A group of pathological defenses has been observed in infants between three and eighteen months of age who have experienced danger and deprivation to an extreme degree. The early defenses, "avoidance," "freezing," and "fighting," are apparently summoned from a biological repertoire on the model of "flight or fight." Before there is an ego, pain can be transformed into pleasure or obliterated from consciousness while a symptom stands in place of the original conflict.

INTRODUCTION

The fertility of René Spitz's mind and the inspiration of his work has changed the course of the professional life of many, including my own. More important, the world of infancy has been transformed through Spitz. Since 1945 it has not been possible to say that an infant does not experience love and loss and grief, or that tragic circumstances in infancy will not blemish a child who is "too young to feel or to remember."

In this presentation I will follow a line of inquiry that owes its inspiration to Spitz's work. His own studies of maternal deprivation originated in his observations of infants in institutions. The work that I will describe derives from the study and treatment of babies reared in their own homes. In the course of this work I have been able to examine a number of pathological defenses in infants who have experienced extreme deprivation. I will describe the behaviors and touch upon the theoretical and clinical implications of these findings.

In discussing "defense" in infancy, it is clear, of course, that I do not mean "defense mechanisms," which can be assumed to function only when an ego, properly speaking, has emerged. Here I find it useful to follow Wallerstein (1976), who distinguished between "defense mechanisms as a construct and defenses as actual phenomena" (p. 220). A behavior that serves defensive purposes can be observed. A defense mechanism, he points out, is a theoretical abstraction. We can, for example, observe exaggerated sympathy in a patient as a behavior, but we cannot observe the unconscious process in which a cruel impulse is turned into an opposite for which we postulate a mental mechanism that we call reaction formation. In this sense, we can observe behaviors that serve a defensive purpose at any point in development and, in the case of the infant, if the child is capable of registering danger or a threat to his functioning, he will react to the danger through a behavior that serves as defense.

In this sense, too, the term "defense" in infancy has validity of its own. We need not speak of "precursors of defense," the term which is commonly used in the literature for pre-ego modes of defense. Whether these defensive behaviors in infancy are linked to defense mechanisms in later development can only be examined through longitudinal study with normal children. In this presentation I will deal specifically with pathological defense in infancy as observed in a clinical population. Since our therapeutic work with babies and parents was largely successful in alleviating the conditions which brought about these defenses, and the defenses themselves dropped out of the clinical picture, we cannot know what the course of these defenses might have been if clinical intervention had not taken place.

Yet our observations of babies who came to us in extremity will generate useful hypotheses for the psychoanalyst. We
a little closer to the unanswered questions which Freud (1926), Anna Freud (1936), Hartmann (1950), and Spitz (1961) had posed in their writings, in which it was speculated that biological modes of defense might underlie the structure of certain defense mechanisms.

THE QUESTIONS

When we speak of "defense" in infancy, something within us resists the word and its connotations. The infant is helpless in the face of danger. His parents are his protectors, and so far as they serve as protectors we are unlikely to see a baby coping with external threats or physiological stress unaide. Under all normal circumstances the infant will not experience helplessness for more than brief periods, because distress is alleviated or modulated by the mother, usually before tension becomes intolerable. Even in the early weeks and months of life, the normally reared baby begins to turn expectantly to the mother for comfort and the alleviation of distress or pain.

But what happens to an infant in the first eighteen months of life when his human partners fail in their protective function and he is exposed to repeated and prolonged experiences of helplessness? How can he relieve his own pain? What means does he have to cope with extreme helplessness or to ward off "something out there" which is uncertainly associated with painful experience? And if pain is associated with the figure of the mother herself in daily and repeated circumstances, how can he ward off the person on whom he is absolutely dependent and who is associated with pain and disappointment? The questions seem to lead nowhere: thinking the unthinkable.

These were certainly not the questions in my mind when I began a clinical research program in 1972 for the study and treatment of infants and parents who showed the early signs of impairment in relationships. But a very large number of babies who came to us showed affective disorders in the serious to severe range. Many of them were referred because of neglect or actual or suspected abuse. Their parents showed grave disorders in personality and were largely incapacitated in their ability to nurture a child. The research itself was designed to study and evaluate treatment methods in an infant mental health program and to assess the effects of intervention for the baby and his family. In the course of this work we came to understand the interlocking pathology between parents and infants; we saw the effects of maternal deprivation in family-reared babies; we were able to examine deviate patterns of object relations and their effects upon ego formation; and we began to identify certain aberrant behaviors in the babies which were considered to have a defensive function.

