Fifteen Years of Dissociation in Maltreated Children: Where Do We Go From Here?

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Controversies have centered on the prevalence of dissociative symptoms and disorders in children and adolescents, recommended treatment approaches, and the potential effects of suggestive interpersonal influences. Convergence among diverse practitioners describing dissociative children and adolescents with similar symptoms and maltreatment histories supports the occurrence of these symptom patterns. Although prevalence information has not been well studied, dissociative symptoms may be found in children from a variety of settings across a continuum of severity. There is not yet agreement on exact treatment protocols, but successful treatment outcomes have been reported. A challenge for future research is to develop assessment protocols that are derived from multiple sources of data, and to incorporate the latest developmental research findings into theory development that addresses psychobiological, family, and cultural factors. The study of dissociation in children and adolescents has the potential to clarify some puzzling child and adolescent presentations and to identify a process by which some children respond and adapt to traumatic environments.

The field of adult dissociative disorders has developed steadily with a voluminous literature on treatment and theory (Chu, 1998; Kluft & Fine, 1993; Michelson & Ray, 1996; Putnam, 1989; Ross, 1997), large multinational research studies, and diagnostic validation studies (Carlson et al., 1993; Ross et al., 1990). Meanwhile, the study of childhood dissociative disorders has lagged behind. This is a startling fact when one considers that a central tenet of the theoretical and treatment foundation of the dissociative disorder field is that the more serious of these conditions is a direct result of early childhood traumatic events (Kluft, 1984). The development of serious research or treatment attention to the field of child dissociative disorders has not kept pace with the adult literature or with the relative importance such a study could yield for addressing important current controversies in the field. It is logical from a treatment perspective, research perspective, or epidemiological perspective to investigate the childhood cases so that pathological processes can be interrupted, and so that a solid empirical basis for theoretical speculations can be developed. As a clinician with a specialty in pediatric trauma and dissociation who practices in a large tertiary psychiatric center, I have received referrals from around the country of children suffering from severe dissociative symptoms. These are children with severe self-destructive behaviors, puzzling rage reactions, blackouts, and vivid fantasy worlds, who have been resistant to previous treatment. From this unique vantage point, I have been able to see firsthand the lack of resources available, and the impediments to assessment and treatment for these youth, who are often the victims of serious forms of maltreatment. It is my intention in this article to summarize what is known at this point about childhood dissociative symptomatology, highlight the controversial issues, and perhaps provide a stimulus for the initiation of research and practice attention to childhood dissociation.

Definition of Dissociative Disorders

The *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-IV*) (American Psychiatric Association [APA], 1994) includes five diagnoses under the classi-

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fication of dissociative disorders: depersonalization disorder, dissociative amnesia, dissociative fugue, dissociative identity disorder, and dissociative disorder not otherwise specified. All of these disorders reflect a "disruption in the usually integrated functions of consciousness, memory, identity or perception" (p. 477). Depersonalization is characterized by recurrent feelings of being estranged from one's body or mental processes. Dissociative fugue involves sudden, unexpected travel with inability to recall one's identity. Dissociative amnesia involves inability to recall important information usually of a traumatic or stressful nature. Dissociative identity disorder (DID), formerly termed multiple personality disorder (MPD), is characterized by two or more personality states that alternately influence the individual's behavior with inability to recall personal information. Dissociative disorder not otherwise specified (DDNOS) describes cases that do not fit the above criteria, but is often used for cases where there are personality states without clear-cut amnesia.

The large majority of literature on adults has focused on DID (MPD) and the related DDNOS, but some case series of dissociative fugue (Akhtar & Brenner, 1979), dissociative amnesia (Coons & Milstein, 1992), and depersonalization disorder (Simeon et al., 1997) have appeared, as well as reviews of dissociative amnesia, dissociative fugue (Loewenstein, 1991), and depersonalization disorder (Steinberg, 1991).

There have been sporadic case descriptions of depersonalization disorder in adolescents (Allers, White, & Mullis, 1997; Dollinger, 1983; McKellar, 1978) following severe stressors or severe family dysfunction. Less severe depersonalization experiences in adolescents, precipitated by milder stressors, identity confusion, or drug use, may be relatively common (Dixon, 1963; Shimizu & Sakamato, 1986; Szymanski, 1981). Adolescent cases of dissociative amnesia (Coons, 1996; Goodwin, 1989; Keller & Shaywitz, 1986) and a few cases of dissociative fugue have been reported as well, based on older definitions (Akhtar & Brenner, 1979; Venn, 1984). There is one case report of a child in a severe dissociative coma following war trauma (Cagiada, Camaido, & Pennan, 1997). The similarities in the case descriptions of adolescents with these dissociative conditions are more striking than the contrasts. All cases involve loss of consciousness, amnesia, identity confusion, and most involve conflicts in the family, frequently regarding sexuality and the expression of anger. The rarity of these case reports in children and adolescence, the similarities in case presentation across diagnosis, and the apparent links between these conditions and severe traumatic stressors suggest that separation into these discrete categories may not be particularly useful in the conceptualization of dissociative pathology in children and adolescents.

The dissociative disorders for which a larger child and adolescent literature has developed are DID (MPD) and DDNOS. Yet even in this literature, the boundaries between diagnostic categories are blurred, and authors have offered new child-specific dissociative diagnoses such as incipient multiple personality disorder (Fagan & McMahon, 1984) or dissociation disorder of childhood (Peterson, 1991), with separate criteria more applicable to a pediatric population. Putnam, Hornstein, and Peterson (1996) have noted that in samples of dissociative children and adolescents, most of the younger children do not fit the clear-cut definition of DID, and are more correctly grouped as DDNOS. Though not including any child-specific categories for dissociative disorder, the *DSM-IV* (APA, 1994) does recognize child cases by suggesting in the DID (MPD) criteria that "In children the symptoms are not attributable to imaginary playmates or other fantasy play" (p. 487).

It is important to recognize, however, that the current distinctions between the dissociative disorder diagnoses in *DSM-IV* are not necessarily applicable for children and adolescents, and an attempt will be made to look more broadly at dissociative processes unrelated to diagnosis.

A BRIEF SUMMARY OF THE RESEARCH AND CLINICAL LITERATURE

The contemporary child and adolescent literature on dissociative disorders began in 1984 with coincidental articles, one by Fagan and McMahon (1984) and one by Kluft (1984). Fagan and McMahon (1984) discussed four cases of children and young adolescents who presented with identity alterations, some apparent amnesia, and a constellation of self-destructive behaviors, all of whom had a clear history of trauma including sexual and physical abuse. Fagan and McMahon emphasized the differences in these children from the adult DID (MPD) presentation, and suggested the possibility that these children were treatable fairly rapidly. Kluft (1984) described the use of hypnotherapy techniques with several cases of children with DID (MPD), some of whom also had parents with the disorder. That same year, another case presentation of a traumatized child appeared in the literature that described a youth with a perception of a split identity and disavowed behavior, who was treated successfully with psychoanalytic play therapy (Hopkins, 1984). These case descriptions were soon followed by more fully described cases of multiple personality disorder—in a 10-year-old victim of severe

sexual and physical abuse (Weiss, Sutton, & Utecht, 1985), a 14-year-old incest victim (Bowman, Blix, & Coons, 1985), and several mother-child pairs (Braun, 1985; Coons, 1985; Kluft, 1985a), some without documentation of any abuse history (Malenbaum & Russel, 1987). Preschool children with dissociative spectrum pathology began to be described as well, with a vignette of a 4-year-old dissociative child (Jones, 1986), a 3-year-old with MPD (Riley & Mead, 1988), and theoretical attention to developmental considerations for young dissociative children (Albini & Pease, 1989).

