Theodore Lidz

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The Person

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From *The Person* by Theodore Lidz

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In the first fifteen months that we shall somewhat arbitrarily consider as the period of infancy, the helpless neonates turn into alert toddlers whose verve is fascinating, who actively explore their world, and who are learning how to gain some mastery over it by incessant experimentation. At some time around fifteen months of age, development leads to a focus on new tasks both for the infants and their parents; the children become ambulatory and can pursue objectives; they begin to try to direct their own behavior and yet do not have the capacities or the experience to do so, and the nurturing persons must set limitations for them.

These are a very long fifteen months. During no other period of life is the person so transformed both physically and developmentally. Yet what happens lies beyond the individual's recall, buried in the oblivion of wordlessness. At most some vague feeling, some amorphous recollection that eludes conscious memory may upon occasion flit in and out of an adult's awareness, perplexing or troubling as might a fragment of a dream. The inability to recollect our infancies sets limitations on our capacities properly to understand or depict the period. We depend largely upon observation and making presumptive connections between occurrences in infancy and characteristics that develop later in life. Still, because we recall nothing, there has been a tendency to discuss infancy in very global terms; sometimes primarily in terms of the infant's need for maternal love and of disturbances that ensue from lack of proper maternal nurturance or from frustration of oral needs. Yet these are the months when the foundations are laid, not only for future emotional stability, but also for basic though global character traits and for intellectual development. No part of life experience will be as solidly incorporated in the individual, become so irrevocably a part of a person, as infancy.

The clarification of how the various developments occur and how the profound transformation from neonate to toddler transpires has awaited direct, skilled, and detailed observations of infants.[1] Such direct observational studies, and particularly longitudinal studies that relate the events of infancy to subsequent personality-functioning, are vital to assessing the importance of various influences affecting the infant and to clarifying the essentials of infant care.

During infancy profound maturational changes take place. The baby's weight triples by the end of the first year, and at fifteen months may be close to twenty-five pounds. With six teeth and the buccal pads filled, the face has rounded out. The nerves of the pyramidal tracts of the spinal cord that transmit motor impulses from the cortex have been covered by myelin sheaths and become functional, enabling the child to learn to stand, walk, and begin to gain sphincter control. The buttocks that were miniscule at birth have filled out, and body proportions have changed so that the head, while still relatively large, is balanced by the trunk and extremities.

THE NEED FOR TOTAL NURTURANCE

When we scrutinize the infant's developmental progress carefully, we find that so much occurs over fifteen months that we may doubt the wisdom of considering this span collectively as a single period. Indeed, so profound a shift in behavior takes place some time between the sixth and eighth months that we shall divide the period in half, and subdivide it still further. However, infancy is unified by the extent of the children's dependence on others, by the inability to walk or talk except in halting and rudimentary fashion, and by the limitations of their intelligence.

Throughout infancy children are dependent upon the nurturant care provided by others. During the first several months when the predominant portion of their energies go into growth and they can survive only under carefully-controlled conditions, the physical aspects of nurturant care are most important. Young infants require food, warmth, diapering, bathing, and care of their delicate skin to permit the long periods of sleep during which their organisms mature to become prepared for survival with better physiologic homeostasis than at birth. Then, as we shall discuss, the infant increasingly requires stimulating and socializing experiences to provide "aliment" for developing into a person. The lack of adequate physical care means death, wasting, or ill health; failure of socializing nurturance means distortion of emotional development and stunting of intellectual growth. The two aspects of nurturant care are obviously interrelated: the infant whose basic physiologic needs are not, or cannot, be satisfied remains in a state of tension that impedes the absorption of environmental stimuli, and it appears as if some infants make "friends with death for lack of love alone."[2]

During the first few months, physical nurturance is critical; even though affectionate care and

cognitive stimulation are important, their neglect can probably be largely neutralized by subsequent attention. Disregard of such needs in the second half of infancy, however, leaves permanent impairments that can later be ameliorated but never undone. Whereas infants continue to require careful attention to their physical needs in the latter part of infancy, they are more resilient, which permits greater leeway in the manner in which physical care is provided. Still, it is a relative matter, for the socializing care provided during the first four months is very important even though not so essential as later. The mother who is pleased with herself and with having a baby brings a great deal of socialization to her small infant almost without realizing it. She cuddles her baby while she nurses, whether from breast or bottle; she holds her baby boy or girl closely for a moment after lifting the infant from the bassinet; she smiles at it, talks, and croons, while holding the baby in her lap or changing a diaper. She shakes her head up and down at him, shuttles him about gently as she raises him into the air to admire him at arm's length; she swishes him about in the bath, drips water from the cloth onto his chest, scoops handfuls of warm water over him; she kisses his feet and holds his face to hers. Indeed, the mother is very likely to carry out a great deal of play, stimulation, and interaction with the infant simply as tangible expressions of her feelings toward her infant, her delight with her baby, and of her satisfaction with herself for having produced her boy or girl.

Mutuality Between Parents and Infant[3]

The provision of nurturance that fills the infant's needs is not always simple. Instruction and even firm tradition cannot take into account the marked differences among infants, or provide the mother with the "feel" that seems so important to establishing the proper mutuality between infant and mother. Although infants at a given stage of maturation are much alike, they also vary markedly within the range and patterns common to all. It is obvious that they look different and act and react diversely. Infants suck more vigorously, quietly, or apathetically; they take in different amounts of food and are satiated for longer or shorter periods; they are cuddly, sprawling, or resistant when held; their thresholds of alertness and sensitivity to discomfort vary; they vary from being very placid to hyperactive. Less apparent but just as surely, infants' physiological processes differ and influence their needs and how they mature and develop.

We know that inborn characteristics will influence the sort of person a baby will become; but it is

often difficult to ascertain just which traits come into the world within the infant and which appear in response to the type and equality of the nurture provided. In any case, the interweaving of inborn and environmental influences starts in the uterus and becomes increasingly complex during birth and thereafter. Some infants would present difficulties to any mother, but some mothers would create difficulties for any infant. At different periods in history or in different social settings the infant or the mother is more likely to be blamed: the baby is just impossible, or the mother is rejecting or emotionally unsuited to being a mother. Whatever the source of difficulty, we know that young infants can do nothing about their part in establishing a proper symbiosis with their mothers; and although we like to think that mothers could be different from what they are if they would only try, the most pertinent matters concern feelings and attitudes that are not readily influenced by conscious decision. We must try to accept both infants and mothers as they are, and hope that support, advice, or psychotherapy can help the mothers and that improved nurturance, perhaps more suited to infants' specific needs, will enable them to be more satisfied and easier to manage.

Some parents may find it easier to enjoy a placid infant, others a baby who is more alert and responsive or even hyperactive. One mother will feel more maternal because her infant has difficulties in nursing, but another will feel frustrated, tense, and angry. Problems can be compounded by the great changes which occur as infancy progresses and which require constant shifts in how the parents relate to their baby. To serve properly as a surrogate ego and meet the child's needs, a parent must not only empathize with the child but also with a child who is changing more rapidly than at any other time of life. Such shifts are made particularly difficult because infants can tell nothing; and parental figures must grasp how their infant feels, what it needs, what it may be able to do, and what it is that exceeds its abilities today, but may not next week. Clearly, experience, education, and conscious knowledge can help, but a great deal of interaction and decision making is carried out intuitively. Some mothers, presumably because of their own experiences during infancy and early childhood, have an earthy sensuous attachment to the infant; some have gained security, ease and knowledge from having helped raise younger siblings; and some simply gain so much pleasure from caring for their babies that the proper feelings follow. The care of the child is burdensome to some parents, for it seems like a very one-sided proposition with little reward. However, some parents, fathers as well as mothers, who had been reluctant to have a child, learn that having a baby need them, be dependent upon them, and be satisfied

and happy because of them provides a deep sense of fulfillment and pleasure that the Japanese call *amaeru,* for which we lack a word in English (Doi, 1973). Indeed, many mothers feel that their infants give them a great deal: a sense of completion; relief from engorged breasts and the pleasure of having them sucked; focus to their lives; a source of interest and pride; a new bond to their husbands. Although the unit of mother and child is of primary importance throughout infancy, the pair are not living in isolation, and the mother's capacities to feel herself in a unity with the infant and the pleasure she gets in so doing reflect her relations to her husband and her other children as well as her own personality.

A proper empathy permits a consistency in responding to the infant's changing needs and ways which permits a type of nonverbal communication to become established between mother and child that eases the first year of life and greatly helps keep the discomforts and tensions of both mother and child minimal. But it also serves other important purposes. The mother's relaxation and comfort and also her tensions and irritability are conveyed to the infant through her handling. The relief of a mother's tensions may well be almost as important to infants as relief of their own needs. Perhaps the first leverage in having infants rescind instinctual efforts to gain immediate relief of tensions produced by hunger or thirst comes when they delay or modify their behavior in order to have the comfort of a relaxed mother. Such responsiveness on the part of infants can arise only when their mothers' ways of relating to them are sufficiently consistent to enable them to become conditioned to, or otherwise learn, signals and cues. Further, such responsivity to felt and observed cues by both mother and child provides the foundations upon which more clear-cut communicative signals will develop, and provides assurance that the infant will gain trust in the value of communication—including verbal communication—as a means of solving problems.

Basic Trust

A critical task and a central theme of infancy concerns the establishment of feelings of confidence in the world (Benedek, 1938). While completely dependent upon the care of others, children need to gain a sense that those upon whom they unknowingly depend, and who constitute their world, are dependable. As Erikson (1950) has aptly put it, the child attains a *basic trust* in others which will form the nucleus for achieving trust in the self, or the child is left with an enduring distrust. If children's essential needs are met when they are unable to provide anything for themselves, they gain a feeling

that the world is trustworthy and adequately consistent to enable them to live in it with security . The provision of a firm foundation during infancy permits children to move into the next phase and invest their energies and attention in solving its basic tasks. They will have experienced and have established at the core of their personalities the security that when they were helplessly dependent, unbearable tensions had not been permitted to mount within them to provoke rage, nor had neglect led to the establishment of a pattern of apathy to defend against untenable tensions, nor had parental fears and anxieties been transmitted to them through the parents' ways of handling and responding to them. In contrast, deprivations during infancy interfere with progression as energy continues to be expended in a repetitive seeking after the satisfactions and security that were lacking. Such frustrations pave the way for tendencies toward regressive strivings for dependency and a hungering for affection in later life; or engender proclivities toward pessimistic hopelessness and to resentful rage when the individual is deprived.

