

## DISSOCIATION AND THE PARENT-INFANT DIALOGUE: A LONGITUDINAL PERSPECTIVE FROM ATTACHMENT RESEARCH

Two longitudinal attachment studies of families at social risk have now followed their cohorts of infants to late adolescence. Several key findings have emerged related to outcomes of interest to psychoanalysts. First, data from both studies indicate that disorganized attachment behaviors in infancy are important precursors of later dissociative symptomatology. Second, this early vulnerability is related to patterns of parent-infant affective communication, particularly *quieter* behaviors like emotional unavailability or role reversal, and does not appear to reside in the infant alone. Finally, the results suggest that the quality of the attachment relationship may in part account for why some people exposed to later trauma develop dissociative symptoms and others do not. To paraphrase Dori Laub (1993), the mother's seeing and not knowing in infancy may be a precondition of her child's knowing and not knowing in late adolescence. It remains unclear, however, whether the early relationship is predictive due primarily to the onset of an internal defensive process in infancy or whether its predictive power resides primarily in enduring patterns of parent-child dialogue that continually reinforce the child's segregated and contradictory mental contents.

**I**n 1989, the launching of the journal *Development and Psychopathology* marked the birth of a new discipline. At that point, video-based observational methodologies for studying patterns of infant attachment behaviors, face-to-face interaction, parent-child interaction,

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and peer relations had been honed in normative, nonclinical studies and were beginning to be applied to the study of infants at risk for psychopathology. The then new application of longitudinal and developmental methodologies to the study of psychopathology carried with it the promise that the multiple causal contributors to child and adult psychopathology could eventually be identified and tracked from conception onward.

Now, at the turn of the century, the longitudinal cohorts who began to be studied in the 1980s are reaching adulthood, and the variety of pathways to adulthood adaptation and psychopathology are beginning to be mapped. Two studies of families at social risk have now followed their cohorts of infants and parents to at least late adolescence and are examining outcomes of interest to psychoanalysts, including characteristics of the parent-child relationship, the quality of internalized models of relationships, traumatic life events, and psychiatric symptomatology.

This paper will review some of the key findings that are beginning to emerge in attachment research regarding the relations between early disorganized attachment behaviors, characteristics of parent-infant interaction, and adolescent dissociative symptoms. The first set of findings involves the relational context of parent-infant interaction associated with the emergence of disorganized behaviors toward the parent under stress. The second set involves the longitudinal connections between the quality of the early parent-infant relationship and dissociative symptoms at age nineteen.

The extension of attachment research methods to high-risk cohorts occurred after extensive work with low-risk families had determined the longitudinal outcomes associated with the organized secure and insecure (avoidant or ambivalent) infant attachment strategies. This earlier body of work had established significant intergenerational transmission of attachment strategies from parent to infant, as well as significant longitudinal prediction from attachment strategies in infancy to social behaviors during the preschool and early school years (see Lyons-Ruth 1991; Marvin and Britner 1999; Weinfield et al. 1999).

Clear links between infant attachment strategies and psychopathology did not emerge until after disorganized forms of attachment behavior were described by Main and Solomon (1990). Since then evidence has accumulated supporting the relation between disorganized attachment strategies in infancy and both internalizing and externaliz-

ing behavior problems during the preschool and early school years (see Lyons-Ruth and Jacobvitz 1999; Main 1993; van IJzendoorn, Schuengel, and Bakermans-Kranenburg 1999). Further work has shown that disorganized strategies in infancy are often reorganized during the preschool years into a range of strategies for controlling the parent, through either caregiving behaviors (e.g., organizing, directing, or entertaining) or through punitive or coercive behaviors toward the parent (see Solomon and George 1999; Teti 1999).

This extensive attachment research literature provides a scientific foundation for positing relational as well as biological contributors to many forms of psychopathology. However, attachment theory also advances a more specific model within the broader relational framework. Contrary to general clinical usage, from a theoretical perspective the attachment system is only one of a number of goal-corrected behavioral/motivational systems, and all or most of the interactions between parents and children will not be integral to the attachment system, even in infancy. For example, interactions around play, teaching, or even routine caregiving do not necessarily engage attachment motivations or affects.

The attachment system was considered by Bowlby (1969) to be a preadapted behavioral system for combating and reducing stress and maintaining a sense of security. Under normal conditions, an adequately functioning attachment relationship, in which the infant can openly signal discomfort and receive a sensitive response from the caregiver, will serve to buffer the infant (and adult) against extreme levels of fearful arousal. However, the attachment system may malfunction. Based on accumulated research findings, disorganized and controlling forms of attachment behavior are now thought to represent a malfunction of the attachment relational system in infancy and childhood that exposes the infant to excessive unmodulated stress (see Lyons-Ruth and Jacobvitz 1999; Spangler and Grossmann 1993).

Although the attachment relational system is viewed as only a single circumscribed motivational system among other systems, it is also regarded as preemptive when aroused, since it mobilizes responses to fear or threat. In that sense, the quality of regulation of fearful affect available in attachment relationships is foundational to the developing child's freedom to turn attention away from issues of threat and security toward other developmental achievements, such as exploration, learning, and play.

A large body of earlier research on fearful arousal has documented the range of individual coping responses to pain or fear, captured by the summary label *fight or flight*. In addition, Seligman (1975) and others have described *freezing* and *learned helplessness* as responses occurring when more active responses are unavailable or ineffective. Recently, Taylor et al. (2000) advanced an alternative *tend or befriend* hypothesis regarding primary responses to threat among social primates, arguing that fight or flight may be more relevant to the stress responses of males, while various forms of affiliative responses may be more common stress responses among females. From an attachment point of view, however, we would expect affiliative responses to threat to be important to all social primates, without regard to gender.

