THE PSYCHOLOGICAL DEVELOPMENT OF VERY YOUNG CHILDREN

The psychological development in the early years of a child's life are determinant of the child's later outcome. Knowledge of the main variables at play will allow physicians to better understand this process and intervene when necessary.

By Yvon Gauthier, MD

In the 1970s, it was believed that the psychological development of a child was completed by the age of six.[1]

Research over the past 20 years seems to have gradually shortened those crucial early years, so that now the first three years appear to be the ones that are most determinant for the child's outcome.

This article is a review of some of the data concerning the main variables at play in early childhood development. The article includes a brief summary of important research on early brain development, temperament and attachment, so that we may be able to assume a more realistic position with regard to statements on the importance of those early years.

EARLY BRAIN DEVELOPMENT

It is, of course, very difficult to think of psychological development as being separate from physiological development. The emphasis used to be on problematic factors at childbirth, particularly the importance of a deficiency of O_2 and the possible sequelae of a premature birth. Due to progress in the treatment of prematurity, we now place the emphasis on extremely low birthweight children (ELBW: less than 1,000 gms). They are the ones who have a higher risk of intellectual or affective problems in their development.

The data on the development of the brain reveal the importance of events before and

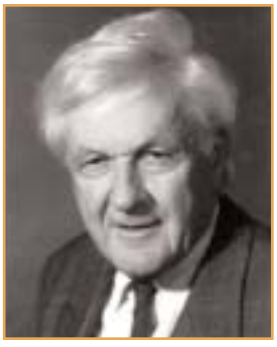
following the birth of the child. We are aware that the genetic-hereditary component will be at play mostly during pregnancy, however, research shows that as early as the first months after conception, exogenous factors influence the development of the brain. Among these known influences are substances (*e.g.*, alcohol, drugs, cigarettes) that have a deleterious influence. Gunnar's work on the role of glucorticoids on the activation of the hypothalamic-pituitary-adrenal (HPA) axis suggest that stressful experiences in early development may program the HPA system to be hyper- or hypo-reactive leading to anxiety, or more anxious temperaments. We also know that the infant's regulation of emotions will be much influenced by the quality of maternal affective disposition in the early months.[2] Schore's synthesis of research emphasizes the importance of the quality of attachment, meaning the quality of the mother-infant interactions, during the first 18 months.[3] It is this interaction that plays such an important role in the development of the right hemisphere, with its deep connections into the limbic and autonomous nervous systems. This interaction facilitates the expansion of the child's coping capacities and will eventually be seen as resilience factor. Along the same line, symptomatic depressed mothers seem to have an influence on the activity of the frontal lobe leading to behaviours associated with right frontal hyperactivation as well as left frontal hypoactivation, showing clinically as increased fussiness, tension, rapid deterioration under stress and reduced positive affect.

Table 1

Main points concerning a child's relationship to the external world

- The easy child is characterized by regularity in his rhythms, positive approach responses to new stimuli, high adaptability to change, mild or moderate mood intensity.
- The difficult child shows irregularity in biological functions, negative withdrawal responses to new stimuli, non-adaptability or slow-adaptability to change, and intense mood expression, frequently negative.
- The slow-to-warm-up child shows a combination of negative responses of mild intensity to new stimuli with slow adaptability after repeated contact.

Based on: Chess S, Thomas A: *Origins and Evolution of Behavior Disorders: From Infancy to Adult Life.* Brunner/Mazel, New York, 1984.



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TEMPERAMENT

It took a long time for many child psychiatrists to accept the important research of Chess and Thomas on the role of temperament in a child's development and its long-term influence.[4] It was as if they felt that to accept such ideas negated the role of the family and the environment. In the early

1960s, Chess and Thomas described nine dimensions of a child's relationship to the external world. Three main constellations came from the clusters of five of those dimensions (Table 1).

What came out of their longitudinal follow-up, however, is that the temperamental variable alone cannot be used to predict the outcome in adolescence or adulthood. It is rather the concept of "goodness of fit" that comes out as the most important factor of prediction: that is, how easily the child's tempermental characteristics match, or don't match, the parents' expectations and demands, and how a poor match leads to "high-risk" situations.[4] Chess and Thomas' research has highlighted the combination of parental conflict and difficult temperament in early childhood as a specific high-risk factor. It has also emphasized the positive effect of parental guidance in such high-risk situations.

ATTACHMENT

Attachment has become a most important factor in our understanding of young children's development. We have known for a long time how a mother's presence and adequate care is essential to the development of her child. Spitz's early research showed that children raised in institutions, even if they received adequate nourishment, hygiene and toys, still missed the essential continuity of a mother's care and affection.[5] John Bowlby's observations in the early 1960s brought him to develop the theory which has gradually received strong clinical and research support over the last 20 years.[6] Attachment theory is based on clinical observations at different points in development (Table 2).

Table 2

Clinical observations on which John Bowlby's theory is based

- Adolescent delinquents in whose history is systematically found the early and often repeated loss of a maternal figure;
- Young children hospitalized in their early years for short or long periods during which they showed typical reactions to separation: anger, sadness, gradually leading to detachment;
- Observations done by ethologists of rhesus monkeys' reactions to separation from their mother or to inadequate care.