A basic *trust in the self,* a pervasive sense of confidence that becomes an inherent characteristic in later life, rests upon *trust in others* during infancy because during much of infancy there is no clear boundary between the self and the remainder of the world, and infants cannot differentiate between how they feel and what others do that influences their feelings.

Infancy as the "Oral" Phase

Psychoanalytic psychology has termed infancy the *oral phase* of psychosexual development, thus emphasizing that the infant's life centers upon taking in nutriment through sucking and that the first critical relationships with others form while completely dependent upon them and receiving the vital nourishment from them.[4] In the process, a firm and enduring connection is established between affection and feeding, between a need for others and oral activity, and a basis is laid for later wishes, when overwhelmed by life's difficulties, to return or regress to such oral dependency. Infants are born prepared to maintain life by sucking and swallowing, which are their only organized way of relating to anything outside of themselves. The lips and their mucocutaneous junction areas are highly sensitive, and their stimulation sets off the sucking reflex. They are not only sensitive but a source of sensuous pleasure which serves to assure—in evolutionary terms—that the infant will seek the stimulation that sets off sucking. The oral zone and the act of sucking are erotized in that sucking is pleasurable for its

own sake, as is obvious if one watches babies suck their thumbs with lustful avidity, and because of the generalized gratification that accompanies nutritional and also non-nutritional sucking. Other types of sensual pleasure will be related to these oral satisfactions and connect orality to sexuality.

The period is "oral" also in the broader sense that infants' development rests upon assimilating stimuli from the environment to start the organization of their cognitive processes, and because their emotional security rests upon gaining feelings of security and well-being from those who nurture them.

The concept of orality, however, must not be taken too literally[5] as implying that how the child is fed is almost all that matters. Other sensations are also very important to the very young infant. Tactile sensations and skin erotism, as well as the totality of the handling, are significant in providing a sense of comfort and security in the infant.[6] The "oral" relatedness properly includes the relationship through touch, voice, odor, body position, warmth, and the visual connections to the mother's eyes and face that are an important aspect of nursing. Indeed, the infant's attachment to parenting persons depends as much on parental responsiveness to the baby's cries and how much social interaction with the infant is initiated as upon any other determinants (Schaffer and Emerson, 1964). The security, tenderness, and conviction with which the mother carries out her many maternal tasks enter into conveying the sense of inherent trust that is a cardinal task of the period. However, the very young infant's sense of well-being and readiness to socialize rest on his proper nourishment, and we shall return to discuss feeding shortly.

OTHER MAJOR DEVELOPMENTAL TASKS

Although the attainment of an inherent sense of trust is a crucial task of infancy and critical to the future emotional well-being of the individual, it is far from the only fundamental task of infancy. In the first fifteen months the child traverses a great distance and establishes the foundations for many developmental accomplishments. However, such abilities and characteristics are potentials permitted by the process of physical maturation which the infant acquires under reasonable environmental conditions with greater or lesser facility, but they are not an inherent part of maturation. As careful studies of seriously deprived children have taught, without suitable nurturant care if not affection, and without environmental stimulation and an opportunity to use limbs and sense organs, very little developmental progress may take place—as will be discussed later in the chapter.

Even without considering the catastrophic results of gross neglect, it is apparent that what a baby will be like by the end of infancy depends upon the interplay of many factors. Erikson (1950) has stated that "while it is clear what must happen to keep a baby alive and what must not happen lest he be physically damaged or chronically upset, there is a certain leeway in regard to what may happen." This leeway permits different societies to utilize differing child-rearing procedures, each of which the members of the society consider to be the only proper method. One society will leave its infants to cry until the scheduled time for feeding; in another, mothers carry their babies in slings, positioned so that they can nurse at the breast when they desire; in a third, the newborn might be swaddled and left in covered cradles for months; and in still others, the baby might be handed to experienced wet-nurses who nourish and nurture the child for the first rear or two. Each method works but leaves its imprint on the developing personality. Indeed, the varying techniques are part of the way in which each society unknowingly prepares its offspring to become proper members.

The essential tasks of the mother are simplified in societies with definitive traditional directives for infant care. The mother can carry out her functions with a conviction and security that help impart an innate sense of trust to her child,[7] particularly since in such societies little if any connection between the child-rearing procedures and the child's future personality is appreciated. The situation of contemporary American parents is apt to be very different. They may mistrust the traditional and be very much on their own; and they are often burdened by an awareness that just what they do, how they feel, their own problems, etc., may be influencing their child's future. In considering the infant's development and the importance of the parents, it should be realized that an infant has considerable resiliency.

The Parents' Security

In general, the precise techniques for caring for babies and handling them are less important than having secure and consistent parents who can enjoy their infant and achieve a close mutuality with him or her. An overemphasis on the benefits of breast feeding or of prolonged breast feeding has at times been as brash as the behaviorist strictures of an earlier period.[8] And warnings of the consequences of relatively minor deficiencies in handling the young infant have been based upon theory and conjecture rather than definitive knowledge.[9] Fortunately, the infant seems very capable of tolerating the awkwardness of new and well-intentioned mothers. Although mothers do not always know best, provoking guilt in a

mother because her needs sometimes take precedence over her baby's, or because her personality difficulties make her anxious in caring for the baby, helps neither mother nor child. Personality problems are not solved by admonition or through warnings of The consequences. Fostering security is usually far more important; the care of the baby can and should provide pleasure and become neither a chore that wears out the parents nor a source of constant concern.

THE NURTURE OF THE YOUNG INFANT

During the first few months the infant's feeding and sleeping are of central importance; and the parents' sleep as well as the child's depends greatly upon the feeding. The parents seek to furnish ample nourishment, to keep the baby clean and warm, to provide suitable conditions for sleeping. The infant can in these first months survive and even flourish with little socializing activity; but, after the first few weeks, stimulation, cuddling, and being talked at make a difference. A clear relationship exists between the amount of crying and the amount of nurturant care provided.[10] Indeed, parents often err in attributing their baby's crying to hunger. Even during the first few months a type of crying that seems to be related to a need for cuddling or activity can be quieted by rocking or walking with the baby (Illingworth, 1955). Still, because of the critical importance to the infant of proper nutrition, but also to help foster a proper mutuality between mother and child, breast feeding has been encouraged by many pediatricians and obstetricians during recent years, as has been discussed in the preceding chapter. However, we must realize that only a minority of mothers in the United States nurse their babies. When a mother breast-feeds willingly and without conscious conflict, breast feeding is very likely to be the most satisfactory method for both mother and baby; but there is nothing inherent in the process to insure gentleness, restfulness, or intimacy.[11] When a woman nurses from a sense of obligation or to prove to herself that she is a good mother, it is of dubious value. Indeed, it is likely that a mother who does not really wish to nurse will have sufficient milk.[12] An impression has long existed that the milk of anxious or tense mothers may cause gastrointestinal upsets—which may be the reason a leading dairy firm advertises "milk from contented cows." However, the mother's tensions may be conveyed through the manner in which she handles the baby rather than through her milk. In any event, the manner in which infants take their food and how they digest it often reflects their mothers' handling,[13] and it is a matter that concerns attitudes and feelings that are not easily overcome by conscious effort or direct instruction,

though instruction that serves to reassure and promote confidence can be very helpful.

Demand Feeding

The desire of pediatricians to see that their young patients receive adequate nourishment and oral gratification, and their recognition of the deleterious effects of frustration, have led many of them to recommend the practice of "demand feeding" (Aldrich and Hewitt, 1947).[14] According to this regimen, the infants are fed when they cry or otherwise show their hunger. The practice follows upon the realization that infants differ both in how much milk they can take at a feeding and also in how long it meets their needs. Little is gained by making infants wait for a scheduled feeding when they are becoming upset. A seriously frustrated and enraged baby has difficulty in nursing, and an upset child's gastric functioning may not be suited for digestion. The infant is incapable of learning to wait for a scheduled time during the first several months of life, and even later has little tolerance for delay. "Demand feeding" is a sensible approach, particularly when the mother can be adaptable in using it. If the mother can anticipate when her baby will become hungry and is not overly concerned about letting the child cry for a short time, a satisfactory feeding pattern can usually be established within a few weeks as the infant gains in physiological stability. Some mothers, however, who are insecure and overly conscientious interpret "demand" to mean that babies must be fed only when they cry and then as soon as they cry; mothers then can become enslaved to the task, often confusing the infant in the process, and her aggravation disrupts the mother-child harmony (Brody, 1956). When, as has been observed, a mother tries to nurse twenty or thirty times a day, a consistent signaling system cannot be established, and the child's socializing activities may be neglected.[15]

ATTACHMENT BEHAVIOR

The mere fact that a woman has become a mother provides no assurance that she will be maternal. The capacities to be properly nurturant involve basic factors in her own development and in her marriage which will be discussed in subsequent chapters. Still, there are biological factors in both mother and child that help establish an attachment between parents, especially the mother, and child. One potential benefit of breast feeding is that the pituitary hormone prolactin which stimulates the flow of milk may help foster feelings of receptive passivity and contentment in the mother (Benedek, 1949). We

have noted that both the infant's lips and the mother's nipples are erogenous zones: sucking gratifies the baby independently of the satisfaction derived from food intake; and the baby's sucking properly provides the mother with sensuous pleasure, including genital stimulation. Bowlby (1969) has suggested that several forces induce "attachment behavior" between mother and child which he relates to "imprinting" phenomena in ground-nesting birds and the attachment of baby ungulates to their mothers. Although Bowlby may overstate the situation by the analogy, several factors of potential importance should not be neglected. It has become increasingly apparent that in the process of evolution infants became endowed with various means of fostering the attachment of parental figures to them, as well as for promoting their own attachments to specific persons. The mother's odor may, as in many animals, form a basic linkage between babies and their own mothers or mothering persons.[16] It has been suggested that the infant's crying may arouse some inborn response in adults. Whether the response is innate or not, most adults find the baby's wails sufficiently unpleasant to induce them to try to stop the crying through feeding, cuddling, or rocking the infant. The baby rapidly forms an auditory linkage to the parental figure: within a few days of birth a mother can pick out her child's cries from those of other neonates; and within a few weeks infants react specifically to their own mothers' voices. After the first month the infant's babbling usually evokes a vocal response from an adult, and a few weeks later a cooing or babbling interchange with the baby can be maintained for some minutes, particularly by the mother (Wolff, 1963). When the baby's eyes focus on a parent's face, and engage in eye-to-eye contact at about four weeks of age, a new phase in the mother-child relationship seems to start (Greenman, 1963). Wolff reports that mothers commented "Now he is fun to play with" and "Now he can see me" and began to spend more time with the child.