This entire array of coping or defensive responses appears in some form in the behaviors that are part of the disorganized/controlling spectrum of attachment behaviors. However, these behaviors are often brief, seem puzzling or contradictory, and so were overlooked for the first fifteen years of attachment research. The formal criteria for defining disorganized behaviors are summarized in Table 1. As can be seen in the table, sequences of behavior are often considered disorganized when two or more contradictory behavioral tendencies appear to be

**Table 1. Indices of Disorganized-Disoriented Infant Attachment Behavior**

1. Sequential display of contradictory behavior patterns, such as very strong attachment behavior suddenly followed by avoidance, freezing, or dazed behaviors.
2. Simultaneous display of contradictory behaviors, such as strong avoidance with strong contact-seeking, distress, or anger.
3. Undirected, misdirected, incomplete, and interrupted movements and expressions, for example, extensive expressions of distress accompanied by movement away from, rather than toward, the mother.
4. Stereotypies, asymmetrical movements, mistimed movements and anomalous postures, such as stumbling for no apparent reason and only when the parent is present.
5. Freezing, stilling, and slowed "underwater" movements and expressions.
6. Direct indices of apprehension regarding the parent, such as hunched shoulders, fearful facial expressions.
7. Direct indices of disorganization and disorientation, such as disoriented wandering, confused or dazed expressions, or multiple, rapid changes in affect.

—Main & Solomon (1990)

competing for expression. This conflict at the level of behavioral tendencies in infancy foreshadows the psychoanalytic emphasis on internalized forms of conflict in later development.

Given the role of fearful arousal and physiological stress responses in the theory and data on disorganization, it is tempting to equate disorganized attachment strategies with clearly maltreating relationships, and maltreatment *is* clearly associated with infant disorganization (Carlson et al. 1989). However, that criterion for problematic parental behavior is much too extreme to account for most disorganized strategies, since 15 percent of infants in low-risk families display disorganized attachment strategies (for meta-analysis, see van IJzendoorn, Schuengel, and Bakermans-Kranenburg 1999).

Recent neuroscience research with both rats and rhesus macaques is suggesting that an even stronger statement regarding the foundational nature of the early attachment relationship may be warranted. These studies are demonstrating that in these species both infant neurotransmitter systems and the infant stress response system mediated by the hypothalamic-pituitary-adrenal axis are open systems at birth that partly depend on the patterning of caregiver behavior to set enduring parameters of their functioning across the life span. Therefore, the attachment system may also be foundational at a physiological level in setting up relatively enduring patterns of neurotransmitter activity and levels of hypothalamic-pituitary-adrenal axis responsivity to stress or threat.

For example, in one well-replicated paradigm, when caregiving behavior was impaired among macaque mothers due to uncertainty about the ease of obtaining food, macaque infants developed enduring fearful behaviors and elevated levels of corticotropin releasing factor that did not wane after a predictable food supply was reestablished and maternal behavior returned to normal (Coplan et al. 1996). In addition, using a cross-fostering design with newborn rat pups, Francis et al. (1999) reported that the quality of maternal nurturing behavior set the parameters of the pup's physiological stress responses mediated by the HPA axis, and that both the experienced pattern of caregiving behavior and the associated stress-responsivity were passed on intergenerationally, independent of concomitant genetic influences on parenting and stress responsiveness. Based on his own and others' work, Kraemer (1992) concluded that the primate infant has an open biobehavioral system at birth that takes its organization in part from the

organization of the caregiving surround. An array of current research studies are now probing the extent to which these findings also apply to human infants (see, e.g., Bremner et al. 1997; Rogness and McClure 1996; Ito et al. 1998; de Bellis 2001). However, human attachment studies have also documented elevated cortisol levels among disorganized infants in response to mild stressors (Spangler and Grossmann 1993).

Work on infant attachment strategies regrounds clinical theory in the developmental dynamics of fear. Attachment research has reliably described the infant defensive adaptations that occur in the face of caregivers' systematic failure to provide adequate soothing responses to infant fear or distress. These infant defensive adaptations involve alterations of both attention and affect expression. Organized avoidant or ambivalent strategies involving either deactivation or hyperactivation of attention to attachment cues can be systematically and reliably observed by the end of the first year of life (see Main 1993), as can the contradictory conflict behaviors that index a disorganized response pattern.

Thus, attachment theory is a two-person theory of conflict and defense. It emphasizes the coping or defensive processes required to deal with fearful arousal within a particular set of attachment-related interactions. In contrast to a purely intrapsychic theory of defense, attachment theory and research locate the ontogeny of defenses in specifically described relational processes that create tension or conflict between the needs of the infant and the responses of central caregivers (Lyons-Ruth 1999). Defense formation occurs at the interface between infant distress or fearful arousal and the responses of central attachment partners.

Attachment strategies, including their defensive and conflicted components, are examples of the nonconscious, implicit, enactive representations that are developed in infancy before the explicit memory system associated with consciously recalled images or symbols is available (Stern et al. 1998; Lyons-Ruth 1999). Such early implicit but unsymbolized representations would be one way of conceptualizing Bollas's evocative concept of the "unthought known" (1987). In the view developed here, these enactive representations encode the deep structure of the early parent-infant affective dialogue, including deletions and distortions in the dialogue that will eventually become intrapsychic defenses. In the view to be argued, such intrapsychic defenses originate in characteristics of the two-person

dialogue from very early in life. The relation of this internalized dialogue-as-defense to dissociative processes will be considered after a presentation of recent research findings linking disorganized infant attachment to aspects of the parent-infant dialogue.

### **PARENTAL AFFECTIVE COMMUNICATION PATTERNS RELATED TO INFANT DISORGANIZATION**

If caregiver responsivity is possibly implicated as one component of the complex influences guiding early stress responses and defense formation, what have we learned about caregivers' interactions with infants displaying disorganized attachment responses? First, surprisingly, parental behavior that is coded as insensitive, using the standard but very global rating scale for sensitivity, has been only weakly correlated with infant disorganized attachment behavior (van IJzendoorn, Schuengel, and Bakermans-Kranenburg 1999). This failure of parental sensitivity to relate to disorganization is most likely due to methodological factors such as the diversity of parental profiles within the disorganized group and the lack of detailed behavioral descriptors in the widely used scale for rating sensitivity. How then do we capture the parental behaviors most implicated in the process of disorganization?

