential resistance to adversity (e.g., Masten, 1994). Moreover, relationship change has been shown to precede change in individual disturbance and to influence the effect of other variables on psychopathology (e.g., Erickson, Sroufe, & Egeland, 1985). All of this is reflected in the literature on risk factors, protective factors, moderators, and mediators. Cause is complex in psychopathology. Rarely can one say that a certain

pattern of parenting (or a certain relationship experience) directly led to a pathological outcome in a linear manner, yet it is certain that relationship experiences often are a crucial context for the emergence, waxing, and waning of pathology.

Relationships as Risk Factors for Disorder

Risk is a population concept. To say that an individual is "at risk" for pathology is to indicate that he or she is a member of a group that has an increased likelihood of later manifesting the disorder in question. A causal role is not necessarily implied, but risk factors are often seen as part of a causal network. Within this framework, both aspects of children's relationships with others and the broader relationship context in which they are developing have been identified as risk factors for psychopathology. From examining certain relationship variables it is possible to increment predictions of later pathology, sometimes dramatically.

Parent-Child Relationships as Risk Factors.

Dimensions of Parenting. More than three decades of research have established two basic dimensions of parenting as risk factors for psychopathology: (1) harsh treatment (hostility, criticism, rejection); and (2) lack of clear, firm discipline or supervision (e.g., Farrington et al., 1990; Maccoby & Martin, 1983; Patterson, DeBaryshe, & Ramsey, 1989). These factors together, and in interaction with other variables, are often especially predictive and at times capable of differentiating various pathological outcomes.

Countless studies have underscored the predictive power of harsh treatment or rejection, with findings especially consistent for externalizing problems in boys (e.g., Campbell, 1997; Earls, 1994; Eron & Huesmann, 1990; Farrington et al., 1990; Harrington, 1994; Jenkins & Smith, 1990; see also Dodge, Chapter 24, this volume; Fiese, Wilder, & Bickham, Chapter 7, this volume). Rejection, lack of support, and hostility also have been consistently related to depression (e.g., Asarnow, Tompson, Hamilton, Goldstein, & Guthrie, 1994). Many of these studies are prospective, for example, predicting conduct problems throughout childhood and even into adulthood. Feldman and Weinberger (1994) found that parental rejection and power assertive discipline predicted delinquent behavior of sixth-grade boys 4 years later. Ge, Best, Conger, and Simons (1996) found that parental hostility predicted 10th graders' behavior problems, even after controlling for 7th-grade symptom levels, and distinguished between those with conduct disorders and those with depression. Using a behavior genetic design, Reiss et al. (1995) found that the specific level of parental negativity directed to one member of a sibling pair predicted that child's level of conduct problems, thus showing this effect above and beyond any genetic contribution. Likewise, Patterson and Dishion (1988) reported that aggressive treatment of children was more predictive of conduct problems than parent trait measures of aggressiveness (a genetic surrogate). In our own research, we have found that low parental warmth predicted childhood depression, even after controlling for maternal depression (Duggal et al., in press).

Many of the studies cited here also demonstrated the impact of inconsistent discipline. One of the most powerful variables to be delineated in the last 15 years is the degree of parental "monitoring" (supervision and oversight; e.g., Dishion, Patterson, Stoolmiller, & Skinner, 1991). While some report only concurrent correlations, numerous prospective, longitudinal studies confirm the relation of lax discipline to later pathology, especially conduct disorders (e.g., Feldman & Weinberger, 1994; Ge et al., 1996; see also Fiese et al., Chapter 7, this volume) and association with deviant peers (e.g., Dishion et al., 1991). We discuss the role of monitoring as a moderator/mediator variable in the next major section.

A variable somewhat related to caregiver inconsistency has emerged from our own research: parent-child "boundary violation." This refers to an abdication by the adult of the parental role, especially when firm guidance is needed, and treating the child in a peer-like or spousal-like way (role reversal). Assessment of this variable at age 42 months was found to be a consistent predictor of attention deficit/hyperactivity symptoms in elementary school, and to predict above and beyond measures of temperament, perinatal difficulties, or other early child

measures (Carlson, Jacobvitz, & Sroufe, 1995). Likewise, a comparable measure at age 13 years predicted subsequent conduct problems in boys (Nelson, 1994) and dating and sexuality problems in girls (Hennighausen, Collins, Anderson, & Hyson, 1998). Early pregnancy was predicted by the 42-month measure, and early impregnation (the comparable measure for boys) was predicted by the 13-year variable (Levy, 1998). A more general measure of parental boundary difficulties ("intrusiveness") obtained in infancy has been found to predict behavior problems throughout childhood and adolescence, being strikingly more powerful than infant temperament variables (Carlson et al., 1995; Egeland, Pianta, & Ogawa, 1996).