I will describe as well as I can the manifestations of these behaviors and their contexts. The description comes from detailed process notes. Some of these descriptions come directly from videotape records when, by chance and not by design, the camera recorded moments in which a baby with his mother or father, or with both, revealed total helplessness and a subsequent behavior which revealed his attempts to cope. The pictures are painful to watch, and the verbatim narrative transcripts of pictures or observed events are painful to read or hear. By way of reassurance I should begin by indicating that the largest number of these aberrant babies were brought to adequacy in our work with them and their parents.

In examining the occurrence of these behavior, I selected items which I considered to represent defensive behavior and placed them in a chronological sequence according to the age of the child at the time of the observation. As the data grew voluminous, I chose to use eighteen months of age as the cutoff point for reporting. (Our program actually served children from newborn to thirty-six months of age.) Since the first eighteen months embrace the sensorimotor period, the occurrence of defensive behavior in a preverbal period, prior to the constitution of the ego in psychoanalytic terms, will give us a context in which the earliest defense behaviors can be isolated for study as phenomena which are not yet related to the development of evocative memory (at approximately eighteen months) and not yet expressive of internal conflicts between drives and an emerging ego organization.
To examine the forms of pathological defense and their occurrence during the first eighteen months of life, I chose a group of babies who were judged by our staff to be the most severely impaired in object relations at the point of entrance to our program. There were twelve children in this subgroup, chosen out of a total of fifty. (I excluded one child of the original thirteen who was found in the course of treatment to have severe biological impairments which affected his capacity to respond to and relate to his mother and all other persons.) The twelve children who constitute the group selected for this study had no biological impediments known to us in the course of extended study and treatment.

Many of the children in this group were referred to us because of neglect or suspected or actual abuse. Twelve mothers were severely depressed women. One mother was schizophrenic. For all of the babies the mother was considered to be psychologically absent for a very large part of the infant's day. And for all of these children there was exposure to unpredictable eruptions from their mothers. Periodically, the mother's rage would break through the walls of depression, and we saw fear register on the baby's face. For the child of the schizophrenic mother there were experiences in which the mother was completely out of touch with her child, and moments when the child herself was caught up in the mother's delusional system.

Twelve of the thirteen children showed a characteristic behavior toward the mother: the baby avoided the mother through every system of contact he had available to him in a complete reversal of the social patterns that normally are exhibited at each developmental stage. In our exhaustive initial assessment period, which covered five to seven visits in the home, these are what we see as reversals: where the normal baby seeks eye contact and gaze exchange with his mother, these babies never or rarely looked at their mothers. Where the normal baby smiles in response to the mother's face and voice, these babies never or rarely smiled to the mother. They did not vocalize to the mother. At an age when a baby is motorically capable of reaching, they did not reach for her. If the baby was capable of creeping or walking he did not approach his mother. In circumstances that we could read as need or distress, these babies did not signal the mother for comfort. Wherever there should be "seeking," there was "avoidance." Avoidance, in fact, was the first defense which I can identify in this chronology, and it occurs as early as three months of age.

AVOIDANCE

The patterns of avoidance which I will describe were first noticed when we began our work with severely disturbed infants in 1971. We had never before seen babies who avoided their mothers with every system available to them. I had recently concluded a study of infants blind from birth (Adelson and Fraiberg, 1974), and along with my colleagues I longed to see babies again who gazed intently, who smiled in response to a partner's face. I had been following with much interest Stern's (1974) work in gaze interaction patterns between infants and mothers, and I was not prepared for what I saw in these babies. In 1971 Stern and I reviewed these new tapes together, and we were shocked to see a group of babies who negated every expectation for normal social interaction.

The avoidance patterns that I saw considered to be a pathological defense. And I think that the detailed descriptions will support this view. However, it is of interest also that Mary Ainsworth and her colleagues have identified avoidance patterns in a subgroup of twelve-month-old children in an unselected and presumably normal population (Ainsworth, et al., 1978). The differences between the avoidance patterns described by Ainsworth and those that I have seen appear to be these. Avoidance, in the Ainsworth study, was first identified in an experimental situation in which separation and reunion patterns in toddlers were being studied. The home observations of these babies and mothers showed avoidance of the mother in what I take to be a fluctuating pattern in response to circumstance. It was always associated with discord in the mother-infant relationship and with avoidant patterns in the mother herself. In our population we see avoidance manifest as early as three months of age and throughout the age span covered in our study (up to thirty-six months). The patterns of avoidance were total or near total, without fluctuations in the course of extended and intensive home observations. The mother's avoidance of her baby had reached a pathological extreme.

