

**DAVID E. SCHECTER**



**INFANT  
DEVELOPMENT**

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# **Infant Development**

**David E. Schechter**

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## Infant Development

The frame of reference of the behavioral sciences, including psychiatry, is increasingly expanding to include psychohistorical and intergenerational considerations, especially with the realization that the needs of child, youth, and adult are, to a large degree, mutually interdependent—each group having needs to confirm and be confirmed by the other. We mean to emphasize in our discussion of infancy—approximately the first fifteen months of life—the reciprocal relatedness between child and caretaker, whether the caretaker is parent, professional, or extended family. With new possibilities in societal and childrearing structures (the daycare center, the kibbutz, the commune), it is more important than ever to understand the nature of the infant and his dependency on his caretakers, even if the child were to be conceived in a test tube. For practical purposes we will assume that the family—or a variant thereof—is still viable and still a rather universal matrix in which children are reared, notwithstanding the influences of other institutions.<sup>[1]</sup> Traditional parental roles—and the security that comes with these roles—have already broken down to varying degree in the Western nuclear family, with an ensuing search for new forms of childrearing that may be adaptive to a relatively unknown and unpredictable future world. Hence the widespread phenomenon of acute and chronic parental doubting concerning a range of problems connected with child and adolescent rearing, with life style, and with basic value orientation.

Although traditionally concerned with alleviating symptoms and altering deviant behavior, psychiatry has moved into community concerns, recognizing its potential contribution to the fostering of mental and emotional well-being as well as to the prevention and treatment of suffering and destructive behavior among the people of the world. If we can understand the nature of human development in its various sociocultural forms, we increase the possibilities of knowing the conditions under which “healthy” development can be facilitated. Since the human organism has a wide range of adaptability, the issues of “health” and adaptation are closely related. “Adaptation to what” involves matters of human value's and goes beyond the usual boundaries defined by a narrow scientific approach that attempts to remain value-free or— more accurately—value-blind. For example, if a family or a society's goal is to encourage self- control in a child, there are many routes toward this behavioral end. One end of the spectrum would rely on providing a milieu that encourages self-control by example and encouragement as well as by a clear setting of limits; the other direction would make use of techniques weighing most heavily on fear, coercion, or shaming. Although the surface behaviors in each instance may have a similar appearance, the different psychological structures involved in these examples would have completely different implications for the child's total development and for the social relations of which he becomes a part.

## The Birth of a Family

The biological helplessness of the infant demands nurturance from caretakers who have a high stake in the infant's growth and development. Traditionally the family has been entrusted with the functions of fostering the child's biological, social, and cultural development. This implies that from the time of conception parents will try to influence the new organism in directions largely dictated by their personal and socially shared values. However, the freedom to nurture optimally a completely dependent fetus and infant depends a good deal on the level of psychological maturity attained by the parents.

Parenthood can be regarded as a developmental phase, incorporating several substages, with stage-specific tasks, stresses, and opportunities for growth. The young adult usually comes to parenthood while he is still undergoing a series of individuation experiences in which he has attempted to liberate himself psychologically from his family of origin through an intense inner struggle to establish his—or her—own sense of identity. Simultaneously a need develops for a relatively enduring, intimate relationship, which often involves the formation of a new social unit, a "couple."<sup>[2]</sup> In such a setting we can observe fluctuations from states of relative psychological separateness to states of greater fusion or loosening of ego boundaries. The latter is experienced not only during sexual excitement

and orgasm but in the not infrequent expectation that the one partner have *identical* wishes, tastes, and values as the other. With the relative sense of exclusive possessiveness seen in some new couples, there are temptations toward regressions, including increased dependency and fusion that evoke affects associated with earlier parent-child experiences. In part this accounts for the cyclical moving toward and away from one another in any intimate relationship.

Against this background of relatively exclusive couplehood, a pregnancy can potentially come to signify an intrusion into the new unit. At the very least, even when the pregnancy and newborn are consciously and unconsciously welcomed, there will be a marked disequilibrium and need for new homeostasis in the new family unit. The capacity for the dyad to grow into a relatively harmonious triad is one of the essential developmental tasks of parenthood, the outcome of which will have enormous impact on the child's and the family's development.

We know from clinical as well as from direct family observations that pregnancy and infancy set up new strains in both parents. Aside from the demandingness of the new infant, there is a shift of emotional investment (cathexis) in the mother—especially after quickening—when she becomes aware of a new being that is inside and part of her. If the husband needs his wife at the same level of intensity as in pre-pregnancy, he may experience



some deprivation, which can be overcome—if he is mature enough—especially with the feeling of a new pride in his role as father. In families we have studied in weekly observation for the first two years of life, we have noted in some fathers clear signs of deprivation, jealousy, and feelings of being excluded.<sup>[3]</sup>

Since there tends to be a social idealization of infancy, demanding an unambivalently blissful family atmosphere into which the infant is supposed to be received, ambivalent affects are generally suppressed or repressed, and investigation of these feelings has been hampered by a sense of taboo surrounding this issue. Also, from clinical experience with parents in various settings, one would suspect that there may be a widespread incidence of new families suffering in a quiet spirit of desperation.<sup>[4]</sup>

Although discussion of father's role is often absent in consideration of early family development, such considerations are manifest in mythology—probably indicating the rather universal nature of these problems. There is a whole other side to the Oedipus-type myths that Freud did not emphasize. This perspective involves predictions that the newborn (son) would preempt and perhaps kill the father of the new family. This prophecy of the Delphic oracle provoked Laius and Jacosta to attempt infanticide by tying Oedipus's feet and leaving him to die in the fields in order to save their marriage and kingdom.<sup>[5]</sup>

The observations that a father may feel that his wife has “the inside track” with their son and that the mother feels despairing about her lack of abundance to provide for both child and husband should not obscure the fact that these conflicts are often resolved in a positive direction; the couple transcends its former structure to make room for—and, indeed, feel enriched by—the common pleasures and tasks involved in the child’s growth. With this capacity of the parent to move from exclusive couplehood to a communal triad, there develops a sense of growing into generative adulthood (Erikson) in which one’s potency and surplus vitality is expressed in the sharing of the care and concern for another whose importance is experienced as at least equal to one’s own.