Main and Hesse (1990) have advanced the hypothesis that disorganization of infant attachment strategies is related to parental unresolved fear, fear that is transmitted to the infant through parental behavior that appears frightened or that is frightening to the infant. According to Main and Hesse's reasoning, if the parent herself arouses the infant's fear, the parent becomes both the source of the infant's fear and the haven of safety. This places the infant in an unresolvable paradox regarding whether to approach the parent for comfort.

Several research groups have recently tested Main and Hesse's hypothesis that the parent's frightened or frightening behavior is the distinctive element associated with disorganization of infant attachment strategies (Jacobvitz, Hazen, and Riggs 1997; Lyons-Ruth, Bronfman, and Parsons 1999; Schuengel, Bakermans-Kranenburg, and van IJzendoorn 1999). Before the development of the Main and Hesse (1992) coding instrument for frightened or frightening behavior, however, our pilot work had led us to advance two additional hypotheses regarding the parental behaviors that might be disorganizing to the infant. First, work with the Adult Attachment Interview has

revealed that parents of disorganized infants show evidence of un-integrated mental contents when discussing loss or trauma. This suggested that parents might display unintegrated or contradictory caregiving responses, much as the disorganized infant displays un-integrated or contradictory attachment behaviors. Second, a variety of primate evidence suggested that the parent's overall regulation of the infant's fearful arousal might be more important than specific frightened or frightening behaviors, in that failure to respond adequately to the infant's attachment bids should be as important as more active frightened or frightening parental behaviors. In this view, parental withdrawing behaviors or role-confused behaviors that leave the infant without adequate parental regulation of fearful affect would also be potentially disorganizing, whether or not the parent's own behaviors were directly frightened or frightening to the infant.

Therefore, in addition to frightened or frightening behaviors, five broader aspects of disrupted parental affective communication with the infant were coded. These five aspects included (a) parental withdrawing responses, (b) negative-intrusive responses, (c) role-confused responses, (d) disoriented responses, and (e) a set of responses we termed *affective communication errors*, which included both simultaneous conflicting affective cues to the infant and failures to respond to clear affective signals from the infant. All five classes of behavior could be coded reliably. Table 2 gives examples of each type.

**Table 2. Dimensions of Disrupted Maternal Affective Communication**

***Affective Errors***

- a. Contradictory cues (e.g., invites approach verbally, then distances)
- b. Nonresponse or inappropriate response (e.g., does not offer comfort to distressed infant)

***Disorientation (Items from Main & Hesse 1992)***

- a. Confused or frightened by infant (e.g., exhibits frightened expression)
- b. Disorganized or disoriented (e.g., sudden loss of affect unrelated to environment)

***Negative-Intrusive Behavior (including frightening items, Main & Hesse 1992)***

- a. Verbal negative-intrusive behavior (e.g., mocks or teases infant)
- b. Physical negative-intrusive behavior (e.g., pulls infant by the wrist)

***Role Confusion (includes items from Sroufe et al. 1985; Main & Hesse 1992)***

- a. Role-reversal (e.g., elicits reassurance from infant)
- b. Sexualization (e.g., speaks in hushed intimate tones to infant)

***Withdrawal***

- a. Creates physical distance (e.g., holds infant away from body with stiff arms)
- b. Creates verbal distance (e.g., does not greet infant after separation)



When frequencies of the five types of maternal disrupted communication were examined, the overall frequency of these disrupted affective behaviors was significantly related to the extent of the infant's disorganized attachment behavior. In addition, these disrupted maternal behaviors, which were coded during a series of separations and reunions, demonstrated cross-situational stability in that they were related also to similar behaviors observed at home. Higher levels of disrupted maternal behavior in the separation procedure were also associated with increased infant distress at home. It was also important that neither infant gender nor cumulative demographic risk was significantly related to maternal disrupted behavior (Lyons-Ruth, Bronfman, and Parsons 1999). Three additional labs have now applied this coding system to mother-infant cohorts across a broad socioeconomic range and replicated the link to infant disorganization (Benoit, Blokland, and Madigan 2001; Grienberger and Kelly 2001; Madigan 2002).

The frightened or frightening behaviors described by Main and Hesse (1992) were also examined separately. Examples of these behaviors are shown in Table 3. Frightened or frightening behaviors showed the same relation to infant disorganized attachment classification as did overall disrupted communication. However, the specific behaviors described by Main and Hesse constituted only 17 percent of the behaviors included in the larger coding protocol as disrupted. With all frightened or frightening behaviors removed from the total disrupted communication score, the remaining disrupted behaviors still reliably distinguished between mothers of organized and disorganized infants. We interpret these findings to indicate that frightened or frightening behaviors are embedded in a broader context of disrupted affective communication between mother and infant.

**Table 3. Frightened / Frightening Coding Dimensions (Main & Hesse 1992)**

1. Frightening parental behaviors  
e.g., Sudden looming into head/eye area; assumption of attack postures
2. Frightened parental behaviors  
e.g., Backing away from baby
3. Timid or deferential parental behaviors  
e.g., Interacting with baby with cocked head and pleading voice
4. Dissociative or trance-like behaviors  
e.g., Haunted voice tone; inexplicable state shifts
5. Sexual/spousal behaviors toward child  
e.g., Extended sexualized kissing or fondling

## HOSTILE OR HELPLESS PROFILES OF PARENTING

Another aspect of the data on mother-infant interaction was quite clinically interesting. Infants with disorganized attachment strategies are traditionally subclassified into two groups, based on the type of organized attachment strategy their behavior most resembles. These two subgroups are usually labeled *disorganized-secure* (D-secure) and *disorganized-insecure* (D-insecure). Here we will use the more behaviorally descriptive labels *disorganized-approaching* (D-approach) and *disorganized-avoiding/resisting* (D-avoid/resist). Statistically, the two corresponding subgroups of mothers differed more from each other than from mothers whose infants were not disorganized.