There are undoubtedly many links between the phenomena I will describe and those which Ainsworth has described which can best be examined through comparison of data. However, it is important to preface my own remarks by saying that avoidance as a form of defense can be identified in all infants, including normal ones; that a marked tendency to avoid as in Ainsworth's babies is, in my view, an early indicator of disturbance in the infant-mother relationship; and that the total or near total avoidance of the mother which I will describe represents a pathological extreme, a defense that has taken
a morbid turn.

In what follows, I shall present the evidence for avoidance as a defense in infancy. I am mindful, of course, that without the evidence, our inclination is to find alternative and simpler explanations for the behavior I have described. One could argue that if deprivation is severe enough, it may be that these systems have not been activated by a nurturing person, as in the case of Spitz's (1945) babies in his "hospitalism" study. But if we look closely at the behavior I will describe (and videotape is nearly indespensible here), we will see that the avoidance of the mother is selective and discriminating. The baby avoids his mother, for example, and may not avoid his father or even a stranger. If the sign and signaling systems are available for exchange with someone in his environment and are not employed in social approaches to the mother, the avoidance

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patterns are selective.

To illustrate, I will describe the youngest child in this group, three-month-old Greg. Greg is the child of two teenage parents. His mother alternates between states of depression and outbursts of rage. Her voice when angry is shrill and penetrating. Whether depressed or angry, Annie, the mother, avoids her baby in every circumstance that is open to our observation. Annie, who had known brutality and abandonment in her own childhood, is afraid of the dangerous impulses which flood her at times. In the early sessions in the home we understood why Annie avoided her baby. She was afraid that she would kill him.

And Greg avoided his mother. At three months of age when a baby seeks his mother's eyes, smiles and vocalizes in response to her face and voice, Greg never looked at his mother, never smiled or vocalized to her. Even in distress he never turned to her. But when his father was present, there was gaze exchange, smiles, and vocalizations of pleasure. As clinicians, we could elicit eye contact and even small smiles.

We are inclined to argue with the evidence once again. Is this avoidance? If the mother herself avoids the baby and does not elicit these responses, is this avoidance? Not yet. However, the evidence from our observations supports avoidance, and the avoidance appears to be associated with fear and pain. When we examined this behavior in thirty minutes of continuous videotape, we saw sequences which are nearly indescribable. What follows describes Greg at three months and fairly describes the picture for other babies in this subgroup whether the age is three months, five months, seven months, or sixteen months.

What we see is this. The baby is scanning the room, his eyes resting briefly on the stranger, the cameraman, or an object in the room, and in the scanning he passes over his mother's face without a sign of registration or recognition. There is not a pause in scanning or a flicker on his face that speaks for registration. In situations where gaze exchange or a gesture is nearly unavoidable because of the line of vision or the proximity of baby and mother, we see the patterns again and again. It is as

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if perception has selectively edited the picture of the mother from the pictures in the visual survey.

The behavior is similar when the mother speaks. If she is for the moment outside the baby's visual field and she speaks to the baby or calls to him, there is no automatic turning in the direction of her voice, and there is no alerting or signs of attention. The editing process has taken place again.

When we consider that both visual fixation of the human face and alerting to the sound of the human voice are genetically programmed behaviors that normally subserve the earliest infant-mother relationship, how can we account for a modification in infant behavior in which vision and hearing selectively edit this mother's face and voice in a reversal of the form?

In the simplest possible terms, it appears that in the biological-social sequence in which sensorimotor systems are activated and organized around the experience with a mother as a nurturant, responsive, need-gratifying person, the percept of mother for these infants is a negative stimulus. It is also a defense which may, in itself, belong to the biological repertoire and is activated to ward off registration and, conceivably, a painful affect. When the visual and aural registration of this percept is closed off or the registration is muted, the associated affective experience remains dormant, that is, not called up by perception.