In the late 1980s and early 1990s, larger case series of dissociative children began to appear in the literature with attempts to define symptom features that would lead to more careful diagnostic assessment. Vincent and Pickering (1988) organized the case descriptions that had thus far appeared in the literature to develop a symptom feature list. In 1990, Dell and Eisenhower presented their series of 11 dissociative teenagers, and Hornstein and Tyson (1991) presented a 17-patient series of DDNOS and MPD inpatient children. In 1992, Hornstein and Putnam pooled data from two centers to describe 64 children with symptoms including amnesia, trance states, self-destructive behavior, profound fluctuations, a sense of divided identity, hallucinations, and an array of posttraumatic and other comorbid symptoms. These cases series continued to be supplemented by additional case series (Coons, 1994 [21 cases]; Klein, Mann, & Goodwin, 1994 [5 male cases]) and single-case reports (Jacobsen, 1995; Laporta, 1992; Peterson, 1991; Snow, White, Pilkington, & Beckman, 1995). Goodwin (1989), James (1989), and Gil (1991) presented case descriptions of severely dissociative traumatized children and adolescents in their books on treatment.

The 1990s also saw the beginning of studies that moved beyond clinical description of individual cases into studies that examined diagnostic assessment tools. The most widely used child assessment tool has become Frank Putnam's 20-question parent report screening instrument, the Child Dissociation Checklist (CDC), which asks parents or observers to rate from 0 to 2 how often a child evidences behaviors such as rapid regressions, fluctuating states, vivid imaginary friends, disavowed behaviors, sleep disruptions, and sexual precocity. With reported good validity and reliability (Peterson & Putnam, 1994; Putnam, Helmers, & Trickett, 1993; Putnam & Peterson, 1994), this tool has greatly added to the expansion of research on dissociation. Evers-Szostak and Sanders (1992) introduced the Child's Perceptual Alteration Scale (CPAS), which is a self- report checklist tapping a child's perception of conflicts between intention and behavior, amnesia, trance states, and depersonalization experiences. Other symptom checklists were developed by Peterson (1991) and Reagor, Kasten, and Morelli (1992).

As studies of diagnostic measures began to establish some preliminary validity for the construct of dissociation in children, research began to examine the relationship between dissociation in children and a variety of historical, family, and individual variables. Dissociation on the CPAS was found to relate to parental inconsistency and rejection (Mann & Sanders, 1994) and to fantasy proneness in children (Rhue, Lynn, & Sandberg, 1995). Dissociation, as defined by the CDC, was found to have a correlation with family disruption and children's sexual abuse histories (Malinosky-Rummel & Hoier, 1991) and a weak relationship to hypnotizability, except for a small subgroup of highly hypnotizable and dissociative girls (Putnam, Helmers, Horowitz, & Trickett, 1995).

In 1996, three books on childhood dissociative disorders were published. Shirar (1996) described the in-depth treatment with play therapy and Gestalt techniques of several severely dissociative children. A *Child and Adolescent Psychiatric Clinics of North America* volume contained articles on assessment (Lewis, 1996; Steinberg, 1996), treatment (Kluft, 1996; Siegel, 1996; Williams & Velazquez, 1996), confirmation of abuse (Swica, Lewis, & Lewis, 1996), and the symptomatology of dissociative children in case series (Coons, 1996 [25 patients]; Putnam et al., 1996 [177 patients]). *The Dissociative Child* published the same year (Silberg, 1996a) presented a collection of papers on diagnosis, treatment, and management, including a case series of 34 dissociative children (Silberg & Waters, 1996) who had undergone in-depth treatment for their disorder. In 1997, Frank Putnam's book, *Dissociation in Children and Adolescents,* explicated the discrete behavioral states model, a developmental theoretical model for understanding dissociative processes, and helped to integrate existing developmental literature with findings about dissociative disorders in children.

By the late 1990s, measures of dissociation began to be routinely included in general studies of children and adolescents, with findings that dissociative tendencies in adolescents correlate with abuse histories (Atlas, Weissman, & Liebowitz, 1997), with suicidal predispositions and pain tolerance (Orbach, Mikulincer, King, Cohen, & Stein, 1997), with subclinical hallucinations (Altman, Collins, & Mundy, 1997), and with forgetting of facts about a medical procedure (Eisen, Goodman, Qin, & Davis, 1998). Higher rates

of dissociation were also found in children who did not report abuse despite sexually transmitted diseases (Chaffin, Lawson, Selby, & Wherry, 1997).

Currently, a newer generation of measures for childhood dissociation have emerged that are just beginning to be used in research. Waller, Putnam, and Carlson (1996), in a reanalysis of data using the Dissociative Experience Scale (DES) (Bernstein & Putnam, 1986), determined that a weighted score derived from only eight items on this frequently used adult measure is associated with the most pathological forms of dissociation. This score, termed the DES-Taxon (DES-T), taps feelings of depersonalization, divided identity, amnesia, and auditory hallucinations. This measure has been used with adolescent samples (Ogawa, Sroufe, Weinfield, Carlson, & Egeland, 1997; Waller & Ross, 1997), but is not yet validated for this age group. Armstrong and colleagues developed an adolescent version of the Dissociative Experience Scale (A-DES) that allows adolescents to rate how frequently they experience a variety of dissociative symptoms, including amnesia, passive influence, depersonalization, and fantasy involvement, throughout the contexts of school, family, and friends (Armstrong, Putnam, Carlson, Libero, & Smith, 1997; Smith & Carlson, 1996). Briere (1996) included subscales on dissociation in his Trauma Symptom Checklist for Children, including items that tap absorption in fantasy, avoidance of traumatic and sexual content, and depersonalization. Initial research suggests that the dissociation subscales on this measure differentiated a group of sexually abused older adolescents from a nonabused sample (Friedrich, Jaworski, Huxsahl, & Bengston, 1997).

The field is still awaiting a comprehensive diagnostic interview for children and adolescents. Lewis (1996) described a flexible child-oriented interview schedule, the Bellevue Dissociative Disorders Interview for Children, which allows the child to talk freely about imaginary friends phenomena, memory, fluctuating states of awareness, perceptual experiences, and anger control, but it has not yet been validated. Steinberg's Structured Interview for Dissociative Disorders (SCID-D) that has been normed on adults may be useful for more mature adolescents, but testing has been preliminary (Steinberg, 1994; Steinberg & Steinberg, 1995).

Another current direction for assessment is the use of existing diagnostic tools that can be analyzed in new ways to apply to this population. The frequently used Child Behavior Checklist (Achenback & Edelbrock, 1983) asks parents to rate the presence of children's symptoms and includes such items as acts too young for age, cannot concentrate, daydreams, stares blankly, and changes moods, items that have been used to derive special dissociative symptom scales (Friedrich, personal communication, July 1998; Malinosky-Rummel & Hoier, 1991; Ogawa et al., 1997). In the first diagnostic study of diagnosed dissociative children to use a control group, Silberg (1998b) has described features on standard psychological testing that can discriminate dissociative patients from other disturbed children and adolescents with a 93% hit rate. These features include behaviors evidenced during the testing such as forgetting, odd movements, fearful reactions, and dissociative features in the test responses themselves such as multiple body parts, depersonalized imagery, and stories that describe dissociative coping.