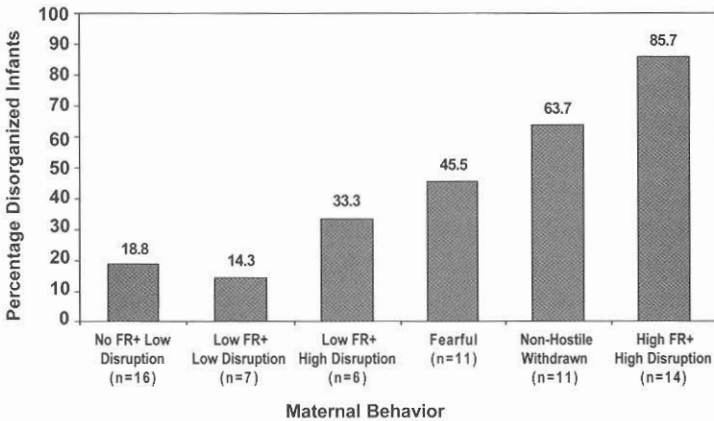
Mothers of D-avoid/resist infants displayed significantly higher rates of both role-confusion (self-referential behavior) and negative-intrusive behavior than did mothers of D-approach infants. Negative-intrusive and role-confused behaviors were strongly correlated as well, so these mothers were displaying toward their infants a contradictory mix of rejecting and attention-seeking behaviors. We termed this parenting profile *hostile/self-referential regarding attachment*.

In contrast, mothers of D-approach infants exhibited significantly higher rates of withdrawal than did mothers of D-avoid/resist infants, as well as higher rates of fearful behavior. Mothers in this subgroup were more fearful, withdrawing, and inhibited and at times appeared particularly sweet or fragile. They were very unlikely to be overtly hostile or intrusive and they usually gave in to the infant's concerted bids for contact. However, they often failed to take the initiative in greeting or approaching the infant, and they often hesitated, moved away, or tried to deflect the infant's requests for close contact before giving in (Lyons-Ruth, Bronfman, and Atwood 1999). We termed this group *helpless/fearful regarding attachment*. Infants of helpless/fearful mothers looked different from infants of hostile/self-referential mothers in that they all continued to express their distress, approach their mothers, and gain some physical contact with them, even though they also displayed disorganized behaviors, including signs of conflict, apprehension, uncertainty, helplessness, or dysphoria.

Figure 1 displays the relation between types of maternal disrupted communication or frightened/frightening behavior and incidence of infant disorganized attachment behavior. In Figure 1, FR<sup>+</sup> refers to all behaviors on the Main and Hesse (1992) coding protocol for

frightened or frightening behavior shown in Table 3; disruption refers to the broader set of disrupted affective communications on the AMBIANCE coding system shown in Table 2. As Figure 1 reveals, even in this highly stressed, low-income sample, infants whose mothers displayed nondisrupted affective communication patterns had a low rate of disorganization of attachment; fearful or withdrawn maternal behaviors were associated with a rate of disorganization three or four times higher, and highly frightened or frightening profiles a rate of five times higher.

**Figure 1. Infant Disorganization by Maternal Disrupted Communication and Frightened / Frightening Behavior**



While fearful or withdrawn parenting behaviors might seem less problematic than behaviors that are more frightening or hostile, there is repeated evidence that D-approach infants are as much at risk for a variety of negative outcomes as D-avoid/resist infants, including elevated cortisol secretion in response to mild stressors in infancy, inhibited or chaotic fantasy play in preschool, elevated hostile-aggressive behaviors toward peers in kindergarten and second grade, and elevated rates of controlling attachment patterns toward parents by age six (see Lyons-Ruth and Jacobvitz 1999).

In addition, different forms of maternal trauma were associated with hostile or withdrawing parenting profiles. Mothers with a history of physical abuse or witnessed violence were more likely to display the hostile profile of behavior at home, while mothers with a history of sexual abuse or parental loss (but not physical abuse) were more likely

to withdraw from interaction with their infants. Clinical treatment of sexual abuse survivors clearly reveals the underlying fear and rage of those who have been sexually victimized. However, sexually abused mothers appeared more likely to manage their negative affects by moving away from interaction with the infant, while mothers who had witnessed violence or been physically abused appeared to handle their underlying fear by identifying with an aggressive style of interaction (Lyons-Ruth and Block 1996).

### **INFANT DISORGANIZATION, PARENTAL AFFECTIVE COMMUNICATION, AND ADOLESCENT DISSOCIATION**

Two attachment-oriented studies of infants at social risk have now followed their study cohorts longitudinally into late adolescence: the Minnesota study of Egeland, Sroufe, and colleagues, and our own ongoing study. Dissociative symptoms have been of particular interest to students of attachment for several reasons. First, as just reviewed, fear has been prominent in theorizing about the dynamics of disorganized attachment. Second, Giovanni Liotti (1992), a Roman psychoanalyst, has pointed out similarities between the unintegrated nature of infant disorganized behavior and the lack of mental integration characteristic of dissociative symptoms. Third, when parents of disorganized infants are interviewed on the Adult Attachment Interview, their narratives often contain indicators of unintegrated areas of thinking related to loss or trauma, indicators such as uninvited intrusions of the topic into the interview or contradictory references to the topic across the interview (Lyons-Ruth and Jacobvitz 1999; Main 1993). Therefore, theorizing about the likely long-term consequences of disorganized attachment strategies has focused in part on the potential for exhibiting contradictory and unintegrated mental processes as these infants approach adulthood.

Ogawa et al. (1997) first examined the prediction from a variety of early and later childhood factors to dissociative symptoms in adolescence, using a prospective longitudinal design. One hundred twenty-six videotaped attachment assessments in infancy were coded for the presence of disorganized attachment behaviors, and the extent of dissociative symptoms was reported by the adolescents at nineteen years of age on the Dissociative Experiences Scale (Bernstein and Putnam 1986). In addition, dissociative-like behaviors reported by teachers on

the Teacher Report Form of the Child Behavior Checklist were coded at preschool and school age. These were behaviors like "seems lost in his own world at times."