But avoidance, which defends against external "dangers," cannot defend against urgent somatic needs. What happens to these babies when need states or internal distress are experienced and are not satisfied by a mother or any figure in the infant's environment?
The same babies who avoid their mothers present another part of the story in states of distress. Hunger, solitude, state transitions, a sudden noise, or a stimulus that cannot even be identified can trigger states of helplessness and disorganization in these babies, together with screaming and flailing about—a frenzy that gathers momentum to a climax which ends in exhaustion. It is screaming in the wilderness, so to speak, since there is no comfort offered the baby and none that he seeks.

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himself. In this extremity we have seen babies who never turn to their mother.

It seems reasonable to assume that the screaming babies I am describing are experiencing distress of such magnitude that pain reaches intolerable limits. Sometimes, in fact, the parents have reported to us that the baby's wailing and screaming abruptly stop after an interval which, in their view, suggests that the baby is "faking." He is not, of course. The behavior suggests that, at intolerable limits, there is a cutoff mechanism which functions to obliterate the experience of intolerable pain. Analogues with intolerable physiological pain suggest themselves.

The picture of the screaming babies represents helplessness in extremity. Kaufman (1977), in examining the biological response systems in monkey and human infants, says: "In very early life the reaction to danger is automatic and consists successively of two genetically pre-programmed biological response systems, namely, first 'flight-fight' and then 'conservation-withdrawal.' [Here Kaufman cites Engel's use of conservation-withdrawal.] Both are called forth by the condition in which the infant is helpless before a 'danger' which constitutes a threat to his functional status* (pp. 16-17). Kaufman regards these biological response systems as the precursors of psychobiological states of anxiety and depression.

What we are seeing in the babies I have described are certain behaviors that belong to the biological response systems and others that belong to a psychobiological system (well elucidated by Kaufman). In the extremity of biological helplessness, the screaming baby's agitated protest employs "flight-fight" responses followed by conservation-withdrawal. There are no defenses against imperative need states. But the same baby who flails in helplessness under extreme internal distress finds a defense which sustains him in the face of objective danger for most of his waking hours. One of these defenses is avoidance of his mother. Avoidance belongs to a psychobiological system. Avoidance has cognitive import (Schneirla, 1959). To "avoid" signifies that the baby has associated the figure of his mother with a threat to his functioning. There is an element of expectation, of anticipation of danger in avoidance, and since this anticipation is based upon experience and is no longer an instinctive reaction alone, we are observing a defense which appears to make use of signal anxiety. It is of considerable importance that this early defense also serves to ward off painful affects. If the baby selectively edits his mother's face and voice from experience, he will not encounter anxiety in intolerable repetitions throughout his waking day.

In the avoidance patterns exhibited toward the mother, I think it is reasonable to assume that the percept of mother has become associated with pain; that her face and her voice, if registered, would evoke painful affects. This level of recognition memory or associative memory is within the repertoire of the baby between the ages of three and seven months. What is remarkable is that a baby of this age can reverse the aims of the biological repertoire of signaling behaviors (gaze, smile, vocalizations, motor approaches) to avoid the mother and that perception itself can be caught up in conflict in the early months of life, so that registration appears to be closed off selectively. While we are unwilling, of course, to speak of a form of repression in infancy, the mechanism in which perception of a painful stimulus can be abolished from consciousness may be present in early development.

**FREEZING**

In the context of biological helplessness a form of defense that I have called "freezing" was observed. It has an easily recognizable counterpart in human and animal psychology in situations of exposure to the most extreme peril. The behavior is one of complete immobilization, a freezing of posture, of motility, of articulation. Among the babies we studied it was noticed as early as five months of age under circumstances that are objectively benign from the observer's vantage. It may occur when

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the baby finds himself in a strange situation such as the office playroom.

Mary, at five months, freezes during the first visit to the office. Her mother props her on the couch and Mary sits glassy-eyed and immobile for twenty minutes or more. Mary's mother is present, but she is not a protector, and the baby does not look toward her or seek reassurance from her through touch or voice. She does not respond to the tactful overtures of the therapist who wants to ease the anxiety. Normally, children at five months of age in a strange situation will seek closeness with the mother for an initial period, find reassurance through the mother, survey the strange room and strange persons with interest, then gradually, feeling protected, respond to and even initiate social exchanges with the stranger. But Mary, for an unbearably long period, remains frozen in place, staring off into space.