Child Maltreatment. The substantial literature on child maltreatment (e.g., Cicchetti, Toth, & Maughan, Chapter 37, this volume) confirms the role for parental hostility and harshness outlined earlier. As Toth, Manly, and Cicchetti (1992) have suggested, maltreatment reflects "an extreme on the continuum of caretaking casualty" (p. 98). Prospective studies show that maltreatment (including physical abuse and emotional unavailability) is associated with conduct problems, disruptive behavior disorders, attention problems, anxiety disorders (including PTSD and mood disorders (Cicchetti et al., Chapter 37, this volume; Cicchetti & Lynch, 1995). Egeland (1997) found that 9096 of children with an observed history of childhood maltreatment showed at least one diagnosable disorder at age 17% years, compared to 3096 of the poverty control subjects who were not maltreated.

Sexual abuse, the extreme of boundary violation, appears to be especially pathogenic, being related to a variety of problems (Kendall-Tackett, William., & Finkelhor, 1993; Toth & Cicchetti, 1996). Even in comparison to other maltreatment groups, those who are sexually abused manifest more forms of pathology and more extreme pathology (Egeland, 1997; Toth & Cicchetti, 1996). Sexual abuse is strongly and specifically associated with PTSD (Putnam, Chapter 39, this volume) and with depression. In our research, it accounted for depression in both childhood and adolescence, even after taking into account maternal depression and other potentially confounding factors (Duggal et al., in press).

Interpersonal Conflict. Divorce, parental disharmony, and family violence all have been consistently associated with child behavioral and emotional problems (e.g., Amato & Keith, 1991; Emery & Kitzmann, 1995; Fiese et al., Chapter 7, this volume). Such conditions are overlapping and also co-occur with misnt or neglect of children, making causal conclusions difficult. Numerous studies have shown children of divorce to have more problems than those in intact families (see Amato & Keith, 1991, for a mete-analysis). Researchers believe this is largely due to the 'conflict preceding and surrounding the marital breakup (e.g., Wallerstein & Kelly, 1982). It is the case that behavior problems often precede the divorce (Cherlin et al., 1991), and that parental conflict is consistently found to be a stronger predictor of child maladjustment than marital status (Emery & Kitzmann, 1995). Across eight studies reviewed, Amato and Keith (1991) found that children from high-conflict, intact families showed more problems (including depression and anxiety) than children from divorced families in general. They also reported more problems for children of divorce (where there was often conflict) than for those who lost a parent through death. Still, even if research to date shows little impact of divorce above and beyond the role of conflict, it remains an important marker variable and is a risk factor in the descriptive, population sense defined earlier.

Family violence has also been found to be associated with child pathology (e.g., Sternberg et al., 1993). Here, a major problem is distinguishing the impact upon the child of witnessing violence from the consequences of direct maltreatment, which often co-occurs, or from the general life stress and chaos in which family violence is nested. However, in a recent analysis of prospective, longitudinal data, Dodds (1995) was able to control for these potential confounds. Presence of spousal abuse in early childhood predicted externalizing behavior problems in boys (but not girls, a common result), even with child maltreatment, socioeconomic status (SES), and life stress statistically controlled.

Peer Relationships as Risk Factors

One reason for the power of family factors in predicting later pathology may be their impact upon peer relationships. Maltreatment, for example, is consistently associated with lack of competence with, and rejection by, peers (e.g., Cicchetti et al., Chapter 37, this volume; Cicchetti & Lynch, 1995), as have patterns of anxious attachment, especially the avoidant subtype. (e.g., Sroufe, Egeland, & Carlson, 1999). Ample research shows that poor peer relationships and association with deviant peers themselves are risk factors for psychopathology (Rudolph & Asher, Chapter 9, this volume). Given the strong concurrent association between behavior problems and peer problems, our own review refers only to prospective studies in which peer measures precede later measures of psychopathology.

