DOCUMENT RESUME

ED 369 188 EC 302 915

AUTHOR Putnam, Frank W.; Trickett, Penelope K.
TITLE Dissociation and the Development of Psychopathology.
PUB DATE Mar 93
NOTE 19p.; Paper presented at the Annual Meeting of the Society for Research in Child Development (New Orleans, LA, March 25-28, 1993).
PUB TYPE Speeches/Conference Papers (150) -- Information Analyses (070)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Adolescents; Behavior Disorders; Child Development; Children; Clinical Diagnosis; *Emotional Development; *Emotional Disturbances; Measurement Techniques; *Mental Disorders; Personality Problems; Psychiatry; *Psychopathology; Self Concept
IDENTIFIERS *Developmental Psychopathology; *Dissociation; Traumas

ABSTRACT

This paper reviews the research on dissociation and the development of psychopathology in children and adolescents. Definitions and dimensions of dissociation are addressed, noting its range from normative daydreaming to the extremes found in individuals with multiple personality disorder. Memory dysfunctions, disturbances of identity, passive influence experiences, auditory hallucinations, and spontaneous trance states are among the manifestations of dissociative disorders. Measurement of dissociation may involve use of a self-report scale called the "Dissociative Experiences Scale," structured psychiatric interviews, and other psychological tests. Diagnosis is, however, very difficult especially in children and adolescents. Research with dissociation scales and structured interviews has found close linkage of high levels of dissociation with traumatic experiences. Research on the influence of dissociation on symptoms and behavior problems in traumatized and nontraumatized child samples has found that dissociation is diffusely related to psychopathology. Research findings also suggest that the frequency of dissociation normally declines over the life span. Research on the impact of dissociation on developmental processes has examined dissociative alterations in the development of self, dissociative disruptions of self-agency, dissociative disturbances of self-coherence, disturbances of self-affectivity, and dissociative interruptions in self-continuity. (Contains 60 references.) (DB)

8/99

DISSOCIATION AND THE DEVELOPMENT OF PSYCHOPATHOLOGY

Frank W. Putnam

Penelope K. Trickett

Paper presented at Symposium: **The Development of Maltreated Children,** Annual Meeting of the Society for Research in Child Development, New Orleans, March 1993.

Please Direct Inquires to:

Frank W. Putnam, M.D.
Bldg 15K, NIMH
9000 Rockville Pike
Bethesda, MD 20892
(301) 496-4431 voice
(301) 402-1218 Fax

INTRODUCTION

Definitions and Dimensions of Dissociation

Dissociation is a complex psychophysiological process that produces alterations in sense of self, accessibility of memory and knowledge and integration of behavior. Dissociation exists on a continuum with most individuals manifesting short, often situation-dependent, episodes of normative dissociation such as day-dreaming (Putnam, 1991b). Some individuals may experience prolonged or frequent episodes of dissociation that interfere with their functioning and significantly alter their sense of self. In extreme cases, individuals may develop a dissociative disorder such as multiple personality disorder (MPD) that produces profound disturbances in self and availability of information and memories. Although most definitions of dissociation focus on the failure of the individual to integrate information in a normal way, research suggests that dissociation has several underlying dimensions. These dimensions include alterations in memory; disturbances of identity, passive influence experiences and trance/absorption phenomena.

Clinically the memory dysfunctions are quite complicated and interconnected but they can be experimentally dissected to some degree in laboratory studies (Putnam, 1991c). Memory dysfunctions include: 1) deficits in retrievial of implicit knowledge across behavioral state; 2) deficits in retrievial of autobiographical memory; 3) deficits in retrievial of explicit information on free recall tests across behavioral state (cued recall appears to be less disrupted by dissociation -- at least in laboratory settings); 4) intermittent and disruptive intrusions of traumatic memories into awareness and 5) difficulty in determining whether a given memory reflects an actual event or information acquired through a non-experiential source (e.g. reading or hearing about the event).

Disturbances of identity found in dissociative disorder patients include: 1) existence of alter "personalities" that exchange control over the individual's behavior and express a sense of individuality and separateness; 2) depersonalization - in which the individual feels as if he or she is dead, unreal or detached from their surroundings and situation; and 3) psychogenic amnesia in which the individual forgets important highly personal information, e.g. their name. The alter personality states of MPD patients are often incorrectly portrayed as if they were separate and distinct individuals. In actuality, these entities exhibit narrow ranges of functioning and affect and are best conceptualized as discrete behavioral states (Putnam, 1991c; Putnam, 1992)

Passive influence experiences, especially prominent in MPD, involve the individual

feeling as if he or she were controlled by an force within them (Kluft, 1987). Intensely dysphoric, passive influence experiences may include a sense of being made to do against one's will something that is loathsome or that is harmful to the individual or others. At times the dissociating individual may feel as if he or she loses control over part of his or her body so that it has "a mind of its own". For example, patients with MPD may experience "automatic writing", in which they subjectively do not feel as if they are in control of the writing hand and are surprised by what is written.