Halfway through this observation session, when a tester introduces toys to her, Mary makes a faint-hearted effort to touch a red ring, then hold a block, and suddenly she begins to cry. With the first outcry comes a motor collapse—rigidity gives way to disorganized motility, the cry becomes a scream, and the screaming escalates into a mournful howl that does not subside for five minutes, during which time the personality of the child appears to disintegrate before our eyes. There seems to be no awareness of her surround. She does not seek comfort from her mother; she never looks toward her although she is sitting on her lap. Her mother, during this interval of howling, makes a faint gesture to soothe the baby, gives up, and stares off into space. We do those things we can as therapists to bring some measure of relief in this situation.

This sequence represents the other face of freezing. Immobilization is a biological defense against the most extreme danger. However, its utility as a defense is probably exhausted in circumstances of chronic, unalleviated stress. The cost of maintaining immobility for a period of time will be physiological pain, and the tensions between the biological systems that ward off external danger and the systems that regulate internal stress cannot be resolved. Both systems break down, and the infant succumbs to a state of total disorganization.

Cindy, who was first seen by the intervention team at sixteen months, can sustain the posture of frozen mobility for an extraordinary length of time. Cindy is the one child in this subgroup who does not avoid her mother. She clings to her mother in mute terror. When we first visit her at a day care center, she is standing beside her cot, rigid, with a fixed stare and a face that registers no emotion. She maintains this rigid stance for forty minutes, oblivious to her surround and the occasional attempts of day care aides to distract her or lure her into activity.

Cindy's mother is a heroin addict. At home, Cindy is witness to brutal acts by men who are her mother's friends and lovers. Often Cindy wakens in a household where everyone is drugged and she tries desperately to arouse her mother. Sometimes her mother forgets to pick her up at the day care center. Cindy clings to her mother in mute terror, as we see in our early observations in the office.

Then, as we saw earlier with Mary, Cindy's defenses, freezing and withdrawal, collapse at certain times. Now we see the other side of defense in this sixteen-month-old child. Cindy is at home when she hears a noise from the basement. She is terrified. She screams, flails wildly, begins to strike her mother with her fists, and finally runs to a closet to hide. During the anxiety attack she cannot hear her mother's reassurances; she seems out of touch with reality. We, too, are witnesses to such panic states in Cindy. At times her personality, like Mary's, seems to disintegrate before our eyes.

Cindy's meager repertoire of defenses includes, at sixteen months, "fighting." With more advanced motor and drive development than five-month-old Mary, Cindy can strike out, at times, at the person who represents danger to her or at any available object which becomes a target. In the elementary scheme of defense, Cindy can take flight through freezing or withdrawal, or she can fight, at least briefly, in a futile exercise such as I have described. In the end, it is safer to hide in a closet.

**FIGHTING**

This brings us to reflections on a group of children who are referred to our program in the second year of life because of severe behavior problems. They are also children who avoid their mothers, but no one refers to them as avoidant children. They are variously described to us as "little monsters," by their parents, or "holy terrors," or "stubborn," "mean," "spoiled," and they very often carry a label "hyperactive" which turns out not to be true.

For many years clinicians have looked upon these children as "undisciplined," the product of laissez-faire child
rearing practices or inconsistent discipline. Given the diagnosis, the treatment recommended was "discipline," "firmness," "let him know who is boss." I think it is possible that many of these children may, in fact, be the product of lax discipline, but the children that I will describe should be carefully discriminated from "spoiled" children. We cannot know this unless we are able to observe children in their homes.

A number of these toddlers presented an arresting clinical picture. They were, in every case, "little monsters" by day and terrified children at night who wakened in acute anxiety and could not fall back to sleep or be comforted.

A clinical observer could capture both the little monster picture and the terrified child picture in alternating sequences. Joshua, at thirteen months, gives his therapist a fair picture of both. He is obstinate, negative, and provocative with his mother, and he fights her with all his strength when she provokes him through her demands. Then when the fight fails before a stronger opponent, Joshua has a monumental tantrum. He throws himself to the floor; he screams, flails about. The screams become sobs, and tears stream down his face. He cannot be reached by his mother or his therapist. He is completely out of touch. On a few occasions the therapist recorded that it took nearly ten minutes to bring Joshua out of this state. Afterward he was exhausted, shaky, and wet with perspiration.

What we have seen is something that can fairly be called a disintegrative state. But now how does this match with the picture of Joshua at night? His parents complain that he is up for hours at night. He wakens crying or in terror. Where is the anxiety in the day behavior? It is there, but it appears so fleetingly that only a trained clinical observer could see it. There is a moment before each of the fighting episodes with his mother in which fear registers on Joshua's face. Just for a moment. Then all trace of fear vanishes from his face, and he begins to fight. When the fight fails, the tantrum begins, and with it, the signs of a disintegrative state emerge.