### **Parent-Child Developmental Fit: Individual Differences and Sociocultural Factors**

The many variables that are involved in the adequate growth of a family include the character and maturity of the parents, the constitutional difficulties and demands posed by a newborn, and his “match” with what his parents—and by implication their sociocultural group—can tolerate and respond to. The work of Bridger, Birns, Chess, Thomas, *et al.*, and Escalona reveals the early appearance of individual differences in infantile reactivity and temperament and the complex relation of these factors to parental expectations and responsiveness. The matter of parental expectations and hopes for their infant is of paramount importance in determining how the

parents will evaluate the infant's progress and their own worth and "goodness" as parents.<sup>[6]</sup>

Our own observations of infant-parent interaction impressed us with the intensity of parental expectation and hope for their infant's achievements in accordance with a kind of idealized developmental schedule. If one of these goals—for example, to be independent, to play by himself, to reach and grasp—was not achieved by a certain age, there could ensue a sense of disappointment and failure leading to blame of self, child or spouse, and to mounting family tensions, whose origins the parents would soon become unaware of in the complex mesh of secondary interpersonal stress. We observed a two-month-old infant with colic shrieking for relief, but when his mother carried him "too long" in order to soothe him she was accused by her husband—and eventually accused herself—of "spoiling" the child. The fear of spoiling the infant proved quite prominent in a number of parents and was one of the sources of doubt and dulling of spontaneity in the parents' attitudes toward their child. Behind the issue of spoiling is a fear of inducing overdependence and an omnipotence of will in the infant. At times these matters could be amusing, but they also signified a damaging form of patterning when many spontaneous behaviors in a very young infant were assigned the significance of willfulness and defiance.<sup>[7]</sup> Thus, a three-month-old infant was spanked by her father because she "refused" to go to sleep; on another occasion, using unfamiliar strident vocal tones and threatening facial

gestures, her mother severely reprimanded her when the infant's protruding of her tongue was interpreted as a sign of disrespect. A further example of the fear of giving "too much attention" was seen in the mother's decision to withhold bodily contact with the baby by propping the bottle during most feedings. We must emphasize that although these were not the most sensitive of parents, they were also not too unrepresentative in many respects of what we saw in lower-class and lower-middle-class homes.<sup>[8]</sup>

*Messiness* and *dirtiness* in connection with feeding proved to be another source of maternal anxiety and consequent scolding or punishment in the early months of life. In this way important early autonomy striving such as self-feeding by finger, spoon, or cup can be discouraged by a mother whose sensitivity to messing or whose need to control overrides the child's readiness for certain masteries. Spock has written about how critical the period of five to six months is for the development of increasing autonomy and self-reliance through the potential mastery of cup feeding at this time.

We saw the beginnings of the "power struggle" from the parents' side much earlier than the classic autonomy phase usually ascribed to the infant in his second and third year of life. Even though we were impressed with the observations of how maternal attitudes and behaviors were influenced by the infant's behavior, we were even more impressed with the limitations of this proposition.<sup>[9]</sup> Parental character—in some aspects individually unique, but

in its basic dimensions determined by sociocultural patterning—was seen to exert a powerful influence on the threshold, intensity, quality, and flexibility of parental response in relation to the infant’s behavior, including the developmental changes in his behavior organization.

Despite the warps of development that can follow from inappropriate parental standards and expectations, it is clear that standards are—in varying degree of flexibility—common to all societies. Parental hopes for their offspring are universal and have been expressed in the form of the messianic ideal; this theme runs through various religious, mythological, and artistic motifs throughout history. The intense affective investment in the child increases the chances of species and individual survival as well as cultural continuity, even though it lays the groundwork for potential disappointment, disillusion, blame, and resentment in family relationships. Even so, despite the inevitability of parental inner conflict and guilt in Western culture,<sup>[10]</sup> one can observe parents within this framework who show remarkable sensitivity and skill in facilitating and enabling opportunities for the infant’s movement toward an optimal balance of interdependence and autonomy.

## Development of the Human Bond

Of all the developments in the first year of life, that of the human bond between the infant and his caretaker—or caretakers—is probably the most fateful for his future life. We have presumed that the unfolding of the child's subsequent interpersonal relationships derives heavily from the patterning of the first social relationships. I have avoided the use of the word “mother” here, lest we assume that it is only with one's actual mother that the primary social bonds can be formed. Originally psychological, including psychoanalytic, formulations concerning the mother-child relationship were largely reconstructive or theoretical. Only in recent years have there been direct and specific kinds of researches to help elucidate the exact nature of the unfolding of the first human relationship.

There are several types of theories concerning the process by which the child becomes socially related. One type is concerned with the formation of the social bond, largely through secondary psychological dependency deriving from repeated cycles of gratification through the reduction of need-tension, primarily oral. This type of theory—largely involving the precepts of social learning—is in essence the one formulated by Freud, who properly emphasized the helpless nature of the newborn infant whose survival depends on the ministrations and need gratifications by his caretaker. However, Freud also postulated a primary instinctual sucking drive that was

anaclitic in its nature since it “leaned on” what he then referred to as the self-preservative ego instincts. The object of the sucking drive was seen as the breast—the social bond to mother being developed largely through the secondary psychological dependency described above.

Bowlby and others (Balint, Fairbairn) have emphasized a primary object seeking tendency in the infant from the time of birth. Bowlby postulates mechanisms—derived from ethological models—by which the primary attachment to the mother is mediated. These mechanisms, referred to as “component instinctual responses,” are made up of species-specific behavior patterns, determined by heredity and emerging within specific developmental periods during the first years of life. The five “instinctual responses” suggested consist of sucking, clinging, following behavior (both visual and locomotor), crying, and smiling. Bowlby himself stresses that his theoretical model was intended to retain but update Freud’s original schema of component instincts. From an evolutionary point of view, Bowlby considered the instinctual responses as having evolved with the adaptive function of eliciting nurturing behavior on the part of the mother. As Yarrow points out, a third theoretical framework, central to psychoanalytic theory—that of “object relationships”—is probably the broadest one, with a clearly developmental orientation that takes into account different kinds of social responses at different developmental stages. The controversy that has ensued between primary and secondary attachments (Bowlby) is largely spurious

because in human development it is, at least at the present time, practically impossible to separate out the primarily innate from the experiential since early infantile experience tends to become organized and patterned, and presumably immediately begins to have its effects on later development. Nevertheless, this does not rule out the fact that certain maturations must occur before certain kinds of experience can be undergone and organized by the infant. Many ethologists have largely abandoned the idea of an entirely innate origin of instinct-based behavior; Schneirla, for example, in his studies of cats, has shown the influence of early learning in complex mother-kitten interaction on the eventual “bio-psychological” mother-child relationship.