Auditory hallucinations are another form of dissociative passive influence experience and take a distinct form in the dissociative disorders that helps to differentiate them from hallucinations seen in psychotic disorders (Coons, 1984; Goff,Brotman,Kindlon,Waites, & Amico, 1991; Putnam, 1989). Dissociative hallucinations are most likely to take the form of internalized voices rather than externalized voices. The voices are heard distinctly, have clear attributes of gender, age and affect and may be pejorative and berating or supportive and comforting (Putnam, 1989). The dissociating individual is generally aware that the voice(s) is a hallucination and for fear of being labeled "crazy" often will not report the hallucinations until a secure therapeutic alliance is established.

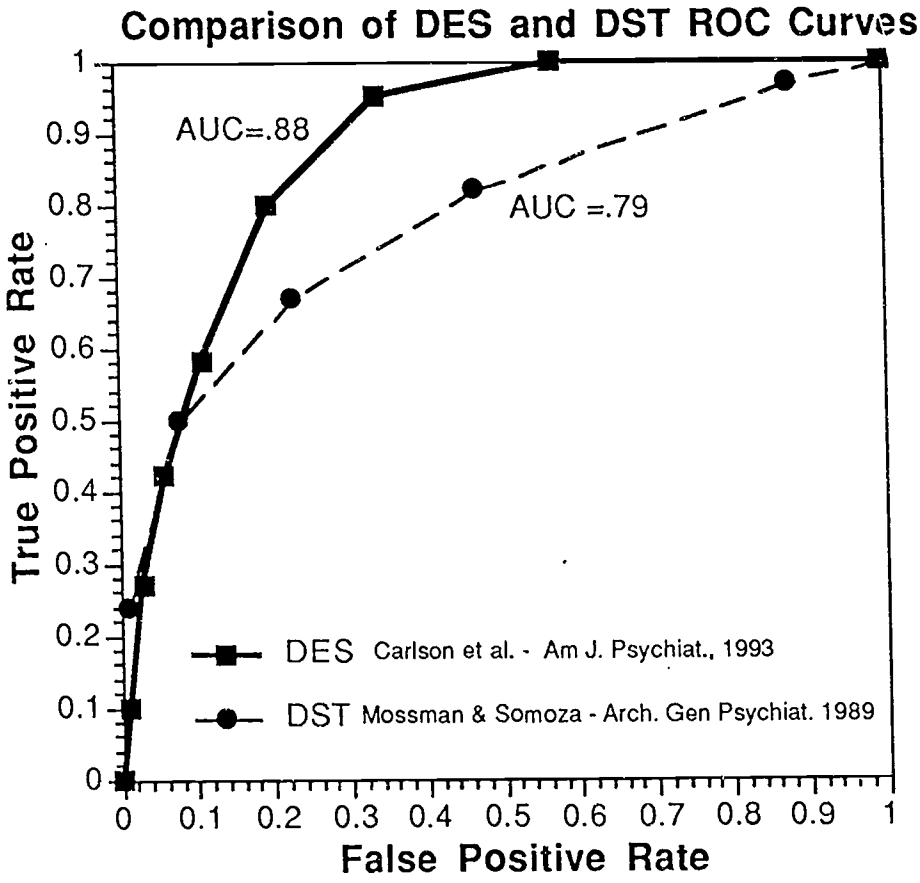
The fourth dimension of dissociation takes the form of experiences of intense absorption or enthrallment and spontaneous trance states. Spontaneous trance states, common in children and adolescents, are very frequent in adult dissociative disorder patients and interfere with the ongoing processing of information (Putnam, 1991a; Putnam, 1993).

Measurement of Dissociation

The measurement of dissociation has made great strides during the last half-dozen years. A number of adult self-report measures exist, the best validated of which is the Dissociative Experiences Scale (DES) developed by Bernstein and Putnam (Bernstein & Putnam, 1986). The DES has been used in over 80 published studies and included in national epidemiological research on posttraumatic stress disorder and other trauma-related conditions.[1] Investigations with the DES and other measures indicates that dissociation exists on a continuum in normal and psychiatric populations (Putnam, 1991b). There are no gender differences in DES scores and, at least within U.S. samples, no evidence of cultural or ethnic differences though few studies have examined cultural variables to date (Putnam, 1991b). A large sample, discriminant analysis of the DES has been conducted and cutting

[1] A copy of the DES and scoring manual are available for $1 from: Eve B. Carlson, Ph.D., Department of Psychology, Beloit College, 700 College Street, Beloit, WI 53511.

scores for suspecting MPD empirically established (Carlson, Putnam, Ross,Torem, Coons, Dill, et al., In press). Based on an analysis of the Receiver Operating Characteristics (ROC) of the DES, it exceeds the sensitivity and specificity of most psychiatric diagnostic tests. Figure 1 compares the ROC profile of the DES with that of the Dexamethasone Suppression Test (DST), commonly used to diagnose depression. A perfect diagnostic measure would have an area under the curve (AUC) = 1.0 and a zero false positive rate.



