

DREAMLIKE THOUGHT AND DREAM MODE PROCESSES IN THE FORMATION OF PERSONALITIES IN MPD

Jean Franklin, M.D.

Jean Franklin, M.D. is a psychiatrist in private practice in Amherst, Massachusetts.

For reprints write Jean Franklin, M.D., 274 North Pleasant Street, Amherst, MA 01002.

ABSTRACT

In multiple personality disorder (MPD), the overwhelming traumas induce dissociative states of consciousness in which the child uses developmental dreamlike thought in a dream mode of mental processing to form personalities to cope with or defend against the traumas. The personalities may then continue to be structured by schemas and substrates based on reality, fantasy, further dreamlike thought, and other shaping influences, such as identification. Evidence for this view is: (1) When MPD first develops, much of the child's normal thought is dreamlike. (2) The nature and elaboration of the personalities from childhood to adult MPD parallel the development of children's waking thought and their dreams. (3) MPD patients often use dreamlike thought (such as imagery, symbols, creative imagination, and personification) in the dream mode of processing in which personalities are intensely hallucinated, have delusions of experiential reality, often experience amnesia, show intense emotion, have varying orientations to time, place, and person, and use parallel and analogical processing.

Since the time of Janet (1889) and Breuer and Freud (1895), multiple personality disorder (MPD) has been conceptualized as involving dissociative states of consciousness which have developed following severe trauma in childhood (Putnam, 1985, 1989; Putnam, et al., 1986; Wilbur, 1984, 1985). States of consciousness have been described in relation to hypnosis since the end of the eighteenth century (Bliss, 1986; Ellenberger, 1970; Hilgard, 1977) and more recently have been studied in relation to sleep, waking, and dreaming (Hobson, 1988; Wolff, 1987).

Dissociation can be viewed as a primitive, phylogenetic response occurring in reaction to the pain and fear of trauma, which causes alterations of consciousness in which parts of consciousness are segregated from the trauma while other parts are overwhelmed by it. It is a neurophysiological response (Putnam, 1985, 1988) which may involve the formation of neuronal groups which respond selectively to certain internal or external stimuli (Edelman & Mountcastle, 1978), which develop in a variety of configurations with complex connections, and are involved in the segregation of different states of consciousness. The personalities in MPD are initially formed in dissociative states of consciousness induced by trauma but may become increasingly structured over time. Once the

mechanism for their generation has become established, they may be created in less stressful contexts as well.

States of consciousness can be conceptualized as lying on a continuum of changing mental structures from the alert, waking, reality state; to daydreams and fantasy; hypnosis; and dreaming (Bliss, 1984). The mental structures and processes that lie along this continuum range from waking, realistic, logical thought; to less reality-bound wishful and make-believe thought, to sensory images; to hallucinations and the dream mode of mental processing. Thus, one can conceptualize a continuum with two dominant modes of processing: waking mode and dream mode, with different gradations and combinations of these processes occurring along the continuum on different levels or states of consciousness. The *waking or reality mode of mental processing* is characterized by attention, logical thinking, insight, judgment, an awareness of self, contextual reality, and time. During the waking state, one has voluntary control of one's thoughts and behavior, and part of the self monitors and controls one's orientation to reality (Hilgard, 1977). The *dream mode of mental processing* is a way of processing characterized by sensory images; hallucinations; a delusion of experiential reality; varying orientations of time, place, and person; a use of parallel and analogical processing, symbols, metaphor, and fantasy; intensity of emotion; and amnesia. Dream mode processing occurs in deep hypnosis and in waking dissociative states as well as in dreams. It is often experienced after intense stimulation or trauma as hallucinations, flashbacks, relivings, and realistic nightmares and is a regressive mode of thinking which accounts for some of the symptoms of post-traumatic stress disorder and MPD.

The reality mode is dominant in the waking life of normal adults, while much of the waking thought of young children (i.e., those under age seven) is dreamlike or similar to the thought in dreams (Freud, 1920; Piaget, 1951). Developmental *dreamlike thought* consists of mental images, action, and symbols, and more complex processes, such as symbolic fantasy, creative imagination, and personification. MPD patients have been observed to use more dreamlike thought in their waking life than normal adults do (Bliss, 1986; Franklin, 1985, 1990).

In the present paper, I am proposing that *dreamlike thought and the dream mode of mental processing are used in the initial formation of the personalities in MPD*. What may happen is that the overwhelming affects and conflicts produced by the traumas (Wilbur, 1985) lead to a dissociative state in which the child uses dreamlike thought in a dream mode of mental processing to *initiate* the formation of personalities. The young child is just beginning to develop the reality schemas (mental patterns and structures) which will give him a stable sense of self and the

ability to cope effectively with external reality. The severe traumas are so discrepant from his other cognitive and affective schemas that he is unable to assimilate them into his developing psychic structure. He uses the elements and substrates of dreamlike thought in the dream mode of processing in discrete dissociative states of consciousness to organize different selves, and these forms of thought then continue to be present in these structures. After the core features of the personalities are created, some will continue to be structured by real experiences, further dreamlike thought, fantasy (Young, 1988), social roles, and other developmental processes and shaping influences, such as identification (Kluft, 1984a), and state dependent learning (Braun, 1984a).