We do not ordinarily think of "fighting" as a defense, certainly not as an ego defense. Fighting is accommodated in our defense theory mainly when it has become a complex and compounded ego defense, as in "identification with the aggressor." But in the period before there is an ego—and defense derives in large measure from a biological repertoire—we need to be attentive to the appearance of fighting as a form of defense. How this defense later makes its way into an ego defense cannot be answered from our research. However, I would propose that what we see in Joshua and other children of this age suggests that long before we can speak of identification, or "identification with the aggressor," fighting as a defense in earliest childhood appears in various manifestations, including the pathological forms that I have described. It seems to me that Joshua is not only fighting his mother because of terror; he is fighting against the danger of helplessness and dissolution of the self feelings which accompany extreme danger. The disintegrative states that I have described in Joshua and other children must constitute an extreme danger in themselves.

I should mention that for each of the children who showed this form of severe behavior disorder and disintegrative states

TRANSFORMATIONS OF AFFECT

As we follow the chronological sequence in my records, we come upon a group of behaviors which first appear in the age range of nine months to sixteen months, in which affective transformations are displayed.

Billy had been referred to us at five months of age with the diagnosis of nonorganic failure to thrive. He was, at that time, one of the babies who consistently avoided his mother. He was a starving, solitary baby, the child of a depressed seventeen-year-old mother. Between five months and nine months our work with Billy and his family brought a number of positive gains. Billy gained weight steadily, and he was beginning to show some discriminating and preferential behavior toward his mother.

In the nine-month tape, Billy is being fed his bottle in his mother's arms. The beginning of this sequence seems unremarkable; Billy is sucking contentedly, his mother looks at him fondly; he shows less gaze avoidance than we had seen earlier. Then, abruptly, his mother turns the feeding into a tease game. She says, "Look here, Billy," and takes the
bottle out of his mouth, holds it high, tosses her head back, and allows a few drops of milk to fall into her own mouth. And Billy, incredibly, begins to laugh and kick his feet with excitement. It is, in fact, the first time some of us had ever seen joy on this child's face. The mother returns the bottle to Billy, and he sucks contentedly again. Then, to our astonished eyes, after another interval, the mother again removes the bottle from Billy's mouth and renews the game. Again we see crowing and laughter and motor excitement in the baby as he joins his mother in the game. This game is repeated six times in the course of the feeding. It is intolerable to watch. We all wished the camera would stop.

Billy is a baby who has become a willing and enthusiastic partner in a sadomasochistic game with his mother. A hungry baby, one who has known starvation in his early months, has modified an imperative biological need for a goal that may be called "social" with some irony. Painful affects, which we must assume belong to unsatisfied hunger, are transformed into affects of pleasure. Why does this hungry baby not show anxiety or protest when the bottle is removed from his mouth? A baby who has once experienced starvation and chronic anxiety that his hunger would not be satisfied would, to our minds, be the least likely child to cooperate in a tease game in which his bottle is removed by his mother. Somewhere there must be anxiety, at least a moment of apprehension, but I do not see it on his face. Rather, I see a kind of excited expectancy. Is it conceivable that there is a fleeting moment of anxiety, with the expectation of loss of the bottle, and that the game ritual, which always ends in the return of the bottle, formalizes the expectation that loss will be followed by restitution? Anxiety would then be modified by anticipatory pleasure, the social aspects of the game would add their own increment of pleasure. In the case of Billy, it is easier to describe than to explain the transformation of affect. For the moment it may be enough to record that transformations of affect can be observed in a child as young as nine months of age, long before we can speak of an ego and long before we can speak of repression. There are other examples in the pages that follow.

We cannot leave the story of Billy and his mother without adding that we, as psychotherapists, were able to move quickly to undo the morbid pattern that we saw emerging. In the work with the mother, we understood that Kathy was repeating a sadomasochistic relationship with her baby that belonged to experiences surrounding the birth of a younger sister when Kathy was five years old. When we helped Kathy see the connections between Billy and that first baby who intruded into her life, the tease games disappeared.