As we reach the end of the century, increasing attention is being paid to the developmental roots of dissociation and its relevance for understanding at-risk children and families. Egeland and Sussman-Stillman (1996) found that parents who were higher on dissociation had children who were at higher risk of maltreatment. Ogawa et al. (1997) and Carlson (1998) reanalyzed data from an ongoing longitudinal study to determine the relationship between quality of attachment and dissociative pathology, and determined that those at-risk children with disorganized or avoidant styles of attachment were more prone to dissociative pathology in adolescence. Liotti (1995), Fonagy (1998), and Siegel (1999) have described theoretical models that explain the intricate relationships between the development of attachment and the development of dissociative pathology.

The language of dissociation has entered more general parlance, as therapists and theorists from a variety of perspectives have discussed dissociation as a primary factor in work with cases of abused children (Novick, 1997; Parson, 1996; Prior, 1997; Reckling & Buirski, 1996). The increasing comfort among child practitioners with the recognition of dissociative disorders in children and adolescents is evidenced by inclusion of chapters on dissociative disorders in contemporary major textbooks in child psychiatry (Hornstein & Putnam, 1996; Lewis & Yeager, 1996; Nurcombe et al., 1996; Silberg, Stipic, & Taghizadeh, 1997). Current books on child abuse include chapters or sections on the diagnosis or treatment of dissociative processes and disorders (Friedrich, 1996; Pearce & Pezzot-Pearce, 1997; Wieland, 1997, 1998), and the importance of addressing dissociative disorders is mentioned in the American Academy of Child and Adolescent Psychiatry (1998) parameters for the treatment of posttraumatic stress disorder.

Despite these indications of increasing recognition of dissociative processes, many child clinicians con-

tinue to consider dissociation a controversial concept. Unfortunately, there is little written that directly addresses the controversial issues. Even the debate in the *Journal of the American Academy of Child and Adolescent Psychiatry* about dissociation centered on adult manifestations of dissociative disorders (McHugh & Putnam, 1995). Child professionals have expressed concerns that adult approaches are being misapplied to children, that dissociative conditions may be overdiagnosed, and that children's vulnerability to suggestion and adult influence may affect the seeming prevalence of these conditions among children. Other concerns have been raised about the empirical base for the theoretical foundations of the field and how information about child and adolescent dissociation might fit into the developing body of information about the effects of child maltreatment, and current recommended practice. The best way to address these questions is to critically examine the literature itself and to summarize what is currently known about childhood dissociative pathology.

WHAT DO WE KNOW?

In examining questions about the current state of our knowledge, it is important to separate research findings from unproven theoretical assumptions, to evaluate case studies critically with an eye toward how the diagnoses were determined, and to look critically at the methodology of research presented. Those findings that, in my view, pass these tests of critical scrutiny are the following: children who are described as dissociative evidence similar problems with identity, memory, and unstable consciousness; a history of trauma bears some relation to the expression of these difficulties; and treatment described by a variety of practitioners may be successful. Those questions that cannot yet be resolved with confidence, such as questions of prevalence, the relative benefit of specific treatment approaches, and theories of specific etiology, will be addressed in the next section.

Children Who Have Been Described as Having Dissociative Disorders by a Variety of Clinicians and Researchers Bear Striking Resemblances to One Another

These studies and case reports suggest that there is a group of children—many of whom have suffered severe forms of maltreatment or other kinds of traumatic events—who display difficulties with memory, have trouble establishing consistent identity, are plagued by visual and auditory hallucinations, are observed to enter trance states, and suffer from a host of comorbid posttraumatic and depressive symptoms. Some apparently show a pattern similar to dissociative disorders in adults (Dell & Eisenhower, 1990; Putnam, 1997), but most do not look like their adult counterparts, as the symptoms seem to be more malleable and developmental factors clearly affect the way dissociative symptoms present over time (Putnam et al., 1996).

The basis for this conclusion is the remarkable consistency of case descriptions from across different settings from a variety of well-credentialed clinicians and researchers spanning a variety of theoretical orientations. The case reports described above include those treated in rural outpatient practices (Klein et al., 1994; Silberg & Waters, 1996); cases observed within large academic institutions (Bowman et al., 1985; Coons, 1994; Jacobsen, 1995; Laporta, 1992; Lewis, 1996; Snow et al., 1995); and cases treated in inpatient psychiatric settings (Hornstein & Tyson, 1991; Silberg & Waters, 1996), inner city populations (Waterbury, 1991), and residential settings (Weiss et al., 1985). Careful, astute, and well-known clinicians whose practices concentrate on the most severely abused children have documented these cases (Gil, 1991; James, 1989), and reports of dissociative children have appeared in a variety of well-respected peer-reviewed journals. In addition, observations about the characteristics of children with severe dissociative symtomatology appear to be fairly consistent across different cultures, including the Netherlands, the United Kingdom (Silberg, McIntee, & Grimminck, 1998), and Turkey (Zoruglu, Yargic, Tutkun, Ozturk, & Sar, 1996).

The documentation of these cases of dissociative children and adolescents has used a variety of assessment methods, thus adding to the convergent validity of the symptom profiles repeatedly described. Sometimes these cases have been discovered serendipitously in the course of treatment by practitioners suspecting other more common childhood disturbances, such as selective mutism (Jacobsen, 1995) or mood instability (Weiss et al., 1985). In other cases, clinicians have uncovered these phenomena with structured diagnostic assessment tools (Allers et al., 1997; Silberg, 1998b; Steinberg & Steinberg, 1995), with unstructured interviewing about imaginary friends (Lewis, 1996; Silberg, 1996b), or spontaneously in the first session with patients introducing themselves with different names (Klein et al., 1994; Snow et al., 1995). Contemporary clinicians describe the same pattern of mood and identity instability and dissociative tendencies without reference to dissociative disorder diagnoses (Novick, 1997; Parson, 1996; Reckling & Buirski, 1996).

In addition, the consistency between current case reports and historical reports that predate the established dissociation literature add credence to the conclusion that the pattern of dissociative symptoms commonly described are real clinical phenomena. Fine (1988) has described Despine's case of Estelle, a 14-year-old girl who displayed amnesia, dissociated identity, hearing voices, somatic complaints, and headaches in 1836. Goodwin (1989) describes the symptoms of Charcot's 19th century patient, 15-year-old Louise, a victim of rape and family violence who manifested similar symptoms. Other astute clinicians describing severely disturbed children with a variety of diagnoses may have been describing cases that today might be understood by reference to dissociation. Bettelheim (1969) describes the case of a boy from a neglectful home with an imaginary all-good "car family", as well as an all-bad alter ego who influenced his actions. Eckstein (1966) describes a clear case of dissociated identity in the case of Donald, who poignantly tells the therapist that he has discovered three Donalds (Donald Genius, Donald Punishment, and Donald Jones), and asks the therapist if they can sign a peace treaty to "start working for each other and form one good person" (p. 409).

Although the similarities between case reports gives strength to the view that these clinical phenomena are valid, some differences in cases between time periods and geographical locations bring into focus that history and culture may also affect the way that dissociative behaviors are manifested. Clearly, some children, particularly traumatized children, manifest their distress and disturbance through symptoms of perceived identity alteration, memory disturbance, and instability of consciousness, and these children are reaching mental health practitioners from a variety of perspectives. The alternative conclusion that children presenting with these problems only because of suggestive interviewing, unsubstantiated theoretical notions, or imitative behavior is not consistent with the wide range of reports across a diversity of geography, theoretical orientations, and methods of assessment.