The dream mode of mental processing appears to be involved in the initial formation of personalities, because all personalities, even the more realistic ones, (1) have a belief that they are real, as one experiences dreams as real while dreaming; (2) hallucinate themselves and the voices of other personalities, as one has visual and auditory hallucinations in dreams; (3) have varying orientations of time, place, and person; (4) express themselves in visual images, symbols, and metaphor, all of which are present in dreams; (5) use parallel and analogical processing, which predominate in dreams; and (6) there is often amnesia, as there is for most dreams.

Several areas of clinical and research evidence for my view will be presented: (1) Most cases of MPD are believed to develop in early childhood (Bliss, 1980), when many of the child's mental processes are similar to those of dreams (Freud, 1920; Piaget, 1951). (2) The development of the personalities from childhood to adult MPD parallels the development of children's thinking, which is reflected in the development of their dreams. (3) Many of the mental processes involved in the basic structuring of the personalities in MPD are also used in dreams. (4) Waking, dreamlike, and dream mode processes can coexist in hypnosis (Hilgard, 1977), during sleep onset and awakening (Foulkes, 1985), and dreaming.

THE DEVELOPMENT OF CHILDREN'S THINKING IN RELATION TO DREAMS AND SYMBOLIC PLAY

Both Freud (1920) and Piaget (1951) observed that much of the normal waking thought of young children is similar to the thought in dreams. Freud observed that both children's play and dreams are based on wish fulfillment or on attempts to master conflicts or trauma, and this is true of some of the personalities in MPD. He also observed that young children use primary process thought which adults use in dreams (Freud, 1911, 1915). "Primary process" refers to unconscious mental activity in which instinctual impulses are expressed directly and guided by the pleasure principle, without regard to reality and logic. In the thought present in dreams, in the unconscious, and in the waking primary process thought of young children, time does not exist, contradictory things exist side by side, psychic reality is substituted for external reality, and ideas are comprised of memory images. Freud (1900) believed that the earliest mental process is the hallucination of unfulfilled needs and that the hallucinations and imagery in dreams are an earlier form of thought which serves to disguise unacceptable feelings and conflicts. Secondary process thought, which devel-

ops later on in childhood, is expressed in language and is sequential, logical, and oriented to outer reality. Primary process thought is used in the initial formation of many of the personalities in MPD and continues to be dominant in some personalities.

Like Freud, Piaget (1951) observed that the thought in dreams is similar to the thought in children's play. In symbolic play and in dreams, the child uses *assimilation* (or adapting external stimuli to internal mental structure) more than *accommodation* (or adapting internal mental structure to external reality), although both often occur together. In early childhood, most of the child's time is spent in play, and his thinking shows a primacy of assimilation over accommodation. In adults, the primacy of assimilation occurs mainly in dreams, because, in sleep, the adult lacks logical thought and rational language, which the child has not yet developed (Piaget & Inhelder, 1969). Young children are beginning to develop accommodative reality thought and logic in their exploratory play and goal-directed and problem-solving behavior; and as they mature, their thought becomes increasingly logical and realistic.

Much of the thought in young children has some of the characteristics of the thought in dreams. Early thought is dreamlike in that it consists of memories of action (learned through sensorimotor activity) and later of images (or internalized sensorimotor and visual memories) and symbols (in which something is used to represent something else). Sensorimotor schemas (patterns of perception and behavior) develop before inner language and thought (Piaget, 1952). In dreams and during early childhood, images, action, and symbolic thought predominate. This early form of assimilative or dreamlike thought is observed in many of the personalities in MPD in their expression of feelings in action and in their use of imagery, symbols, and metaphor, although the personalities created later to handle reality needs may develop more thought processes based on accommodation.

When sensorimotor schemas become internalized memory images, the child can use imagination, which is the ability to form and use mental images of things not present to the senses. In imagination, the child combines mental images based on past experiences into patterns he has not perceived in reality. In his early play, he realistically imitates what he sees in action; then in symbolic imaginative play, he uses mental images; and, still later, uses creative imagination, in which images, symbols and ideas are interiorized as creative thought (Piaget, 1951). There is a free combination of schemas in creative imagination and in dreams, and creative imagination is used in the creation of imaginary companions and the personalities in MPD.

During this same period, children begin to use symbolic fantasy or make-believe, in which they use objects or action to represent something they have experienced in reality (Piaget, 1951); for example, they may pretend that an object is something else or that they are an animal or another person, or in another place. Later on, they are able to use imagination involving ideas and symbols to create less realistic more complex persons, animals, and places.

In early childhood (usually under age four), there is little distinction between fantasy and reality, and children often believe that their dreams are real when they are awake (Piaget,

1951). Later, they may believe that dreams are pictures in the room and then that they are pictures in their head. From his study of children's dreams, Piaget concluded that when symbolic thinking is at its height, dreams are projected into external reality, because thinking originates from action on external objects; and "it is only at the age of about seven that mental activity is grasped as being internal" (Piaget, 1951).

