

Early Child Development in the Context of Mothering Experiences

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This paper describes certain critical periods early in human development in the context of the child's coping responses to the environment, and in regard to the nature of the nurturing experience. The term *critical period* refers to the optimal time the young child is ready to learn or achieve a developmental task. But it does *not* imply an irreversible process, since the child usually has the capacity to compensate to some extent for mastery of a task occurring during a given critical period, even after that period has passed. Various areas of development are included to present a broad array of infantile capabilities: neuromuscular, perceptual, cognitive, and psychosocial.

This is followed by mention of some of the work on the effects of different kinds of mothering experiences on the development of the young child.

Early Infantile Responses

In the prenatal period, one can start to observe physiologic responses to stress [1]. There is a noticeable change in cardiac rhythm and activity level in the fetus whose mother is undergoing a significant anxiety due to personal or marital difficulties. After birth, these infants seem somewhat restless and have morphological differences compared with a control group, although the results are somewhat inconclusive in the study in which this is described.

However, once born, the infant is no longer helplessly exposed to the intrauterine (emotional?) climate, and is not even the passive re-

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recipient of attention by the nurturing person. He is, instead, an active participant in his endeavor to receive emotional supplies and maintain the bonds of attachment for the purpose of survival.

Even as a young infant, the child attempts to lock his gaze into mother's while he is being fed. By 4 to 6 weeks of age, the arc of visual pursuit is wide enough to search out her eyes and fixate [2]. He smiles at the mothering person at this age, and, even though the smile is coming from within him, she feels quite pleased with it. At 8 weeks, this smile is replaced by an exogenous one in response to mother's social cues [3].

In fact, there is a whole range of progressive stages in the development of recognition of the human face, including full face, profile, essential sign gestalt of the upper third of the face, and mask gestalt of Isakower [4], so that visual fixation and pursuit, and the smile response, are the beginning of a series of ways for the infant to relate to his mothering figure. When mother does not get this kind of "feedback" from her young infant for her "giving" to him [5], she may become frustrated, and this can interfere with the formation of a good, strong tie between them and may possibly lead to some neglect or rejection of the child.

Also, in early infancy, if mother nurses her child, the sucking is extremely important to bind him to her, and while being nursed the child rivets his eyes on hers selectively. Some of these infantile responses, which have survival value, are described as age- and phase-specific, innate patterns of behavior [6]. Besides sucking and smiling, mentioned above, there are also responses of crying, clinging (grasp reflex), and following (visual, comprised of visual fixation and pursuit of mother, and later on actually following her around, when motility is acquired).

The irony about this early tie of an infant to his mother is that his social behavior is automatic and reflexive, although mother may ascribe intentionality and purposefulness to it. Of the above, certainly visual fixation and pursuit, social smiling response, and clinging (grasp reflex) can be ascribed to the infant's really caring about her; yet they are easily elicited by mechanical means!

Hierarchy of Early Infantile Behavior and Its Relation to Learning

Now there is a certain order or priority for these responses of the infant, so that the most basic can be somehow suppressed or inhibited by a higher order pattern. Nonnutritive sucking [7] inhibits dif-

fuse motor discharge in the infant, while the sucking itself is inhibited by orienting or attending behavior [8]. So, in the presence of mother, the young infant interrupts self-stimulating kinds of behavior (i.e., diffuse motor discharge and nonnutritive sucking) in order to pay her attention, and he even gets restless and irritated, crying when her voice comes from a lateral rather than an *en face* position [9].

From the learning point of view, it has been noted [10] that there is an optimal level of incongruity of stimuli reaching the infant during arousal or alertness periods, which ties a favorable affective state to learning. As it is well known that intrinsic motivation for early childhood learning is by far preferred to the child's constant need for routine environmental input by the nurturing one, this concept holds promise for enhancing the child's curiosity and creativity, for example, through play or exploratory behavior. Of course, this notion requires further refinement through research, lest we overwhelm or excessively frustrate the child by an exaggeration of incongruent stimuli.