A wide array of other potential risk factors were also evaluated for their potential to predict dissociative phenomena in childhood and adolescence. Based on current clinical and developmental thinking, the most likely model of results would be an indirect model of the chain of effects leading to adolescent dissociation. Disorganized attachment relationships in infancy would be viewed as one important indirect predictor because a disorganized early relationship would increase the likelihood that the child would be exposed to later trauma or abuse that would in turn increase the risk of dissociation. However, the trauma itself would be viewed as the direct causal influence on dissociation.

The results of the Minnesota study did not fit this model. Instead, multiple regression analyses revealed that once the effects of disorganization of attachment and emotionally unavailable caregiving during the first two years of life were accounted for in the statistical analysis, no further life experiences in childhood or adolescence increased the prediction of clinical levels of dissociative symptoms, including early or concurrent abuse. Only with regard to dissociative behaviors in early elementary school, as rated by teachers, did the occurrence of concurrent abuse add to the prediction of dissociative symptoms. Even for those symptoms, there were unique effects of the early attachment relationship that remained important even after the effects of concurrent abuse were accounted for. The consistency of the relation between early disorganization and later dissociative symptomatology at all ages was striking and unexpected.

A secondary but less powerful analysis was also reported by Ogawa et al. (1997) that appeared to establish a role for traumatic events in potentiating the relationship between disorganized attachment and later dissociation. Since the independent influence of early caregiving on dissociation was not included in that analysis, however, it is difficult to integrate that partial analysis with the results of the more powerful and inclusive multivariate regression analysis just described.

This relation between early caregiving and adolescent dissociation has recently been assessed in a second longitudinal cohort at age nineteen by our own research group. This adolescent follow-up study is in the early stages, with assessments collected from twenty-eight of an expected sixty-five families. The Dissociative Experiences Scale was

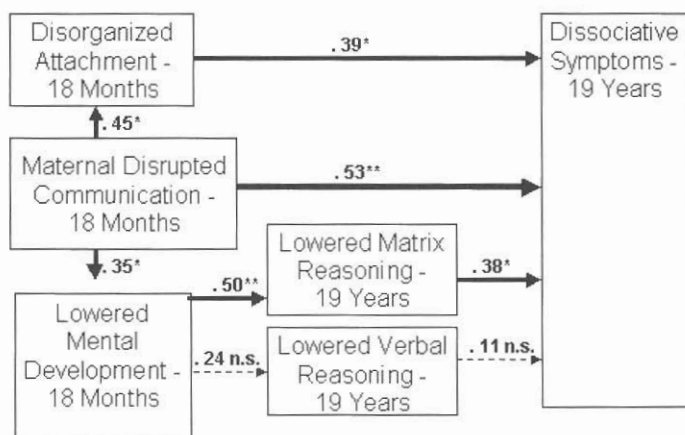
also used to assess dissociative symptoms at age nineteen, and a number of indicators of early maternal psychiatric status were included that were not evaluated in the Minnesota study.

Consistent with the Minnesota findings, broad social risk factors such as poverty or single parenthood did not predict the incidence of dissociative symptoms. More surprisingly, but also consistent with the Minnesota study, the occurrence of state-documented maltreatment from birth to age five did not predict adolescent dissociative symptoms, nor did clinically judged risk for maltreatment during the first year, with correlations ranging from  $-.15$  to  $-.01$ . In addition, maternal psychiatric symptoms assessed between the child's infancy and ninth year, including dissociative symptoms, depressive symptoms, PTSD symptoms, and DSM-III-R depressive disorders, also failed to predict the extent of adolescent dissociative symptoms, with correlations ranging from  $-.14$  to  $.17$ , all nonsignificant.

When assessments of the quality of the early mother-infant relationship were examined, the findings were quite different. Figure 2 displays the correlations between the set of significant predictors from infancy and dissociative symptoms at nineteen years. Asterisks indicate correlations that were statistically significant; n.s. indicates nonsignificant correlations. As shown in Figure 2, both infant disorganization at eighteen months and maternal disrupted communication at the same age made strong contributions to the prediction of dissociative symptoms at nineteen years. Disorganized attachment and maternal caregiving were directly statistically related to dissociative symptoms, as shown by the direct arrows; lowered mental development scores in infancy were related to dissociative symptoms indirectly through their prediction of lowered nonverbal reasoning scores at age nineteen. There was no direct prediction of dissociative symptoms from either mental development scores in infancy or verbal reasoning scores in adolescence, as indicated by the broken arrows and n.s. designation.

However, as in the Minnesota study, the prediction from the quality of early interaction to adolescent dissociative symptoms was not mediated or "carried" by the occurrence of abuse during the first six years, because early maltreatment did not predict dissociation. For that reason, as noted previously, abuse does not appear in Figure 2. These findings do not mean that abuse events are not important. They do mean that the ongoing caregiving context is of equal or greater importance in accounting for dissociative symptoms.

Figure 2. Early Predictors of Adolescent Dissociation



We have not yet examined other aspects of the data being collected in adolescence. It is possible, therefore, that aspects of the adolescent environment, such as the quality of parent-adolescent interaction, will play a role in accounting for or "carrying forward" the prediction over time from infant disorganization to dissociation. Later mediators did not emerge in the Minnesota study, however, and whatever later mediators do emerge, the direct link that emerges over nineteen years is striking in both studies. This direct link also challenges most current developmental models. These models would envision a long series of unpredictable developmental experiences that would act as indirect carriers of any initial tendencies created by early disorganized attachment. This model of indirect influence, or "domino effect," which envisions multiple small causal influences operating at multiple points in development over time, is generally considered a more plausible and sophisticated model of developmental process than any model of long-term direct influences. It is therefore surprising that such strong direct pathways emerged in both studies.