Structured dissociative disorder psychiatric interviews yielding DSM-III/IIIR/IV diagnoses are available. The Dissociative Disorders Interview Schedule (DDIS) developed by Ross and colleagues is probably the most widely used measure (Ross,Heber,Norton,Anderson,Anderson, & Barchet, 1989a). Our experience would suggest that the DDIS, though useful, over diagnoses MPD. The Structured Clinical Interview for DSM-III-R Dissociative Disorders (SCID-D) is a lengthy interview that has excellent validity and reliability and has been translated by a number of European investigators (Boon & Draijer, 1993; Steinberg,Rounsaville, & Cicchetti, 1990). Both interviews are highly correlated with DES scores (Ross, Miller, Bjornson, Reagor, Fraser, & Anderson, 1990; Steinberg, Rounsaville, & Cicchetti,

1991).

Measurement of dissociation in children and adolescents is just beginning to receive attention. A number of scales, questionnaires and "predictor lists" have been published (Evers-Szostak & Sanders, 1992; Putnam,Helmers, & Trickett, In press; Reagor,Kasten, & Morelli, 1992; Tyson, 1992). Of these, the Child Dissociative Checklist (CDC), an observer-report measure patterned on the Child Behavioral Checklist (CBCL) (Achenbach & Edelbrock, 1981), is the best validated (Hornstein & Putnam, 1992; Putnam et al., In press). [2] For a variety of reasons, self-report measures of dissociation have poor validity with young children (Putnam, 1991a; Putnam, 1993). An adolescent self-report measure the, Adolescent Dissociative Experiences Scale (ADDES), is being developed and should be ready for distribution in the near future. [3]

At this time, there are no definitive structured interviews, self-report scales or psychological tests for diagnosing dissociative disorders in children or adolescents. Dissociative disorder diagnoses can be very difficult to make in youth and are seriously confounded by the high levels of "normative" dissociation seen in some children and adolescents (Putnam, 1991a; Putnam, 1993). Unfortunately, some well-meaning child clinicians are mistaking normative dissociation for pathological dissociation in some cases. The diagnosis of childhood MPD or other dissociative disorder should only be made in a child or adolescent who has been clinically followed for some time and after repeated assessments of the degree of dissociation and its interference with the child's behavior and functioning have been made across a variety of contexts, e.g. home, school, peers etc. Dissociative disorder diagnoses should not be made without strong evidence that the child is experiencing a number of dimensions of pathological dissociation, e.g. extensive amnesias, depersonalization or other identity disturbance, frequent trance-like behavior and passive influence experiences.

Linkage of Dissociation to Traumatic Antecedents

One of the major findings to emerge from recent research with dissociation scales and structured interviews is the close linkage of high levels of dissociation with traumatic experiences. Although this relationship was intuitively known to many clinicians, recent research has confirmed and extended this finding, particularly in

---

[2] For a free copy of the Child Dissociative Checklist (CDC) and supporting material contact: Frank W. Putnam, M.D., Bldg 15K, NIMH, 9000 Rockville Pike, Bethesda, MD 20892

[3] Contact Judy Armstrong, Ph.D., Sheppard Pratt Hospital, 6501 N. Charles Street, P.O Box 6815, Baltimore, MD 21285-6815.

populations where traumatic antecedents were not previously considered to be important factors. Studies with dissociative and post-traumatic stress disorder patients have consistently linked increased DES scores to traumatic experiences (Putnam, 1991b). However, research with "non-traumatic" disorders, such as general psychiatric patients samples (Chu & Dill, 1990), borderline personality disorder patients (Herman,Perry, & van der Kolk, 1989); eating disorder patients (Demitrack,Putnam,Brewerton,Brandt, & Gold, 1990), and chronically psychotic patients (Goff et al., 1991) have also established that traumatic experiences increase an individual's propensity to dissociate (Putnam, 1985). Studies of normal samples have similarly confirmed this relationship (Nash,Hulsey,Sexton,Harralson, & Lambert, In press; Sanders,McRoberts, & Tollefson, 1989).

Little is known about which trauma-related factors, e.g. type of trauma, duration, frequency, loss of control etc, influence the development of dissociative symptoms. However, several studies suggest that early childhood traumatic experiences are more likely than later traumatic experiences to produce increased dissociation. Studies by Chu and Dill and colleagues with adult psychiatric patients demonstrate a significant negative correlation between DES scores and the age of onset for traumatic experiences (Chu & Dill, 1990) (Dill, D.L and Chu, J, - manuscript in preparation). A recent study by Putnam et al. found a similar negative correlation between age of onset and CDC scores in sexually abused girls, age 6 - 15 years (Putnam,Helmers, & Trickett, Under review). Adults with dissociative disorders generally have earlier onsets for abuse and trauma than national averages, e.g. several studies (Putnam,Guroff,Silberman,Barban, & Post, 1986; Ross, Miller, Bjornson, Reagor, Fraser, & Anderson, 1991; Schultz, Braun, & Kluft, 1989) have found an onset of sexual abuse between age 3-5 years in MPD patients compared to national averages of 7-9 years (Putnam & Trickett, 1993). Many authorities believe that patients who develop dissociative disorders experience more severe and more different types of abuse though only one study has systematically investigated this with a comparison group (Putnam et al., In press).