Between the ages of two and seven, many children create imaginary companions (Pines, 1978; Singer & Singer, 1990), which are similar in some ways to the personalities in MPD. During this period, children are beginning to learn about realistic causality or about "what leads to what" (Emde, 1983); but the young child's concept of causality is primarily a psychological causality in which other people, forces, or things are believed to have his own abilities, motives, and feelings (Flavell, 1963; Piaget, 1926). He has not yet learned reality testing in which external events are clearly distinguished from internal processes. He often confuses what he wishes to be true with what is real and confuses his self with the external world of other people (Piaget & Inhelder, 1969). His egocentrism and magical and animistic thinking lead him to personify, to create something or someone with human qualities to explain certain forces or events or meet certain needs. It is during this period that the development of self-concept (Keller, Ford, & Meacham) or sense of self (Stern, 1985) and concept of other (Mead, 1934) normally occur, and the child then becomes able to form new selves, such as imaginary companions and personalities. In the context of trauma, the child may wish for another self or selves who do not experience the pain and may create other alters to take the pain. To do this, he must have established enough of a self concept and concept of other that he can use these constructs in a symbolic way to stand for someone else.

Both personalities and imaginary companions can have an instantaneous origin and continue to develop over time. Imaginary companions may suddenly emerge during traumatic or stressful experiences and be used to express certain feelings or defenses (Nagera, 1969). The same is true of personalities, which may also serve as transitional objects (Marmer, 1980b). Developmental dreamlike thought processes, such as images, symbolic fantasy, personification, and creative imagination are used in the formation of both. However, when personalities are formed in traumatic dissociative states, they are hallucinated, believed to be real, and are often amnesic for each other. Though children sometimes hallucinate their imaginary companions, they usually know they are not real, are not amnesic for them, perceive them as external, and are in control of them.

Imaginary companions are sometimes used as the center of organization for the formation of personalities (Bliss, 1984; Young, 1988). The child's intense feelings and psychodynamic needs in the dissociative state induced by trauma may lead to a process in which the images of dreamlike thought become more vivid to become hallucinations, fantasies are believed in as real, amnesia may develop, and these processes may become part of psychic structure. Some of the personalities may then continue to develop over time and become a more permanent part of the child's psychic structure and assume executive control of his behavior.

Most personalities in MPD are formed in a similar way.

When the child is traumatized, the intense, overwhelming stimuli and the dissociative response to escape psychically may cause him to enter the dream mode of mental processing in which he uses both dreamlike elements and dream mode processes to generate intrapsychic patterns and structures which soothe, comfort, contain, segregate, and defend against the traumas. Once he has learned this response, it can be used over and over, and these elements and processes may be configured and reconfigured to form ongoing, multiple, varied structures or personalities.

MPD may develop most frequently during early childhood or in regressions to it, since during this period the child has difficulty distinguishing reality from fantasy (Isaacs, 1948) and dreams (Piaget, 1951) and can most easily create personalities. His ability to use dreamlike thought to form different identities at a time when his own is developing rapidly makes childhood a critical period for the development of MPD, because severe traumas experienced after puberty are not followed by MPD. In these patients, trauma and the creation of alternate identities disrupt the integration and consolidation of their normal ongoing identity.

THE DEVELOPMENT OF CHILDREN'S THINKING, DREAMS, AND THE PERSONALITIES IN MPD

As the child's waking thought develops, his dreams are also developing from the static, simple sketches of early childhood to the complex, active narratives of adult dreams. Although less structured and complex, children's dreams and the personalities in childhood MPD have the same essential characteristics as adult dreams and personalities: hallucinations, feelings of experiential reality, amnesia, and different orientations of time, place, and person. Since a child cannot develop personalities beyond the level of development of his waking and dream cognitions, when MPD first develops at an early age, the personalities are usually simple and incipient in nature (Fagan & McMahon, 1984). As the child gains more experience and develops more mental and affective schemas and new ways of combining them, his thinking and psychic structure gradually become more complex and so do his dreams and personalities. The level of development of the child's waking thought and his evolving identity is concordant with his dreams (Foulkes, 1985) and with the development of the personalities in MPD.

During the *preoperational stage* (ages 2-7), the child's thinking is based on what he sees or experiences rather than on logic, and he can think of only one aspect of a situation at a time (Piaget & Inhelder, 1969). His thinking involves concrete action, images, and symbols, and is often egocentric, animistic or magical, and dominated by needs and fantasies. Young children have fewer schemas than they have later on and report only a few dreams (on 27% of REM awakenings) (Foulkes, 1985). At first, their dreams involve simple, episodic, static visual images and body states and do not have a story or active self, but often have animal characters (Foulkes, 1982, 1985). Their REM dreams are usually positive. REM nightmares are not reported until age seven (Foulkes, 1985); but young children sometimes report frightening dreams when awakened from stage 4, non-REM sleep (Foulkes, personal communication). Parents report that normal preschool children have

frightening dreams (Ames, 1964; Beltramini & Hertzog, 1983), and traumas are often followed by night terrors in stage 4, non-REM sleep (Eth & Pynoos, 1985). At ages 5-7, children's dreams develop movement, human characters, social interaction, and a primitive story line (Foulkes, 1985).

Paralleling their dream processes, when children first develop MPD in early childhood, the personalities are sketchy; and like children's drawings, which also reflect their level of mental development (Goodenough, 1926; Kellogg, 1970), include only essential elements. Young children usually have only a few personalities (Fagan & McMahon, 1984) that are barely elaborated and not very distinct (Kluft, 1985a). As the child develops more schemas, the personalities and personality elements can become more complex, which parallels what happens in their dreams.