Object Relations in Early Infancy

Along with the child's cognitive, neuromuscular, and perceptual development, there is the area of his relatedness with others. The earliest psychosocial phase is narcissistic, in a mutual sense, between infant and mother [11]. As he begins to achieve self-object differentiation toward the last half of his 1st year of life, he can then recognize the mothering figure as distinct from himself and from other objects. This sense of object constancy brings about feelings of anxiety and frustration in her absence, also known as "stranger anxiety" or "8th-month anxiety" [12].

Eventually, the child is capable of showing basic trust in his mother [13: pp. 247-274] and begins to internalize her as a stable and dependable object, and this is slowly learned during this phase and the next one, of anaclitic object relations. Here, the child leans on the mother for partial need satisfaction, using her at times as an "auxiliary ego" [14] in a kind of rapprochement between child and mother, and this alternates with a gradual moving away from her during his search for autonomy [13] as a toddler.

This narcissistic phase has also been described in three different parts [15], with an initial autistic phase of the 1st month of life, characterized by hallucinatory wish fulfillment. This blends with a symbiotic phase, from the 2nd month to roughly 18 months, with a fusion between child and mother, but with gradual attempts at self-

object differentiation, by the child, as described above, so that the third phase of separation-individuation is eventually achieved by 3 years.

This movement toward a sense of self, which has its onset near the end of the 1st year of life, is not a linear one, nor is the striving for separation-individuation in the 2nd and 3rd years of life. Instead, there are vicissitudes in ego development, representing a significant difference from the linear curve of physical growth and development.

Maternal Deprivation Syndrome

During early infancy, but before the beginning of the sense of self and object constancy, the quality of nurturing is much more important than the identity of the nurturing person per se. When quality is compromised to the extent that emotional neglect results, this has significant impact in all spheres of the infant's development. If severe, the neglect leads to marasmus and death [12], described mainly in institutionalized instances, or is seen in more moderate form as frequent rocking and other "autoerotic" traits [16], and prevented through a milieu of caring persons which meets the infant's emotional needs [17].

However, once the child attains object constancy, the nurturing person becomes crucial in forming the prototypical relationship for all future object relations of the child. Object loss in late infancy and early childhood, therefore, forms the basis for a series of steps leading to childhood depression unless several supportive factors are supplied [18].

Firstly, the effect of object loss varies with the age and stage of the child after object constancy is established. It is obvious that the impact is more serious at the end of the 1st year, when the child is relatively helpless to cope with his environment, than at the end of the 2nd year when he acquires a degree of autonomy by virtue of his further language development, greater motility, and possibly some degree of bowel sphincter control.

Next, there is the quality of the relationship between the child and the mothering one, and the quality of the subsequent relationship between child and mother substitute. Moreover, the length of separation is important. It is precisely because the small child's sense of time is so vastly different from the adult's that preservation of the child's relation with the "psychologic parent" is necessary whenever possible, as in foster care, adoption, and the like [19]. In line with this, it is best to place an infant for adoption before object constancy takes place, that is, in the first 5 or 6 months of life.

As mentioned earlier, total separation of the child from the mothering figure after the establishment of a good antecedent relationship heralds a series of behavioral changes [20]. The child may first express anger at the loss, by proclaiming his indignation loudly (protest). This is followed a little later, if the parent is still unavailable, by a pained, sorrowful facial expression (despair). And, finally, the child settles down to a passive acceptance of his fate, by acquiescing in whatever is done with him or to him (detachment). The time period necessary for this series of steps to take place is probably in the realm of several weeks. These changes are usually of a reversible nature, if the return of the mothering one occurs within several months. As a corollary, the child with a good antecedent emotional relationship with his mother will adjust better during a short-term separation from her than the child who lacks this previously existing relationship [21], although the converse has also been described [12]. Evidence about the quality of the previous mother-child relationship and its connection with separation reactions is extremely weak [22: p. 32], particularly with regard to predicting the outcome of the process.

After a temporary separation, the child responds to the mother's return by increased clinging behavior, signifying separation anxiety in the child. However, after longer-term separations (6 months or more), attachment behavior is much more difficult, if not impossible, to restore upon return of the mother, assuming there was no substitute mothering person in the interim and the child reached the third stage, that of detachment [23: p. 328].