Traumatic Histories Are Extremely Common and Well Documented Among Children Who Fit These Descriptions

It is perhaps one of the most stunning findings in contemporary psychological literature that the histories of severely dissociative patients overwhelmingly include histories of trauma. Putnam, Guroff, Silberman, Barban, and Post (1986) documented this in the original survey of 100 MPD patients, and subsequent studies have supported the initial finding of more than 85% of cases reporting severe trauma in the histories of severely dissociative adult patients (Coons, Bowman, & Milstein, 1988; Ross, Norton, & Wozney, 1989). The documentation of reported abuse in child samples, based on protective service reports and police reports, is even more impressive (Coons, 1994 [88%, DDNOS sample; 100%, DID sample]; Dell & Eisenhower, 1990 [73%]; Hornstein & Putnam, 1992 [93%]; Klein et al., 1994 [100%]; Silberg & Waters 1996 [100%]). Though these findings do not support a direct causal relationship between trauma and dissociation, clearly any theoretical formulation must account for the strong association. Some have hypothesized that the strong correlation between trauma and dissociation may reflect a secondary factor that is correlated with both trauma and dissociation, such as severe family psychopathology (Nash, Hulsey, Sexton, Harralson, & Lambert, 1993; Tillman, Nash, & Lerner, 1994).

Sexual abuse has received significant attention as a frequent factor in the histories of adults with dissociative symptoms and disorders (Chu & Dill, 1990; Putnam et al., 1986), but recent studies suggest that there is not an exclusive or necessary association between sexual abuse and dissociation in children (Ogawa et al., 1997; Rhue et al., 1995) or adults (Mulder, Beautrais, Joyce, & Fergusson, 1998). Besides the commonly documented histories of sexual abuse (Bowman et al., 1985; Coons, 1994; Dell & Eisenhower, 1990; Hornstein & Putnam, 1992; Hornstein & Tyson, 1991; Klein et al., 1994; Lewis, 1996; Waterbury, 1991; Weiss et al., 1985), other traumatic factors in child dissociative patient backgrounds include physical abuse (Coons, 1994; Dell & Eisenhower, 1990; Hornstein & Putnam, 1992; Hornstein & Tyson, 1991; Klein et al., 1994; Waterbury, 1991), repeated medical trauma (Dell & Eisenhower, 1990), exposure to violence including witnessing of parental deaths (Hornstein & Putnam, 1992; Hornstein & Tyson, 1991; Parson, 1996), abandonment and infantile neglect (Hornstein & Putnam, 1992; Hornstein & Tyson, 1991; Ogawa et al., 1997; Waterbury, 1991), and emotional abuse (Dell & Eisenhower, 1990; Hornstein & Tyson, 1991). Traumatic backgrounds in child and adolescent patients with dissociative amnesia, depersonalization, and dissociative fugue have included kidnapping and torture (Coons, 1996), death and family illness (Keller & Shaywitz, 1986), war and family separations (Cagiada et al., 1997; McKellar, 1978), sexual abuse (Allers et al., 1997), and severe family dysfunction (Dollinger, 1983; Venn, 1984). In nonpatient child samples, inconsistent parenting has been related to higher rates of dissociation (Mann & Sanders, 1994). However, it is important to note that

there have also been reports of cases of severe dissociative pathology in which no traumatic precursors could be found (Coons, 1996; Malenbaum & Russell, 1987; Silberg, 1998a), and in some of these cases a history of parental dissociation was evident (Malenbaum & Russell, 1987). If theoretical models are to develop and become increasingly more refined, it is important to keep the correlational nature of the association between trauma and dissociation in mind. The ultimate theory that will fully explain the development of these unique and specific disorders will no doubt need a high level of complexity that a simplistic causative theory does not provide. Although the studies and case reports cannot conclusively prove a causal relationship between traumatic history and risk for pathological dissociation, the associations between these variables will need to be addressed in any developing theoretical models.

Treatment Successes Have Been Reported

Kluft (1984) and Fagan and McMahon (1984) initiated the discussion of child treatment in their original articles, and insights from those original papers have been expanded in later treatment literature. Both initial papers emphasize achievement of safety for the child, acceptance by the therapist of the full self, and the use of imagery that can help children visualize a sense of internal unity.

Case presentations continue to suggest that treatment of youth can be successful. From the earliest case descriptions (Bowman et al., 1985; Fagan & McMahon, 1984; Kluft, 1984, 1985b; Weiss et al., 1985) to the later case outcome findings reported by Silberg and Waters (1996), evidence suggests that these children and adolescents can improve in a variety of treatments. Younger children appear to be particularly able to overcome dissociative barriers (Albini & Pease, 1989; Riley & Mead, 1988; Snow et al., 1995). Outcome appears related to family stability (Dell & Eisenhower, 1990; Silberg & Waters, 1996) and a moderate treatment length (Silberg & Waters, 1996), and cases particularly resistant to treatment may be characterized by entrenched, dysfunctional parent-child patterns (Dell & Eisenhower, 1990).

The developing literature on the treatment of childhood dissociation has emphasized the full gamut of techniques, including behavioral techniques to track and limit blackouts (Allers et al., 1997; Dollinger, 1983); educational techniques to help the child understand dissociation (Gil, 1991; James, 1989; Silberg, 1996b; Wieland, 1998); cognitive-behavioral techniques to teach the child about precursors to automatic dissociative responding (Allers et al., 1997; James, 1989); imagery to help the child visualize unification of the self (Fagan & McMahon, 1984; Shirar, 1996; Waters & Silberg, 1996); play therapy to enact traumatic events and achieve resolution symbolically (Laporta, 1992; McMahon & Fagan, 1993; Snow et al., 1995); affect regulation techniques (Putnam, 1997; Reckling & Buirski, 1996; Siegel, 1996); hypnotic techniques for exploration of ego states, traumatic processing, and ego strengthening (Bowman et al., 1985; Kluft, 1985b; Weiss et al., 1985; Williams & Velazquez, 1996); play therapy emphasizing mastery and predictable structure (Donovan & McIntyre, 1990; Putnam, 1997); promotion of attachment (Parson, 1996; Siegel, 1996); and the development of metacognitive processes (Putnam, 1997; Siegel, 1996). Family work has also been emphasized for dissociative children and adolescents to educate parents (Boat, 1991; Waters, 1996), interrupt dissociative family processes (Benjamin & Benjamin, 1993; Novick, 1997; Silberg, 1998a; Wieland, 1998), promote attachment experiences (Waters & Silberg, 1996), improve dissociogenic family communication (Donovan & McIntyre, 1990, 1999), and uncover covert family messages (Dollinger, 1983; Venn, 1984). Cagiada et al. (1997) describe an extreme case of a dissociative coma in a young boy following war trauma that was treated successfully with a combination of hypnotherapy, art therapy, psychopharmacology, and computer-assisted communication.