In early childhood, the function of the personalities may be based on defense mechanisms, such as regression or denial; and the original personality may be amnesic for the one that holds the traumas. Although some adult MPD patients have said that their first personalities appeared by age two (Marmer, 1980a; Schreiber, 1974), the youngest case reported in the literature is the three-year-old girl seen by Riley and Mead (1988), who developed a second personality when she was separated from her foster mother and was physically and sexually abused in the home of her biologic mother. The original personality was amnesic for the traumas; and the second personality showed less mature behavior and was less complex and structured than the personalities observed in older children. This child had the necessary schemas and used regression to create a younger self who was aware of the traumas.

In the stage of *concrete operations* (ages 7-12), children's thinking becomes more internalized and realistic, and they can think in terms of categories and relationships and a series of actions (Piaget & Inhelder, 1969). They report more dreams (on 48% of REM awakenings), and their dreams are longer and have plots or common themes (Foulkes, 1985). Now, an active self is clearly present; the dream characters express thoughts and feelings; and children have nightmares in REM sleep. During this period, children develop many more schemas to combine in their dreams and personalities, and MPD patients have an average of four personalities that are more complex and differentiated and involve more mature defense mechanisms than those of younger children. In addition to personalities that hold traumas, they have alters who express forbidden impulses, protector personalities, and alters based on identification with the abuser or with TV characters (Kluft, 1984a, 1985a).

In the stage of *formal operations* (ages 12 and over), children are able to think more logically and abstractly. They can generate many solutions to problems, anticipate their outcome, and apply mental operations to problems they imagine (Inhelder & Piaget, 1958). They report more REM dreams (on 67% of awakenings); their dreams become increasingly abstract and complex in their organization; and they also have fragmentary dreams in which they can focus in on one object and elaborate it (Foulkes, 1985). Their increasing experience and brain development lead to a great increase in number of schemas, which may then be combined in novel ways. Also there is an

increase in complexity of the dream narrative, in novel dream characters and settings, and greater dream distortion (Foulkes, 1985). This increase in brain development and schemas allows the personalities of MPD patients to become further structured and to develop more complex symbolism and fantasy, as well as increasingly realistic thought processes. Their personalities can now include inner self helpers, who use more realistic thinking, and inner persecutors, which involve a turning inward of aggression as well as identification with the aggressor (Kluft, 1985a). There is also an increase in the number of alters. Adult MPD patients have been found to have an average of 17 alters (Schultz, Braun, & Kluft, 1989) and may develop well over a hundred (American Psychiatric Association, 1987; Kluft, 1988).

DREAMLIKE THOUGHT AND DREAM MODE PROCESSES OBSERVED IN MPD PATIENTS

Further evidence that dreamlike thought and dream mode processes are used in the formation and development of the personalities in MPD is that many of their mental processes and structures are similar to those of dreams.

(1) The personalities often use dreamlike fantasy in which imagery and symbols are used to represent something real or imaginary, and they use creative imagination to combine schemas in novel ways as one does in dreams.

(2) Many personalities express their thoughts and feelings in visual symbols and metaphor as one does in dreams (Bliss, 1986; Franklin, 1985, 1988a, 1990). For example, one MPD patient visualized herself in a hall of mirrors, with the distorted images of her different selves reflected in the various mirrors, while another saw herself as a collage of different colors.

(3) In REM dreams, there are vivid visual and auditory hallucinations which are accepted as real, while MPD patients often hallucinate their personalities visually and hear their voices talking to each other. Their hallucinations are usually intrapsychic; more than 80% are experienced as being within the head (Kluft, 1985b).

(4) Another feature of dreams is that they involve intense feelings, possibly due to the activation of emotional centers of the limbic system and brain stem "startle" networks (Hobson, 1988). Some of the personalities of MPD patients experience emotions with vivid intensity. They may suddenly feel intense anger or fear when something happens that is associated with their traumas or when a traumatic area is approached in therapy and experience intense emotion when reliving their traumas.

(5) Dreams occur in altered states of consciousness (Hobson, 1988), and one usually has amnesia for them. MPD patients often have amnesia for their traumas, and some personalities are amnesic for one another (Putnam, et al., 1986). Dreams can also exist on varying levels of consciousness, from lucid dreams (LaBerge, 1985) in which we know we are dreaming (and which may be a dream form of the hidden observer) to dreams in which we do not realize we are dreaming and accept the dream as real. Alters, too, can have different degrees of awareness for each other and different levels of awareness of being alters.

(6) Finally, in the dream mode, there is a lack of orientation of time, place, and person, and there are many changes in

cognitive processing. Logical thinking and insight are lacking or impaired. Information is not organized by waking logic, through sequential cause and effect. Instead, mental elements are combined and synthesized in fluid and discontinuous ways.