Around the beginning of the second year, examples of affective transformations begin to proliferate in our records. At thirteen months Greg reacts to his mother's shrill and threatening voice by laughing in a giddy way. This is a child who, a few weeks ago, cried out of fright when he heard that voice. Also at thirteen months, Joshua, when threatened by his mother, would run around in a giddy fashion, laughing in a ghoulish voice. Once, when his mother threw a ball which hit his genitals, he winced, then laughed, and his therapist, searching for words in her record, said, "He laughed with an almost painful pleasure." Betty at sixteen months engages in sly, provocative contests with her mother, in which aggressive intent is masked by smiling through clenched teeth. When she throws or kicks toys in anger, she laughs, and her laugh has a giddy, theatrical quality to it.

In each of these cases we must look hard for the anxiety that triggers laughter. It can sometimes be caught in a fleeting moment before the transformation takes place. But for each of these children, chronic and severe anxiety has been part of daily life from the early weeks. The theatrical laughter and the foolish grin on the face are most certainly defenses against intolerable anxiety, but how the transformation is accomplished is not so well explained. As I consider it, we do not understand hysterical laughter in later childhood and adult life very well either.

What we have seen, however, is that a form of defense that closely parallels "reaction formation," which we understand as an ego defense, can occur in infancy as early as nine months of life, as we saw in Billy, and can be observed with frequency in a clinic population of toddlers in the second year of life.

Grief, too, can be transformed through conflict in infancy, and we have at least one example of a symptom which closely resembles a tic. Cindy, sixteen months old, who spends long

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periods in an immobile stance, her face bleak and expressionless, has a stereotypic form of eye rubbing. Without visible emotion, her hand moves to her eye, rubs the eye in a pantomime of suppressing tears. But there are no tears, of course; there have not been tears of grief for a long time, as reckoned in Cindy's brief life. She is not permitted to cry. After being scolded by her mother and by day care aides for crying (for being a baby, they said), Cindy can no longer bring forth tears of grief. When her mother bids her good-bye each morning at the nursery, Cindy is silent and dry-eyed, then assumes her stance of frozen immobility before her cot. The stereotypic eye rubbing, we must assume, takes place when the affect of grief is about to register. It is suppressed or perhaps closed off before there is conscious registration, and the motor pattern of eye rubbing, of stopping the flow of tears, is executed as a trace of the experience of grief. But now there are no tears.

**REVERSAL**

The turning of aggression against the self arrests our attention in the second year, beginning in our records of children about thirteen months of age. This is not to say that such manifestations may not appear earlier. Spitz (1965) described children in an orphanage as young as eight months of age who attacked themselves.

In our records we see Betty at sixteen months in a tantrum, banging her head against the floor. She seems oblivious to pain. Joshua at thirteen months is heedless, reckless, climbs to perilous heights and falls, runs giddily and collides with furniture, and when you want to run to him in anguish to console him, he looks, at the most, a little jarred, but he seems not to be in pain. Indeed, for Joshua and for Betty the threshold for pain is so high that only an accident of considerable magnitude provokes a cry or a response that we, as observers, could call fully commensurate with our sense of the quantity of pain. A normal child, after cracking his head against a floor or a piece of furniture, would shriek in pain and might not be consoled by his mother for many minutes. But Betty and Joshua can tolerate high levels of pain without wincing. And these two children never turn expectantly to their mothers for comfort.

To explain how a child of thirteen or sixteen months can turn aggression against himself is not at all easy. There is a straightforward explanation which we can examine, but as we pursue the problem it becomes more and more complex. The straightforward explanation is that the child's fear of a parent and of parental retaliation inhibits the expression of aggression toward the parent. Aggression is then turned back upon the self. But pain should then be the inhibitor of self-directed aggression. It should be, but the next puzzle appears in our observations that these children seem not to experience pain in their self-inflicted injuries, or not until pain crosses high thresholds. So we are back to our unanswered questions about pain and biological defenses against intolerable pain, the cutoff mechanisms that we seem to come upon at every turn in this study of aberrant children.

Is there any possibility of a biological fault in these children which affects the perception of pain? I think not. When our therapeutic work is successful in dealing with anxiety, when the parents become the protectors against danger, these children begin to look like normal children. Aggression is discharged along normal pathways, it is modified in the service of love of parents, it is no longer turned upon the self, and pain is experienced in a measure that is appropriate to circumstance. When a fall or bump takes place now that Joshua has found safety and affection with his mother through our work, he cries or screams, as we should expect, and runs to his mother for consolation.