Smiling

The baby comes into the world equipped with the facility to smile, which by the fourth week develops into a social smile. The baby smiles on seeing the mother's face, which leads the mother to feel that her baby now recognizes her. Wolff (1959) has documented the observation that there is a noticeable rise in the amount of attention that the mother gives her child after the baby begins to smile at her. We must examine this slight but important event that so fosters the mother's attachment to her infant.

Within twelve hours of birth, neonates grimace in a way that suggests smiling (Wolff, 1959), and by

the second week gentle stroking or a soft sound, particularly a high pitched voice, can elicit a fleeting smile in a drowsy baby. Sometimes by the end of two weeks, and almost always by the end of a month, a soft human voice produces a definite smile in an alert baby, and may even change crying into smiling. Then, between the fourth and sixth weeks, the human face rather than the voice elicits the smile. The child searches the face and, when eye-to-eye contact is made, grins. Spitz's (1965) studies indicate, however, that babies innocently perpetrate a fraud upon their mothers by inducing them to believe that the smile is one of personal recognition. The baby does not really recognize the mother.[17] Any face will do, provided it is seen full, for a profile will not elicit the smile. According to Piaget, a singing and nodding full face will be most successful in eliciting the response at first. Spitz further found that the region of the forehead, eyes, and nose is the inducer of the response; it does not matter if the mouth is covered, but the smile is not elicited if any portion of the upper face is covered. Actually, it does not require a face; a crudely formed mask resembling the forehead and eves suffices to elicit the smile when moved up and down.[18] However, the human face is a more effective stimulus. Although babies discriminate their mothers' voices by the fourth week, they smile at strangers as readily as at their mothers until the fourth month.

THE YOUNG INFANT'S WORLD

The infant's development starts slowly but accelerates during the third and fourth months. When the baby is about four months old the period of diffuse existence in which maturation and growth predominate is coming to an end, and the infant has become more of a social creature, with something of a distinctive personality. Babies have doubled their birth weight and are far more sturdy than they were at birth. Their lives no longer consist primarily of sleeping and eating, and they now are awake for fairly long periods, plating with their hands, looking and listening, and making cooing and gurgling sounds. They can now be propped into a sitting position and with the grasp reflex gone can clutch at things and play with their fingers, and they seem intrigued by dangling toys. They watch and listen and are alert to cues that signal what may happen next. Life has gained regularity through a pattern of an unbroken sleep of ten or twelve hours at night and reasonably regular feedings three to five times a day. When we study them closely they have gained many capacities and skills since they were born.

The slow start reflects not only the dominance of maturational needs during the first several

months, but also the building of a foundation to which experiences can be assimilated. The newborn's mind may not be a "tabula rasa" (for it has a predetermined structure and organization), but it is bereft of experience with which to perceive its surroundings. However, the infants are far from passive recipients of experience, even though the stimulation must be brought to them. As Piaget has demonstrated (see Chapter 3), there is active assimilation of the external world, with concomitant reorganization and expansion of capacities, as the child's schemata accommodate to encompass what has been assimilated.

COGNITIVE DEVELOPMENT

A fine balance exists between what attracts and holds infants' attention or what they simply ignore, on the one hand, and what causes discomfort or even disorganizing fear, on the other. Unless a schema exists to which a new experience can be assimilated, babies pay no attention to a stimulus until it intrudes upon them. If a new sensation or action is assimilated to a schema, the child tries to repeat the experience (by means of circular reactions) until it has been accommodated into the schema—or we may say, the child has become habituated to it. Infants at all stages can be very alert and active in fostering such repetition, but when accommodation to it has been completed they seem bored by it, are ready to expand the schema by assimilating new pertinent experiences, and have a vigorous appetite for change of stimulus. A baby will examine a spot on the side of the crib with great interest over and over, but after a time act as if it no longer existed. However, when a stimulus that seems to fit into a familiar schema turns out to be distorted or somehow violates expectations it is likely to upset the child. Thus, after a mask of a face has been repeatedly presented to the child to elicit a smiling response, a mask with the eyes and nose turned sideway can provoke frightened crying. In an older child, if a person initially taken for the mother turns out to be a stranger, the child experiences anxiety.[19]

We must also appreciate that the "aliment" or stimulation provided by an object changes with experience. The thumb is, at first, simply part of a sucking schema, then later it is something to be looked at as part of a visual schema, and still later as something to poke into objects to explore their shapes, etc. Thus an object's meaning for a child and the relationships between objects change constantly as the child develops cognitively.

Let us consider some of Piaget's observations of how the infant acquires the abilities of a four-

month-old baby by this gradual process of assimilation of new experiences, and the modification of existing schemata in the process.

Piaget's First Stage

Piaget terms the first two years *The Period of Sensori-Motor Development.* Its first stage, which approximates the first month, is simply called *The Use of Reflexes,* in which the innate sucking and grasp reflexes and the eye movements are modified slightly (Piaget, 1963, p. 23). As there is little accommodation to sensory "aliments," little expansion in what can be assimilated by the infant occurs. However, as noted in the preceding chapter, some assimilation starts on the first day of life, and changes in smiling and in response to sounds are apparent by the third week. Sucking is set off by an increasing variety of different stimuli to the lips; the head reflexly turns to the side on which the lips are stimulated; and some discrimination between non-nurturant and nurturant objects develops in that when infants are hungry they are apt to reject their fingers or any thing other than the nipple as an object for sucking.

The Second Stage

The second stage of sensori-motor development starts at the age of a few weeks and continues approximately through the fourth month. It is *The Stage of First Acquired Adaptations and the Primary Circular Reaction.* Now the innate reflex patterns begin to be modified. The changes in the sucking schema are most apparent and it is worth examining these seemingly trivial alterations, as they form the simplest example of the pattern of assimilation and accommodation that forms the core of Piaget's conceptualization of cognitive development. The tongue in the sucking schema accidentally licks the lips and thus receives a new type of sensation or stimulation—new sensory aliment. The sensori-motor schema repeats the activity that provided the new aliment and becomes circular in "seeking" to regain it. The innate reflex schema of sucking is now altered by the experience; the sensation of lips on tongue has been assimilated and the sensorimotor sequence accommodates to include it. In such fashion children begin to modify reflex patterns, build up schemata, and start their intellectual development and knowledge of the world.

The infant soon begins to bring the thumb to the mouth, originally by accident, but the behavior

develops into a firm schema after frequent repetitions as a circular reaction; it is rewarded by relief of tension through sucking and by the erogenous pleasure of the act. Children follow objects that fall within the visual field during the first month, and soon spend much waking time staring at objects. They are not perceiving as yet,[20] but simply looking and assimilating, gradually organizing their visual schemata. Through a blending of visual schemata with sucking schemata, they will respond to the sight of the bottle by opening the mouth or by stopping their crying. Soon, aside from crying, children show a tendency to repeat sounds they make—blowing noises, little laughing sounds, etc.—and the sounds themselves serve as stimuli for their reproduction in circular reactions. Then some distinctions that begin to signal differing needs may be noted in the child's vocalization as well as cries. Such differentiation will depend upon the mother's consistence in responding to different sounds, which then leads the child to repeat the sound which is the first part of the circular reaction that leads to the effect. These simple accommodations of the vocalizing muscles to repeat sounds heard are important preliminaries of learning to speak. The schemata of hearing and vision begin to interpenetrate and accommodate to one another, and soon babies listen to what they see, and look at sounds.

Sucking activities are, of course, very much the center of the infant's life. The mouth, at first, is virtually an organ of prehension, through which many things are sampled and experienced. However, starting in this second period, the grasp reflex diminishes and manual prehension develops rapidly. Piaget has studied the changes in prehension, carefully considering five substages that lead from the simplest circular reactions to the ability to look at what is grasped and to try to grasp what is seen.[21] This coordination between grasping and vision forms a notable step toward differentiating objects and relating to the world. Sucking and the visual-sucking schemata diminish in importance, whereas the coordination of vision and handling increasingly gain importance as a means of relating to and understanding the environment. Then, at about the end of the third month the child begins to coordinate vision, prehension, and sucking. Thus a child, looking at the mother's hand, grasps it, and draws it toward the mouth while looking at it.[22]

INTERACTIONAL ACTIVITIES

Although in these first months of life infants are primarily occupied with physical maturation, including the stabilization of their physiological processes, they have also prepared for the intense

interaction with parental persons that will soon begin to take place. Infants can control their hand movements; differentiate sounds; respond to faces with a smile accompanied by arm waving, kicking, and babbling; anticipate sufficiently to stop crying at the sight of their mothers, a bottle, or the sound of mother's voice. They make a wide variety of sounds which they keep practicing by circular reactions. Still the mother is not yet a person, for there are no persons. There is no proper distinction between the self and the environment, or between what is internal and external, or between objects and the sensori motor patterns through which the infant interacts with them. Nevertheless, the mother is distinguished from others. Some children will, at eight weeks, cry if picked up by a stranger, and although four-month-olds will smile at anyone, the mother's face is apt to bring a more pronounced response. The parents begin to experience the pleasure of interacting with a very distinctive baby.