Relative Emotional Deprivation

Until now, the discussion has centered on physical separation of the young child and his mother figure, and its negative effects on the development of his personality. However, there is a different kind of deprivation—that shown when the mothering person is physically present with the child but a conflicted relationship between them still results in developmental difficulties.

Basically, two types of dysfunction exist in maternal relatedness [24]. Firstly, there is a distorted perception of the child, where his needs are not met, or, worse, where his identity is not recognized, reinforcing an incompleteness of self-object differentiation in the child. Secondly, there is an insufficient relatedness with little meaningful emotional involvement to nourish the child from an affective standpoint. For the first dysfunction, depending upon the child's constitu-

tional endowments and the severity of the distorted parental relatedness, the outcome for the child may be a symbiotic psychosis [25], a psychosomatic disorder, or a later predelinquent personality. In the second type of disordered relationship, the child may react to insufficient parenting by somatizing, usually with gastrointestinal symptoms, as in the case of infant ruminators or cyclic vomiters; but childhood depression may also result, or even infantile autism [26], although the role of the "refrigerated parent" in primary autism has been questioned lately [27].

Discussion

The role of the child is of paramount significance in determining outcome in any separation or deprivation study. He is not to be molded or written on, like a tabula rasa, but instead comes into the world with his own set of constitutional capacities in the cognitive, perceptual, physiologic, sexual, and psychosocial areas, as well as his own set of behavioral traits and personal style of responses to the environment.

To some extent, the child's temperament affects his development, and certain patterns of behavioral traits have been correlated with later outcome of social adjustment [28]. These patterns are modifiable through life experience and therefore not immutable, but it is reasonable to view personality development in the young child in terms of a mesh, or lack of meshing, between him and the mothering person, and in a larger context, between him and his entire family, neighborhood, subculture, and society.

Emotional deprivation also has an effect upon the physical development of the young child. This is given the name of growth retardation [29], idiopathic hypopituitarism, or developmental dwarfism. It is associated with a reduction in growth hormone, or somatotrophic hormone (STH) from the anterior lobe of the pituitary. Recent studies have demonstrated the presence of Somatostatin, a hypothalamic hormone that inhibits the production of STH and may play a role in idiopathic hypopituitarism.

In sum, these children reflect developmental lags in all spheres, especially physical and emotional immaturity. Reappraisal of Bowlby's original work on maternal deprivation must refine the concept to include various kinds of stimulation, namely, overstimulation, understimulation, and inappropriate stimulation. In fact, aside from maternal overstimulation there is also environmental overstimulation, which may be seen as the bombardment of stimuli on the infant in

the newborn nursery, such as glaring lights and "blaring sounds"; or, later on, the young child living in a depriving subculture may be continually exposed to noise pollution, overcrowdedness, congestion, traumatic experiences with sexuality and violence—all potentially devastating kinds of overstimulation coming from his immediate environment.

And what about appraising the fitness of the mothering person? One woman will do well with a child of a particular temperament, and do poorly with a child of different temperament. Or she may feel quite comfortable with a child going through a certain developmental stage, but not another stage; or with a child of a certain sex, or sibling ordinal number, but not another. And how does one go about assessing the capacity for parenting in a foster mother, or a prospective adoptive parent? What constitute the criteria for successful parenting? And, to complicate matters still further in going beyond the dyadic unit of mother and child, how much does her relationship with her spouse or current extended family members determine whether the woman will become a high-empathy or low-empathy mother with her child? And what are some precise measurements for determining whether emotional deprivation exists, especially when it is relative, rather than absolute, and therefore in a gray area? Can one gain access to the child's milieu through a home visit, or is one being excluded from the home by a threatened parent, after a concerned school staff makes a referral? Intervention is relatively easy when neglect or battering has caused clear-cut damage and suffering. But, by contrast, there are instances of borderline neglect in this gray area, such as the set of parents who are emotionally uninvolved with their child but care for him physically and materially. Does this constitute emotional neglect, without any physical neglect? Where does one draw the line? It is apparent from all of this that there are still many unanswered questions. The solution to many of these problems is still largely unfounded, and awaits further inquiry and research.

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