### **Oral and Feeding Behavior**

That the oral and feeding experience of the infant constitutes one of the important basic roots of social attachment is not in question. However, historically, because of the obvious power of the sucking drive and its crucial connection with satisfaction of hunger and with survival itself, it was seen as the dominating experience that mediated the attachment to the mother. Indeed, the whole period of infancy was conceptualized as “the oral phase” of libidinal development. In nature, however, the oral experience involves other sensory modalities such as tactile, auditory, visual, and olfactory stimulation. Nevertheless, even with the exciting new discoveries of the importance of the visual modality—described elsewhere in this chapter—we should not



underestimate the critical quality of the feeding experience. We know, for example, that mothers who respond to their child's cry and discomfort almost exclusively by offering the breast or the bottle condition their infants in such a way that oral craving is experienced and oral satisfaction may be more usually sought out when distress is felt.<sup>[11]</sup>

A number of authors, including Erikson, Sullivan, and Brody, have emphasized the building up of a quality of interpersonal mutuality through the feeding experience; a number of fine manipulations and adaptations must be made by both partners in order to achieve a reciprocally gratifying feeding experience.

The significance of *contact comfort* and *tactile gratification* early in the life of the infant is dramatically demonstrated when the crying infant quiets upon being picked up and held, at first by any caretaker, but after a few months usually by the preferred mother. We assume that tactile, pressure, thermal, olfactory, and kinesthetic stimulation (Mason) have an ongoing impact on infantile experience. Harlow's work dramatized the importance of tactile experience in infant macaques, who apparently preferred artificial terry cloth mother surrogates to wire mesh lactating surrogates. Although Harlow had reason to conclude that contact comfort was more important than feeding as an antecedent to social attachment, I believe this is a false kind of distinction because this type of competitive choice between these two

particular modalities does not occur in nature as it does in Harlow's experiments. Also, in general, any inferences to humans from infrahuman species carry a risk, although the relevance of such inferences for early infantile development may be of a somewhat higher order. There is, however, initial evidence that experimental stimulation of institutional infants—exclusively in the tactile modality—contributes to significant developmental gains.

The evidence for the existence of important individual differences in the intensity of oral drive and the pleasure experienced in close physical contact is rather impressive. For example, Schaffer and Emerson studied a group of infants who could be differentiated into “cuddlers” and “noncuddlers.” The authors concluded that the noncuddlers were not suffering primarily from maternal contact deprivation; rather, as a group, they were more advanced and more active motorically, and at the same time they tended to resist restraint of movement, including the restraint consequent to close physical contact.[\[12\]](#)

### **Visual and Auditory Modalities**

In recent years research has revealed that the visual apparatus is relatively ready to function soon after birth. Tauber demonstrated the optokinetic nystagmus reaction movement in newborns; Wolff and White

observed visual pursuit of objects with conjugate eye movements in three to four day olds; Fantz described more prolonged visual fixation upon more complex visual patterns as against simpler ones in the early days and weeks of infancy.

The normal face is similarly “preferred” to comparable head shapes with scrambled features in infants from one to six months. Spitz and Ahrens in separate, very detailed analyses were able to demonstrate that the infant appeared to smile in response to a “sign gestalt,” at first centering around the two eyes and later becoming more differentiated to include the mouth. A number of observers, including Wolff and Robson, have noted the development of preferential visual fixation upon, and following of, the human face from the early weeks of life.<sup>[13]</sup>

Wolff, through careful observation and experimentation, discovered that as early as the third week in the infant’s life the specifically human stimulus of a high-pitched voice elicits a smile more consistently than any other stimulus at that time. The voice also served to reduce the infant’s fussiness as well as evoke a smile. Our own experience, as well as that of others, indicates that a most effective way of evoking a smile in an infant from the second month onward is by a “social approach,” consisting of a smiling, nodding face, with accompanying musical vocalizations—that is, with the cumulative potency of various modalities.

Research observations would point to the probability that the infant is equipped innately with the capacity for a smiling response, a capacity that is evoked by a set of key “releaser” stimulus configurations—such as the human face gestalt—which become effective at certain phases of development. This point of view clearly does not exclude a complementary one that regards the smiling response, once elicited, as being immediately open to various influences of learning, including conditioning and the increasing emotional investment in the recognition of familiar persons.<sup>[14]</sup>

### **Social and Playful Interaction**

There is by now a mounting volume of evidence<sup>[15]</sup> that the crucial variables in determining the outcome of social responsiveness in the potentially healthy infant are the patterned social stimulations and responsiveness of the significant persons in the environment. Without adequate social (including perceptual) stimulation—as, for example, in blind and institutionalized infants—deficits develop in emotional and social relationships, in language, in abstract thinking, and in inner controls. Barring social traumata and deprivation of varying degree, nature and culture seem to guarantee reciprocal responsiveness by the fact that healthy adults, especially those who are intensely invested in their infants, find the infant’s smiles and vocalizations irresistible; they apparently must respond unless the caretakers are particularly depressed or disturbed.

By five to seven months the infant who is being enjoyed by his parents spends a good part of his day in social interactions involving mutual regard, sometimes with intense eye-to-eye contact, and mutual smiling and vocalizations; these may include tactile and kinesthetic stimulations, modalities that are all combined in various ongoing patterns of interaction. Many of these patterned exchanges become idiosyncratically personal to the mother-infant couple, while others represent traditional social play, such as presemantic vocal “conversations” and repetitive social approaches and responses, which may involve nuzzling, jiggling or jouncing, postural games of lifting and lowering, “upside down” and “airplane” and—most dramatically—the game of peekaboo. [\[16\]](#)

By the end of the first half year of life, mother and infant have developed important patterns of social interaction. In some couples the baby is given maximal opportunity to actively respond and initiate; in others he is coerced into the position of a relatively passive recipient of stimulation that may excite him to the point of painful stress. Some of the variables involved in a systematic study of the patterns of reciprocity include: the infant’s and mother’s sensitivity and activity levels, their initiatory tendencies, mother’s need to dominate rather than facilitate her infant, the nature of her personification of her infant (is he to be docile or actively initiatory), mother’s anxiety level, her fear of “spoiling” the child through play, and so on. A prominent feature of maternal style includes the mother’s *capacity to enjoy*

*and respond* to her infant's activity, including his developmental progressions. The maternal variables are stressed here for the moment, since social reciprocity in the infant is given largely as a potentiality and, to a great degree, must be induced and sustained by the significant adults.

In the earliest months of life, the mother responds to physiologically based needs (hunger, cold, sleep). She functions as a protector from excessive inner and outer stimulation as well as a provider of perceptual stimulation. As the infant develops a repertoire of reciprocal playful experiences, he comes to anticipate and learn that he can evoke a social response even when he is not hungry, cold, wet, or in pain. *With this realization develops a new sense of "social potency" and trust that is qualitatively different from urgent need tension relief.* The child can now obtain not only reduction of tension but also positively stimulating and playful patterns of response in relation to a human partner, as well as with objects.<sup>[17]</sup>

*Social playfulness*, perhaps more than any other modality, constitutes a remarkably easy vehicle for the mutual exchange of affectionate and exuberant affects. Since play is characterized by the quality of continuing improvisation and hence by the availability of novel elements of experience, it operates as a powerful motivator of learning. As Piaget has demonstrated, the development of learning structures proceeds by the assimilation of novel inputs in the infant's experience, followed by appropriate accommodations.