Therapy for child and adolescent DID (MPD) modeled more closely after adult treatment techniques has been described, which involves the exploration of the alternate personality states, contracting, negotiating, and eventually integrating these disparate identities with some good outcomes reported (Dell & Eisenhower, 1990; Weiss et al., 1985). However, many writing about child issues have emphasized that sensitivities to developmental concerns are paramount in the treatment of dissociative children, and the use of the adult treatment model for DID (MPD) has been questioned (Donovan, 1997; Friedrich, 1990; Putnam, 1997).

On the broadest level, it seems that a curative treatment for children and adolescents with dissociative symptomatology would provide acceptance for the child of whatever is dissociated from awareness, and help facilitate an environment where dissociative functioning is no longer adaptive. The field will need to wait for more well-documented case studies illustrating a variety of approaches, and outcome studies to provide definitive answers about the relative successes of a variety of approaches. However, existing case studies do suggest that there is hope that creative treatment interventions may lead to successful out-

comes for some of the most difficult child and adolescent cases.

WHAT DON'T WE KNOW?

Unfortunately, many of the central questions that might move the controversies about dissociation in children out of the realm of clinical anecdote into the realm of established science and practice remain unanswered by the existing literature. Clear answers to questions regarding the prevalence of childhood dissociative symptoms and disorders, the etiology of these disorders, and the pathways for their resolution are not yet available. The lack of clear definitions about dissociation and dissociative processes, overreliance on screening measures to evaluate dissociation in children, and lack of empirical data to support theoretical assumptions have served as impediments in the resolution of these controversies. Yet the information that we can glean from this literature suggests some promising leads, and there is hope that with the sophistication of a new generation of methodology, some of these central questions may soon be addressed.

The Prevalence of Dissociative Disorders and Dissociative Symptoms in Children Is Unclear, but At-Risk Populations May Include Children of Dissociative Parents, Maltreated Children, and Psychiatric Inpatients

Estimates on the prevalence of dissociative disorders in the general adult population have ranged from 10% (Loewenstein, 1994) to 3% (Waller & Ross, 1997). Whatever the prevalence among adults might be, there is no reason to assume that those figures can be extrapolated down to apply to children or adolescents. The population of children and adolescents diagnosed with dissociative disorders may, in fact, be a different group that may only partially overlap with the adult diagnosed population. The largest study of children and adolescents with dissociative disorders demonstrates that symptom patterns shift over time, and the older patients begin to more closely resemble adult cases, yet still differ from adult cases in many ways (Putnam et al., 1996). This suggests that the development of the dissociative pathology that we see in adulthood is a developmental process that evolves over time. There may even be a group of children with dissociative patterns that resolve normally through developmental maturity or treatment, or escape from pathological environments. The differential gender ratio between males and females identified as dissociative through the lifespan also suggests that groups of children and adults with dissociative presentations may represent different populations (female-to-male ratio is 1:1 for children, 2:1 for teenagers, and 9:1 for adults; Silberg et al., 1997).

Thus, the only way to truly determine the answer to the question of the prevalence of these disorders among children and adolescents is to look at the younger populations themselves. Although adult prevalence studies have used diagnostic measures that have some established validity, there is no diagnostic standard for children, and studies must rely on screening tools, adult-validated diagnostic tools, or invalidated clinical judgement. Currently, there are no data on the prevalence of dissociative disorders in a general population of children and adolescents.

Studies provide widely varying figures on the prevalence of dissociative symptoms among maltreated children, ranging from 19% to 73%. Within a group of sexually abused girls, Putnam et al. (1993) find a 19% prevalence of those with high scores on the parent-rated CDC. Roburg, Bagley, and Wellings (1990) report that 30% of abused children displayed dissociative symptoms based on a careful chart review. Perry, Pollard, Blakely, Baker, and Vigilante (1995), studying severely maltreated children, found that 65% of girls had CDC scores above a cutoff significant for dissociative pathology. Similarly, Waterbury (1991) studied the children in a diagnostic shelter for severely traumatized children and found that 73% evidenced some dissociative symptoms. Waterbury suggests that this high percentage of dissociative symptomatology is due to the unique nature of this sample, which included the most severely maltreated children who were then observed for an extended period of time (average 3 months) in a home (rather than hospital) environment.

Children of parents with diagnosed dissociative disorders seem to be a group who are particularly at risk (Braun, 1985; Coons, 1985; Kluft, 1985a; Malenbaum & Russell, 1987). Coons (1985) found a 9% prevalence rate for dissociative disorders among children of dissociative parents, and Yeager and Lewis (1996) uncovered significant dissociative pathology in a majority of the parents and siblings of diagnosed dissociative children. These family findings may be due to genetic factors, social learning, or a combination of the two.

Studies of prevalence rates within psychiatric hospitals yield some evidence of dissociative symptoms and disorders. Sanders and Giolas (1991) report that 23% of an inpatient adolescent cohort had significant dissociative symptoms. Atlas et al. (1997), comparing dissociative symptoms in traumatized and nontraumatized adolescents, report that 2.5% of their total sample of adolescent inpatients received DES scores

above 45, whereas 41% of the traumatized sample had significant scores. Looking at consecutive child and adolescent inpatient admissions over a 1-year period at Sheppard Pratt Hospital, Silberg et al. (1997) report that 5.2% were diagnosed with a dissociative disorder, whereas Hornstein and Tyson (1991) found a similar rate among admissions at the children's inpatient unit at the University of California at Los Angeles (5% for dissociative disorders, and 3% for MPD/DID.) Ross (1996) reports that 15% of a sample of adolescent patients had DID (MPD), and 45% showed some dissociative symptoms in the Manitoba Adolescent Treatment Center.

In conclusion, although dissociative disorders appear uncommon in children, dissociative symptoms themselves are observable in samples of sexually abused, maltreated, and hospitalized children. Conclusive figures about prevalence are unavailable at this time, as there are no standardized evaluation methods. The current information that we have is sketchy and speculative, but given the strong correlation between trauma and dissociation, and the frequency of trauma in the histories of psychiatric patients, it seems reasonable to be sensitive to dissociative manifestations among psychiatrically hospitalized children, maltreated children, and children of family members with dissociative disorders.

Identification of correct prevalence information is dependent on more sophisticated ways of detecting these conditions. One problem of identification of these children, as noted by Kluft (1985a), is that childhood dissociative disorders may masquerade as more well-known childhood conditions. Previous diagnoses of dissociative youth have included attention deficit/hyperactivity disorder and oppositional disorder (Peterson, 1996), mood disorders (Dell & Eisenhower, 1990; Peterson, 1996; Weiss et al., 1985), psychotic disorders (Klein et al., 1994; Peterson, 1996), posttraumatic stress disorder (Peterson, 1996), pervasive developmental disorders, adjustment disorders (Peterson, 1996), and selective mutism (Jacobsen, 1995). These case reports might lead one to believe that these conditions are being underdiagnosed. However, more recently, critics have questioned whether iatrogenic influences have led to overdiagnosis of these disorders. Others have questioned whether diagnosis itself has any role in the treatment of traumatized children, as it may lead to simply documenting dysfunction rather than challenging maladaptive behavior (Donovan & McIntyre, 1990, 1999). If we pay more attention to dissociative processes underlying a variety of childhood presentations, rather than only dissociative diagnoses, we may be better able to resist these potential traps of over- and underdiagnosis.