Normal Developmental Course of Dissociation over the Life Span

Little is known about the normative course of dissociation over the life span. Cross-sectional studies with adults demonstrate a gradual but significant decline in DES scores from adolescence through the seventh decade (Bernstein & Putnam, 1986; Putnam, 1991b; Ross,Joshi, & Currie, 1989b). Studies with adolescents suggest that the rate of decline in DES scores is greatest during early to middle adolescence (Sanders et al., 1989). Some authorities have extrapolated a life span trajectory of normative dissociation from research on hypnotizability. However, recent research suggests that clinical dissociation, as measured by the instruments discussed above, and hypnotizability, as measured by standard hypnosis scales, are only weak to

moderate correlates and caution should be used in analogizing one form of dissociation with the other (Frankel, 1990; Frischholz, Braun, Sachs, Schwartz, Lewis, Schaeffer, et al., In press; Lynn,Rhue, & Green, 1988; Nash et al., In press; Putnam et al., Under review).

Based on cross-sectional research, it appears as if CDC scores are low and show little change from ages 6 to 16 years in non-traumatized comparison subjects (Putnam et al., In press). CDC scores for non-traumatized, non-clinical samples average 2.3 ± 2.7 SD and generally show little variance. In a traumatized population there is often a marked heterogeneity of CDC scores and cross-sectional analyses suggest a decline in CDC scores with age. The abused children in our longitudinal study show a great deal of variability in their CDC scores, with about 20% of such a sample manifesting significant levels of dissociation (i.e. CDC scores of 12 or more) (Putnam et al., In press). The decline in CDC scores with age seen in our traumatized sample probably represents two factors. The first reflects a real decline in dissociative behavior with increasing age. The second reflects a deceased sensitivity of the CDC for dissociative behaviors in older children and adolescents. The ADDES is being developed to span the age gap between the CDC and the DES.

Children meeting DSM-IIIR criteria for dissociative disorders are generally so pathologically dissociative that they score near the top of these scales and no decline with age is seen in cross-sectional data (Hornstein & Putnam, 1992; Putnam et al., In press). Two studies have found that children and adolescents with MPD score about 25 ± 5.2 SD on the CDC ((Hornstein & Putnam, 1992; Putnam et al., In press). Children with Dissociative Disorder Not Otherwise Specified (DDNOS) score around 16.5 ± 4.7 SD on the CDC. Further work on the validation of these instruments is progressing and reliability and validity studies have been presented by several groups at national meetings.

DISSOCIATION AND PSYCHOPATHOLOGY

Two lines of evidence connect dissociation with a broad spectrum of psychopathology. The first is the range of associated psychopathology found in patients with DSM-IIIR dissociative disorder diagnoses. A number of studies, using differing methodologies, have characterized the clinical profiles of these patients (Coons,Bowman, & Milstein, 1988; Putnam et al., 1986; Ross et al., 1990; Ross,Norton, & Wozney, 1989; Schultz et al., 1989). There is a strikingly uniform set of clinical features that emerge from a review of these data. Dissociative disorder patients, particularly patients with MPD, exhibit clinical profiles characterized by a plethora of psychiatric symptoms including: depression, anxiety, hallucinations, passive influence phenomena, drug and alcohol abuse, post-traumatic symptoms,

obsessive-compulsive symptoms, eating problems, conversion and somatoform symptoms. Dissociative disorder patients are more likely to be violent and self-destructive (Ross & Norton, 1989). They are also likely to have acquired four or more non-dissociative psychiatric diagnoses and have long histories of psychiatric contact (Coons et al., 1988; Putnam et al., 1986; Ross et al., 1990; Ross et al., 1989; Schultz et al., 1989).

Much has been made of this plethora of psychiatric symptoms and MPD has been called the great imitator (Putnam, 1989), a medical moniker previously bestowed on Syphilis, infamous for its varied clinical presentations. In fact, only a minority of dissociative disorder patients (about 15% in one series (Kluft, 1991)) present with classic dissociative symptoms. The well-replicated polysymptomatology suggests that dissociation is diffusely related to non-dissociative psychopathology rather than directly related to specific symptoms or disorders. Current data do not permit us to assign a level of direct causal relationship between dissociation and other symptoms. Many of the symptoms and sequelae reported in adult victims of child hood abuse and trauma result from a complex interplay of the primary and secondary effects of trauma reverberating throughout the life cycle and are no means solely attributable to dissociation.

The second source of information comes from the study of dissociation in non-dissociative disorder clinical samples. Studies of the contributions of dissociation to the clinical phenomenology of eating disorder patients (Demitrack et al., 1990), chronically psychotic patients (Goff et al., 1991), and PTSD patients (Branscomb, 1991; Bremner, Southwick, Brett, Fontana, Rosenheck, & Charney, 1992) all suggest that within a given diagnostic category, increased levels of dissociation are associated with greater severity of symptoms and higher rates of self destructive behavior.

Although considerably fewer studies have been conducted, work with children and adolescents appears to replicate the diffuse relationship between dissociation and psychopathology described above for adults. Children with DSM-IIIR dissociative disorders also present with a plethora of psychiatric symptoms and generally receive several psychiatric diagnoses (Dell & Eisenhower, 1990; Hornstein & Putnam, 1992; Hornstein & Tyson, 1991; Putnam, 1993). In the largest sample published to date, the average child dissociative disorder case had received about 3 major psychiatric diagnoses and presented with an array of affective, anxiety, posttraumatic and conduct disorder symptoms (Hornstein & Putnam, 1992). Smaller sample studies and individual case reports also indicate that child and adolescent dissociative disorder cases are typically polysymptomatic with a variety of initial clinical presentations (Bowman, 1990; Bowman,Blix, & Coons, 1985; Dell & Eisenhower, 1990; Fagan & McMahon, 1984; Fine, 1988; Fink, 1988; Hornstein & Tyson, 1991;

Kluft, 1984; Kluft, 1985; Malenbaum & Russel, 1987; Tyson, 1992; Weiss,Sutton, & Utecht, 1985).