Even though unrecognized, the mother or some nurturing person is of utmost importance to the child. Mothers seek to provide for their babies' physiological needs and keep their physiological tensions minimal, and while providing stimulation protect them from disorganizing overstimulation. The infant can do little about reducing drive tensions except signal discomfort. The mother is not only providing conditions that will enable the child to gain a sense of confidence in the world, but promotes conditions under which he or she can best learn. Infants do not advance by resolving conflicts or learning how to rid themselves of tensions, for they have no such capacities. They learn because of an innate urge to assimilate new experiences. They are so constituted—their central nervous systems are so organized—that new experiences, including their own bodily movements, are rewarding sources of stimulation.

The parents' attempts to satisfy their child's needs are not always effective: indeed, the difficulties encountered lead some parents to the verge of despair. An occasional child is hypersensitive and difficult to satisfy. An illness may disturb the equilibrium of another. A satisfying feeding schedule or method of feeding cannot be established. Holding and cuddling do not seem to comfort another. Colic or bowel movements cause the child pain. The sleep of the child and that of the parents is intermittent. Most difficulties are short-lived and are resolved—perhaps with the aid of the pediatrician. How much derives from something in the child and how much from the nature of the nurturing care may remain unanswered. This is the time when disturbances in the parent-child relationship are apt to be reflected in physiological dysfunctions, particularly in feeding disturbances and gastrointestinal functioning.

FROM THE FOURTH TO THE EIGHTH MONTH

After the first four months a period of transition begins, during which infants' interests move a way from themselves into their surroundings, and which leads up to the critical shift that takes place some time around the seventh month, when parents clearly become specific persons to their children and the babies become much more in the way of social beings—the time when the second major subphase of infancy starts.

A great deal occurs during the middle third of the first year as the baby increasingly becomes a lively character with a distinctive personality whose activities are intriguing. Indeed, this is often the heyday of the mother-infant relationship. The infant increasingly becomes a separate person who is eagerly responsive to parents, and parents respond by supplying affection and stimulation, and follow the child's changing ways. The child's care is increasingly less a one-sided affair and the baby's responsiveness often elicits warm and tender parental feelings. By about the seventh month, infants sit comfortable and without effort and can use both hands to hold things at the same time and perhaps pound them on the table or floor, enjoying both the movement and the noise. They can handle things, for the grasp reflex is virtually gone. In sitting they gain a new perspective on the world and greater freedom to use their hands. When prone, they begin to make crawling movements and may even manage to move a bit: they will not remain static much longer. They have found their feet and explore them with their hands and mouths. They can occupy themselves by using almost any object as a toy to manipulate, to wave, or to bang. They like to sit and watch other members of the household and may enjoy sorties beyond the house—gazing and learning. Now they babble endlessly, stimulated both by their own voices and by others talking to them. They are making sounds that prepare for almost any language, but soon they will move toward sounds of the language they hear. Certain noises become rudimentary signals of needs and wishes. Some frustration can be tolerated, and delays in signaling needs through crying can be noted, as when the child waits until hearing the mother in an adjacent room to convey hunger by crying. There is one new source of discomfort. The first teeth—the two lower incisors—are cutting through the gums. They cause pain and may provoke sudden outbursts of crying. The baby bites on the gums, seeking relief. The discomfort may interfere with sleep or eating, and the biting sometimes interferes with breast feeding. Although teething children can cause parents considerable frustration by their irritability and crying, they clearly require additional attention and cuddling to counter their

distress.

Now that the infant is interested in the mother, comforted by her presence and stimulated by watching her, mothers are likely to keep their babies with them while they work in the kitchen or while the parents eat. Some children, in turn, clearly follow their mothers with their eyes and turn toward them when their mothers leave the room, and as they approach eight months may crawl after their departing mothers (Schaffer and Emerson, 1964; Ainsworth, 1967).

Piaget's Third Stage of Cognitive Development

This midportion of the year is the time of Piaget's third stage of sensorimotor development, to which he has given the lengthy but intriguing title *The Stage of Secondary Circular Reactions and Procedures Destined to Make Interesting Sights Last* (Piaget, 1963, pp. 122-180). As with the primary circular reactions, the infant repeats actions that accidentally produce a new experience, but these experiences are now primarily changes produced in the environment rather than changes related to bodily activities as in the earlier stage. Thus, a hand movement accidentally sets a hanging toy in motion and the infant then repetitively makes the hand movement that strikes the toy and swings it. Through such circular reactions babies begin to explore the world around them and gain means of influencing it. They assimilate sensori-motor units, for actions and objects are not yet clearly distinguished but remain part of a unified schema. In watching the child strike a swinging toy, one can note gradations in the intensity with which the toy is hit, and how the child slowly gains control over the amplitude of the swings. Eventually, a further modification occurs. A familiar object or situation may no longer set off the movement required for its activating the circular reaction, but the infant seems content to carry out only a fragment of the movement. It seems as though "the child were satisfied to recognize these objects or sights . . . but could not recognize them except by working, instead of thinking, the schema helpful to recognition . . . [that is] the secondary circular reaction corresponding to the object in question" (Piaget, 1963, pp. 185-186). These are precursors of purely contemplative recognition and symbolization.

The infant now also tends to assimilate new objects into old patterns or schemata. A new doll, for example, is put through the baby's repertoire of sensori-motor schemata set off by such objects: it is sucked, waved, fingered, rubbed against the bars of the crib, dropped to the floor. An interesting aspect of

these secondary circular reactions is the use of "procedures for making interesting sights last." The child's behavior may seem very puzzling. The child sees something happen at a distance and then in order to get it to recur will go through a set of movements as if attempting to control the distant object by magic—by waving the arms, kicking feet, shaking the crib; but the baby is simply providing the first portion of a circular reaction that may have accidentally preceded the "sight," and then goes on to use its repertoire of sensori-motor schemata to try to activate the "sight." It is behavior that is semi-intentional; it is really still aimed at bringing about a repetition of something that happened accidentally. A significant aspect of these "procedures" concerns the substitution of sounds for actions, as when the baby smiles and says "aah!" when the door opens. The sound may be considered as an indication of recognition that someone is about to appear, or it may be understood as part of a secondary circular reaction—the first part of the procedure for making the "interesting sight" of a person appear again. In any case, it is part of the preparation for language.

THE SECOND HALF OF INFANCY

In the second half of the first year a new major subphase of infancy starts. Psychoanalytic psychology has emphasized a shift to an oral aggressive phase with teething, when the infant seeks actively to incorporate rather than assimilating more passively.[23]

Piaget has demonstrated that the infant now gains a more discrete concept of objects, including the mother; and Spitz emphasizes that a new organizing principle occurs when infants relate to their mothers as specific individuals.[24] In any event, infants now need specific parenting persons in order to feel secure, and are becoming social individuals for whom deprivation of interpersonal stimulation becomes a serious handicap to their emotional and intellectual development. We shall consider the nature of this change.

The Mother as a Separate Object

Ever since A. Freud and D. Burlingham's (1944) pioneering observations of the traumatic impact on babies of separation from their mothers during World War II and Spitz's (1965) studies of institutionalized infants a great deal has been written about the importance to the small child of a

continuing mothering person, and of how the loss of the mother disrupts the child's development and leads to depression and apathy. Although the evidence is not conclusive as yet, it appears that deprivation of the mother becomes particularly significant and highly traumatic some time between the ages of six and eight months. When younger infants are placed in a hospital they show strange behavior *after* they return home or when they are shifted to a new setting within the hospital. Schaffer (1958) has termed this the "global syndrome." On returning home the infant seems preoccupied with the surroundings, raising his or her head and scanning objects without focusing on anything, and even ignoring the mother. The blank expression or frightened look is naturally very disturbing to the mother, who finds her child very changed. However, such behavior lasts only for a few hours or occasionally for a few days.

By the sixth or seventh month, however, the development of the essential interaction with the mother culminates in clear-cut "stranger anxiety."[25] Instead of responding to a stranger's smile with a smile, the baby shows evidence of apprehension, tends to turn away and may start crying. The response is not to the mother's leaving but to the stranger's approach. It is as if the infant were upset at the dissonance from the familiar. Now strangers are tolerated best when they enter the scene unobtrusively and approach the child quietly, preferably when the child feels safe by being close to the mother or some other very familiar person. The mothering person has now become a specific source of security to the child, and her presence, as we shall see, seems essential to the baby's well-being.

During the second half of infancy, lengthy separation from the mother produces far more drastic results than those described by Schaffer in the younger infant. The baby is stricken with a reaction similar to grief or depression which can progress to continued weeping, clinging, and disinterest, and to virtual loss of contact, apathy, and retardation, depending upon the duration of the separation and the quality of the substitute care that is provided.[26] It is difficult to sort out the differential impact of loss of the mother, loss of social stimulation, duration of the loss, and the quality of the substitute care. After the child and mother are reunited, the child displays a marked overdependence with excessive crying whenever the mother leaves, a clinging to the mother, and a heightened fear of strangers: behavior that lasts for several weeks or longer. Spitz in his study of infants of prison inmates noted that those children whose mothers had been more involved with them suffered more than those whose mothers had not related well and who, in addition, were able to accept substitute mothers more readily.[27] We shall consider the effects of

more lasting deprivations later in the chapter.

We should also note that the retardation and lack of verve shown by infants who are institutionalized soon after birth become pronounced during the second half of infancy. Of course, the mother does not become more important to the older infant. The difference is that the baby now recognizes that objects, and particularly the mother, are separate entities. The infant now reacts to her loss, rather than simply experiencing the diffuse uneasiness or the physiologic upset that absence of the mother provoked at an earlier age.