*Reciprocal play* appears to involve the utmost of focal attention and absorption of the two partners—a kind of sacred ritual that one dare not intrude upon. When the caretaker—adult or adolescent—experiences this with the infant, the latter gains a new degree of human status, now being perceived as a psychological and social as well as physiological being. At the same time a new kind of parental pride appears; the mother’s self-esteem is validated by her feeling that she has succeeded in helping her baby become socially human. It is at this point in development that fathers—often for the first time—experience themselves as a meaningful part of the infant-parent relationship. Playfulness requires special conditions, for instance, an appropriate level of stimulation and an absence of coercion and domination. In this sense we can see that mutual playfulness is a model of freedom and spontaneity in human relatedness. It helps prepare the individual and group for communication, language, and collaboration and provides a means for overcoming destructiveness through playful aggression.<sup>[18]</sup>

The internalization of “good” reciprocal relationships comes to be organized as part of “good me” and “good mother” and contributes eventually to the sense of one’s self-esteem. With the confidence that he can evoke a response, the child is freed to “be alone in the presence of mother,” as Winnicott states it, a phase that prepares him for separations from mother’s physical presence for longer periods without undue anxiety. This is a crucial step in the development of the infant’s autonomy. If parents are depleted

emotionally for any reason (depression, social deprivation, and hardship), one of the first qualities of a relationship to fall away is playfulness since this depends on a surplus of emotional well-being. When we speak of emotional deprivation in infancy, this refers not only to the gross kinds of deprivation seen in such situations as institutionalization and obvious parental psychopathology but also to the more subtle quality of the interaction between parent and child.<sup>[19]</sup> Moreover, we must keep in mind not only the quality of parenting but also the individual characteristics of the infant that determine the nature of the stimulation he requires; for example, a passive, low-energy infant who cannot actively send out signals that will bring response is more in need of stimulation that is initiated by the parents than a more active, self-initiatory infant.



## Developmental Stages of Social Attachment

When looked at closely the development of social attachment can be described as a complex series of steps in achieving a meaningful special relationship to other persons. Because of different rates of development and the diversity of research definitions and criteria in studying social attachment, we cannot expect to find a fixed age at which a given level of attachment is achieved. Furthermore, the observer can only use behavioral reactions and from them draw inferences about qualities and levels of social attachment. The infant is in no position to verify or contradict these inferences.

What is the significance to psychiatry of detailed developmental studies of social attachment? It is nothing less than the foundation of all human relatedness and of personality development. To study carefully the different levels of social relationship allows the student of human behavior to recognize, for example, at what level of relatedness a particular person—or group—may be operating at a given time and also at what level a person may have been arrested in his development. Such knowledge will allow for a reconstructive viewpoint in attempts at individual and social change. If we know there tends to be a relatively invariant sequence of stages A, B, C, D in the formation of a human attachment, we will not expect or demand D level behavior if step C has never been achieved. This developmental viewpoint

alters the conception of individual and social therapies that have been modeled largely on the issue of conflict, without too much regard for the structural elements of personality that are needed for a certain level of interpersonal behavior and conflict. For a person who has not achieved the capacity for close specific social attachment in infancy, one would not expect to find the higher level oedipal-type conflicts that already presume a capacity for specific social attachment.

From the work of a number of investigators, including Spitz, Benjamin, Schaffer and Emerson, and Yarrow we can summarize the various stages by which social attachment between infant and mother is achieved during infancy.

1. *Undifferentiated presocial phase.* The infant in the early days or weeks of his life may fail to discriminate social and nonsocial objects.
2. *Indiscriminate social responsiveness.* The infant now discriminates social and nonsocial objects but responds without apparent discrimination among various social objects. It is at this stage that Spitz's comment applies: the mother is a function and not yet a face.
3. *Selective responsiveness* to familiar versus unfamiliar people. One type of selective responsiveness involves the recognition of the mother as revealed by a series of behavioral signs, including selective concentration on the mother, excitement

and approach movements at the sight of her, as well as differential crying, smiling, and vocalization. Mother is no longer merely a function; she has a face.

There seems to be agreement that perceptual discrimination precedes the possibility of recognition of the mother as a specific person, and that recognition, in turn, is a prerequisite for stage 4.

4. *Specific social attachment.* According to Schaffer and Emerson,<sup>[20]</sup> there was a peak of specific social attachment at 10 to 11 months, followed by a slow decline. At 18 months there seemed to be an increase in the attachment curve, reaching its previous peak that had been found at 10 months. It is likely that the development of specific attachments and expectations toward the mother or other significant persons depends on certain perceptual and cognitive developments, including the beginning concept of “object permanence” (Piaget)—the mental representation of objects when they are outside the infant’s immediate perceptual field. It is important to note that in Piaget’s experiments on object permanence, the child *begins* to retain an image of the disappeared object and seeks it out under a napkin beginning around nine months of age, completing the mastery of the complexities of object permanence around 18 months. In nature, of course, one cannot separate the cognitive from the affective-social bonds; these dimensions are abstracted from a unified gestalt experience in the infant’s life.

5. *The Confidence relationship.* This higher level of interpersonal relationship—derived by Yarrow from Benedek—involves

the development of specific expectations toward the mother and overlaps significantly with Erikson's concept of basic trust. However, since complex inferences about the meaning of behavior are necessary, the development of behavioral criteria for "confidence" or "trust" is extremely difficult. Yarrow chose, as one criterion, "the expectation of soothing when in distress," and he found that about half the infants had developed this relationship of confidence to the mother by age three months and 56 per cent at age six months. (His study did not go beyond eight months.) Yarrow concluded that the development of confidence in the mother is not simply a maturationally determined development, but undoubtedly influenced by many environmental as well as idiosyncratic factors, including the patterns of maternal care, "such as the depth of the relationship, the consistency with which mother responds to the child as well as the general level of predictability of the environment based on recurring and predictable sequences of gratification."

From our own and others' observations of infants, we know that the increasing capacity to anticipate and wait for specific responses in the mother increases with age in a good relationship and, indeed, is an early sign of what is meant psychoanalytically by the concept of object constancy.

6. *Object constancy.* As Fraiberg has indicated, the criteria for achievement of object constancy vary a great deal with different authors, so that its achievement is placed at ages ranging from eight months until after the second year. In any case what is meant by this concept is that not only can the child discriminate and selectively value his mother but also he has begun to represent her mentally with qualities of

increasing permanence and objectivity. Even in the face of frustration or cruelty or during a limited absence, the mother usually continues to be preferred and central to the child's life.