In both the dream and deep hypnotic states, there is a relative absence of logical cause-and-effect reasoning and logical categorization and an uncritical acceptance of things that are inappropriate, incongruent, or impossible. In hypnosis, this is called *trance logic* (Orne, 1959), a form of "logic" in which there is an acceptance of incompatible mental experiences, such as accepting as real the hallucinated doubling of a person. In dreams, a similar form of "logic" occurs. In *dream logic*, seemingly impossible fusions, combinations, and mergings occur. A person can be merged with someone else; past experiences can appear to occur in the present; one can be any age, in any place, or experience oneself as someone else. Similar cognitive distortions and ways of processing occur in MPD patients, whose alters experience the past as the present, who have child and adult alters who exist at the same time, insist that their alters do not inhabit the same body and have different appearances, and who relive past traumas in the present, all of which reflect the logic of dreams.

Trance logic and dream logic can be explained by parallel processing, a process in which multiple sensory channels are operative at the same time during waking (Mountcastle, 1978), dreaming (Hobson, 1988), and hypnosis. During dreaming and hypnosis, parallel processing occurs in the absence or diminution of waking logic; incongruous or contradictory things may occur simultaneously, and two or more perspectives can coexist. During waking, different thoughts or aspects of an experience may be processed simultaneously, and aspects that are divergent or not conscious are dissociated (Hilgard, 1977). Another process which is a part of dreaming and is found in the thinking of young children and MPD patients is *analogical processing* in which things are grouped together by similarity or properties or functions. Parallel and analogical processing often occur in early childhood thought, in deep hypnosis, and in dreams.

MPD patients frequently use dream logic during their waking life. Their basic belief that more than one person can exist in the same body is an example of such logic. They often use analogical operations. For example, some personalities or fragments are arranged into patterns in terms of commonality of affects, themes, conflicts, incidents, ages, etc. In dreams, one draws on dissociated elements and reassociates them in more novel, fluid, and discontinuous ways than in waking logic. In MPD, chaotic internal and external elements are linked in a variety of illogical combinations, and some of the personalities may be as magical or strange as the characters in dreams.

Similar cognitive processes are found in dreams, deep hypnosis, MPD, and early childhood thought. Incongruities, discontinuities, and conceptual uncertainties occur, as mental elements are connected to each other with little or no continuity of time, place, and person, and little logical conviction as to "what follows what," and "what is within or makes up what." Many of the changes in cognition in MPD are due to the operations of dream logic, while others are due to distortions in waking logic based on the past realities of an abusive childhood. Cognitive distortions, such as mis-assuming causal-

ity, making arbitrary inferences, overgeneralization, and catastrophizing make for cognitive impairments in waking logic (Fine, 1988).

MODES OF MENTAL PROCESSING IN WAKING, DREAMING, AND DEEP HYPNOSIS

It is now known that different neurophysiological processes are active during waking and REM dreaming, which may give rise to the mental changes observed in these two states. Hobson and McCarley (1977) found that during waking, a group of brain stem aminergic neurons is active, and as their activity level becomes low enough, a group of brain stem cholinergic neurons becomes disinhibited and active during the REM dream state, and the activity level of these two groups of cells are reciprocal (Hobson, 1988). Thus, waking and REM dreaming are at opposite ends of this neurophysiological continuum. Mental processing occurs in both REM and non-REM sleep. In non-REM sleep, some processes are like waking thought; others involve imagery; and some are like dream fragments. The memories activated in non-REM dreams are discrete and episodic, while those in REM dreams are blended together to make thematic sense through a continuous storyline (Foulkes, 1985). During REM dreams, cognitive changes occur in orientation (time, place, and person), perception (hallucinations), belief (delusions), and intellectual functions (concrete versus abstract thinking). The sensory and motor systems of the forebrain and limbic system are activated, and visual and motor hallucinations and emotions occur (Hobson, 1988). Stimuli are connected fluidly, associatively, or dynamically, whereas in normal waking consciousness, they are organized locally in terms of external reality. During dreaming, because there is an absence of waking memory and attention, and sensory input and motor output are blocked, the internally generated dream stimuli lack the orientation and conceptual certainty provided by external stimuli. The forebrain (especially the cortical and subcortical areas concerned with memory) tries to give these internal stimuli coherence and meaning through connecting them to memories of past experiences and other associative relations and creates the dream narrative.

Waking thought and dream mode processes are present in varying degrees during waking, daydreaming, and fantasy, hypnosis, and dreaming, with more waking mental processes present in daydreams and fantasy and more dream mode processes present in deep hypnosis and dreaming. Brenman (1949) observed that the structure and content of hypnotic dreams lie between daydreams and nocturnal dreams (although they may overlap). Barrett (1979) found that in less hypnotizable patients, hypnotic dreams are more like daydreams, while in highly hypnotizable patients in deep trance, they are more like nocturnal ones.

Mental processes and structures thus appear to exist on different levels of consciousness, and hypnosis may be used to access these levels in highly hypnotizable persons. As hypnosis is deepened, there is a decrease in the number of waking mental schemas and an increase in hypnotic schemas, such as sensory images, hallucinations, and age regression; and the depth of hypnosis is related to how many hypnotic schemas are activated (Hilgard, 1977) and to how similar they are to dream

processes. With increasing immersion in hypnosis, the fantasy can become so absorbing that it can compete with the condition it is trying to exclude from consciousness (Hilgard, 1977) and reach dreamlike proportions.