The Exact Etiological Pathway for the Development of Dissociative Pathology in Children Is Not Known, but It Is Likely a Complex Interaction of Psychobiological, Familial, and Cultural Processes

Theories of pathological dissociation postulate that dissociative processes are defensive reactions that permit coping in the face of overwhelming trauma (Kluft, 1984; Putnam, 1989). However, how these dissociative reactions originate and evolve is far from clear. Are they instinctive, biologically based response patterns? Are they learned and, if learned, are they classically conditioned or learned through operant processes? Are the developmental processes for developing these dissociations different for identity, memory, consciousness, or perception? What stimulates further dissociation once it has been learned, and what interrupts it? What ongoing contextual influences shape, construct, or rearrange these learned dissociations? A comprehensive theory of dissociation and dissociation disorders will need to carefully address all of these questions and make the subtle distinctions that allow us to differentiate between kinds of dissociation among varying physiological, sensory, motor, affective, and cognitive functions. The careful analysis of the many possible ways in which developmental disruptions in continuous functioning are based on biological processes, classical conditioning, operant reinforcement, decision making, overlearning, or interpersonal processes will enrich our ability to intervene in the most helpful ways. Most likely, all of these processes affect the way a particular child has developed the behavior of dissociating, and a comprehensive treatment approach must tailor interventions to all of the relevant formative factors.

The neurobiology of dissociation is the groundwork on which all comprehensive theories of these disorders need to be based. Nijenhuis and colleagues (Nijenhuis, Spinhoven, Vanderlinden, van Dyck, & van der Hart, 1998; Nijenhuis, Vanderlinden, & Spinhoven, 1998) have applied an animal defense model to dissociative responses, suggesting that the biological roots of dissociative changes (like body anesthesia) and the narrowing of the perceptual field may be an evolutionary adaptation for organisms to survive in situations of severe danger. Perry et al. (1995) have similarly suggested that the dissociative system involving a pattern of increased vagal tone, and activation of dopamanergic systems, is an evolutionary pattern of response to severe threat, more common in younger children and in girls. Putnam (1997) has enriched

our conception of the neurobiology of dissociation with the discrete behavioral states model, based on Wolff's (1987) careful observations of the shifting states of normal infants. Putnam (1997) proposes that the shifting and uncontrolled behavioral states of infants, which in normal development acquire increasing organization and flexibility with maturity, do not achieve the necessary integration in traumatized children.

Another biologically based perspective proposes a careful examination of the specific individual neurological differences that make some children and adolescents more prone to these disruptions of perception, identity, memory, and consciousness. Possible individual differences might include fantasy proneness (Rhue et al., 1995), mimicry skill, symbolic ability, or empathic perceptiveness (Silberg, 1998a). At least one twin study (Jang, Paris, Zweig-Frank, & Livelsley, 1998) finds that 48% of the variance in pathological dissociation can be accounted for by inherited individual differences, which might include some of the above traits. Although hypnotizablility itself has been distinguished from dissociation (Putnam et al., 1995), the underlying components of hypnotizability—including amnesia proneness, social compliance, and absorption (Barber, 1997)—may also be relevant to this search for individual difference variables that predispose to dissociative reactions. One might speculate that a child who is socially predisposed to comply with expectations and is particularly sensitive at intuiting parental feelings may be acutely disturbed by the double binds in abusive households (escape from threat vs. attachment to source of threat). Such a child who also possesses facility with imagination might resolve these binds through escape into an inner world. Whatever preexisting biological substrates an individual child possesses, it clearly takes a complex and elaborated pattern of learning over time to shape the symptoms we see in a developing dissociative disorder.

The literature has shown increased sensitivity to the intricacies of interactive patterns that might promote a dissociative response style in a developing child. The most important study along these lines was a long-term longitudinal study of maltreated children, which related a variety of traumatic events to the expression of pathological dissociation at four child and adolescent time periods (Ogawa et al., 1997). This study related pathological dissociation in adolescence and early adulthood to a pattern of infantile neglect and avoidant and disorganized infant attachment styles. These findings convey the centrality of early mother-child interactive patterns that set into motion patterns of maladaptive response that have far reaching and lasting implications for development across the whole life span. Parents who themselves are dissociative might be even more likely to perpetuate these patterns of neglect, inattentiveness to children's needs, and parenting styles that encourage maltreatment and further dissociation (Benjamin, Benjamin, & Rind, 1996; Egeland & Sussman-Stillman, 1996; Peterson & Boat, 1997).

The processes by which parents might provide an environment that promotes dissociation has been described in recent case studies of traumatized children with many dissociative traits (Novick, 1997; Reckling & Buirski, 1996) and in the theoretical writing of Siegel (1999), who integrated a neurobiological and interpersonal perspective. These writers describe how parental unavailability, unresponsiveness, and inability to protect is reflected in the child's internal chaos. Orbach (1989) has also described a process of internalization of parental pathology in suicidal adolescents, and highlighted the role of extremely divided parents in encouraging fragmented identity in teens. The origins of this malevolent process of internalization even in toddlers has been described by Lieberman (1997), who shows how parents of very young children might misunderstand their toddler's expression of feelings and misattribute evil intentions to the child. By rejecting the child in this way, a parent may encourage the child to internalize these negative self-views. This early parental rejection of angry affect may encourage a fragmentation that might set the stage for a developing dissociative disorder. Peters, Silberg, and Fagen (1998) describe how parental psychopathology, which encourages children to enact parental conflicts and internalize misattributions, is particularly characteristic of families who become overly invested in DID (MPD) diagnoses.

In examining the interpersonal influences on the development of dissociative pathology, it is important to look at the interpersonal effects of various therapeutic practices. It is easy to see how the malevolent interactive process could work to shape increasing dissociation in a treatment setting in which the parents' view of the child was accepted unquestioningly, and in which the parent and therapist accepted a literal view of the child as having dissociated personalities. Finally, cultural patterns may set the stage for the exact form that a dissociative disorder might manifest in a particular culture. Okano (1997) has described the dissociogenic influences of Japanese familial relationships, in which a suppression of personal wishes causes relational stress in this shame-based culture, leading to increased diagnoses of dissociative amnesia. The 19th and early 20th century adolescent cases

of multiple personality, which showed fewer alters and more dramatic conversion symptoms (Bowman, 1990; Fine, 1988; Goodwin, 1989), may also be reflective of the cultural milieu of those time periods. Trangkasombat et al. (1995) describe an epidemic among school-age children in a small town in Thailand, where cultural beliefs about spirits and the traumatic influence of a classmate's death led to dissociative episodes, fainting, and seizure-like fits. Current cultural influences may shape the specific constellation of dissociative symptoms in our time and society as well. From a feminist cultural perspective, Rivera (1996) has suggested that the conflicting demands and role expectations for women in our society can lead to dissociation. Putnam (1997) has speculated that the ubiquity of video images on television and experience of virtual realities in video games may be heavily influencing the developing fantasy life of troubled children. Children are also exposed to abundant images in popular movies about how imaginary friends can become vivid in the face of traumatic events, suggesting that these are phenomena that are widely experienced in our culture—for example, *Radio Flyer* (Donner, 1992) and *Bogus* (Jewison, 1996). Even in the Disney movie *Hunchback of Notre Dame* (Trousdale & Wise, 1996), the abused and neglected hunchback is visited by three imaginary gargoyles that cajole, advise, and criticize, just like the hallucinatory voices of children with dissociative symptoms.