Numerous studies have found that general problems with peers, lack of social competence, or unpopularity (based on observation, teacher ratings, or peer sociometrics) are related to later behavioral and emotional problems (e.g., Masten & Coatsworth, 1995). For example, in one early study, a single item rated by teachers ("Fails to get along with other children") predicted psychiatric problems, including hospitalizations, 12 years later in adulthood (Janes, Hesselbrock, Myers, & Penniman, 1979). In our own research, we have found that teacher rankings of peer competence, beginning in early elementary school, predict behavior problems and psychopathology throughout childhood and adolescence (Sroufe et al., 1999).

Established patterns of sociometric status (e.g., rejected vs. neglected children) have proven to be very useful (see Rudolph & Asher, Chapter 9, this volume), predicting somewhat different problems later. Peer rejection is especially powerful, even in comparison to peer neglect (e.g., Ollendick, Weist, Borden, & Greene, 1992). Numerous studies have documented a relation between a history of peer rejection and later maladjustment, both externalizing and internalizing problems, sometimes even with earlier behavior problems controlled (e.g., Rudolph & Asher, Chapter 9, this volume; Burks, Dodge, & Price, 1995; Coie, Terry, Lenox, Lochman, & Hyman, 1995; Dodge, Chapter 24, this volume; Ollendick et al., 1992).

Finally, a great deal of recent research has emphasized the negative impact of deviant peer group membership (e.g., Cairns, Cairns, & Neckerman, 1989; Keenan, Loeber, Zhang, Stouthamer-Loeber, & Van Kammen, 1995; Patterson et al., 1989). Such a relationship experience is especially implicated in delinquency and school dropout.

Relationships as Protective Factors, Moderators, and Mediators

Technically, a protective factor, when present, moderates the impact of a risk variable; that is, protection is always particular to specific risks (Rutter, 1990). Thus, when factors are generally associated with positive outcomes (often simply being the other end of a risk dimension), they are best described as assets or, to use a term coined by Sameroff (1997), "promotive" factors. Of course, this distinction is not always easy to make, and the same variable may be viewed as an asset or protective factor depending on the context. This is certainly the case for certain relationship variables.

Relationship experiences may also moderate the impact of other risks or alter their impact (e.g., combine to lead to a distinctive outcome). In other circumstances, relationships may be the mechanism through which a certain risk factor has its impact. This is referred to as a mediator variable. While there is less information on relationships as moderators and mediators, compared to risks and assets, such research is of clear importance. within a developmental perspective.

Family Relationships as Assets, Moderators, and Mediators

The most widely studied assets and protective factors in the parent-child relationship are parental warmth and emotional support, and the security of the attachment between infant and caregiver. Numerous studies have documented the link between parental warmth and psychological well-being and emotional health of the child (e.g., Campbell, 1997; Fiese et al., Chapter 2; Hetherington & Clingempeel, 1992; Sroufe, 1997). Infant attachment security has been linked with later self-esteem, social competence, prosocial behavior, ego resiliency, and overall ad-

justment (Sroufe, 1997; see also below).

Attachment security also is associated with recovery from behavioral problems (Sroufe, Egeland, & Kreutzer, 1990) and is a protective factor with regard to family life stress; that is, children with histories of secure attachment show fewer problems in the face of family stress than do children with histories of anxious attachment (Pianta, Egeland, & Sroufe, 1990).

Much of the research on family risk factors also contains evidence of other family relationship factors as moderators and mediators of such risk. Davies and Cummings (1994) propose that secure relationships with parents moderate the impact of marital conflict. Indeed, Miller, Cowan, Cowan, Hetherington, and Clingempeel (1993) found just that to be true for preschoolers and early adolescents. Other research suggests that the course or trajectory of problem behavior may be altered by parent-child relationship qualities. Campbell (1997), for example, reports that "authoritative parenting" accounts for desistance of behavior problems between preschool and elementary school. Finally, the research of Patterson and colleagues contains exemplary process analyses. They find, for example, that the impact of parental conflict and aggressiveness is mediated by (leads to) lax parental monitoring, which is then the more powerful influence on adolescent conduct problems (Capaldi & Patterson, 1991). They also describe the transactive nature of the developmental process between parents and peers (see below).