The evidence for achievement of object constancy in the psychoanalytic sense—in contrast to Piaget's purely cognitive concept of "object permanence"—is not on certain grounds empirically, but there are behaviors that would indicate the mother is represented mentally and invested with intense affect.<sup>[21]</sup>

The child, for example, will call for his mother by whatever "call sounds" he has developed to summon her to himself; when she is absent he will verbally refer to her or to her possessions and he will miss her grievingly. Even nonverbally, his beginning dramatic play indicates that he is developing the capacity to mentally represent himself and mother in a mobile symbolic act—for instance, when he places a doll to sleep during a play sequence. His mental operations have progressed beyond immediate imitation to what Piaget calls deferred imitation, and then to the formation of more lasting identifications with the mother. Evidence for these identifications are revealed in the toddler's play, whose content is in part concerned with parental attitudes and the roles of provider, helper, protector, and comforter (Schechter).

During the second year of life, the child's very special relationship to the mother, in a nuclear family, becomes increasingly complex and elaborated. The child shares his inner and outer world with his mother, verbalizing fantasies and fears, bringing her objects, naming them, and expecting an affirming response from her. Even as the child increasingly individuates, he becomes capable of sharing a rather private world—a shared “mythology”—in the sense that there are idiosyncratic words for special objects; there are frequent recapitulations of memory experiences that both have shared together; and there's repetitive playing of games that are bodily, kinesthetic, verbal, musical, that is, play involving almost every modality. This is probably the period of bliss frequently represented in Renaissance art in the idealized version of mother and cherub—for many, a period to remain imbued with paradisiac feeling.

### **Intensity and Breadth of Social Attachments**

Schaffer and Emerson found that factors increasing the seeking of proximity to the mother include:

1. Pain, teething, illness, fatigue, and fear
2. A period of the mother's absence (which corroborates Bowlby's finding of greater clinging and demandingness after separation)

3. The habituation effect of a period of great stimulation such as occurs during the visit of a doting relative

4. When the infant enters a strange environment

All these factors are relevant to later development, including adulthood. We have already indicated the importance of understanding the factors that contribute to a predisposition to habituation and addictions of various kinds. More intensive longitudinal study of habituation levels in infancy and childhood could test their correlation with personality outcomes characterized by needs for strong stimulation and input of various kinds.

An important topic under discussion currently is that of the “breadth of attachments” of infants to significant persons. We can infer from the work of Schaffer and Emerson—as well as from observations of societies with multiple child caretakers—that a single person is not necessarily the first step in forming a specific social attachment. In Schaffer and Emerson’s research almost one-third of the infants showed attachments to multiple persons in the phase of specific social attachments. However, their work does not disprove the possibility that intensive early mothering may have been a prerequisite to the broadening of specific attachment. In most cases (62 per cent) fathers were found to be specific objects of social attachment after the onset of the phase of specific attachment. In fact, for 4 per cent of the infants in their sample, the father was the only specific object of attachment at seven months.

Hence we find the possibility of a “hierarchy of object persons,” the most intense attachment being shown to the principal object person, who is not necessarily the mother.[\[22\]](#)



## Origins of Infantile Anxiety

As Benjamin points out, a satisfactory design to tease out the relative contributions of hereditary, intrauterine, birth, and early postnatal factors has been impossible to actualize until now. Even though Greenacre re-presented Rank's idea of the birth trauma in a far more sophisticated form, it is still useful mainly as a concept of a single variable in a predisposition to anxiety. More recently the possibility of learning from experience in the early weeks of life adds a new variable both to the predisposition and to the idea of actual anlagen to anxiety experience. So much depends on how anxiety is defined in infancy that it may be more fruitful to describe the various critical periods of its development— leaving open the theoretical question of what constitutes anxiety,<sup>[23]</sup> in contrast to infantile fear or undifferentiated negative affect, which we see, for example, in reaction to overstimulation of various kinds.

Benjamin's observations led him to postulate a "critical period" at age three to four weeks when a rapid rate of neurophysiological maturation accounts for an increased capacity to register internal and external stimulation. Benjamin hypothesized that in the ensuing weeks the quality of mothering in protecting the infant from this new source of stimulation might contribute to the subsequent predisposition to anxiety. The relatively undifferentiated negative affect expressed upon being left alone can be seen as a consequence of a form of habituation to a certain level and quality of

stimulation rather than to the experience of loss of a truly discriminated mother.<sup>[24]</sup>

Before the appearance of infantile stranger anxiety proper, Benjamin postulates an innate fear of the strange as is seen in the two- to four-month-old infant's negative reaction to strange objects or sounds—or to being handled in an unaccustomed manner. An apprehensive response may also be aroused in the young infant by altering an anticipated gestalt pattern through the addition of unfamiliar elements or by the omission of some apparently crucial familiar element. We have noted, for example, that some infants respond with a look of apprehension at the appearance of a smiling, nodding adult face that is presented without the accustomed vocal accompaniment. When vocalizations are added the infant relaxes and smiles, giving the impression of closure of the anticipated familiar gestalt.<sup>[25]</sup> In a similar vein a humming or falsetto voice lacking visual presentation of the human face could produce fearful reactions that disappeared once the face was brought into view. The infant may respond with apprehension to a variety of alterations of the facial gestalt, such as the placing of pads over the eyes, the forbidding expression with vertical—in contrast to horizontal—forehead creasing, or changes in the mother's appearance when she wears a new hat, glasses, or hair curlers. However, it is the expression around the adult's eyes that seems to have particular significance for the infant; this fits with Wolff's observation that the infant tends to search out the eye area and make eye-to-eye contact

before smiling at the presentation of a face.<sup>[26]</sup> These signs of increasing perceptual discrimination predate and constitute a necessary precondition for the development of infantile stranger anxiety.

The infantile stranger reaction has been properly distinguished from separation anxiety by Benjamin. Freud and Spitz considered the “eight-month anxiety” in reaction to the stranger to be based on the same dynamic found in separation anxiety, namely, the fear of object loss. Benjamin found that although stranger and separation anxieties are related dynamically and even positively correlate statistically, nevertheless, there are babies showing high levels of separation anxiety but low stranger anxiety and vice versa. Stranger anxiety can occur whether or not the mother is present, whereas separation reactions occur in the absence of the mother whether or not anyone else is present. Moreover, the average and peak time of onset are different for each type of anxiety, occurring somewhat earlier for stranger anxiety.<sup>[27]</sup> Phenomenologically the reaction to strangers runs a gamut from no apparent reaction, visual concentration without apparent affect, reserved friendliness after initial wariness to sobering with mild apprehension, inhibition of motor behavior (“freezing”), aversion of visual gaze, clinging, withdrawal, active protest, screaming, and paniclike behavior.