Bowlby J: *A Secure Base: Parent-Child Attachment and Healthy Human Development.* Basic Books, New York, 1988.

Bowlby emphasized the social needs of a child: specifically the need for the constant care of one person who can respond to all of the child's physiological, affective and stimulation needs throughout the first year. This person becomes significant to the child, being the one to whom the child attaches and whose disappearance will cause a strong reaction until the child is able to feel confident there will be constant reappearance. Of course, it also has become clear that a child can attach to a few important figures, but generally there is one figure which becomes more important and preferred in times of stress.

Mary Ainsworth, a Canadian child psychologist who worked with Bowlby in London and then in the U.S., developed the "strange situation."[7] This is a laborotory procedure which lasts 18 minutes and studies the reactions of a child to two short separations from his/her mother and the subsequent

reunions with her. Through years of scientific research with this observation, she has added a powerful instrument to make Bowlby's theory more useful for researchers and clinicians. Ainsworth was thus able to categorize normal children's reactions at the ages of 12 months and 18 months as secure or insecure (resistant or avoidant), in close relation to the quality of care they had received, and the way they had been responded to in situations of need, stress or danger, throughout these months. Secure infants built, in their own minds, enough confidence in their sensitive and consistent mothers to be able to explore their environment with much pleasure. Insecure, resistant children are less trustful of their mothers' inconsistent responses and need to increase their monitoring of her, resulting in extreme dependance which impedes exploration. Insecure, avoidant children are the least trustful of their often-rejecting mothers, to the point that they become particularly self-controlled in a situation of stress, giving the impression that they can function on their own. A fourth pattern has been described as disorganized-disoriented, and is found mostly in maltreating families, where children respond to the contradictory messages they receive from their mothers with a mixture of secure and insecure behaviours.

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Follow-up research shows close ties between security and insecurity at an early age and how children are going to react in nursery school, kindergarten and in primary school. We now have groups of children who have been followed until adolescence, where sequelae of their early relationships can be observed.

As much as the first year of life is important for the development of basic trust or mistrust, the following two years will build on that foundation and will add essential elements to the character of a child. Bowlby has described this period in terms of "goal-corrected partnership." The child is more of an explorer, he/she wants to touch and handle everything, and he/she becomes more assertive in his/her desire for autonomy.[6] Both parents have to deal with such new behaviours, supporting such strides toward autonomy and setting limits which are essential and will be gradually internalized by the child.

Strong emotions are already dealt with in these early relationships: joy of exploration

Research shows close connections between insecurity at 18 months and behaviour problems already observed between age three and six.

and assertion, anger at frustration, loss of control in temper tantrums, and also, quite possibly loss of control of the parents, with a tendency to humiliate the child. This is a most important period, into which a child will internalize either positive images of his/her successes or negative images of himself as angry and uncontrolled, and humiliated and sorry.

Bowlby has called "internal working models" those structures which a child builds into his/her mind and which will be the foundation of his/her nascent character.[6] They include a deep sense of trust in his/her parents'previsible responses to his/her needs, a feeling of self-esteem ("If I am thus cared for, it means I am somebody important"). They also include a gradual control of the child's strong affects, or opposites if there is too much insecurity and negative affects because of a conflictual relationship. The internal control of aggression is built during those early years and will make the difference in the child's capacity to face the coming frustrations during nursery and school years. Research shows close connections between insecurity at 18 months and behaviour problems already observed between age three and six. There is also evidence that infants are particularly sensitive to maternal depression between six months and 18 months, leading to deficiency in the development of self-regulatory behaviours.

Research is also showing how parents' own secure or insecure working models, built in their own childhood in relation to their own parents, are transmitted to the child with a statistically significant frequency (75% in a cohort of 100 parents).[8] Such trends are particularly meaningful in maltreating families where the disorganized-disoriented pattern of attachment is found, with followup showing that those children already show severe early agression at age five and seven.

CONCLUSIONS

The child is the unique holder of both his/her parents' genetic makeup and he/she may be the carrier of hereditary illnesses which have been transmitted through generations. We see how important the influence of the environment is, however, in a constant interaction between a child's characteristics and family expectations in a "goodness of fit" model. We particularly see this

influence in the attachment theory where we can observe that, by 12 months to 18 months, a child has already organized his/her way of dealing with his/her mother's most frequent responses, thus influencing his/her manner of exploring the environment and developing his/her learning and social skills. The child's mind is a very plastic instrument which will be molded by his/her environment and will gradually build "inner working models" which are essentially the result of those daily interactions with parents and child workers. We specifically know that it is mostly in maltreating environments that such influences will have disturbing effects on the child's development.

Coming back to the initial discussion, it does not mean that the game is over at the age of three. It is a great mistake to give parents the impression that they have missed the boat because they did not hold their child at birth, or may have not understood for a long time some of their child's responses. We know that the brain's plasticity is a life-time characteristic and that the interventions of parents, physicians and others will continue to bring modifications in all spheres of development. At the same time, this new body of research should make us more aware as to what takes place in the early years of a child's life — to his/her ways of expressing distress and to early symptoms of anxiety and depression in reaction to family contexts. Early intervention thus is an essential part of this new field and may bring important modifications to an infant's difficult behaviours, very often with a limited investment of time and energy. Dx

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