Given the predictive strength of the assessment of early mother-infant communication, one final set of analyses was conducted by our group looking separately at the prediction from various subtypes of maternal disrupted affective communication. Relying on trauma theory, we predicted that hostile and/or disoriented forms of maternal behavior would be the strongest predictors of the adolescent's own dissociative symptoms.

This is not what was found. While all categories of disrupted communication contributed to the overall prediction of dissociation, maternal affective communication errors and maternal role confusion emerged as the strongest contributors to adolescent dissociative symptoms. Maternal role confusion was represented most frequently by self-referential maternal behaviors. Affective communication errors, as noted earlier, included giving contradictory affective signals to the infant or providing a contradictory or inappropriate affective response to the infant's signals. In contrast to more frightening or hostile behaviors, these maternal behaviors are behaviors that more subtly override or ignore the infant's attachment signals. Maternal sexual/spousal behaviors from the Main and Hesse (1992) inventory also predicted dissociative symptoms, but these were quite rare behaviors.

It should be noted that these data regarding the types of maternal behaviors most strongly associated with adolescent dissociative symptoms should be regarded as provisional until the entire cohort of families has been assessed. The Minnesota study did not examine the relation of affective communication errors or role confusion to dissociative symptoms, so converging data are not available from that study.

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In summary, disorganized attachment behaviors in infancy play an important role in the genesis of later dissociative symptomatology. This early vulnerability is related to patterns of parental communication, particularly *quieter* behaviors like parental affective communication errors and self-referential behaviors, and does not appear to reside in the infant alone. To paraphrase the more poetic language of Dori Laub (1993), the mother's seeing and not knowing in infancy may constitute one contribution to the child's knowing and not knowing in late adolescence.

While both our data and the Minnesota findings document the importance of the early parent-infant affective dialogue, these findings do not support a one-dimensional view of causal factors in the genesis of dissociative defensive mechanisms. Biological vulnerabilities in the child were not investigated in these analyses, though genetic data are currently being collected by our group and will be available for future analyses. Therefore, caregiving influences must be viewed as only one set of factors in a complex set of interacting biological, environmental, and psychological forces that shape the child's developmental trajectories over time. Our interest in relation to the statistical findings and in the clinical discussion to follow is to bring the care-



giving dialogue into the discussion of dissociation, not to promote caregiving influences as the only, or even the most influential, factor.

### CLINICAL IMPLICATIONS

These longitudinal findings have two major clinical implications. First, dissociative processes are grounded in dialogic processes rather than purely intrapsychic processes. The term *dialogic process* is used here in the broadest sense to encompass all affective, symbolic, and interactive exchanges with others. Second, one could argue from these findings that clinical treatment of dissociative phenomena may be effective to the extent that an increasingly integrative and collaborative dialogue can be established between patient and therapist. These two implications will be considered in turn.

Recent psychoanalytic thinkers have also been tying dissociative phenomena to aspects of the early parent-child dialogue, though in a more global way. For example, Bach (2001), in a paper titled "On Being Forgotten and Forgetting Oneself," describes a patient who never felt that he could fit his moment-to-moment experiences into a pattern that had meaning and cohesion. At one point in the treatment, the patient remembered that his mother was always losing him in department stores when he was young. Bach discussed how the parent's keeping the child continuously alive in her mind is necessary to the child's sense of having a continuous and meaningful existence. While this man's sense of himself was more fragmentary and disorganized than dramatically dissociative, Bach's insight was to elaborate our awareness of how profoundly our most basic dimensions of self and self-experience exhibit the deletions and distortions of the early child-caregiver dialogue. In his words, the parent can literally "murder time" for the child by not providing the child with a basis for a continuous sense of self-experience. However, Bach leaves the discussion at that intrapsychic level and does not comment on the more complex and messy process of how the parent's "holding the child in memory," in his phrase, actually gets translated into a parent-child dialogue that leaves the child feeling recognized and cohesive.

Whitmer (2001) talks more specifically about dissociation as a state of simultaneously knowing and not knowing. He then further ties this state to a disability in interpreting or giving meaning to one's sensations and perceptions. His thesis is that one cannot know one's

experience as the subject, or the *I*, of that experience, until it is first recognized by another. To put it another way, an experience or perception cannot be the object of self-reflection, it cannot be recognized as *me*, until it has been reflected on by another. Bromberg (1994) has also written about dissociation as an interpersonal, as opposed to an intrapsychic, defense. In his view, dissociated events are neither consciously experienced nor lost, but rather are unthinkable because they have been unrecognized or misrecognized by central caregivers.

Whitmer's article also reflects the tensions in the field between different views of the origins of dissociative phenomena. Whitmer first describes the deeply interpersonal origins of subjectively experienced meaning, but later defines dissociation from a more one-person perspective as a motivated intrapsychic defensive inhibition of meaning-making, as an *active decoupling of a biologically prepared process* that leaves the person out of contact with his or her own mind. This view of active decoupling suggests that if not motivated to decouple, the infant is being provided with enough resources to proceed on his or her own with meaning-making. Consistent with this view, Whitmer cites Fonagy (1991), who has advanced the idea that the borderline patient as a child actively inhibits the ability to mentalize, or represent the mental states of the parent, because the child cannot bear to recognize the caregiver's hateful feelings toward him. Again, this view assumes that the infant, if differently motivated, could proceed on his own to mentalize.