Research on the influence of dissociation on symptoms and behavior problems in both traumatized and non-traumatized child samples supports the notion that dissociation is diffusely related to psychopathology. Data from the Trickett and Putnam longitudinal study of sexually abused girls indicates that CDC scores are strongly correlated with overall and many of the subscale scores of the Child Behavior Checklist (CBCL) (Achenbach & Edelbrock, 1981) (Putnam and Trickett - unpublished data). The correlation coefficients between CDC scores and CBCL subscales for the non-traumatized comparison sample equal or exceed those coefficients for the abuse sample in many instances - indicating that strong relationships between dissociation and behavior problems are present in clinical and non-clinical samples. CDC scores are also well correlated with a number of self-report measures in abused and comparison children including the Child Depression Inventory (CDI) and motor activity levels (measured by computerized actometers) (Putnam and Trickett - unpublished data).

IMPACT OF DISSOCIATION ON DEVELOPMENTAL PROCESSES

Preliminary research on the effects of dissociation on memory (see (Putnam, 1991c)) and on the relationship of dissociation to attachment suggest that pathological levels of dissociation strongly impact developmental processes, especially those processes associated with the development of self, regulation of emotion and the integration of behavior. The following discussion, while largely speculative, is intended to suggest how dissociation may shift developmental processes toward abnormal trajectories.

Dissociative Alterations in the Development of Self

The dissociative disorders contain a set of disturbances in identity and other aspects of self. Clinically these disturbances of identity are manifest as: 1) psychogenic amnesia; 2) depersonalization; and 3) alternate identities. Underlying these alterations of identity are the dissociative disturbances of memory and psychophysiology discussed above.

Self is a complex construct with a long history in Western thought (Cicchetti & Beeghly, 1990). For the purposes of this paper, I will borrow a heuristic framework from the work of Daniel Stern (Stern, 1985) and focus on dissociative disruptions of his four core components of self: 1) self-agency; 2) self-coherence; 3) self-affectivity; and 4) self-continuity. David Fink (Fink, 1988), Daniel Seigel and others have also written or spoken about dissociative disturbances of self using Stern's framework.

Dissociative Disruptions of Self-Agency

Self-agency involves a sense of authorship of one's own behavior and actions and of nonauthorship of the actions of others (Stern, 1985). There is a sense of volition and control over one's self-generated actions which lead to expectable consequences. Self-agency is reinforced by feedback about one's actions both through perception and sensation and through the responses of others.

Significant levels of dissociation interfere with the development of an individual's sense of self agency on several levels. The person's sense of volition is undermined by dissociative process symptoms such as passive influence experiences and hallucinations. Passive influence experiences such as made thoughts, made affects, automatic writing and possession are subjectively experienced as if a force outside of the individual's conscious awareness is forcing him or her to do something against his or her will. The individual may be well-oriented to person, place, time and circumstance, but feels gripped by a powerful force that he or she can not resist. At times, dissociating individuals may feel compelled to do or say something that is against their moral judgment or common sense.

Often passive influence experiences are accompanied by intense depersonalization, so that the person feels as if he or she is watching him/herself from a detached perspective. Many MPD patients recount suicide attempts as if they were internal homicides, with one alter personality state methodically attempting to kill another personality state while other dissociated aspects of self watch with detachment. Obviously such an experience does not foster an integrated sense of self or a coherent locus of self-agency.

At other times, the chronically dissociating individual simply discovers that they have done or said things that they can not remember and cannot account for from a moral or rational perspective. This all-too-frequent experience is disturbing not only because the individual discovers that he/she has acted contrary to his/her moral values and better judgment, but also because the individual constantly worries about what else he/she may have done that has not been discovered yet.

Other key elements of self-agency, such as feedback and predictability of the consequences of one's actions are interrupted by dissociative switching and memory retrieval problems. Some times the individual experiences the consequences of an action that he/she does not remember doing; and at other times, the individual recalls the action but not the consequences. As a result, the dissociative individual has a great deal of difficulty learning from "past experience". and understanding "cause and effect" relationships.

Dissociative Disturbances of Self-Coherence

A stable sense of self as a single, coherent, bounded physical entity is central to Stern's notion of a core self (Stern, 1985). He identifies several subcomponents of self-coherence including: 1) unity of locus; 2) coherence of motion; and 3) coherence of temporal structure. Unity of locus implies that an individual is in one place at one time and that the individual's actions originate from that locus. The depersonalization, out-of-body experiences, and passive influence experiences described above all undermine the individual's sense of a unified locus of control from which his/her actions emanate. Coherence of motion and coherence of temporal structures depend upon a stability of perception and cognition which unfortunately is frequently interrupted by dissociative switching, intrusive memories, flashbacks, thought insertion, thought withdrawal and hallucinations. Similarly, the individual's experience of the coherence of their environment and others is hindered by switching, intrusions, alter personality state-dependent perception and cognition and state-dependent memory retrieval problems.