Peer Relationships as Assets, Moderators, and Mediators

As with family relationships, peer relationships may represent assets as well as risks. Peer competence is associated with low behavior problem scores or absence of pathology just as much as peer problems are associated with disorder. Moreover, peer competence measures have been associated with academic achievement and school completion, which themselves may be viewed as assets (Teo, Carlson, Mathieu, Egeland, & Sroufe, 1996), although reversed statements would be equally true and we could speak of risk.

Patterson and associates' work specifically points to a mediating role for peer experiences in the perpetuation of conduct problems. In their model (e.g., Dishion et al., 1991; Patterson et al., 1989), poor parental discipline and monitoring lead to conduct problems, which in turn are associated with peer rejection and academic failure. These factors converge to promote commitment to a deviant peer group, leading to consolidation of antisocial behavior. Problem behaviors (and peer competence) are best viewed as drawing upon the convergence of previous family and peer experiences.

Other Relationships and General Social Support

While not so widely studied, relationships with grandparents, other adults, and siblings have been suggested to serve protective or moderating roles in the face of stress or other risk factors (Lewis, 1984). For example, Jenkins and Smith (1990) reported that a close relationship with an adult outside of the family (usually a grandmother) moderated the effect of disharmonious marriages on child psychopathology. In our work, we found that an "alternative" close relationship with an adult (again, often a grandmother, and *sometimes* a therapist) predicted breaking the cycle of abuse; those parents who themselves were abused but did not mistreat their own children much more often had such a factor present (Egeland, Jacobvitz, & Sroufe, 1988).

Sibling relationships have been the subject of considerable interest to those studying peer relationships, parental conflict, and psychopathology. It is clear that there is an association between quality of sibling relationships and adjustment or behavior problems (e.g., Dunn, Slomkowski, Beardsall, & Rende, 1994; Stormshak, Bellanti, & Bierman, 1996). However, these findings may be interpreted in terms of troubled sibling relationships simply marking child disturbance. Patterson (1986) has argued that sibling conflict may play a role in "training for fighting" within coercive families. And there are some hints that siblings may play a protective role. East and Rook (1992), for example, reported that peer-isolated children were less anxious

if they had a supportive sibling relationship, though they were still more anxious than average children. Jenkins (1992) found that in disharmonious homes, children with a close sibling relationship had less symptomatology than children without such a relationship. But this is not a widely reported finding; more often, the sibling relationship reflects the degree of parental conflict (Hetherington, 1988).

Finally, there is substantial literature concerning the importance of social support for individuals at risk for or already experiencing problems, and for caregivers during the child's development (e.g., Cohen & Wills, 1985; Nuechterlein et al., 1992; Robinson & Garber, 1995). For example, Windle (1992) found that (lower) perceived social support from the family predicted both internalizing and externalizing behaviors for adolescent girls. Using an indirect model of support, Goodyer, Herbert, Tamplin, Secher, and Pearson (1997) reported that mothers' lack of confiding relationships with partners was related to the maintenance of disorder in a clinical sample of 8- to 16-year-olds over a 36-week period.

RELATIONSHIP DISTURBANCES AND PATHWAYS TO DISORDER

In the preceding discussion, relationship experiences have been viewed as contributors to psychopathology because of their role as risk factors, protective factors, mediators, or moderators. However, a more thoroughgoing and revolutionary view of the role of relationships in disturbance may be proposed. More than simply being risk factors, relationship disturbances may be the precursors of individual psychopathology, through their role in establishing fundamental patterns of emotional regulation. They may represent the initiation of developmental pathways probabilistically leading to disorder (Sroufe, 1997). Individual disturbance, in this view, begins as relationship disturbance. This view is in contrast to the DSM framework, in which the reality of relationship disturbances is allowed but sequestered into a few isolated categories (Attachment Disorders). Here, relationship disturbances are hypothesized to be the forerunners or prototypes of many major childhood disorders and adult personality disorders as well.

The Relationship Perspective on Psychopathology: Rationale

Problems in emotional regulation, like relationship disturbances, are pervasive markers of psychopathology. Such problems underlie most disorders of children and adults (Cole, Michel, & O'Donnell-Teti, 1994). Indeed, "emotional disturbance" often is used as a synonym for psychopathology. Moreover, difficulties in emotional regulation and relationship difficulties are intertwined. This is the starting point for our developmental-relationship perspective on psychopathology. Emotional regulation is the defining feature of all close relationships and the central goal of early primary relationships (Sroufe, 1996). Particular relationship experiences may be argued to be the progenitors of psychopathology precisely because of their role in early regulation.