The same dreamlike, regressive modes of thought, such as action, images, and symbols that are present in childhood thought are also present in hypnosis and in the dream mode. Hallucinations, delusions of experiential reality, and amnesia may occur in deep hypnosis and in the dream mode. In the REM dream state and in deep hypnosis, there is little attention to the external environment and less control of thought than in other states. In both states, there is an alert, intense attention to internal stimuli. Mental processes and structures are most fluid in the dream state, and this is the most regressive form of mental processing. Realistic imagery and hallucinations are present in deep hypnosis and in dreams and may be present during waking as eidetic imagery. After trauma, realistic imagery is often present in dreams that are replicas of real traumas rather than symbolic representations (van der Kolk, Blitz, Purr, Sherry, & Hartmann, 1984). This is often true of the intrusive images and reliving of traumas in post-traumatic stress disorder (Horowitz, 1986) and in MPD.

Dream research has shown that both dreaming and waking modes of thought can coexist during sleep onset and awakening (Foulkes, 1985). As one goes from waking to non-REM sleep, mental processes progressively change from waking thought and mental imagery to hallucinations that are believed to be real. Dreaming can occur at sleep onset and awakening, and "there can be such things as waking dreams - or at least waking dream fragments" (Foulkes, 1985). Waking hallucinations can also occur in normal subjects when they are relaxed in an unstimulating place and asked not to control their thoughts (Pope & Singer, 1978), and waking hallucinations may occur after severe trauma in both children (Esman, 1962; Pilowsky & Chambers, 1986) and adults (Horowitz, 1986).

In dissociative states induced by trauma, both dream mode and waking mode processes may coexist. Dreamlike and dream mode processes appear to be used in the initial formation of alters in MPD and are observed in many of their cognitions and dynamics. Waking realistic processes may also be used to structure the personalities. The presence of waking thought is apparent in the initial encoding of real traumas, but even these realistic encodings reflect the influence of a regressive dream mode of processing, for when recalled, they are relived with experiential reality, intensity of emotion, hallucination, etc. All personalities have at least some features of dream mode processes, but those developed to handle realistic needs use more realistic schemas in their structuring than those developed to meet intrapsychic needs.

THEORIES RELATED TO THE PROCESS OF PERSONALITY FORMATION IN MPD

States of consciousness (from the alert waking state to deep sleep) appear to be more discrete in infants and young children than in normal adults (Wolff, 1987). Infants change states with greater discontinuity and rapidity and usually learn on their own and from their caretakers how to modulate their states (Putnam, 1988). In MPD patients, the development of this

modulation is interfered with by trauma and inadequate parental care.

In addition, young children may have an inborn ability to dissociate, to segregate or shut out painful stimuli or traumas by changing into altered states of consciousness. Emde, Harmon, Metcalf, Koenig, and Wagonfeld (1971) found that newborn infants circumcised without anesthesia went into a deep sleep afterward. Fraiberg (1982) has described a response of abused and neglected infants (3-18 months old) in which they appeared to screen out perceptions of the abusive mother, which suggests that there is a cutoff mechanism or stimulus barrier that functions to shut out experiences of intolerable pain or overstimulation (Freud, 1920).

In young children, dissociation occurring during trauma may be conducive to the initiation of dreamlike thought and dream mode processing. The child's normal thought includes elements of dreamlike thought and dream mode processing. Dreaming occurs in an altered state of consciousness (Hobson, 1988), and it may be easier for young children to enter a dissociative state, as they have been observed to go directly from waking to REM sleep when they nap in the afternoon (Aserinsky, cited in Hobson, 1988). Also, children are more hypnotizable than adults and have more hallucinations and amnesia in deep hypnosis (London & Cooper, 1969).

The child's inborn capacity for dissociation and hypnotizability may be increased if it is repeatedly used to shut out or segregate pain. The severity of punishment (J. Hilgard, 1970) and the amount of abuse (Nash, et al., 1984) experienced in childhood are significantly correlated with hypnotizability in young adults. Imaginative involvement is also positively correlated with hypnotizability (J. Hilgard, 1970). When imaginative involvement and severity of punishment are combined, there is a higher correlation with hypnotizability (Frischholz, 1985). Hypnotizability has also been found to correlate with the extent of involvement in fantasy-related activities in childhood (LeBaron, Seltzer, & Fanurik, 1988).

Wilson and Barber (1982) found that a group of highly hypnotizable women, whom they described as fantasy prone, reported that as children (and as adults) they had a profound fantasy life which they confused with real events, and, as children, they had imaginary companions that they could see, hear, and feel as if they were living persons. Eidetic imagery is more common in early childhood (Haber & Haber, 1964), and, like hypnotizability, diminishes with age (Richardson & Harris, 1988). Child eidetikers are more likely to exhibit characteristics of the fantasy-prone personality and to have greater absorption and more involvement in sensory expression (Richardson, 1986). More hypnotizable women have more creative dreams (Gibson, 1985), use more visual imagery, engage in fantasy and daydreams more often, and have more nightmares than less hypnotizable ones (Belicki & Belicki, 1986), which also suggests a relationship between dreaming and hypnotizability. Most MPD patients have experienced early abuse or trauma (Putnam, et al., 1986), are highly hypnotizable (Bliss, 1984; Frischholz, 1985), are imaginative and creative, use visual imagery and fantasy frequently, and possibly use eidetic imagery.