Dissociative patients respond to these dissociative experiences by elaborating and representing (to themselves and others) alter personality states as separate entities capable of independent volitional activities. This is a concrete expression of their lack of a sense of unified self-coherence. Rather than defining and experiencing a self organized around a single locus of control; MPD patients represent self as a collection of autonomous agents, often in diametrical conflict with each other.

Disturbances of Self-Affectivity

Self-affectivity depends on internal invariant self events associated with specific states of emotion, e.g. joy, interest, distress, surprise and anger (Stern, 1985). Stern conceptualizes affects as discrete arousal states defined by a specific sets of invariant self-events. A given constellation of emotional state-specific self-invariants includes: 1) a set of proprioceptive feedback patterns to/from facial display, respiratory rate and rhythm and vocal apparatus; 2) internal patterns of arousal and activation; and 3) emotion-specific qualities of feeling (Stern, 1985). Citing the work of Izard (Izard, 1977) on the constancy of facial display over the life cycle, and preliminary work by Ekman et al. (Ekman,Levenson, & Friesen, 1983) on the existence of specific physiological patterns characterizing different emotional states, Stern argues that the constancy of the internal experience of given emotional states across the life span makes them an excellent warrant of the stability of self over time.

As Fink (Fink, 1988) and others have noted, MPD patients and other victims of child

abuse deny and distrust their emotional responses. The often overwhelming sensory and affective experiences associated with abusive experiences result in defensive patterns that serve to minimize, distort and constrict self-affectivity. Rather than providing an underlying constancy of self, in MPD patients affective responses ultimately serve to define and reinforce very different and separate senses of self. It has long been recognized that the alter personality-states of MPD patients usually have a single predominating affect, e.g. anger, depression, fear. When the individual's affect changes, it is accompanied by a switch in personality state (Fink, 1988; Putnam, 1989). Most alter personality states are not capable of experiencing more than a limited range of affect. And different personality states may have very different affective responses to the same stimulus.

Other dissociative factors disrupt the predictability of affective responses in dissociative disorder patients. They find that they have inexplicable yet powerful affective shifts associated with social and environmental cues and triggers reminiscent of traumatic experiences. Passive influence experiences such as "made feelings", in which the individual is overcome by an affect that comes "out of the blue" and experientially does not seem to "belong" to him/her, disrupt the individual's sense of ownership of the affect. Flashbacks and the other intrusive affective experiences further contribute to affective turbulence and unpredictability.

Dissociative Interruptions in Self-Continuity

Self-continuity is the matrix that consolidates Stern's other aspects of self (agency, coherence and affectivity) into an integrated sense of self (Fink, 1988). Continuity of memory is central to self-continuity. Dissociative disturbances of memory, particularly compartmentalization, state-dependent retrieval and difficulty in determining whether a given memory is "real", seriously disrupt self-continuity. Time loss, amnesias, fugue episodes and switching all erode the individual's experience of continuity of self and behavior. Erratic access to fundamental autobiographical and other personal information undermines that individual's link to his or her life history and his or her experience of the continuity of self across time. Difficulty in determining whether a memory actually happened to oneself, to someone else or was "incorporated" into memory from other sources, degrades the self-referential qualities of autobiographical memory and creates doubt about what one remembers as his or her life. The extensive childhood amnesias suffered by dissociative patients further debase historical and autobiographical warrants of the continuity of self.

Summary of Dissociative Disturbances of Self

Pathological dissociation, which is highly associated with severe trauma, appears to

disrupt the developmental processes required for the formation of a stable, "core" self. Dissociation disrupts the formation of self by directly interfering with critical underlying self subprocesses, e.g. self-agency, self-affectivity, and by interfering with the integration of these components of self into a coherent whole. Dissociative and traumatic symptoms such as depersonalization, switching, amnesias, flashbacks, hallucinations and passive influence symptoms interfere with the individual's sense of agency, ownership, predictability, coherence and continuity of behavior. A chronically dissociating individual may develop discrete states of consciousness with strongly held, individualized senses of identity; but that individual fails in the larger developmental task of consolidating these states into a unified sense of self. It is likely that pathological dissociation makes a strong contribution to a variety of disturbances of self found in other trauma-related disorders, such as borderline personality disorder, eating disorders, somatization disorder and substance abuse disorders (Cole & Putnam, 1992; Putnam, 1990).

REFERENCES

Achenbach, T., & Edelbrock, C. (1981). Behavioral problems and competencies reported by parents of normal and disturbed children aged 4 through 16. Monograph of the Society for Research in Child Development, 46.

Bernstein, E., & Putnam, F. W. (1986). Development, reliability and validity of a dissociation scale. Journal of Nervous and Mental Disease, 174, 727-735.

Boon, S., & Draijer, N. (1993). Multiple personality disorder in the Netherlands: A clinical investigation of 71 patients. American Journal of Psychiatry, 150, 489-494.