Piaget's Fourth Stage of Cognitive Development

Piaget has clearly demonstrated that by seven or eight months of age the infant has an idea of an object as against the earlier inclusion of the object as part of a sensori-motor schema. The fourth stage of sensori motor development has much to do with the differentiation of objects. It is termed

The Coordination of Secondary Schemata and Their Application to New Situations. The idea of the object and intentionality are related. Thus, in seeking after an object, the baby retains the image or knowledge of the object even though it is partially hidden from view, and combines schemata in obtaining it. If a pillow is placed between a child and a ball the child will push away the pillow (one schema) and then grasp the ball (a second schema). Children's actions, at this stage, are now moving away from modifications of reflex acts to the pursuit of ends-in-view. They will begin to explore objects carefully, turning them over to look at the other side, feeling their shapes and looking at them from various angles. The objects seem to present them with a problem, and to some degree they recognize that there is an objective reality to which they must adapt themselves. As the period progresses, infants are less bound to testing procedures "destined to make interesting sights last." A child who sees a person ring a bell will push the person's hand toward the bell rather than go through a repertoire of sensori-motor schemata. An object is no longer something simply to be used as part of a schema, or for purposes of activity for activity's sake, but rather something to be mastered. This new relationship to the environment helps explain why separation from the mother becomes so traumatic at this phase of an infant's development.[28]

The Start of Locomotion and Speech

As infants move toward and past their tenth month, they not only are much more active but interact with members of the family, whom they draw into their lives. when a mother enters the baby's room in the morning she is apt to find the child standing holding on to the side of the crib, babbling away, and with toy-animal bedfellows tossed on the floor. The child begins to crawl, moving around the playpen, and may even be able to walk in tottering fashion if held by both hands. Babbling has moved toward the sounds of the language, and the baby may well please the parents by saying "da-da" or "ma-ma." These reiterative syllables are not yet real language, as will be discussed when we focus on early language development in the next chapter. The child may also have learned to imitate waving "bye-bye" and awkwardly clap hands. There are still difficulties in using some newly gained skills: the child may pull up to a standing position but have difficulty getting down to the floor again, hesitant of landing with a thud, or may enjoy rolling or throwing a ball but be unable to release it at will.

During the remainder of infancy, babies are consolidating and improving their skills. They practice through endless play at gaining dexterity as well as at learning to judge size and distance. At about a year they may toddle if held by one hand and cruise by holding on to furniture; but they are most mobile on all fours. The number of words the child knows increases, and their use is becoming more specific. They are also likely to bestow little hugs and kisses to convey affection to members of the family. But now they are also beginning to show initiative, and parents can have difficulties in feeding children who seek to feed themselves, or gain the cooperation of infants insistent on continuing what they are doing. The problems engendered by the child's mobility and incessant exploratory curiosity will reach their crisis later, and will be discussed in the next chapter.

The Response to "No!"

The "ma-ma" and "da-da" are scarcely words and do not yet designate specific persons, but sometime during these last months of the first year a significant step takes place in children's language development and, indeed, in their ways of relating when they begin to respond to "no!" (Spitz, 1965, pp. 174-195). Perhaps it is a major step away from the unblemished innocence of childhood. The sharp "no-no!" of a parent at first simply frightens infants and causes a pause in their activities or makes them cry,

but soon the interjection stops them from what they are doing. The control is limited, but it is control through verbal communication that can be carried out from a distance; and it forms a sign that the child can internalize. It merges with children's growing awareness that displeasure in parents causes discomfort in them. However, it will be another five or six months before children use "no" themselves.

Self-Gratification

The child may have adopted a favorite blanket, sweater, or stuffed animal as a transitional object (Winnicott, 1953) and begin to display the phenomenon that Linus in the comic strip "Peanuts" has made so famous. It is a tactilely pleasant object that provides comfort and a sense of security in the mother's absence. It is a reflection of the skin sensuality that forms a part of the child's "oral" behavior. Children will clearly express displeasure when the "security blanket" or some other transitional object is missing, particularly at bedtime. As the child grows somewhat older it becomes increasingly difficult if not impossible to provide a substitute without provoking a serious upset. Thumb sucking, genital play, the need for a transitional object, are all means of providing for the self and of gaining comfort when the mothering person is not available. They are expected behaviors, and absence of genital play or thumb sucking may be as much a reason for concern as their presence. Efforts to deprive the infant and young child of such gratifications will result in frustration and increased insecurity. However, many parents are seriously concerned by these "habits" and are apt to take stringent measures to stop them.[29]

Weaning

Weaning, which often occurs between the ninth month and the end of infancy, may increase the frequency and intensity of thumb sucking. Infants need to gratify their oral sucking impulsions and there is evidence that insufficient sucking during feeding increases finger sucking; and, while too brief periods of nursing or too easy a flow of milk may lead to intensive finger sucking, well-gratified babies may be even more prone to prolonged thumb sucking. The determinants are not always clear and studies of the topic are in some respects contradictory (Klackenberg, 1949; Lew, 1928; Sears and Wise, 1950). weaning traditionally has been considered a major frustration and potential source of emotional trauma. Abrupt weaning, particularly when accompanied by separation from the mother, can have serious consequences, but currently weaning docs not usually cause notable frustration. If the baby is more than a

few months old, additional foods including semisolids have been added to the diet and the child has become accustomed to taking food from a spoon or cup. If the child is weaned from the breast, a bottle may be substituted, and if the mother or nurse continues to hold and cuddle the baby, the shift from breast feeding can proceed smoothly. The desire to satisfy the oral needs of the child properly had led some to delay weaning from a bottle until the child is older, but ideas that prolonging breast feeding into the second or third year makes weaning easier have no clear foundation.[30]

Twelve to Fifteen Months

As the child's first birthday forms a major occasion to the parents, there is a tendency to consider that the period of infancy or the "oral phase" terminates at this turn of the calendar. It seems more appropriate, however, to include the first fifteen months in infancy, for at about fifteen months the child is no longer just tottering but usually can toddle about; and the phase of sensori-motor development is drawing to a close, for the use of words and the greater comprehension of language markedly changes children's intellectual capacities and increasingly permits them to direct themselves.

Piaget's Fifth Stage

It is worth scrutinizing some of senior infants' techniques more closely in order to appreciate the limitations as well as the capacities of their minds as they are about to be graduated into the next phase of life. Piaget terms the fifth period of sensori motor development that extends from about the twelfth to the sixteenth month *The Tertiary Circular Reaction and the Discovery of New Means by Active Experimentation* (Piaget, 1963, pp. 263-330). The child now clearly differentiates the self from the object, and the object from the act. The exploration of objects that had occupied the infant earlier now turns into explorations of how objects act and how they can be manipulated. The child is now experimenting, so to speak, to see what happens, rather than simply repeating experiences. The experimental trial and error still begins with something that happens by chance; it is still a "circular reaction" but of a higher type. The difference between repeating the fortuitous and active experimentation is narrow. The child drops an object accidentally, repeats the action, and continues noting the deviations that occur each time, and thus experiments with different ways of dropping an object. And now the object is differentiated from the action, and thus the action can be tried with different objects. A child may, for example, learn to pull a

string in order to get a toy attached to it by means of numerous trial-and-error experimentations which started with the chance appearance of the toy after the cord was pulled. Once the child has learned with one toy, the schema or knowledge rapidly becomes generalized. From here it is only a small step to the next stage when foresight based on a related experience leads to insightful action without trial and error.[31]

If an object the child wants is placed under a cushion where the baby finds it and it is then placed under a different cushion, the child will now look directly under the second cushion rather than repeat the previously successful act as would a somewhat younger child. Nevertheless, limitations of the senior infant's cognitive powers can be noted in the way in which an object is still apt to be tied to the circular reaction of which it had been a part. Thus, a thirteen-month-old girl rolls a ball under a chair and successfully retrieves it. Then she rolls it under the sofa where she cannot see it and cannot reach it. After trying unsuccessfully to reach under the sofa she returns to the chair and seeks the ball under it. She is repeating the act that had previously been rewarded by retrieval of the ball, and seems to expect to find it even though she has seen the ball roll under the sofa.[32]

Piaget's Sixth Stage

Piaget's sixth and final stage of sensori-motor development is not part of infancy, extending as it does from the sixteenth or eighteenth to the twenty-fourth month, though some manifestations of the stage may be present at fifteen months. The child becomes capable of inventing new means for solving problems through mental combinations without requiring tangible trial and error. Such behavior requires the use of symbols and the internalization of symbolic acts. Piaget notes that verbal symbols may not be necessary at this level of complexity, for the child may use motoric "signifiers" in carrying out such acts. For example, Piaget's daughter used the gesture of opening her mouth wider and wider to help master the opening of a matchbox. However, as the child now understands many words, it is difficult to assess just how much the child is using verbal symbols even though she does not speak them. While this sixth stage forms the culmination of the sensori-motor period in which familiar sensori-motor schemata are applied to new circumstances, it also marks the beginning of a new major phase in which the child begins to use the human attributes of verbal symbols and foresight in solving problems (Piaget, 1963, pp. 328-330).

EARLY DETERMINANTS OF PERSONALITY TRAITS

As children reach and pass their first birthdays, they assume certain more definite and distinctive characteristics—some of which seem to foreshadow what sorts of persons they will become. Still, there will be time for many revisions and time for significant changes in the way in which parents relate to them as they grow older, and time for exigencies of trauma, illness, or for months or years of fair weather to alter radically the way in which development is progressing.

However, careful observation may reveal to an experienced observer that the child is beginning to favor and develop certain adaptive mechanisms and may also be utilizing some precursors of specific defensive mechanisms. Children may be making the most of some innate attribute such as unusually good intellectual endowment or motor coordination, or may unknowingly be reacting to some particular way in which the parents have responded to them. By this time each mother-child combination develops a highly characteristic pattern of interaction. The pattern whether satisfactory or not tends to persist at least for the next few years.[33] It is difficult to differentiate between innate tendencies and those that develop in response to the nurturant care, and virtually impossible unless the child had been studied carefully since shortly after birth. We might consider, however, an infant who displayed superior motor coordination in his first months of life. His mother and father, both of whom are athletically inclined, take pleasure in his motor activity. They play with him by swinging him by his arms, turning him in somersaults, encouraging swimming and stepping movements. However, when lie begins to throw things from his crib and will not desist, his mother considers him contrary and disobedient and slaps his hands; when lie crawls and knocks over a lamp, she smacks him sharply. “No’s” punctuate the air and startle the active baby into inactivity. The mother is afraid lie is becoming wayward like her brother who is in a reformatory. Her impulsive slapping of the child starts loud quarrels with her husband, which in turn cause the baby to cry frantically. His movements become more crude and the anticipated excellent motor coordination fails to develop. Instead, he seems to become perplexed and given to more impulsive actions. In contrast, a little girl’s motor dexterity develops into coordination of fine movements as her parents spend time with her playing with simple puzzles and construction toys, and enjoy seeing her use crayons. In similar fashion, we can note children develop verbal skills either because of a particularly keen ability to discriminate sounds, or through being with older persons who talk with them or at them a great deal, or because their mothers like to sing to them and stimulate responsive recitation.