Human infants are not very able to regulate their own arousal or emotional states. To be well regulated, they require ample assistance from caregivers. To be sure, they can express distress and contentment in the first weeks, and within a few months a greater range of feelings and needs. By the end of the first year, infants can signal many wishes with intention (raising their arms to be picked up, calling for caregivers when frightened, offering a toy for inspection). But throughout this time, they rely on caregivers to read these "signals," whether intended or not. Infants are equipped to play only a primitive role in their own regulation. They are not capable of self-regulation, but only "co-regulation" (Fogel, 1993). To be well regulated-to be competent as infants, they require sensitive, responsive caregivers (Ainsworth & Bell, 1974). In Sander's (1975) terms, there is an affective-behavioral organization early in life, but this organization lies in the infant-caregiver system, not the infant alone.

Thus, what will become functional self-regulation, or various forms of dysregulation, begins as caregiver-infant regulation (Lyons-Ruth & Zeanah, 1993). Researchers have now described this initial dyadic regulation process in great detail, including its changing form over time, as well as variations between particular infant-caregiver pairs (e.g., Brazelton,

Koslowski, & Main, 1974; Fogel, 1993; Stern, 1985). Caregivers maintain smooth regulation by attending to the infant's changes in alertness or discomfort and signs of need, imbuing primitive infant behaviors with meaning. They quickly learn to "read" infant signals and to provide care that keeps distress and arousal within reasonable limits. By effectively engaging the infant and encouraging ever longer bouts of emotionally charged but organized behavior, they provide the infant with critical training in regulation. Within the secure "holding" framework of the relationship, infants learn something vital about "holding" themselves, containing behavior, and focusing attention (Brazelton et al., 1974).

In time, routine patterns of interchange are established. As the infant's capacities for engagement and repertoire of behaviors increase, a semblance of reciprocity-of back-and-forth communication-emerges. Caregiver and infant may, for example, engage in a series of mutual exchanges characterized by increasingly positive emotion expressed by both partners and a waxing and waning of engagement that helps the infant stay organized. In the early months, it is the caregiver that is adjusting behavior purposefully, always accommodating to the infant and creating space for the infant to fit in as well (Hayes, 1984). Such patterns of caregiver-orchestrated regulation set the stage for more truly dyadic regulation as new infant capacities emerge.

By the second half-year, the infant exhibits purposeful, goal-directed behavior (Sroufe, 1996). Infants at this age behave in order to elicit a particular response from the caregiver, for example, calling to the parent and raising their arms to indicate a desire to be picked up. They now actively participate in the regulation process. If the caregiver misreads a signal, the older infant will adjust the behavior, often until the desired response is received (e.g., crawling to parents if they do not come to the infant). Thus, dyadic regulation follows inevitably upon the heels of caregiver-orchestrated regulation. It requires only growth of intentional capacity, which occurs in all normal infants during this period. The form and structure of dyadic regulation is in place from the preceding period. What changes is the role of the infant, from reflexive or automatic signaling, to active, intentional signaling; the patterning is based on what was established earlier. In time, this patterning is carried forward, becoming the core of self-regulation.

Early relationship experiences are vital because they are the first models or prototypes for patterns of self-regulation. Infants have no choice but to generalize from what they experience. If they have experienced within their caregiving relationships that distress is routinely followed by recovery, that behavior can stay organized in the face of strong emotion, that positive experiences are shared, and that caregivers are central to all of these experiences, they will come to expect such contingencies (Lewis & Goldberg, 1969). One can turn to others when in need, and they will respond. At the same time, in a complementary manner, infants will come to believe in their own effectiveness in maintaining regulation and, because their needs are routinely met, in their own self-worth. Bowlby (1973) argues that this is inevitable. A sense of personal effectiveness follows automatically from routinely having one's actions achieve their purpose. So positive expectations toward others and a sense of connectedness, as well as self-confidence, all are logical outcomes of experiencing routinely responsive care. This provides an important motivational and attitudinal base for later self-regulation.