Kluft's four-factor theory of the origin of MPD (Kluft, 1984b) includes the hypnotic responsiveness of children, which

may be, in part, determined genetically (Morgan, 1983). According to Kluft, children who develop MPD have a biologic capacity to dissociate, which they use defensively and adaptively when traumas overwhelm their non-dissociative adaptive capacities. Kluft's theory takes into account the shaping influences and substrates (such as identification, the hidden observer phenomenon, and the imaginary companion) that determine the form taken by the personalities. He concludes that MPD is more likely to develop and persist if there is inadequate provision of stimulus barriers, soothing, and restorative experiences by significant others.

Young (1988) has developed the theory that fantasy is one of the major shaping influences in MPD and that children who develop MPD use conscious fantasy to structure their personalities. The overwhelming stimulation of the traumas leads to dissociative withdrawal (Bliss, 1980); and fantasies, which are attempts at mastery, become defensively incorporated into the dissociative states. The fantasy then becomes unconscious and thus is not available for modification by reality.

Bliss's observation that his MPD patients often went into trance spontaneously when they felt threatened led him to conclude that spontaneous self-hypnosis is the primary mental mechanism in MPD (Bliss, 1984, 1986). His patients were highly hypnotizable and showed many hypnotic phenomena, such as positive and negative hallucinations and had self-hypnotic experiences that they accepted as real events. As adults, they had an active fantasy life and recalled that, as children, they had believed that many of their fantasies were real.

The theory proposed in the present paper acknowledges the role of the capacity for dissociation in the etiology of MPD and the presence of spontaneous trance states, and recognizes and emphasizes the role of dreamlike, dream mode, and more realistic mental processes and the many shaping influences and other complex developmental factors in its genesis. It proposes that when traumas induce dissociative states during the period when the child's sense of self is developing rapidly, some children will use dreamlike thought in a regressive dream mode of processing as the initial organizer of different selves. In this fluid, rapid mode of processing, personalities can be created which are hallucinated, believed to be real, and may be amnesic for each other. Once the child acquires the ability to shift into an altered state of consciousness during trauma and initiate this mode of processing, he may then be able to reinstitute this state under nontraumatic conditions as well. In this mode, he can quickly and fluidly use psychic elements and structures to assemble, build up, and augment personalities to meet intrapsychic and external needs.

Spontaneous self-hypnosis alone does not explain the persistent structural changes that develop in some personalities. The structuring of the personalities involve the use of assimilative, dreamlike elements and dream mode processes combined with accommodative, realistic ones. These elements and processes may be used over time to structure the personalities, their dynamics, and cognitions, which persist as psychic structures when they continue to be needed for adaptive and defensive purposes. Some personalities created during dissociative states may remain essentially unchanged and continue to exist because they serve some of the patient's psychodynamic

needs; some may continue to develop, while others become dormant and may be reactivated during therapy (Kluft, 1984b). The personalities and personality states formed during trauma need to be formed only to the extent of creating a psychic separation from and containment of the traumas.

If one views spontaneous self-hypnosis as a major etiologic mechanism of MPD, one may be inferring cause from looking at an effect (the high hypnotizability and autohypnotic defensive response of MPD patients). There is now increasing evidence that repeated trauma increases hypnotizability (J. Hilgard, 1970; Nash, Lynn, & Givens, 1984) by reinforcing the ability to dissociate. The high hypnotizability of MPD patients may involve both their ability to dissociate and their degree of absorption and imaginative involvement, all of which may be increased by trauma. The intense stimulation of the trauma and the need to escape psychically may lead to an altered (dissociative) state which may facilitate a regressive mode of processing. Severe trauma is known to lead to dissociative states (Putnam, 1985, 1989) in which hallucinations (Horowitz, 1986), regression (Grinker & Spiegel, 1945), and amnesia occur. These same processes occur in the dream mode, in deep hypnosis, and in MPD. Thus, it may be that the increased hypnotizability of MPD patients resulting from trauma reflects an increased facility to access and use these processes in altered states of consciousness.

The ability to enter dissociative states may be a defensive response in which MPD patients have learned to use regressive modes of thought to create personalities in an attempt to cope with, wall off, and master the traumas. This process enables them to create an alternate reality in the face of trauma and separates the trauma from the rest of the personality. The positive stimulation of this creative mode of thought and the dissociation reduce anxiety, and this process may also be reinforced by an absence of feelings of pain, similar to its absence in the dream state which Hobson (1988) noted. The dissociative states and the formulation of the personalities have the defensive and adaptive functions of reducing pain and fear and other overwhelming affects by disengaging parts of the psyche from the trauma and engaging other parts in the creation of a restitutive experience. Some personalities formed during the traumas are amnesic for them, while others contain the traumas, soothe the child, or act as helpers, protectors, or avengers, or perform certain tasks.