I do not want to overemphasize the pain component in this picture at the expense of drive vicissitudes. I only want to include it because it needs to be explained. But if we now examine the larger picture of these pathological relationships of babies and parents, it appears that the aberrant development in object relations that is present in every case is closely related to the deviant course of the aggressive drive which is seen most clearly in these cases at the beginning of the second year. This is no surprise. The interrelationships between these two drives has been a tenet of psychoanalysis for many years. Aggression is normally modified in the course of infant development through the child's love for his mother. Here, too, the biological pattern is extended, since in all species that have strong social bonds, aggression is channeled away from the partner through rituals that preserve the bond (Lorenz, 1963). It is of some interest that aberrant forms of aggression, including self-injury and self-mutilation, are found in monkeys who have been experimentally deprived of mothering and of socialization (Harlow and Harlow, 1965).

In summary, I have identified a group of pathological defenses observed in infants between the ages of three and eighteen months which occur, I believe, only in babies who experience danger and deprivation to extreme degree. The
early defenses, "avoidance," "freezing," and "fighting," are apparently summoned from a biological repertoire on the model of "flight or fight." The human infant, of course, does not have "fighting" capability until motor advances and concomitant drive progression emerge at the close of the first year. The forms of avoidance I have described in these deprived infants employ a cutoff mechanism in perception which selectively edits the mother's face and voice and apparently serves to ward off painful affects. I have suggested that this elementary form of defense against the perception of a painful stimulus may be related to forms of defense employed in later ego organization when repression and those compound defenses which make use of repression close off the perception of a painful stimulus at the threshold of consciousness. The transformations of affect which I have described in infants in the first half of the second year tell us that long before there is an ego, pain can be transformed into pleasure (as in the case of Billy), and pain can be obliterated from consciousness while a symptom, such as Cindy's eye rubbing, stands in place of the original conflict. The deviant course of aggression

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in these deprived and imperiled infants is seen at the beginning of the second year of life when aggression is discharged in wild outbursts in one moment and turned back upon the self in self-injury in another moment. And finally, our attention is drawn to the picture of the infant when these defenses fail before the formidable task of defending without defenders. I have described disintegrative states in which the child flails and screams and is demonstrably out of touch with his surround.

The question of how these pathological defenses in infancy evolve into later defenses and defense mechanisms cannot be answered from my work. Since we intervened in every case and our work has been largely successful, we cannot know what the progressive course of such defenses would be if no environmental changes were brought about. Whatever the fate of these defenses might be, we, as clinicians, will not let it happen, if we can help it.

In only two cases in this subgroup did we fail to bring about a satisfactory infant-mother relationship and modifications of the defense patterns. One child, Sandra, was recommended for foster home placement after six months of unsuccessful treatment in our program. Betty, the child of the schizophrenic mother, remained in her precarious relationship to the mother. When Betty was three, we arranged for outpatient treatment of her in another program, and we were pained to see that the fluctuating patterns of rage toward her mother and aggression turned against her own body had only acquired new dimensions in personality. At age two and one half Betty would tear at her toenails until they bled, then regard the bloody fragments with detached interest. There was no sign that she experienced pain. The simile that accompanied hostile intention at the age of sixteen months was now imbedded as a personality trait. The disorganization of personality at sixteen months took on more ominous forms at three years of age. Betty, in a play session which was recorded on videotape, represented a mother in whom the hallucinations of her own mother had found their way. As the voice of the persecuted and the voices of the persecutors

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spoke in this chilling dialogue with dolls, it was no longer possible for the observers to know when the voices spoke for the mother and when the voices spoke for the child.

The happier stories are those of the babies and parents who were able to profit from help during the critical months and years of infancy. The therapeutic work with parents and babies took place in the home. We employed a form of treatment that was informed through psychoanalytic principles and methods, and a form of developmental guidance on behalf of the baby that was closely united with the psychotherapeutic methods. In each case we considered that the work in the area of object relations was central. We identified the impediments to the mother-infant relationship (in all cases repetitions from the maternal past) and employed those methods that would disengage the child from old conflicts. We supported, encouraged, and promoted every aspect of the positive relationship between baby and mother as it emerged in the treatment. As the bonds between baby and mother developed, and as the mothers became protectors to their babies, the pathological defenses of these babies disappeared.

This leaves us with unanswered questions regarding the fate of pathological defense in infancy. We cannot know what the course of these defenses might have been if treatment had not taken place. But from our point of view as psychoanalysts we will call this the happiest of insoluble research questions.

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