A history of responsive care does more than promote positive attitudes with regard to coping. In a well-regulated dyadic system, stimulation is appropriate to the capacities of the infant, disorganizing arousal is infrequent, and episodes of distress are short-lived. Within such a system, the infant is entrained into a pattern of modulated, flexible emotional responding at both the behavioral and the physiological levels (Sroufe, 1996). Recent research suggests that such experiences are vital for tuning and balancing excitatory and inhibitory systems in the brain (e.g., Cicchetti & Tucker, 1994; Schore, 1994). Thus, neither the nervous systems nor the behavioral capacities of children experiencing responsive care are easily overstimulated but, rather, remain flexibly responsive to challenge.

The movement toward self-regulation continues throughout the childhood years, as does a vital, though changing, role for caregivers. During the toddler period, the child acquires beginning capacities for self-control, tolerance for moderate frustration, and a widening range of emotional reactions, including shame and, later, pride and guilt (Lewis, Alessandri, & Sullivan, 1992; Sroufe, 1996). Practicing self-regulation in a supportive context is crucial. Emerging capacities are easily overwhelmed. Caregivers must allow children to master those circumstances within their capacities and yet anticipate circumstances beyond their abilities and help restore equilibrium when children are overtaxed. Such "guided self-regulation" is the foundation for the genuine self-regulation that will follow. As the child's capacities for self-regulation gradually emerge, parental tasks move toward providing optimal contexts for mastery, establishing guidelines for expected behavior, and monitoring the child's regulation efforts. Each of these tasks is important. The child's capacity for self-regulation can be compromised or enhanced at any point in development. But the entire developmental process builds upon the foundation laid out in infancy.

Bowlby's (1973) attachment theory is a useful framework for organizing this information. Indeed, attachment may be defined as the dyadic regulation of emotion (Sroufe, 1996). Variations in infant attachment are most centrally variations in dyadic regulation. In the usual case, Bowlby's starting point, infants develop what is called "secure attachment." Because their caregivers have been routinely available to them, sensitive to their signals, and reliably responsive (though by no means is perfect care required), these infants develop confidence that supportive care is available. They expect help when a need arises. If threatened or distressed, they are effective in utilizing caregivers to regain equilibrium. Such confident expectations are precisely what is meant by attachment security. They are secure in their attachment. This security supports confident exploration of the environment and ease of settling when distressed.

In other cases, when care is chaotic, notably inconsistent, neglectful or rejecting, or when the caregiver behaves in frightening or incoherent ways toward the infant, an anxious attachment relationship evolves. Infants facing inadequate care have few options (Main & Hesse, 1990). In the face of inconsistency, they may maximize the expression of attachment behaviors, hovering near the caregiver, emitting high-intensity signals, "punishing" the caregiver for non-responsiveness. Such a pattern is known as anxious/resistant attachment, because these infants often mix strong seeking of contact with pushing away from the caregiver, squirming, or angrily pouting when they are distressed. Alternatively, in the face of chronic rebuff, infants may learn to cut off expression of attachment behaviors. This "strategy" characterizes *anxious/avoidant* attachment, so called because these infants turn away from, rather than go to, caregivers in the face of moderate stress (such as following a separation of a few minutes in an unfamiliar setting). Such avoidance may help the infant not alienate further an already rejecting caregiver, but, of course, it may initiate a pattern of rigid overcontrol in which real needs cannot be met. Finally, when caregivers are themselves the source of threat or fear, infants are placed in an irresolvable approach-avoidance conflict. Infants are strongly disposed to approach attachment figures when threatened, but if the attachment figure is the source of threat, they are simultaneously disposed to stay away from them. If routine, such conflict leads to what has been called *disorganized/disoriented* attachment. Each of these patterns of anxious attachment has been well described, with consequences for later dysregulation and emotional disturbance confirmed by long-term longitudinal research. Anxious attachment also repeatedly has been shown to be related to earlier insensitive care (e.g., National Institute of Child Health and Human Development, 1997; De Wolff & van IJzendoorn, 1997).