Foulkes (1985) points out that dreams draw on dissociated elements of memory and knowledge which are recombined and reorganized in novel ways. In an analogous way, the dissociation resulting from trauma disrupts ongoing personality development, and certain developmental elements and structures become disengaged and then rearranged or reassociated in ways similar to the way thoughts are arranged in dreams. Personalities are built up from dissociated elements, such as affects, thoughts, and memories, expressed in action, images, and symbols; as in dreams, these elements can be associated and reassociated into a variety of kaleidoscopic patterns. The young child also uses more complex psychic elements and substrates, such as symbolic fantasy, personification, and imagination in the creation of personalities. He separates out or dissociates elements of dreamlike thought and waking reality and combines them into different patterns

through dream mode processing, and this allows for the continued arrangements and rearrangement of elements into configurations that can be coherent or fragmented, static or dynamic, similar or unique.

Although there is a limited number of human emotions, drives, needs, and defenses, the mind can form an endless variety and number of dreams and personalities to contain these dynamics. Different dreams or personalities may be formed, or similar dreams, personalities, and personality fragments may be formed around similar themes. Some alters may be very much alike (Kluft, 1988), while others may be quite different, with different thoughts, memories, and emotions. Some may become more organized and elaborated over time and have a history and a range of emotions (Braun, 1986), while others are less well-defined and more limited in their organization (Franklin, 1988a, 1990).

When personalities are formed, dreamlike thought and dream mode processes are used for a very different purpose than in dreams. Many of the processes and elements are the same, but the function of their organization is different. When traumas occur, the child wishes to disown the experience, and he uses these elements for one psychodynamic purpose: to form other personalities who contain or separate, and keep out of awareness the painful affects and conflicts associated with the traumas. Many of the personality states are organized around the experience of trauma. The function of dreams is not so circumscribed.

DISCUSSION

The capacity of the mind to use and reorganize different processes and structures on the continuum from waking to dreaming may also reflect the continuum from infant to adult thought processes: from dreamlike, primary process thought to realistic, logical, secondary process thought. Dreamlike thought and some dream mode processes are present during the waking state of young children, and these processes are also present in dreams, in hypnosis, and in the personalities in MPD. An understanding of these mental processes not only helps one understand the etiology of MPD but some of the aspects of its treatment as well.

When using hypnosis with highly hypnotizable MPD patients, one may actually be using a technique which enables one to observe and assist the mind in its capacity to use and reorganize its different processes on the continuum from waking through dreaming. Many of the mental processes in the deep hypnotic state are not specific to that state and are indistinguishable from some of the processes in dream state. When observing some of these processes in hypnosis and in MPD patients, one may really be looking at mental processes drawn from a common source—the dream mode of mental processing.

MPD patients have enlisted both reality and dream modes of thought to build their intrapsychic structure, and each mode has its own rules, form of organization, and logic. In the waking mode, one tries to make sense of external reality through waking logic, which operates by sequential cause and effect. In the dream mode, the MPD patient tries to make sense of the senseless external realities of the traumas through dream logic in which there is a tolerance for incongruities. When one

recognizes that MPD patients use both reality and dream modes to structure their developing psychic world to make sense of external reality, one can then understand that these patients are dissociated rather than psychotic and can also understand how to use these processes in their treatment. In both dreams and in MPD, there is an attempt to create a structure that will give coherence and meaning to what is happening.

The concept that MPD involves dreamlike developmental elements and dream mode processes and the capacity for dissociation has direct implications for a broader understanding of its treatment. An understanding of the similarities and overlap between dream mode and deep hypnotic processes further establishes a rationale for the formal hypnotic techniques used by many therapists to treat these patients (Bliss, 1986; Braun, 1980, 1984b; Kluft, 1982, 1986, 1989). The high hypnotic capacity of these patients facilitates hypnotic interactions even when formal hypnosis is not used in their treatment (Kluft, 1989).

Many therapeutic possibilities are opened up when one makes use of dream logic as well as waking logic when treating MPD patients. One often uses dream logic to understand their dynamics and to communicate with their alters. For example, when the therapist says, "Everybody listen," and talks to the whole mind, yet asks the individual alters to talk to or help each other, and when one uses imagery and rituals in their treatment and integration (illustrations from Kluft, 1982), one is accessing, acknowledging, and working with a dream mode of processing. One can also use the dreams of MPD patients to understand their problems and conflicts (Franklin, 1988b), to recognize and access new alters (Marmer, 1980a), to uncover their traumas (Ross, 1989; Putnam, 1989), and to promote integration.

Although these techniques can be a helpful part of therapy, the therapist should realize that they are not the major focus of treatment but are the vehicles by which the psychic effects of the real traumatic experiences are processed. It is the processing of the historical information and thematic conflicts and issues of the personalities in the context of present reality that provide the real psychodynamic content to be worked with in therapy rather than the dream mode processes themselves.

The child's sense of psychic existence centers on his identity. His identity includes the knowledge of what he, himself, is able to do, think, and feel, and what he can expect others to do, think, and feel in relation to him. In MPD, when traumas occur, the child's very existence is threatened. His normal identity formation is disrupted, and he then forms new identities. MPD is the clearest expression of one's basic need for identity and the ability of the psyche to form new identities when existence is threatened.

In conclusion, developmental dreamlike thought and dream mode processing provide a useful paradigm for a broader understanding of the etiology, dynamics, and treatment of MPD. Since many of the essential features of MPD are similar to the mental processes and patterns found in early childhood development and in dreams, it is proposed that these processes must be activated in the context of altered states of consciousness for the initial formation of the personalities and personality states found in MPD. ■

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