Aside from its own intrinsic significance, this description of the reaction to strangers is also offered to help elucidate another poorly understood form

of anxiety central to H. S. Sullivan's theory of interpersonal relations— that is, the anxiety induced in the infant by the anxiety of the mothering one through as yet unknown mechanisms that Sullivan referred to as "empathic linkage." Various observers have noted, for example, that a baby would suffer feeding disturbances when fed by mothers who were high-strung and excitable while accepting the same formula from another feeder. It is our hypothesis that when the mother is anxious or distressed, she can be experienced as both familiar and strange by her infant. We assume that from his very early discriminations of familiar persons as well as from familiar ways of being handled the baby comes to learn and anticipate behavioral signs connected with "good mothering." These signs probably include cues from all the various sense modalities. When the mother is anxious her facial configuration is altered by a frown or tight lips, her vocalizations become tense and strident, her handling becomes less graceful and smooth, and it is conceivable that there may be olfactory- sensitive changes in her odors as well. We suggest that there is a shock of "strangeness" in such a situation after the infant has learned to anticipate a pleasurable "good" gestalt of experience. We would also speculate that the *anxious smile*—which we have observed in seven- and eight-month-old infants—may represent in effect a smile of recognition contaminated with the expression of the tension of anxiety. Once infants become mobile—by crawling or walking, or by the early use of mechanical walkers—they are commonly subjected to a multitude of anxiety-

ridden no's. At such times parents become aware of a momentous change in the previously "innocent" relationship, once the socially disapproving modalities come into operation—especially when there are conflict and anxiety in clashing with the child's real or imagined "will." Sullivan and other analysts suggest that "good" and "bad" feeling experiences become organized and grouped in a polarized way, leading to the symbol formations associated with "good-me" and "bad-me" and with "good-mother" and "bad-mother." *Learning through the experiencing and avoidance of anxiety becomes one of the most powerful means through which socialization may then take place.*

One of the mother's—and the father's— major functions in facilitating separation and individuation is to help render the outside unfamiliar world available for exploration. Aside from the practical aspects involved in this function, the parent mediates for her child the new and strange objects, sounds, and people in the environment. We see the origins of what might be called the "magical blessing" when mother, for example, allays the child's fear of receiving and exploring a new toy from a stranger by simply handling the toy and offering it to the child herself. One has the impression that by such mediations the mothering one can detoxify strange, anxiety-laden elements of the environment. She does this, in part, by helping the child cope with the frighteningly strange aspects of his world in ways that allow them to be experienced as engagingly novel or even as partly familiar.<sup>[28]</sup>

## Separation and Individuation<sup>[29]</sup>

Separation anxiety would seem to be a ubiquitous phenomenon in infancy and remains a lifelong vulnerability at any stage of the life cycle. Yarrow found that by the age of eight months 100 per cent of his sample of infants suffered both mild and severe signs of separation anxiety. He also found that the greater the discrepancy in patterns of maternal care between the first and second caretaker the greater was the postseparation disturbance. Spitz's and Bowlby's pioneering work in this area has already greatly changed our sensitivity to the problems of separation in infancy and childhood to the point of emphasizing the importance of parental presence, if feasible, during a child's hospitalization.

In his studies of attachment, loss, and grief in childhood, Bowlby has revealed what appears to be a frequent sequential pattern of reaction to separation, especially in children over six months and under three years of age. At first the child—especially if he has had a close relation to the mother—reacts with *protest*, crying and searching for the missing mother as if he expects her return. This reaction is followed by a phase of *despair* characterized by intermittent crying, inactivity, and withdrawal, indicating increasing hopelessness and what Bowlby believes to be equivalent to a state of mourning. A third stage of *detachment* follows which is often welcomed as a sign of recovery, although when the mother visits there is a striking lack of

attachment behavior toward her—as if the child had selectively lost interest in the mother. If there is a series of losses of mothering figures, the child will commit himself less and less to each succeeding figure and will develop rather superficial relationships in which people come to be experienced as sources of supplies rather than as special people in their own right. In the extreme of the neglected institutionalized child, one can observe the deterioration of almost every area of functioning, including the development of language, cognition, motoric control, autoerotic activity as well as adequate affective interpersonal relationships.<sup>[30]</sup> Hence the enormously important public health issue of providing an adequate stable nurturing environment for a child who does not have this environment available in the traditional family setting. *The propagation of defects of early development constitutes one of the widespread human crises of our time* since the relation between such defects and subsequent personal and social pathology is more than merely speculative at this stage in our knowledge.

From the work of Spitz, Bowlby, and more recently Tennes and Lampl, one can postulate that a number of reactions to separation represent prototypical precursors of major human defensive and coping systems throughout life. The infant's reactions to separation include visual avoidance (of the strange substitute caretaker), inhibition of activity, and withdrawal as well as active attempts at mastery, for example, attempting to follow a mother who is disappearing through the door. When active attempts at mastery arc

thwarted, the experience of futility and affects of hopelessness and helplessness ensue. Although we are only referring to research involving overt separation, one can postulate the importance of these reaction patterns to character development in less obvious experiential patterns, involving what might be called “affective separation” or “masked deprivation”—which can occur when a mothering figure is physically present but not adequately stimulating or responsive.<sup>[31]</sup>

In so-called disadvantaged children, defensive character detachment and precocious pseudoindividuation, with an implicit loss of hope for good relationships, are frequently observable; they partly account for the lack of richness of experience and the failure of adequate cognitive-affective development when “enriched” environments are subsequently made available. Even though human development does not seem to proceed in the rather rigidly defined “critical periods” seen in various other animals, nevertheless, there would seem to be optimal periods during which certain experiences are most productive to the cognitive and social-affective development of the growing child. Deficits in the various stages of infancy described here can be “made up” or compensated for only to a limited degree. This statement is certainly no argument for not attempting later developmental compensations; quite the reverse. Nevertheless, it is clear that our social focus should be on prevention of deficit as well as on attempts to find adequate methods of compensation.<sup>[32]</sup>



The direction of psychic development in infancy is from symbiotic fusion to individuation with increasing differentiation and structuralization of the ego; this, in turn, permits interpersonal relationships on an increasingly higher level of reciprocity. There are signs of a dawning sense of self in the first year of life as the infant remembers and anticipates experience and comes to discriminate his self, his mother, and others. As maturation and experience—including environmental facilitation—make this possible, the child begins to do for himself and for others what had been done for him: he feeds himself, he manipulates objects and toys, he transports himself, finally in the upright posture. He decides on a course of action even if this means opposing or negating those closest to him. He learns, largely by identification, a gesture and word—“no”—to express semantically his autonomous strivings. It is through decision making, goal setting, and goal mastery that the sense of self is experienced in its most heightened intensity.