Bowman, E. S. (1990). Adolescent multiple personality disorder in the nineteenth and early twentieth century. Dissociation, 3(4), 179-187.

Bowman, E. S., Blix, S., & Coons, P. M. (1985). Multiple personality in adolescence: Relationship to incestual experiences. Journal of the American Academy of Child and Adolescent Psychiatry 24(1), 109-114.

Branscomb, L. (1991). Dissociation in combat-related posttraumatic stress disorder. Dissociation, 4, 13-20.

Bremner, J. D., Southwick, S., Brett, E., Fontana, A., Rosenheck, R., & Charney, D. S. (1992). Dissociation and posttraumatic stress disorder in Vietnam combat veterans. American Journal of Psychiatry, 149, 328-332.

Carlson, E. B., Putnam, F. W., Ross, C. A., Torem, M., Coons, P. M., Dill, D. L., Loewenstein, R. J., & Braun, B. G. (In press). Validity of the Dissociative Experiences Scale: A multicenter study. American Journal of Psychiatry.

Chu, J. A., & Dill, D. L. (1990). Dissociative symptoms in relation to childhood physical and sexual abuse. American Journal of Psychiatry., 147, 887-892.

Cicchetti, D., & Beeghly, M. (1990). Perspectives on the study of the self in transition. In D. Cicchetti & M. Beeghly (Eds.), The Self in Transition Chicago: University of Chicago Press.

Cole, P. M., & Putnam, F. W. (1992). The effect of incest on self and social functioning: A developmental psychopathological perspective. Journal of Clinical and Consulting Psychology, 60, 174-184.

Coons, P. M. (1984). The differential diagnosis of multiple personality: A

comprehensive review. Psychiatric Clinics of North America., 7, 51-65

Coons, P. M., Bowman, E. S., & Milstein, V. (1988). Multiple personality disorder: A clinical investigation of 50 cases. Journal of Nervous Mental Disease., 176, 519-527.

Dell, P. F., & Eisenhower, J. W. (1990). Adolescent multiple personality disorder. Journal of the American Academy of Child and Adolescent Psychiatry, 29, 359-366.

Demitrack, M. A., Putnam, F. W., Brewerton, T. D., Brandt, H. A., & Gold, P. W. (1990). Relation of clinical variables to dissociative phenomena in eating disorders. American Journal of Psychiatry, 147, 1184-1188.

Ekman, P., Levenson, R. W., & Friesen, W. V. (1983). Autonomic nervous system activity distinguishes among emotions. Science, 221, 1208-1210.

Evers-Szostak, M., & Sanders, S. (1992). The Children's Perceptual Alteration Scale (CPAS): A measure of children's dissociation. Dissociation, 5, 91-97.

Fagan, J., & McMahon, P. P. (1984). Incipent multiple personality in children: Four cases. Journal of Nervous and Mental Disease , 172(1), 26-36.

Fine, C. G. (1988). The work of Antoine Despine: The first scientific report on the diagnosis and treatment of a child with multiple personality disorder . American Journal of Clinical Hypnosis , 31(1), 33-39.

Fink, D. L. (1988). The core self: A developmental perspective on the dissociative disorders. Dissociation, 1(2), 43-47.

Frankel, F. H. (1990). Hypnotizability and dissociation. American Journal of Psychiatry, 147, 823-829.

Frischholz, E. J., Braun, B. G., Sachs, R. G., Schwartz, D. G., Lewis, J., Schaeffer, D., Westergaard, C., & Pasquotto, J. (In press). The relation between the DES and hypnotizability. American Journal of Clinical Hypnosis.

Goff, D. C., Brotman, A. W., Kindlon, D., Waites, M., & Amico, E. (1991). Self-reports of childhood abuse in chronically psychotic patients. Psychiatry Research, 37, 73-80.

Herman, J. L., Perry, J. C., & van der Kolk, B. A. (1989). Childhood trauma in borderline personality disorder. American Journal of Psychiatry, 146(4), 490-495.

Hornstein, N. L., & Putnam, F. W. (1992). Clinical phenomenology of child and

adolescent dissociative disorders. Journal of the American Academy of Child and Adolescent Psychiatry, 31, 1077-1085.

Hornstein, N. L., & Tyson, S. (1991). Inpatient treatment of children with multiple personality/dissociative disorders and their families. Psychiatric Clinics of North America, 14(3), 631-648.

Izard, C. E. (1977). Human emotions. New York: Plenum Press.

Kluft, R. P. (1984). Multiple personality in childhood. Psychiatric Clinics of North America , 7(1), 121-134.

Kluft, R. P. (1985). Childhood multiple personality disorder: Predictors, clinical findings and treatment results. In R. P. Kluft (Eds.), Childhood antecedents of multiple personality Washington, D.C.: American Psychiatric Press.

Kluft, R. P. (1987). First-rank symptoms as a diagnostic clue to multiple personality disorder. American Journal of Psychiatry, 144, 293-298.

Kluft, R. P. (1991). Clinical presentations of multiple personality disorder.Psychiatric Clinics of North America, 14(3), 605-630.

Lynn, S. J., Rhue, J. W., & Green, J. P. (1988). Multiple personality and fantasy proness: is there an association or dissociation? British Journal of Experimental and Clinical Hypnosis, 5, 138-142.