The child may also be showing more diffuse patterns of reactivity, such as a geniality that reflects the developing innate sense of trust; or, in contrast, something of a disinterest in people, turning from them to play with toys, which may seem to reflect the mother's preoccupation with other matters when with the child, or the mother's compulsive ways of handling her child,[34] or, as in the case of another child, in reaction to the mother's need not to have her flow of fantasies disrupted by her child's moves toward companionship.

These more subtle relationships between inborn capacities, parental interests, parents' emotional problems, and the family atmosphere are now first coming under careful scrutiny; and the long-term influences upon the emerging personality are still somewhat conjectural. Currently, we can only consider some of the grosser and more obvious influences, and even then it becomes increasingly apparent that the number of variables is so great that they are difficult to assess clearly.

Some Developmental Disturbances

Children approaching fifteen months can be, and usually are, beings filled with vitality, curiosity, and with a push toward exploring their expanding worlds and finding ways of mastering them. Frustrations are inevitable and cause outbursts of anger, but they are short-lived. However, not all children flourish in this manner. Some have become quiet, apathetic, and do not emit any glow; many others show evidence of being troubled; and some have not reached anticipated levels of intellectual capacity. Even though we are not concerned with pathology in this book, it seems useful to consider some of these less fortunate outcomes in order to demonstrate and accentuate the importance of the interpersonal environment to the developmental process, even during infancy.

The Effects of Emotional and Social Deprivation

The observations made by Spitz (1945) of children raised in a foundling home are among the most dramatic and tragic.[35] The babies had developed normally during their first three months while cared for and breast fed by their own mothers or by substitute mothers. Then the mothers were removed and the babies retained in the foundling home, where they received adequate physical care, good food and medical attention, and lived under very hygienic conditions. Each nurse took care of from eight to twelve

infants who were left in cribs separated by opaque partitions almost all of the time where they received little handling or personal attention. The infants soon showed a progressive deterioration and by six months were notably retarded, lying supine and almost immobile, unable to turn themselves over, in contrast to the usually active ways of the child at this age. Gradually their faces became vacuous and their expressions imbecilic. They developed bizarre, uncoordinated movements. Despite the food provided, some developed marasmus—a wasting from malnutrition—and about thirty percent died within the first year. Of the survivors many—or most—were unable to stand, walk, or talk at the age of four. These children had not only been deprived of affectionate care and the attention that usually goes with it, but they had received extremely little stimulation of any type, being thus deprived of the fundamental experiences required as "aliment" for learning.

While there are no other reports of *series* of children who did as badly as those reported by Spitz, other studies, and notably those of Provence and Lipton (1962), have documented the severe retardation of institutionalized infants that grows progressively worse during the second half of infancy. The children studied by Provence and Lipton were seriously impaired in their motor control; and their interests and interactions with people and toys as well as their language development were impoverished; even self-exploration and autoerotic activities such as thumb sucking and genital manipulation became minimal. Moreover, they were dull and disinterested, "the light had gone out," or, as an observer remarked about the child that stood out as being the least handicapped, "If you crank his motor you can get him to go a little, he can't start on his own."[36]

The effects of maternal deprivation are complicated, even during infancy.[37] They vary with the time of onset of the separation, the duration, the quality of the mother's care prior to the separation, the individual endowment, and the quality and quantity of the substitute care provided, so that different difficulties and deficiencies can result. At present, relatively little is known about the interplay of these various factors. Now, raising an infant in the family docs not, of itself, insure against emotional and social deprivation. Indeed, a pediatrician is apt to see some children who are not just deprived and neglected but grossly mistreated, all too frequently an infant that has been beaten and battered for crying and thereby disturbing an immature and unstable parent. Even some well-intentioned parents can provide little because of economic necessity when the baby is left in the care of a completely disinterested sibling or incompetent child. Immature parents with little self-control are likely to be very impatient with their

babies. Frequently difficulties arise because parents do not realize infants' limitations. One mother suddenly slapped her young infant for being impudent when he stuck out his tongue at her; a father cannot understand why the baby will not eat the food given her without messing her clothes, etc. One encounters depressed or apathetic mothers who cannot do anything for or with the child beyond providing food and hygienic care accompanied by little if any fondling, play, or talk. Such situations, particularly after the first four to six months, can create serious impairments and emotional disturbances.

The full effects of infantile deprivation on personality functioning in later life are still unknown. Thus, when Harlow (1958, 1966) raised baby monkeys on "wire" and "terry cloth" mothers, it seemed at first that they did well on such impersonal mothering. However, they later became asocial in various ways, and eventually it became apparent that they were uninterested in mating and did not know how to mate. However, some of the females were successfully impregnated, but after giving birth to offspring they were completely lacking in maternal behavior, refused to permit the baby to approach and cuddle against them, and often attacked the baby so that it sometimes became necessary to remove the offspring from the mother's cage lest she kill it.

The Hospitalized Infant and Small Child

Such studies have forcefully drawn attention to the necessity of providing for the infant and small child's emotional and social needs when they are hospitalized for illness or surgery. Indeed, it is only during the past few decades that hospitals have considered that the baby has critical needs other than strictly medical attention.[38] Young children need their mothers with them a good deal of the time, particularly in strange surroundings, or good substitute care must be provided. The disturbances caused by separation have often been confused with the effects of an illness or with difficulties in recovering from an operation. Most modern hospitals now realize the importance of providing for the emotional needs of young children as well as their physical care. Surgeons have recognized that speed of recovery and even post operative mortality rates can depend upon the emotional climate of the unit. With more prolonged hospitalization the child's intellectual and social needs require attention, and good pediatric services now have nurses who play with the children and maintain nursery school-like playrooms in which the children spend their time whenever feasible.

THE INFLUENCES OF INFANTILE PATTERNS ON THE ADULT PERSONALITY (ORAL TRAITS)

The long-term problem has received attention in psychoanalytic literature through consideration of the "oral" character and the effects of fixations at the oral stage of development. The term "oral character" is loose and has varied connotations that cannot be defined too closely. Psychoanalytic theory has tended to divide "oral" characters into two major types which supposedly reflect frustrations in the two halves of infancy. The "oral incorporative" character consistently seeks to get from others passively, wishing to be cared for as a dependent child. Such persons fear being abandoned and starved and have little faith in the world unless they have someone to feed and care for them, and lack confidence in their ability to manage for themselves. "Oral aggressive" characters retain strong needs for care from others but do not feel they can obtain what they need without being grasping and hurting others in the process. In adult life they may drive themselves intensely while exploiting others to obtain security. Another dichotomy that has been formulated concerns excessive indulgence as contrasted with deprivation in infancy. Those indulged excessively as infants acquire a lasting and inappropriate optimism that prevents them from providing for themselves as they feel certain that others will look out for them. Those who have been deprived and frustrated have a deep-seated pessimism, becoming hostile and resentful when their needs are not met, and they tend to give up easily.

However, these are oversimplifications of a complex problem.[39] Few adults can be characterized in terms of oral tendencies that are the resultants of infantile experiences alone. Other developmental periods will be affected by whatever gave rise to the oral problems, and the child is usually raised by the same parents who contributed to the oral problems of infancy. It seems more useful to speak of oral characteristics that enter into the shaping of the personality. Such oral characteristics may be of such dominant importance that they prevent the development of a mature person, or may simply consist of traits that can sometimes be turned into assets as well as create handicaps. The term "oral traits" need not be an epithet but simply a useful term to help describe a personality. Oral characteristics can be highly useful, as in the case of some authors who boundlessly take in and then pour forth words. Thomas Wolfe, for example, could not contain his "orality" but incorporated vast chunks of life and had difficulty limiting the flow of words in his writings, and had a prodigious love of food. Indeed, in one short story he has the hero make love to his girl in terms of food, with his passion centering on the girl's ability to cook and provide food. A more aggressive type of orality may be considered evident in the love of words

shown by George Bernard Shaw, who displayed a “biting wit” that contained considerable hostility.

"Oral" Character Traits in an Adult

The relationship between food and affection is often very noticeable. Of course, many mothers consider providing food as an essential manifestation of their love, and some offer food as a substitute for affection.[40] The relationship between affectional needs and food requires consideration when a physician prescribes a diet; for when persons addicted to food are placed on a stringent diet, they may become seriously depressed. The striving to amass wealth because of the fear of being left without resources can motivate industrialists.

The interrelated “oral” problems of love, food, insecurity, dependency are apparent in the history of a man suffering from a peptic ulcer; a history which will also demonstrate some of the difficulties inherent in any attempt to sort out the salient factors in their development.

A man in his mid-thirties was flown to a medical center because of a recurrence of bleeding from a peptic ulcer. He had never previously left his hometown and the vicinity of his mother. The first episode of ulcer symptoms and bleeding had occurred while he was awaiting induction into the army and was apprehensive about leaving home. He was a highly intelligent man who worked at a job far below his capacities. It was a secure job in which he felt underpaid, but on the several occasions when he had made plans to take a job of greater interest and potentiality, he would start to overeat markedly, become apprehensive, and decide that the risk of changing positions was too great. He would then become resentful because he was not properly appreciated, feel like telling off his employer, but could never dare to show his hostile feelings. He would then suffer from indigestion, which led him to believe that he was not healthy enough to assume greater responsibility in a new job. He had married at the age of thirty, finding a widow who not only was a mothering sort of person but also had sufficient independent income to allay his concerns about his ability to support a wife. Indeed, he realized that he had married only because his mother was growing old and might soon die.