On the basis of the accumulated findings in attachment research, an alternative view, more similar to Whitmer's initial position, is that dissociative defenses, as well as other defenses, do not originate primarily as one-person intrapsychic inhibitions but represent the dialogue structure available to the child at the time. In this intersubjective process view, whatever the young child's motivational state, he or she has not been provided with the basic intersubjective tools for mentalizing. The infant internalizes the intrinsic affect-imbued features of the two-person dialogue structure, scaffolded for the infant by early caregivers from the beginning of life, and makes those distortions and deletions his own. That is, the child will develop unintegrated mental contents to the extent that the caregiver does not engage in an *integrated enough* affective, symbolic, and interactive dialogue with the child. To the extent that the parent cannot acknowledge and respond to affectively salient aspects of experience, and to the extent that those aspects cannot be integrated into a verbal or interactive exchange with the child,

dissociative lack of integration will occur. According to this argument, for integrated mental states to develop, a dialogue has to be fashioned, in collaboration with the child, through which the child's contributions are elicited, the parent's active consideration of the child's experience is expressed, and the parent's expression is conveyed in a developmentally appropriate affective, interactive, or verbal language the child can understand. In the position advanced here, then, the parent's incapacity to acknowledge particular aspects of the child's existence and experience, in the dialogue with the child, is a primary contributor to the child's inability to recognize and integrate those same aspects of experience. This theoretical stance is consistent with the influential role of the quality of the early parent-child dialogue in the two sets of longitudinal findings presented earlier.

Abusive experiences, of course, are the most dramatic examples of experiences associated with dissociative defenses. Because much abuse is familial, however, a family climate of denial of the existence or effects of abuse is often an integral part of the abusive experience. Consistent with the thinking advanced here, this climate of denial would be included as an etiological factor in the genesis of dissociative defenses. To give a clinical example, a patient with a dissociative identity disorder, who was in treatment with me over a ten-year period, had experienced severely sadistic physical and sexual abuse at the hands of her father from the age of four, and possibly earlier. After a few years of treatment, she recalled that as a child she often felt that there was something she urgently needed to tell her mother at bedtime and she would call her mother back into the bedroom. But when her mother came in, she could never remember what it was that she wanted to tell her. Only later in the treatment did the patient recall that her mother had participated in the sexual abuse from an early age. Her mother remained closed to any acknowledgment of the abuse, both during her childhood and later, when confronted during the patient's adulthood. This case material illustrates the conflicted approach-avoidance attempts at dialogue of the disorganized child, as well as the inability of the abusive mother to help the child integrate the contradictory aspects of her experiences through collaborative dialogue.

This case exists at one extreme, however. Dissociative processes arise from a spectrum of relational experiences that do not necessarily include such overwhelming abuse, nor do the mother's own dissociative symptoms appear to play a necessary role in the development of

dissociative processes in the child, based on the data presented earlier. How, then, would we observe the emergence of a dissociative process in the early parent-infant dialogue, and, even more important, how might we think about therapeutic intervention?

A vignette from an extended parent-infant treatment will be presented to anchor these research findings and offer one way of conceptualizing these early processes. The treatment format included both weekly meetings in the home and periodic individual sessions with the mother. This vignette is from work that a colleague, Judith Arons, has done (with my supervision) with Brian, an eleven-month-old boy, and his mother Jenny. An attractive woman with a superficially cheerful manner, Jenny was also recurrently suicidal, with active alcoholism and a severe trauma history. She was struggling to remain sober, but a few months before the process material to be described, she had gotten drunk and taken out a knife in a suicidal moment when home alone with her son. Fortunately, she was able to call her therapist at this point and was hospitalized briefly.

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While the extent of the mother's abuse history suggested that dissociation might play a prominent role in her psychological adaptation, in the beginning of the treatment the therapist had very limited access to the mother's inner world. However, she could observe how the mother's psychological organization expressed itself in her responses to her child. And it is through the mother's responses to the child that the child will experience what can be integrated into a *thinkable* relational experience. What the therapist observed initially was what I would call a trauma of absence rather than a trauma of anger and abuse. She observed a mother who wanted very much to be a good mother and was not intrusive or rejecting toward her baby. However, Jenny found it difficult to know what to do when Brian was unhappy, and Brian did not reach out to his mother for cuddling, closeness, or comfort. Only later did the therapist learn that Jenny had been drinking during the day for much of Brian's first eight months, had felt helpless to soothe him, and had left him to cry for long periods alone in his crib.

By the time Brian reached eighteen months he was strongly resisting limits, hating his car seat, and having frequent temper tantrums at home. Based on the months of prior therapeutic work establishing the therapist as someone who could both hear about Jenny's early experiences and provide in-the-moment help in responding to her baby, Jenny was able to acknowledge to her therapist at one of their in-home

sessions that she was hating being with her son. The therapist first sympathized with how bad it felt as a parent at those times when you feel you hate your child. Further exploration of Jenny's feelings around abandonment and abuse felt somewhat abstract at that point and did not seem helpful. Instead, the therapist first explored potential approaches to the car seat problem with Jenny, questioning how she could provide her son with things to keep his attention when they were in the car. Finally, she asked Jenny what she did when Brian melted down into screaming tantrums at home. Jenny said she went into the kitchen and ignored him. Then she continued, "You know when I ignore him it gets worse! He wants me to help him and I'm not."

Jenny paused for a moment and then said, "I wouldn't hate being with him if I thought there was something I could do when he melts down." Jenny and the therapist were then able to explore together ways of being with her son when he was sad or enraged that countered Jenny's sense of helplessness and allowed her to feel increasingly competent at meeting his needs. This exchange occurred shortly after her therapist had encouraged Jenny to share her own more disavowed and vulnerable feelings with the therapist via e-mail. Clearly this insight that she might not dread her son if she knew how to help him came from her emerging experiences of feeling recognized and helped by the therapist, both in relation to her own vulnerable feelings and in regard to approaching her baby. The increasingly inclusive dialogue with the therapist led to a parallel attempt on Jenny's part to enlarge the scope of her interactive dialogue with her son.