Malenbaum, R., & Russel, A. J. (1987). Multiple personality disorder in an 11 year-old boy and his mother. Journal of the American Academy of Child and Adolescent Psychiatry, 26, 436-439.

Nash, M. R., Hulsey, T. L., Sexton, M. C., Harralson, T. L., & Lambert, W. (In press). Long-term sequelae of childhood sexual abuse: Perceived family environment, psychopathology, and dissociation. Journal of Clinical and Consulting Psychology.

Putnam, F. W. (1985). Dissociation as a response to extreme trauma. In R. P. Kluft (Eds.), Childhood antecedents of multiple personality (pp. 66-97). Washington, D.C.: American Psychiatric Press.

Putnam, F. W. (1989). Diagnosis and treatment of multiple personality disorder. New York: Guilford Press.

Putnam, F. W. (1990). Disturbances of "self" in victims of childhood sexual abuse. In

R. P. Kluft (Eds.), Incest-related syndromes of adult psychopathology (pp. 113-133). Washington, D.C.: American Psychiatric Press.

Putnam, F. W. (1991a). Dissociative disorders in children and adolescents: A developmental perspective. Psychiatric Clinics of North America, 14(3), 519-532.

Putnam, F. W. (1991b). Dissociative phenomena. In A. Tasman & S. M. Goldfinger (Eds.), American psychiatric press review of psychiatry (pp. 145-160). Washington, D.C.: American Psychiatric Press.

Putnam, F. W. (1991c). Recent research on multiple personality disorder. Psychiatric Clinics of North America, 14, 489-502.

Putnam, F. W. (1992). Are alter personalities fragments or figments? Psychoanalytic Inquiry, 12, 95-111.

Putnam, F. W. (1993). Dissociative disorders in children: Behavioral profiles and problems. Child Abuse & Neglect, 17, 39-45.

Putnam, F. W., Guroff, J. J., Silberman, E. K., Barban, L., & Post, R. M. (1986). The clinical phenomenology of multiple personality disorder: Review of 100 recent cases. Journal of Clinical Psychiatry, 47(6), 285-293.

Putnam, F. W., Helmers, K., & Trickett, P. K. (In press). Development, reliability, and validity of a child dissociation scale. Child Abuse & Neglect.

Putnam, F. W., Helmers, K., & Trickett, P. K. (Under review). Hypnotizability and dissociativity in sexually abused girls. American Journal of Psychiatry.

Putnam, F. W., & Trickett, P. K. (1993). Child sexual abuse: A model of chronic trauma. Psychiatry, 56, 82-95.

Reagor, P. A., Kasten, J. D., & Morelli, N. (1992). A checklist for screening dissociative disroders in children and adolescents. Dissociation, 5, 4-19.

Ross, C., Heber, S., Norton, G., Anderson, D., Anderson, G., & Barchet, P. (1989a). The Dissociative Disorders Interview Schedule: A structured interview. Dissociation, 2, 169-189.

Ross, C. A., Joshi, S., & Currie, R. (1990). Dissociative experiences in the general population. American Journal of Psychiatry, 147, 1547-1552.

Ross, C. A., Miller, S. D., Bjornson, L., Reagor, P., Fraser, G., & Anderson, G. (1990). Structured interview data on 102 cases of multiple personality disorder from four centers. American Journal of Psychiatry, 147, 596-601.

Ross, C. A., Miller, S. D., Bjornson, L., Reagor, P., Fraser, G. A., & Anderson, G. (1991). Abuse histories in 102 cases of multiple personality disorder. Canadian Journal of Psychiatry, 36, 97-101.

Ross, C. A., & Norton, G. R. (1989). Suicide and parasuicide in multiple personality disorder. Psychiatry, 52, 365-371.

Ross, C. A., Norton, G. R., & Wozney, K. (1989). Multiple personality disorder: An analysis of 239 cases. Canadian Journal of Psychiatry, 34, 413-418.

Sanders, B., McRoberts, G., & Tollefson, C. (1989). Childhood stress and dissociation in a college population. Dissociation, 2(1), 17-23.

Schultz, R., Braun, B. G., & Kluft, R. P. (1989). Multiple personality disorder: Phenomenology of selected variables in comparison to major depression. Dissociation, 2(1), 45-51.

Steinberg, M., Rounsaville, B., & Cicchetti, D. (1990). The structured clinical interview for DSM-III-R dissociative disorders: Preliminary report on a new diagnostic instrument. American Journal of Psychiatry, 147, 76-82.

Steinberg, M., Rounsaville, B., & Cicchetti, D. (1991). Detection of dissociative disorders in psychiatric patients by a screening instrument and a structured interview. American Journal of Psychiatry, 148, 1050-1054.

Stern, D. N. (1985). The interpersonal world of the infant. New York: Basic Books.

Tyson, G. M. (1992). Childhood MPD/Dissociative Identity Disorder: Applying and extending current diagnostic checklists. Dissociation, 5, 20-27.

Weiss, M., Sutton, P. J., & Utecht, A. J. (1985). Multiple personality in a 10-year-old girl. Journal of the American Academy of Child and Adolescent Psychiatry , 24(4), 495-501.