With the development of language and locomotion in the second year, we begin to consider the infant as entering a new phase of development, the “toddler” or “autonomous” stage, which is ushered in around 15 months of age. By this time the infant has begun to share his experience with his parents who are—if all is going well—delighted with his humanoid capacities to walk, talk, and begin to communicate his needs and experience.

The very achievement of a sense of self exposes the young child to an

awareness of being observed and evaluated, giving rise to a self-consciousness and a fateful subject-object split in the self that lays the groundwork for shame and doubt. The infant and toddler becomes all too aware that a socially disapproved act will bring a disapproving signal or more subtly, but not less potently, a withdrawal of parental behaviors that have the power to reduce anxiety and induce security. In the child's new stage of awareness of his separateness and vulnerability to loss of self-esteem, it becomes crucial that his induction into the social world proceed with a net balance allowing for zestful enjoyment of activity, mastery, autonomy, and initiative since this is a time when there are increasingly necessary limitations—physical and social—on the child's spontaneous activities.

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## Notes

- [1] See Murdock on the issue of the universality of the family.
- [2] For discussions of parenthood that include developmental and intergenerational points of view, see Erikson's eight stages of man, Lidz, and R. Blanck and G. Blanck.
- [3] The observations referred to above have been written up in an unpublished manuscript, "Some Early Developments in Parent-Child Interaction." The undertaking was part of a project "Studies in Ego Development" at the Albert Einstein College of Medicine (New York) and was made possible by Grant #HD 01155-01 provided by the National Institute of Child Health and Human Development.
- [4] The public health possibilities in helping newly developing families are enormous, although complex. One can imagine parent and child caretaker groups being formed under skilled leadership on a widespread basis with the function of helping parents with problems that have been considered unique, unshareable, and taboo. If we can further develop the professional knowledge and skills in this area of family development, such feelings can emerge step by step from considerations of the practical matters of infant rearing to the more personal issues that beset all parents.
- [5] We presume that common myths are part dramatization and part "answer" to certain universal human concerns. Although Laius's action can be linked to his jealous, "immature," authoritarian character, there is yet another side to his mythic action that functions as a cultural expression of the incest taboo. In ontogenetic terms this taboo expresses the superego imperative that derives, in part, from Laius's own boyhood oedipal strivings.

This type of analysis of the Oedipus myth reveals another motive for Oedipus's death wish, namely, one of *revenge* against the father authority whose son's growth was viewed as an unpardonable threat to the father's exclusive power and possessions. For a further discussion of the "triangular" parental affects in the preoedipal phase, see Fromm's presentation of the issue of authority in the oedipal complex and my own discussion of these matters.

- [6] There is more than analogy to the above model in the major transference elements that are brought into the psychotherapeutic situation. The therapist is frequently cast in the role of magic

helper by the patient, but he has also been cast into this role—in varying degree—by his own motivations in becoming a therapist. Understanding and working through these mutual needs between therapist and patient constitute a major part of the work of intensive psychoanalytic psychotherapy. If we continue to follow the ensuing issues of family development in infancy, we will see that there is probably not a single dimension—whether it be attachment behavior, separation or stranger anxiety—that fails to be represented in the psychotherapeutic situation, especially if this situation is analyzed in some depth. Hence an understanding of infancy and its salient developmental issues enriches the psychotherapist's work with any age group.

[7] The whole problem of child abuse (including the “battered child syndrome”) can only be mentioned here. The rage leading to violence has been connected by the attacking parents to the inability—as they perceive it—to bend the will of the child to obedience. It is not only the child's *actual* autonomous, defiant, or negativistic behavior that provokes attack but spontaneous behaviors—including crying—that are experienced by the parent as willful and defiant.

[8] We had less opportunity to observe upper- middle-class and upper-class families.

[9] Coleman, Kris, and Provence have described in some detail how parental attitudes and unconscious fantasies are continuously influenced by the child's growth and development. More recent research, for example, Moss, has been even more specific about the fact that different variables such as sex, age, and “state” contribute to the shaping of maternal response.

[10] See R. Levy's exposition of the proposition of the inevitability of guilt provocation in Western cultures, which are constantly aspiring to new standards, thus making it very unclear what—at any given moment—may be “good” or “bad.”

[11] Psychoanalysis has systematized the positive and negative oral character traits that presumably derive from the period of infancy. Oral optimism is seen as a consequence of having been adequately gratified in this area. On the other hand, such traits as excessive longing and a compulsive need for acquisition and intake of various kinds have been seen as consequences of either overly or underly gratified oral experience. There are as yet no definitive studies (which would have to be of a direct observational longitudinal nature) to indicate whether there is a definite relationship between oral patterning and such problems as obesity (Bruch), vulnerability to drug addiction, alcoholism, and cigarette

smoking.

J. Bruner's work with infants has taught us that four to six week olds can learn to alter their rate of sucking (for example, to suck in longer bursts "to produce" a clearer focus in a projected picture). Moreover, by reversing the conditions the infant can even learn to desist from sucking on his nipple in order to obtain a consequently clearer picture. This kind of work is indicative of the tremendous range of learning that begins to take place in the early weeks of life—even in an area as "drive-oriented" as the oral zone.

[12] This is the kind of individual difference that is most important to psychiatry and psychotherapy because we tend to assume that people have more or less the same degree and quality of need in various modalities, be they oral or contact stimulation. The fact of individual difference by no means diminishes the fundamental importance of the tactile modality to the formation and maintenance of the social bond throughout the life cycle. Witness the emphasis on the use of touch and kinesthetic experience—as attempts to overcome individual alienation—in the encounter group phenomena and the "human potential movement."

[13] D. Stern discovered through a film microanalysis that by the age of three months stable patterns of eye-to-eye contact and eye aversion between mother and infant have already been developed and tend to remain stable for a number of months thereafter. If this work is validated, the implications seem far-reaching for the understanding of the patterning of interpersonal relationships. Such poorly understood, but crucial, phenomena as "empathic" communication (Sullivan) MI and "contagion" of affect (Escalona) may be better understood through the microsignaling visual "ballet" that Stern describes as occurring between mother and child. More speculatively, patterns of visual aversion may also constitute one of the first anlagen of later classical ego defenses, including denial and possibly repression. Stern's later work appeared after this chapter was written.

[14] Several workers have experimentally demonstrated that one can reinforce the infant's smiling response by responding to his smile with a smile, or tend to extinguish the smile by failing to respond to it. Rheingold and Weisberg similarly demonstrated that an infants vocalizations can be markedly increased by the adult's social responsiveness, in contrast to conditioning by contingent nonsocial responses such as a door chime.