The subtlety of the above cultural theories bears no resemblance to the reductionistic and overgeneralized cultural theories of the critics of the dissociative disorder field, who attribute the prevalence of dissociative disorders in North America entirely to current psychiatric fads, media influence, and therapist suggestion (Mersky, 1992; Piper, 1997). These theories have selectively attended only to issues of social learning and suggestion, and selectively ignored the literature about the known effects of child maltreatment and case studies of dissociative children and adolescents. These writers also ignore the potential effects of social learning and suggestion in the therapy they provide, in which the patients may be trained to not report dissociative experiences. Paradoxically, Mersky (1992) reviews the biographies of well-known cases of multiple personality who often report onset in childhood, and concludes that these individuals used imaginary friends and secondary identities to deal with "severe emotional conflict and as a protection from experiences which could not otherwise be tolerated" (p. 336). However, Mersky then completely ignores the profound implication of this observation that childhood developmental phenomena are indeed the kernel from which these disorders evolve.

It is time for our theories to be less stratified and more integrative so that biological, interpersonal, and cultural influences can all be incorporated into our evaluation of how individual children with their own unique configuration of traits and capacities respond and adapt to the stresses and traumas of their environments.

The Best Treatment Protocol for Resolving Pathological Dissociation Remains Controversial, but the Most Comprehensive Treatments Will Likely Evolve From the Most Comprehensive Etiological Theories

Perhaps it is questions about the treatment of dissociative symptomatology in children that has led to the controversy that has kept this field from achieving widespread acceptability among child maltreatment professionals. The adult dissociative field has received vocal criticism from outspoken professionals (McHugh, 1992), and child clinicians may have retreated from the controversies that have plagued the adult field.

Many writers familiar with traumatized dissociative children warn about the risks of having a therapist unknowingly encourage a dissociative child in treatment to elaborate on dissociated identities (Friedrich, 1990; James, 1989; Putnam, 1997). Extreme criticism of treatment for dissociative disorders in children has been presented by Donovan (1997), who calls treatment techniques for dissociative disorders "dissociogenic and amnestogenic." A detailed critical discussion of these controversial techniques is absent from the literature, however.

The central controversial treatment technique alluded to is probably the exploration of various alternate personality states in children with dissociated identities. Although the literature has alluded to child cases that have presumably been worsened by previous therapists or parents who believed too literally in dissociated identities (Donovan, 1997; Schreier, 1997), these case histories are not described in sufficient detail to allow the reader to evaluate the case, nor is follow-up data provided to determine if an approach that avoided the dissociative diagnosis led to complete recovery for these children.

On the other hand, there appear to be some cases in which patients progressed in therapy only after the therapist became aware of the dissociative aspects of the child and previously hidden traumatic material was disclosed within the context of a safe therapeutic relationship (Bowman et al., 1985; Dell & Eisenhower, 1990; Jacobsen, 1995; Klein et al., 1994; Silberg & Waters, 1996; Weiss et al., 1985). In cases of children and adolescents suffering from hallucinated inner

voices accompanied by feelings of dividedness, several therapists have reported that encouraging children to express and understand these voices as dissociated feelings even in initial interviews has led to rapid remission of symptoms without long-term in-depth interventions required (Kluft, 1985a; Peterson, 1996; Silberg, 1996b).

However, fears that a concrete misapplication of therapeutic techniques may prevent a child's progress are probably well founded. As therapists have become more aware of the possible risks, current writings about adult trauma therapy contain more cautionary material about the literal acceptance of dissociated memory and sensitivity to the suggestive influences of therapy (Courtois, 1997). In their description of adult therapy techniques for DID (MPD), Barach and Comstock (1996) advocate dealing directly with whatever alternate personality presents itself in treatment rather than calling out alternate personalities at the therapist's request.

Similarly, in the most recent edition of *The Dissociative Child* (Silberg, 1998a), the author rethinks some of her earlier notions and presents several cautions for how to avoid unwittingly reinforcing dissociated identities in children. These recommendations include encouraging the child to make internal connections rather than dramatizing the perceived alternate states, using the child's own language to describe alternate states (e.g., imaginary companions, pretend friends), using discretion about who knows about the dissociation, and using language that approximates a normal experience of self and shifting states. Also recommended is using language that emphasizes the child's choice and responsibility in deciding what to do about his own behavior.

In cases where children are troubled by hallucinated voices, recurrent memories, or sexualized behavior that stem from abusive events, the use of imagery has been recommended. Imagery exercises can help children comfort imaginary younger versions of themselves pictured during the time of remembered trauma, process traumatic material with distance, and develop fantasy techniques for self-soothing. These techniques are part of a well-described tradition of therapy for traumatized children and are not unique to dissociative patients (Friedrich, 1991; Gil, 1996; Wieland, 1998; Williams & Velazquez, 1996). Therapy for the purpose of integration of unacceptable aspects of the self is not in itself a radical idea, as it is clearly part of a tradition of child therapy, including the analytic case studies of Eckstein (1966) and newer psychoanalytic play therapy techniques as well (Prior, 1997).

Less controversial practices also include an emphasis on family treatment for dissociative children and adolescents (Benjamin & Benjamin, 1993; Silberg, in press; Wieland, 1998). The inclusion of parents for education, support, and reconstruction of impaired relationships is an accepted part of all child therapy. More recently, authors have suggested the incorporation of a variety of specific developmental tasks into the therapy for dissociative children, including affect regulation, attachment, impulse control, interpersonal problem solving, and cognitive mastery (Parson, 1996; Putnam, 1997; Siegel, 1996).

Hopefully, the field will continue to explore in depth both the controversial and less controversial practices. The risk we take in not addressing these very hard issues as a field is that practitioners will model treatments on the more fully described adult practices that may be inappropriate for children. The most comprehensive treatment protocol for dissociative children and adolescents will follow from the most comprehensive theoretical models. Treatments that incorporate sensitivity to the child's personality traits and personal resources, perceptions, and self-views within the context of changing familial and cultural contingencies will most likely show the greatest chances of success.

WHAT'S NEXT

Unfortunately, political concerns motivated by vested interests have brought the debate about dissociative disorders into the courtroom (Dallam, 1998) and the media (Acocella, 1998), leading to a polarization that is detrimental to scientific clarity. The future development of the field of dissociative disorders in children will require us to move away from the politics around us into a close examination of the methodological foundations of the field and an integration of the expanding knowledge in the field of trauma and dissociative disorders with emerging developmental research.

The major methodological challenge ahead is to find ways to carefully document the specific behaviors and internal processes that dissociative children and adolescents demonstrate in a variety of domains. Ironically, the proliferation of screening measures for identifying dissociation in children may have served to interfere with the careful clinical evaluation of children that would have enriched our knowledge base. Though researchers freely admit that screening measures are not diagnostic, researchers have, nonetheless, relied on these measures to define dissociative groups. In many studies, dissociation has been defined as a parent's description of a child's behavior,

as determined by the CDC. Yet Putnam et al. (1993) have emphasized that this measure is not diagnostic in itself. The presumption that dissociative pathology exists on a continuum that can be discerned from evaluating normative experiences has been questioned as well (Putnam, 1997). Thus, studies of dissociative groups defined by this screening measure may not be getting at the real phenomenon of dissociative pathology at all. I believe that the evidence we need to flesh out the nature of dissociation must come from carefully describing dissociative children, and studying the intricate processes they employ at the particular moments in time when they engage in the many diverse manifestations of dissociation.