It is notable that the therapeutic conversation went from Jenny's intrapsychic state of helplessness and hostility to the interactive process of asking "What can I do?" When Jenny both acknowledged the hate and felt the hope that there might be something she could do for her son, the therapist felt that she was seeing a fragile bridge being constructed over the dissociative divide that was separating this mother from both her own and her son's distress and rage. Rather than removing herself and attempting to mentally erase both her child's rageful, helpless feelings and her own, she was able to entertain the thought that another kind of dialogue with her child around those feelings might be possible. If she had felt there was nothing that could be done to include those feelings in a dialogue in a way that led to new possibilities between them, then a dissociative process would become the only answer. Instead, as part of this conversation with the therapist,

Jenny was able to go with the therapist to sit by her son when he had another tantrum and be available to talk to him and hold him as he calmed down.

It is notable also that the full story of Jenny's struggle with her murderous feelings toward her son earlier in his first year were not shared with the therapist until she felt less helpless and more able to meet her child's needs. Jenny needed the safety of knowing that she had new and more benign ways of relating to her son when he was intensely distressed before greater sharing and exploration of her own rage was possible. Shapiro, Fraiberg, and Adelson (1976), in their presentation of the case of a mother with a failure-to-thrive child, made similar observations that changes at the enactive level in the mother-infant dialogue preceded changes in the mother's reflective self-understanding. They noted that they were still wondering how these changes were possible in view of the profound conflicts that the mother had still not worked through. (For a fuller presentation of Jenny and Brian's case, see Arons 2003.)

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This case material illustrates how a dissociative process can be embedded in the fabric of the parent-infant affective and interactive dialogue in response to painful affects. The parent's need to *not know* is part of a larger relational context in which the parent feels that there is no way to relate to the infant's helpless and rageful states other than simply to *not know*. The lack of a collaborative and integrated dialogue will be most damaging when earlier and more foundational needs, such as the need for felt security or regulation of fearful arousal, are excluded or when more intense affects signaling profound fear and lack of protection are ignored. Not knowing is not purely affective or intrapsychic, but is also enactive; that is, not knowing is closely tied to whether new ways of being in dialogue with the infant can be imagined and enacted in the parent-infant relationship. I would argue that these new ways of being in dialogue are not waiting in the unconscious to emerge once dissociation is bridged; instead, the new ways of being in dialogue *form* the bridge that resolves the dissociative tendency. The *doing* precedes the *knowing*. These new ways of doing must be created from the new forms of relatedness scaffolded in the therapeutic interaction.

Despite the depth of difficulty experienced by this mother-infant pair and the use of several forms of adjunctive services (hospitalization, AA, day treatment), the overarching goal of increasing the collabora-

tive and inclusive nature of the moment-to-moment affective dialogue between mother and therapist and mother and baby guided the treatment throughout. It is notable that this general orientation to stay close to the leading edge of the mother's concerns, and to bring all available interpretive and enactive skills of the therapist to bear on those concerns, did not need to be altered or deferred to treat the dissociative and abuse-related elements of the intergenerational process. Elaborating a more inclusive verbal, affective, and enactive dialogue between mother and therapist and mother and baby as a primary treatment goal is consistent with the findings presented earlier that disrupted forms of mother-infant communication are important contributors to the developmental pathways that eventuate in dissociative symptoms.

Developing a more collaborative and inclusive dialogue is one way of envisioning the overarching treatment goal of a variety of psychodynamically based treatments. Collaborative communication should not be misconceived as a symmetrical or mutually self-disclosing stance on the part of the therapist, however. The phrase is used here in the context of its definition in the developmental attachment literature, where asymmetry in the relationship between parent and child is assumed (see Beebe and Lachmann 2002). The word *collaborative* in such an asymmetrical developmental context refers to the parent or analyst responding reliably to the cues of the other, following into his or her focus of attention, and joining in what Vygotsky (1962) has termed their *zone of proximal development*, as well as taking the lead in repairing ruptures and scaffolding the interaction toward a more coherent and inclusive form (for developmental references, see also Bretherton 1988; Tomasello 1999; Beebe, Jaffe, and Lachmann 1994; Lyons-Ruth 1999; Tronick 1989).

The concept of an increasingly integrative and collaborative affective and interactive dialogue as the therapeutic goal is likely to have a number of implications for psychoanalytic technique. A complete discussion of those implications is beyond the scope of the present paper. However, defining good therapeutic technique as the fostering of more collaborative and inclusive dialogue in the service of the patient's goals considerably broadens the criteria for the kinds of therapeutic initiatives that might be considered appropriate or optimal.

Currently, one dilemma facing relational psychoanalytic theorists is how to develop a language and a theoretical structure that moves beyond a narrow focus on interpretation to encompass the broader

domain of relational interchanges that contribute to change in a psychoanalytic treatment (see, e.g., Bromberg 1994; Boston Change Process Study Group 2002; Ogden 1994; Mitchell 1997; Beebe and Lachmann 2002). Defining good therapeutic technique as the fostering of more collaborative and inclusive dialogue in the service of the patient's goals leaves a prominent though not exclusive role for interpretive activity. However, this formulation also contextualizes interpretation within the broader criterion of whether interpretation contributes to the collaborative broadening and deepening of the therapeutic exchange. Many other types of therapeutic initiative or response could also be important in furthering the dialogue, however, including more implicit ways of interacting with the patient that are never translated into a reflective, interpretive mode (Boston Change Process Study Group 2002; Stern et al. 1998; Lyons-Ruth 1999).

Actively helping a parent to explore new ways of interacting with her child is not easily integrated with psychoanalytic approaches that emphasize interpretation of intrapsychic conflict. However, such exploration is very consistent with the view that fostering a more inclusive and collaborative dialogue between parent and infant, as well as between therapist and parent, is an essential mechanism of psychoanalytic change. Helping the parent to imagine a way of interacting with the child that could manage the child's most painful feelings in a two-person dialogue offers a way out of the dilemma of knowing or not knowing. The opening up of such new possibilities in the parent-child relationship, however, will most often need to be paralleled by the finding of new possibilities for more open and collaborative communication in the dialogue between mother and therapist. This two-generational process of bringing both the mother's and the infant's most painful and helpless feelings into a collaborative and containing verbal and interactive dialogue seems crucial to preventing the long-term developmental trajectories that eventuate in dissociation.

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