[15] See the classic studies of Spitz, Bowlby, Goldfarb, and the more recent observations of Provence and Lipton, Schaffer and Emerson, and Rheingold.

[16] See Kleeman's excellent description and analysis of this particular form of play. Kleeman does not reduce peekaboo to the mastery of separation anxiety or to tension reduction, but sees it also in its own right as a "form of interaction, play, a social game pleasurable to infant and adult." This kind of playful interpersonal exchange can often take precedence over the activity of nursing.

[17] We suggest the hypothesis that with deprivation of relatively enduring reciprocal social relationships, including playfulness, children and adults will appeal for response by re-creating and communicating the urgent need tensions that had been successful in bringing about a response. Hence, hunger, pain, and later in life various expressions of anxiety, hypochondriac fears, psychosomatic conditions, acting out, and compulsive activity can be understood, at least in part, as *an appeal for responsiveness that has hail no alternatively stable and successful interpersonal pathway.*

[18] Genuine play, whether with words, metaphors, ideas, sounds, or design, is an important basis for the formation of culture. I have elaborated on the theme of social playfulness elsewhere, stressing the quality of lack of immediate purposiveness, which frees the partners to improvise and explore new forms of action, symbolism, and relatedness. The structural development of play in infancy has been studied by Piaget, and more recently a stimulating review of the subject has been offered by Galenson.

[19] A fuller discussion of "masked deprivation" is included in the section of this chapter titled "Separation and Individuation."

[20] The criterion used by these authors to assess the level of achievement of specific social attachment to the mother was that of protest upon separation from her. The assumption here was that the infant had a need for proximity, at least on a visual level; when he suffered a cutoff of such visual contact, he expressed his protest in affecto-motor sounds and movements, including crying.

[21] Reconstructive data derived from psychiatric and psychoanalytic histories indicate that the achievement of object constancy—in the meanings described above—is essential to later mental health. Whether there is a "critical period" for its achievement and whether there is the possibility for compensation are discussed under the topic "Separation and Individuation." Many psychiatric disturbances are associated with the failure to develop stable interpersonal relationships; schizophrenic, schizoid, and sociopathic persons

particularly suffer such incapacity. These warps of interpersonal development—as Sullivan refers to them—derive in large part from a failure to achieve a level of object constancy with one or more significant persons early in life, for a complex variety of reasons. The achievement of object constancy can be unstable and—as we know from work with all age groups—subject to breakdown under stress.

[22] Some other important findings that are relevant to contemporary issues involving new forms of child-rearing include the following: (1). High intensity of attachment correlated with the degree of stimulation by the mother. However, such a conclusion poses a problem of what is cause and what is effect, since certain individual differences in babies may demand higher levels of stimulation. (2). High intensity of attachment also correlated with mothers who respond quickly to demands. Again, the nature and intensity of infant demandingness—probably innate in part—may influence the mother’s behavior as well as vice versa. (3). High intensity of attachment was found mostly in families with fewer caretakers.

The “selection” of the infant’s principal object of attachment correlated closely with the particular adult’s responsiveness to the infant’s crying and with the amount of interaction between the significant adult and the child. The authors concluded that the breadth of social attachments is related to the opportunity of interacting with people who will offer relevant stimuli, especially socializing and caretaking functions in the widest sense.

For a discussion of these issues from a cultural anthropological point of view, see Mead Spiro, and Bettelheim, who have studied new forms of multiple caretaking; the latter two authors have examined the kibbutzim in Israel.

[23] S. Brody and S. Axelrad have attempted to describe the development of infantile anxiety in relation to ego formation from a psychoanalytic frame of reference, using direct observations of infants.

[24] More recent work is revealing that perceptual discrimination of the mother—if not the specific social attachment to her—is developed in the early months of life. The fact that caretakers would appear to be interchangeable does not contradict the observations that certain signs of discrimination are appearing concurrently very early in life.

[25] The experimental observations noted here have not been carried out systematically on a

sufficiently significant number of infants to allow any solid conclusion about how characteristic these reactions may be.

[26] H. S. Sullivan took pains to point out the understandably magical significance that many people — most particularly schizophrenics—attribute to the power of the eyes, to being looked at, and, we would add, to intense eye-to-eye contact. One of the most comprehensive reviews of the significance of early eye-to-eye contact has been written by Robson. The most thorough exploration of communication by facial signs will probably be achieved through intensive film studies of interpersonal behavior.

[27] Compare Schaffer and Emerson's apparently opposite but differentiating results, presumably due to the use of slightly different criteria for each form of anxiety. Yarrow reserves the term "stranger anxiety" for those infants who manifest active protest or withdrawal.

[28] The psychotherapist has a similar task in fostering the patient's movement from the familiar and "embedded" (Schachtel) into new areas of experience that had been avoided because of their association with anxious affect. The therapist in this sense is also a mediator who looks with the patient into dark, unknown, dissociated areas and through the therapeutic alliance gradually helps to detoxify both the traumatic and untried areas of living.

[29] M.S. Mahler has made a significant contribution to the process of separation-individuation.

[30] See the classic work of Spitz and Provence and Lipton. The latter authors found that some of the institutionalized children subsequently placed in families, despite some improvement, still revealed serious ego deficiencies such as an incapacity for delay, failure in generalization from learning, overly concrete thinking, and a continuing superficiality in social relationships.

[31] We note in our discussion that hypotheses concerning character development have proceeded largely from research connected with trauma and psychopathology. This is due, in part, to the fact that as yet there are few direct observational longitudinal studies reported in depth to connect patterns of experience with character formation. Moreover, we wish to emphasize that with deprivational and traumatic experience, defensive patterns are evoked in an unbalanced or extreme form, whereas the relatively "normal" range of experience of frustration or periodic separation is—when in proper dosage and at the appropriate stage of development—assumed to contribute to the formation of "healthy"



coping capacities and “ego strength.” There are, of course, many other sources of character development considered in detail in the psychoanalytic literature, including identification and a whole range of coping mechanisms and ego defenses. See Nagera, Murphy, and Schecter. Learning—in all its forms—and cognitive styles contribute heavily to ego development. The whole topic of learning and cognition will be considered formally in Chapter 14 of this volume.

[\[32\]](#) For a discussion of attempts at compensatory work with deprived children, see Lichtenberg and Norton’s review of the research literature and Deutsch’s *The Disadvantaged Child*. For a more extensive review of the effects of maternal deprivation, see Ainsworth’s work. Birch has carefully studied the devastating consequences on development of early malnutrition.

Caldwell offers an excellent broadly ranging review of the entire subject of infant care.