The field awaits a comprehensive diagnostic instrument to assess dissociation in children and adolescents that has reliability and validity, and which is not subject to the criticism of asking leading or suggestive questions. Such a diagnostic instrument must rely on multiple sources of data (observation, history, and self-report), must have a way to make distinctions between a full range of developmentally normal experiences at a variety of ages, and must be able to quantify pathological deviations from these norms. Such a diagnostic instrument will allow the study of dissociative pathology in children across a more clearly defined continuum, will allow researchers around the world to communicate about what they are observing, and will permit experimental studies in which there can be more confidence in the nature of the patient groups. However, it is also possible that as we begin to more carefully document and describe children with dissociative behaviors, we will discover that much of what is currently understood is more related to clinical lore, and new theoretical constructs may be developed that better explain the diversity of these patient presentations. An open-minded scientific approach to these questions may lead to advancements in our understanding of childhood psychopathology in general.

It is time to carefully apply principles of developmental psychopathology to our study of dissociative children (Cicchetti & Toth, 1997). We need to focus on all of the specific factors that might propel a child's development off its expected course across a full range of developmental domains—the cognitive, affective, interpersonal, and physical. Within this context, the debate about whether dissociative pathology exists along a continuum or whether it is a typology of disorder different from normal variants (Putnam, 1997) becomes less meaningful. To be most effective in our interventions, we need to uncover the various continua underlying a variety of potentially pathological trajectories. Every child at any point within the pathological development of a dissociative disorder should be able to have that potential typology reversed. For example, it is important to uncover how developmental processes transform imaginary companions into the hallucinated voices and perceived alternate identities of children with DID (MPD). Initial research on imaginary companions (Frost, Silberg, & McIntee, 1996) suggests that a clinical sample of traumatized children compared to normal children perceive their imaginary companions as more real, feel bossed or controlled by these imaginary creations, perceive their imaginary companions to be in conflict, and are more likely to experience these phenomena when angry. Information about these differences can help therapists shape children's pathological perceptions into more normative ones.

Similarly, comparisons of autobiographical forgetting between normal and traumatized children might help us identify a continuum of developing memory problems in dissociative children. Clinical case studies document that abused children can report abuse during early childhood, forget these reports during their school-age years, and later experience affect-laden recall of these events as older teenagers (Duggal & Sroufe, 1998; Corwin & Olafson, 1997). Longitudinal studies will be particularly helpful to determine whether children with dissociative traits or disorders are more prone to forget stressful autobiographical information, and to document how memory for trauma changes over time.

The careful integration of research about a child's development of affect and sense of self in reciprocal mother-child interaction patterns will also further our understanding of the impaired developmental trajectories of children who develop dissociative pathology. Schore (1994) and Siegel (1999) have impressively integrated current neurobiological information on the child's development of affect and self. Though Schore never addresses dissociative pathology directly, he presents a theoretical basis for the defective sense of self in a dissociative child when he writes, "[The mother's] reflected appraisals and psychobiological regulation of the child's inner states are imprinted in interactive representations that encode programs for modulating transitions between states. . . . The core of the self lies in patterns of affect regulation that integrate a sense of self across state transitions, thereby allowing for a continuity of inner experience" (p. 498). Thus, the discontinuity of the dissociative child's experience of self may have its roots in the impaired regulation of affect and state transitions provided by an unavailable, misattuned, or abusive caregiver. The longitudinal findings of Ogawa et al. (1997) and Carlson (1998) that insecurely

attached toddlers (avoidant and disorganized attachment styles) are more likely to display later dissociative pathology have begun to support the theoretical relationship between early parent-child interaction and dissociation that has been suggested by a variety of theorists (Barach, 1991; Fonagy, 1998; Liotti, 1995; Siegel, 1999).

Another stream of information that will need to be integrated into a complete developmental view of dissociation is the emerging literature on consciousness. Neurobiological investigations into consciousness make clear that our subjective experience of a continuous self is based on a continual process of construction and reconstruction (Damasio, 1999; Gazzaniga, 1998; LeDoux, 1996; Norretranders, 1998). This understanding is very relevant for appreciating how children with disruptions in their ongoing consciousness might construct discontinuous identities in their attempts to accurately represent a narrative self (or selves) that represents that discontinuous experience. Damasio (1999) suggests that it is the awareness of feelings mediated through connections in the orbito-frontal cortex that underlies autonoetic consciousness. As brain imaging techniques become more sophisticated, perhaps we will eventually be able to track dissociative discontinuities of consciousness. Initial reports suggest that single photemission computed tomography (SPECT) scans on adult dissociative patients produce patterns of bilateral frontal and parietal hypoperfusion (Sar, Unal, Kiziltan, & Kiziltan, 1998).

As our sophistication in understanding and recognizing dissociation improves, it will give us the opportunity to clarify how dissociative processes are revealed in posttraumatic stress disorders, affective disorders, and psychotic disorders, and to determine whether many undiagnosed and puzzling childhood conditions may be more amenable to intervention by incorporating an understanding of dissociative processes. A recent case history presents a puzzling diagnostic picture of a child with hallucinations, vivid imaginary friends, a possible trauma history, nightmares, and changing behavior, but dissociative behavior was not one of the many theories considered to explain the child's presentation (Gartner, Weintraub, & Carlson, 1997; Silberg & Nemzer, 1998). Lask, Britten, Kroll, Magagna, and Tranter (1991) describe the syndrome *pervasive refusal disorder*, in which children evidence a strange pattern of catatonia, refusal to eat, regressive functioning, and severe self-destructive behavior, and many have severe familial dysfunction with families characterized by violence, denial, and possible sexual abuse. Many of these case descriptions bear similarity to the kind of severe dissociative reactions admitted to our own psychiatric setting. Fisher, Mitchell, and Murdoch (1993) describe a child diagnosed with Psychiatric Munchausen Disorder by Proxy whose mother describes hallucinations, changeable behavior, amnesia, sleep problems, a history of stealing food, and a confirmed history of sexual abuse with foster home placement. The authors conclude that the child's supposed symptoms are likely a misrepresentation based on the mother's efforts to portray the child as psychiatrically ill, yet the similarity to case presentations of dissociative children is striking. Children with reactive attachment disorders also bear similarities to dissociative children, including shifting moods, belief in a bad self, and destructive and self-destructive behavior (Hughes, 1998). Whether the diagnosis of dissociative disorder or attachment disorder is right is not the issue, but rather how can we best understand the processes that lead children to maladaptive self-conceptions and disrupted consciousness.

Children do seem to continue to stymie the efforts of clinicians to categorize them. As current trends in child psychiatry suggest, "We need to understand better the pathogenic processes that underpin diagnostic phenotypes" (Jensen & Watanabe, 1999, p. 145). Many of us, particularly in the field of child maltreatment, are skeptical of diagnoses that imply a fault within the child, diagnoses that seem to blame the children for problems resulting from the inadequacies of nurturing and love in their environments. Yet a sensitivity to the manifestation of dissociation may transcend this blaming posture to describe a process, rather than simply a disorder. Dissociation is an adaptation, a unique individual response to a unique individual situation. As Novick (1997) states, "We are never in a position to see the trauma. What we see are the patient's solutions to the problems posed by the effects of trauma" (p. 278). Increased awareness of dissociative processes may open a window that allows us to view at once the problems, as perceived by the child, the temporary maladaptive solutions to these problems, and the opportunity for new solutions to present themselves. My hope is that the increasing study of these children will lead to many more new solutions for these children, who are in need of the best that our treatment can offer.

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