Attachment Outcome Research

Research has confirmed that infants with histories of secure attachment with their primary caregivers (that is, those who have experienced effective dyadic regulation of arousal and emotion) later are characterized by more effective self-regulation. For example, as preschoolers, they are judged by teachers and independent observers to have higher self esteem, to be more self-reliant, and to be more flexible in the management of their impulses and feelings (e.g.,

Sroufe, 1983). They can be exuberant when circumstances permit and controlled when circumstances require it. They recover quickly following upset. They flexibly express the full range of emotions in context-appropriate ways. They positively engage and respond to other children, are able to sustain interactions even in the face of conflict and challenge, and are notably empathic. Though not unduly dependent, they are effective in using adults as resources, relating to them in an age-appropriate manner. These findings are supported by detailed behavioral data. Those with secure attachment histories are observed to seek less frequent physical contact or reassurance from teachers and to more often respond with positive emotion to peer initiations than do children with histories of anxious attachment. Moreover, those with different kinds of anxious attachment histories behave in distinctive ways. For example, those with histories of anxious/resistant attachment, who have become chronically aroused in the face of inconsistent, chaotic care, persistently hover near teachers, are easily frustrated, fall to pieces in the face of stress, and are unable to sustain interactions with peers, at times, becoming a foil to those who are aggressive. Those with histories of avoidant attachment are disconnected from other children and/or show antipathy for them. They also are emotionally over-controlled and/or aggressive, and they fail to seek out teachers precisely when disappointed or distressed.

In middle childhood and adolescence, those with histories of secure attachment carry forward patterns of effective emotional regulation. Such patterns enable them to meet the challenges of autonomous functioning and successful participation in ever more complex peer groups. In middle childhood, they form close relationships with friends as well as coordinate friendships with effective group functioning (Flicker, England, & Sroufe, 1992; Shulman, Elicker, & Sroufe, 1994). In adolescence, this evolves to the capacity for intimacy, self disclosure, and successful functioning in the mixed-gender peer group (Sroufe et al., 1999). They are peer leaders, noted for interpersonal sensitivity (Weinfield, Ogawa, & Sroufe, 1997).

Throughout childhood and adolescence, research has now established a firm relation between established patterns of early regulation and later behavior problems and emotional disturbance. At each age assessed, those with secure attachment histories have been found to have fewer emotional problems. Those with anxious attachment histories have problems of one kind or another with greater frequency. Anxiety disorders are associated with histories of anxious/resistant attachment (Warren, Huston, Egeland, & Sroufe, 1997). Aggression, and conduct disturbances more generally, have been found to be related to anxious/avoidant attachment (Lewis, Feiring, McGuffog, & Jaskir, 1984; Sroufe, 1997). Both resistant and avoidant attachment appear to be related to depression, probably for different reasons (passivity and helplessness on the one hand, alienation on the other). Finally, disorganized/ disoriented attachment shows the strongest overall relationship to disturbance in adolescence (Carlson, 1998). Given that this pattern reflects a major breakdown in early dyadic regulation, this finding was to be expected. The disorganized pattern also is related specifically to dissociative symptoms, that is, disruptions in orientation to the environment and failures to integrate various aspects of emotional and cognitive experience (Carlson, 1998).

EARLY RELATIONSHIPS IN DEVELOPMENTAL PERSPECTIVE

Despite the linkages described here, the relationship position derived from Bowlby is not deterministic but, rather, probabilistic. Anxious attachments do not directly cause later disorder. Rather, they initiate pathways, the pursuit of which is influenced by ongoing challenges and supports, as well as by the total prior history. Thus, assessments of child care in the years following infancy, life stress experienced by the family, and changes in caregiver support all increment predictions of outcome beyond early attachment assessment (Carlson, 1998; Sroufe, 1997). Psychopathology always is the result of the combination of risk and protective factors impacting on the individual's life over time.

Moreover, early care itself is multifaceted, with many aspects lying outside of the attachment domain (e.g., the socialization of impulse control; Sroufe, 1997). Some kinds of problems are not closely related to attachment history. For example, attention deficit disorder is at best only weakly related to attachment; however, it is predictably related to early patterns of

over-stimulation and parent-child boundary violation (Carlson et al., 1995).

Individual differences in early primary attachments are not viewed in themselves as manifestations of psychopathology, as direct causes, or as the only risk factors deriving from parenting history. At the same time, they are unique among risk factors in important ways. They embody core features of interpersonal connectedness and affective regulation that are central in psychopathology, and they entail patterns of motivational, behavioral, and emotional organization that often are prototypes for individual personality. In contrast to broad based risk factors, such as poverty, attachment patterns may serve as templates for particular forms of disturbance when the confluence of risks outweighs the supports for the developing child.

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