Although his infancy and early childhood could not be reconstructed accurately some thirty-five years later, it was known that his mother had been a very apprehensive woman who sought to remedy

her son's supposed frailty by pouring food into him. Food had been important to her as a token of security. The patient had become obese in childhood. The patient considered that a traumatic childhood experience had a lasting effect on him. When the patient was four years old, in the days prior to social security, his father lost his job and could not find another. The family ran out of food; the mother baked a cake with the remaining flour and told the patient to eat well as she did not know when they would be able to buy food again. He became acutely anxious, fearing that the family would starve to death. The father soon found employment and the family was never again in such desperate straits.

Although the patient felt that his parents were unusually devoted and had provided for him as well as they could, his wife disagreed. She believed that her husband's parents had brainwashed him into believing in their beneficence by telling him of their many sacrifices for him. She found them penurious people, chronically fearful of the future, who transmitted their insecurities to their son and who had discouraged him from attempting to seek better employment. She offered, as an example, an episode that had occurred when the patient was a young adolescent, fie had worked hard all summer to earn the money to purchase a bicycle he very much wanted. His parents encouraged the project; but when he had enough money, they insisted that he buy a new suit instead of the bicycle. Although he had considered leaving his hometown to find employment in a city, lie developed severe motion sickness when he rode on a train, and even when he drove an auto beyond his town limits.

It seems very likely that this man's distrust of the world and his own capacities started in infancy, but later experiences certainly contributed to it, amplifying rather than helping him overcome his lack of confidence; and his insecurities clearly reflected the attitudes of both of his insecure parents.

The concepts of oral fixation and regression have been highly useful despite their diffuseness. However, they are not fully sufficient to explain the personality problems and deficiencies that follow upon infantile deprivations; for, as we hare seen, a number of other developmental tasks aside from satisfying "oral needs" must be surmounted in infancy to lay the foundations for stable personality development. As these foundations need to be laid down in association with the physical maturation of the child, later experiences can never fully compensate for the deprivations experienced in infancy.

The first fifteen months of life have a unity as a developmental period because throughout them the

child is completely dependent on others for nurture: for the food and bodily care essential for survival and healthy physical maturation; for the affectionate attention required for security and freedom from untenable tensions; for the experiential stimulation that is necessary for cognitive development. The infant undergoes a profound physical transformation during these months and the foundations are laid down upon which future personality development will rest. If infants' essential needs are filled and untoward tensions do not repeatedly arise within them, they will have established at the core of their beings a basic trust in the world and those who inhabit it, upon which a confidence in themselves and in their capacities to care for themselves can develop. A great deal more than gaining a basic trust and the satisfaction of oral needs must take place during infancy if the person is to develop properly. We have followed infants' slow emergence from the undifferentiated state in which they started life, to the formation of intense attachments to others upon whom they depended, and with whom they began to interact meaningfully. We have noted how, as infants differentiate, they have a great need for specific mothering figures, and how separation from such persons can have disastrous effects upon them.

Now children enter a new phase, walking, chattering a jargon mixed with words, more definitely understanding language, moving about on their own, exploring and getting into things; their parents' tasks in caring for them also change. Parents can no longer be concerned only with satisfying their children's needs and wishes, providing experience and socialization, but must now also limit their activities so as to assure their safety and the integrity of the household. Children, in turn, now must learn self-control and delimitation to be capable of exercising some sovereignty for themselves.

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Notes

1 Planned, scientific study of the infant's development has been carried out only during the past three or four decades. It has not always been obvious that the infant's personality development is a topic for scientific study. Direct observation of infants and children over the course of time probably started with Gesell's careful studies of maturation that established landmarks for comparison, and with Piaget's studies of the cognitive development of his own children in the service of epistemology. Currently, a variety of direct studies is expanding our knowledge of the period. Longitudinal studies through infancy and childhood are difficult to carry out, and many of them tend to focus on some specific facet of the problem to avoid a complexity that cannot be handled with scientific rigor. Only an occasional study is conducted in the infant's natural habitat, the home.

2 Edna St. Vincent Millay, "Love Is Not All.'

3 We shall consider the importance of a mutuality between parents and infant largely in terms of the mother-child relationship, even though not all infants receive their primary care from mothers; and increasingly, fathers share the care of the infant and sometimes even fill the primary nurturant role. It seems advantageous, for reasons that will be presented, for the infant to relate to a single primary nurturing person with whose feel and ways of handling and relating the child can interact and who, in turn, is thoroughly familiar with the child and the child's preverbal signals. As considered in the previous chapter, the mother usually has a deeper sense of unity with the infant than does the father. Still, not all mothers are able to invest the baby adequately. A mother may be perfunctory and silent in handling the child, particularly if she is depressed following the birth, as occurs commonly enough. The infant may be nurtured more salubriously by the father or by an experienced, secure, and interested nurse than by the mother. Indeed, although the practice of leaving the essential care of the infant and small child to a nursemaid, once common among the well to-do, has diminished greatly, many children are still raised in this manner. The mother, or both parents, can still form a good relationship with their infant by enjoying playful interactions with the child, or assume responsibility for those matters for which they feel secure and competent.

Under some circumstances, the infant may do best in a nursery that has a competent and devoted staff while the parents work—as in a kibbutz. The effects of multiple parental figures upon the child's development still remain unclear; but the care of multiple parental figures is clearly preferable to relative neglect or incompetent care.

In any event, it is virtually necessary to discuss parent-infant care largely in terms of the mother, because almost all studies aside from those of kibbutz child rearing have been concerned with the mother-child relationship.

4 Originally the concept of the oral phase, as noted in Chapter 3, connoted that the lips and mouth were the area in which the libido was primarily invested during the first year of life. It is not necessary to utilize this concept of a displaceable sexualized energy to explain the importance of orality in infancy and the erotization of the oral zone.

5 Such literal concern with "oral libido" has led some to discuss problems of the period virtually in terms of the relationship between the mother's breast and the child's mouth. Melanie Klein and her followers have made significant contributions by drawing attention to the intensity of the infant's primitive feeling states and their influence on development, but they have neglected the state of the infant's cognitive development and attributed perceptions and concepts to it that are impossible at this period of life. The notions of the "good" and "had" breast can be considered only metaphorically. See M. Klein. *The Psycho-analysis of Children*.

6 Marlow (1958, 1966), in a classic experiment, demonstrated the importance of skin erotism in the infantile "oral" behavior of monkeys. He had rhesus infants nursed by artificial mothers of two types: one was constructed of wire and contained a bottle and nipple; the other was covered with terry doth and did not contain a feeding device. The monkeys fed from the "wire mother"; but when frightened by a snakelike device that set off an inborn fear reaction, they ran to the "terry cloth mother" and clung to it, very much as baby monkeys cling to a real mother when frightened. Thus, the feeding did not lead the baby monkeys to turn to the wire device as a mother; the tactile quality of the terry cloth was more important. We shall refer to these experiments again for other important, though serendipitous, findings.

7 This does not imply that the traditional techniques are always suited to instilling a basic trust; there are indications that the Balinese techniques described elsewhere in this book (see also C. Bateson and M. Mead. 1942) prevent the development of such trust, and sometimes a workable child-rearing pattern no longer exists—as perhaps during the Middle Ages after the Black Death and the Crusades so disrupted the structure of European society that in some localities only one out of every ten babies reached adulthood.

8 Thus a psychiatrist who noted the paucity of anxiety states and combat neuroses among the Okinawans during the intense fighting for their island in World War II attributed their emotional stability to the fact that Okinawans were habitually breast-fed for three years (Moloney, 1945)-He did not take other potential factors into account or realize that although Okinawans might be unusually mentally healthy on Okinawa, Okinawans living in Hawaii had mental illness rates as high as or higher than the remainder of the population, even though they too had been breast-fed for several years.

9 There is no evidence that childhood schizophrenia, severe apathy, or serious mental retardation can be related to deficiencies in maternal care of the infant alone, unless it is a matter of severe neglect, maternal apathy, or brutality; and certainly there is no reason to believe that lack of cuddling, faulty holding, or inadvertent frustration lead to any such dire consequences.

Margaret Ribble's widely read book, *The Rights of Infants*, though properly drawing attention to the relief of tensions that can be accomplished by proper handling, feeding, etc., seems to have overstated the case to the extent of frightening some mothers and inadvertently creating the tensions in handling their babies that the author sought to have them overcome. Hilde Bruch's *Don't Be Afraid of Your Child* sought to reassure mothers of the sturdiness of their infants' emotional balance in order to offset such influences.

10 In a systematic study the crying of neonates was reduced by 50 percent by increasing nurturant care from 0.7 to 1.9 hours a day for each

infant (Aldrich et al., 1946).

11 Brody (1956) found by experimental observation that neither breast feeding, nor demand feeding, nor holding the baby while it was being fed would separately or collectively assure satisfaction in feeding.

12 Newton and Newton (1950) found that 74 percent of ninety-one mothers with a positive attitude about nursing before they delivered had enough milk by the fifth postnatal day, as against 26 percent with negative attitudes. Newton (1951) also reported a correlation between preference for breast feeding and the avoidance of rigid feeding schedules.

13 Escalona (1945), in a study of infants of mothers in a reformatory, found that infants' refusals of food, sudden changes in preferences, and digestive upsets occurred in relation to the attitudes and behavior of the person who was feeding them, or to such factors as separation from the mother. In eight of ten infants who refused to take the mother's breast, the mothers were clearly high-strung and excitable; and six infants accepted a formula from another feeder on the same day on which they refused the same formula when offered by their mothers.

14 "Demand feeding" also arose in reaction to the rigid scheduling that had been foisted upon mothers by pediatricians under the influence of behaviorist psychologists in the 1920s and 1930s. By this approach, a baby was to be trained—conditioned— almost from birth, and a mother who gave in to a child's needs for food at an unscheduled time was considered a bad mother who spoiled the child. Only reasonably self-sufficient mothers were likely to follow their own feelings and defy the authorities. A comparison of the 1938 and 1948 editions of the U.S. Children's Bureau bulletin Infant Care, published by the U.S. Government Printing Office, provides striking evidence of the vast change that occurred in these ten years concerning the child rearing procedures advocated.

15 Disturbances in regulation of body weight, both obesity and pathological underweight, have been related to parents' feeding the infant and child in response to any indications of discomfort, thus preventing the child from establishing a connection between physiologically aroused sensations of hunger and the need for food (Bruch, 1961).

16 The hypothesis is difficult to test in infants. However, older children can be noted to gain comfort and pleasure by inhaling the mother's odor, perhaps her genital odor, when they stand with head in the mother's skirt and sniff or breathe deeply. The relationship of the mother's odor to certain types of fetishist behavior and renifleur activities constitutes a complex and inadequately studied topic. Ainsworth (1967) noted that, when about six months old, infants in Uganda would bury their faces in their mothers' laps.

17 Although Spitz, who carefully investigated the smiling response, placed its appearance between the second and sixth month, it is now clear that it appears between the fourth and sixth week. Spitz studied institutionalized children, who were late in forming the response because of deprivation.

18 It is possible that the early smiling response is an inborn response to a specific "releaser," the "releaser" consisting of a pattern resembling a human forehead, eyes, and nose, even as certain birds respond to a fixed pattern in the mother's coloring or in the appearance of a hereditary enemy—the smiling response here having an evolutionary survival value through fostering proper nurturant care. Ahrens (1954) found that a face-sized card with two black "eye" dots would suffice and that a card with six black dots was still more effective.

19 As Wolff (1963) notes, each repetition of a circular reaction alters behavior to some degree, sometimes almost imperceptibly, and change is cumulative rather than abrupt. Until repetition of an act no longer changes behavior, "the corresponding schema is said to be in a state of disequilibrium." The theory assumes that disequilibrium gives rise to a need to function, or a need to repeat action to the point of adaptation.

20 Studies of congenitally blind persons whose sight was operatively restored in adolescence or adult life indicate how visual perception

must be organized through experience. Patients reported that at first they experienced only new strange sensations or diffuse light. It took days to discriminate any differences between objects. These were persons who, in contrast to the infant, had already organized their surroundings through non-visual perception—had an object concept and names for objects.

21 The sequence is as follows: (l) The innate grasp reflex is modified by primary circular reactions that lead to repetitions of touching and grasping of various parts of the body—bringing the hand to the mouth to suck, and a simple staring at the hands in the visual field. (2) The child not only carries whatever is grasped to the mouth, but also grasps whatever is placed in the mouth—a prelude to the future dominance of prehension over mouthing. (3) Looking at the hand in the visual field leads to an increase in hand movements, which suggests that causing a new sensation in the visual field leads to a circular reaction of repeating the hand movement that changed the visual sensations. Now, when the hand happens into the visual field, it can be held there. (4) The infant can grasp objects in the visual field. At about four months, for example, if the rattle and hand are both in the visual field, the infant can grasp the rattle. (5) The child looks at what is grasped and tries to grasp what is looked at, a tendency that can cause the mother considerable difficulty.

22 J. Piaget, *The Origins of Intelligence in Children*, pp. 89-121. See also P. H. Wolff, "The Developmental Psychologies of Jean Piaget and Psychoanalysis."

23 The pain of teething may stimulate tensions and conceivably aggressive feelings. The breast-fed infant who bites the nipple may be weaned, and weaning can engender frustration with marked aggressivity—as can clearly be observed in older children when abrupt weaning is enforced. However, at this time the infant can begin to go after things and becomes less passive.

24 As we have noted, infants have a special relationship to their mothers that is apparent after the age of four or five months. Many of the child's sensori motor schemata have been developing in relation to the mother and to her ways of handling and reacting to her infant. The infant is more relaxed and comfortable in the care of the mothering person. Although separation from the mother causes the baby to be upset, before the seventh or eighth month she can be replaced by another competent person without serious consequences.

25 See R. Spitz, The First Year of Life, pp. 150-162. Spitz termed the phenomena "eight month anxiety" but here, as elsewhere, he fixed the onset late because a large portion of his studies were conducted with deprived infants. However, the onset can occur any time after six months.

26 The classic study is by R. Spitz and K. Wolf, "Anaclitic Depression: An Inquiry into the Genesis of Psychiatric Conditions in Early Childhood." See also). Bowlby, "Grief and Mourning in Infancy and Early Childhood," and subsequent discussions by Anna Freud, Max Schur, and Rene Spitz, pp. 53-94.

27 This indicates that the benefits of good maternal care can turn into a disadvantage if the child loses the mother. An experiment of Seitz (1959) furnishes similar evidence that what is advantageous depends on the conditions. He deprived some of the kittens in a litter of adequate nursing experience, leaving the remainder to nurse freely. The orally deprived kittens did not flourish as well as the others and were less placid. After weaning, he conducted a test in which the kittens, in order to obtain food, had to cross a platform on which they were shocked. The orally deprived ignored the shock and obtained food regularly, whereas the normally nursed kittens became upset, could not gain food, and developed rather typical animal neuroses.

28 Another important development in children's ways of relating involves their responses to signals. Although they have shown recognition of anticipatory signals earlier, anticipatory responses now become much more consistent. A child may start to cry when seeing its mother putting on her coat. Many such responses are conditioned, but they are merging with intentional behavior. It seems quite intentional when a baby girl will open her mouth for the spoon when it comes from the fruit bowl but not when it comes from the cereal bowl

29 Even the leading pediatric texts of thirty to forty years ago advocated the use of arm braces to keep babies from sucking thumbs, and

various physical restraints to stop masturbation in both male and female children. There is little, if any, evidence that thumb sucking causes irregular dentition. The common belief that masturbation leads to mental deficiency, insanity, or neurasthenia dies slowly and continues to be held by many parents. It is probable that the erotic quality of thumb sucking and the use of transitional objects as well as masturbation is disturbing to many adults, partly because it reawakens their own childhood fears, guilt, and shame.

30 The interesting studies of Sears and Wise (1950) indicate that weaning frustration increases with the duration of breast feeding. However, many variables require further attention and study. It seems possible that weaning came to be considered so traumatic because of the difficulties in weaning older children, as well as the manner in which it had been done before the practice of gradually introducing other foods early. Even in primitive societies the process can be so difficult that it is sometimes carried out with the help of such procedures as anointing the nipple with a bitter substance, or by painting the breast to make it look frightening. In some societies the mother leaves the community for several weeks, thus forcing the weaning process but adding problems caused by loss of the mother's presence. It may be simpler to wean from the breast before the mother becomes a highly significant object to the child or before the child develops a conscious memory.

Bowel training commonly is started toward the end of the first year and can create many difficulties, but is better deferred until later in life. This topic will be discussed in the next chapter.

31 Thus one of Piaget's daughters at just thirteen months of age, upon seeing an orange peel, turns it upside down and makes it rock; apparently she was able to foresee the possibility from the shape. (See J. Piaget, *The Origins of Intelligence in Children*, p. 328.) It is of interest that this same child who could use foresight to this degree still employed a much more primitive secondary circular reaction some five months later. After obtaining a toy by dislodging it by shaking the chair on which it was resting, after it had been removed to another part of the room she continued to try to get the toy by shaking the chair.

32 Similarly one of Piaget's daughters at fifteen months of age sees her father approaching in the garden and smiles at him; but when her mother asks, "Where is Papa?" she turns and points at his office window, carrying out a customary (and probably an emotionally rewarded) response to the mother's question. Even when this child was over two years old, when she was walking with her father in the garden and heard a noise in his office, she said to him, "That is Papa up there." (See J. Piaget, *The Construction of Reality in the Child*, p. 59.)

33 Bowlby (1969, pp. 343-349) cites the careful observations of the French workers M. David and G. Appell that can be found in translation as "Mother-Child Relations" in J. Howells, *Modern Perspectives in International Child Psychiatry*.

These workers found that the magnitude of the differences between mother-child pairs can hardly be exaggerated. Simply in the amount of interaction with disregard of the quality, one mother interacted with her daughter almost continuously while the child was awake, another mother virtually ignored her year-old daughter, a mother and son spent much time together silently, each engaging in activities alone, etc.

34 See S. A. Provence, "Some Aspects of Early Ego Development," for an example of the infantile precursors of the use of intellectualization as a major adaptive technique.

35 See also A. Freud and D. Burlingham, *Infants Without Families*.

36 Provence and Lipton's comparisons of the best endowed and best cared-for institutionalized child in the study with an average child who was reared by his parents at home is very much worth reading.

The follow-up studies of some of these children who had been placed in families when they were about a year and a half old showed that they improved very rapidly and made up for much of the lost time, but careful examination revealed that they continued to suffer serious deficiencies, such as impairments in the capacity to delay when frustrated that interfered with their abilities to

solve problems; a failure adequately to generalize what they learned; an undue concreteness in thinking; and failure to expect and seek help from adults that limited learning; and a continuing superficiality in their relationships to others. It appeared unlikely that certain attributes that should be acquired in the first year of life can be properly acquired later, which provides further evidence of the importance of the ontogenetic sequence during the first year that has been emphasized by Piaget.

37 For evaluative efforts of such studies see M. S. Ainsworth, *Deprivations of Maternal Care: A Reassessment of Its Effects*.

38 Thirty years ago in one of the foremost pediatric centers, babies were tied down when they were about a year old, lest they fall out of the cribs; and mothers could not stay with the baby at night, and were even treated as nuisances who interfered with the nursing routine when permitted to visit during the day.

39 The difficulties can also he considered in terms of a child's failure to overcome the infantile attachment to a parent, a failure of the process of separation-individuation that will be discussed in the next chapter; or in terms of so-called narcissistic fixation, in which a person continues to hold childhood magical beliefs that an omnipotent parent can satisfy all of the person's needs, which leads to expectations that parents and other significant persons can never meet. See H Kohut, The Analysis of the Self, pp. 42-56.

40 The relationship of such maternal traits to obesity in the offspring has been studied and documented by H. Bruch and G. Touraine (1940).