

# THE CONCEPT OF MATERNAL DEPRIVATION: A REVIEW OF RESEARCH

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Freud was the first to draw attention to the importance of early emotional experience in the causation of mental disorders in the adults whom he treated by psychoanalysis. Later applications of psychoanalysis to younger and younger children led to reconstruction and interpretation of the early phases of the object relationship that comes into being between an infant and its mother. The maturation of the nervous system, which continues for some considerable time after birth, leads to a succession of experiences in which at first the mother figure takes shape only in connexion with need. When the infant, his hunger satisfied, is capable of recognizing her, he can obviously form a picture of the mother object, distinguish it from himself and differentiate himself as a separate entity ("autonomization"). This is a fundamental period for the child's later mental development, and everything suggests that it occurs towards the end of the first year of life. Any later distress or anxiety is capable of jeopardizing the basis of this object relationship: external and internal danger leads to anxiety lest the relationship disintegrate.

The behaviour of the child does not result solely from the maturation of his nervous system: the object relationship also plays a part in development. Any uncertainties and failings it may have and the emotional deprivation that underlies them are bound to have an unfavourable effect on his development.

Research on emotional deprivation has been pursued for some years, on the theoretical foundations thus very briefly outlined, and the conclusion has been reached that only maternal care is capable of preventing the long-term consequences of early emotional frustrations.

Numerous research workers have engaged in the theoretical study of these problems or approached them experimentally, clinically or statistically, but it is to Bowlby that credit is due for having examined them again systematically. A thorough analysis of Bowlby's monograph,<sup>10</sup>

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in which his work is embodied, would not be appropriate here. Only an outline of it will be given, with special emphasis on Part I (dealing with the adverse effects of maternal deprivation), and in particular on the review of the basic works on the effects of early emotional deprivation.

The author begins by noting that in physiology harmful factors seem to have a particularly serious effect when they act upon an organ during the earliest stages of its development. There is a striking resemblance between this biological principle and the principle stated by the psychiatrists when they attribute long-term effects to certain emotional experiences occurring during the early stages of psychological development — i.e., from the first six months of life onwards.

Direct observations of emotional deprivation are very numerous. Some deal with the mental health and development of children placed in institutions, hospitals and foster-homes. Others constitute a retrospective study of the early childhood of patients suffering from mental disorders. Others again are follow-up studies of groups of children who have suffered emotional deprivation in their early years. The direct study of the consequences of maternal deprivation has been the subject of a considerable number of papers, particularly by Burlingham & Freud,<sup>17, 18</sup> on children placed in a Hampstead residential nursery during the bombing of London, and by Spitz<sup>56, 57</sup> and Spitz & Wolf.<sup>58</sup> A paper by Bakwin<sup>4</sup> mentions other researches and gives a general review of paediatric literature on the subject.

In 1943 and in subsequent years Goldfarb<sup>24-26</sup> had an opportunity of studying communities of children in institutions. An investigation of the IQs of 30 children aged 34-35 months clearly showed that 15 of the children, who had been brought up in institutions, had IQs lower by 28 points than those of the remaining 15, who had been in foster-homes from the age of four months. These results, which are statistically valid, have been confirmed by the later research of Roudinesco & Appell.<sup>59</sup>

Spitz gives the name of “*anaclitic depression*” to the state of dazed stupor found in children deprived of maternal care. The child is apathetic, silent and sad; it makes no attempt at contact; in many cases it suffers from insomnia, it loses weight and becomes prone to intercurrent infections; there is a rapid drop in the developmental quotient. This syndrome seems to be characteristic of children who have had a harmonious emotional relationship with their mothers up to the age of six months. Of the 95 children studied by Spitz this type of depression was observed in almost 50%. Recovery is rapid if the child is restored to its mother, but after three months of deprivation recovery is rarely, if ever, complete.

Burlingham & Freud studied older children. They reported that the “*separation in slow stages*” that they attempted to carry out only pro-

duced beneficial effects in children at least three years old but could do nothing to prevent regression in younger children. Maternal deprivation has less serious repercussions as children grow older, although the effects of emotional frustration make themselves felt to a very late stage.

It will be readily understood that retrospective studies in fact preceded the direct study of the consequences of maternal deprivation. As long ago as 1937 Levy<sup>40</sup> described the case of an eight-year-old girl who, after she had been adopted, was brought to him because of her stealing. She had been cared for by a succession of foster-mothers, and her characteristic features were the superficiality of her social relationships, her incapacity to form attachments and her lack of emotional responsiveness.

A few years later numerous authors published observations of the same nature. Among them Lauretta Bender,<sup>6</sup> Goldfarb<sup>24</sup> and Bowlby<sup>8</sup> can be mentioned in particular. After the Second World War, Bender<sup>5</sup> returned to the problem, describing the syndrome to which she gave the name "psychopathic behaviour disorder of childhood". Bowlby,<sup>9</sup> in his book on forty-four juvenile thieves, insists particularly on the tendency to steal in such children. It will be recalled that the forty-four juvenile thieves differed from the children in the control group by their affectionless behaviour. Almost half of them had suffered complete separation for six months or more during the first five years of their life, whereas only two of the controls had suffered similar separations.

Follow-up studies are of particular interest. One of the most important was carried out by Goldfarb,<sup>26</sup> who chose two groups of children of similar heredity. Those in the first group had been brought up in institutions until the age of three and then placed in the care of foster-mothers, whereas those in the second group had been handed over to foster-mothers from the outset. In all cases separation had taken place within the first nine months of life. The lack of intellectual ability and particularly the ability to conceptualize were particularly marked in the group sent to an institution at an early age.

The body of research done on this question is summarized in the first chapters of Bowlby's monograph, after which certain interim conclusions are drawn. The author then analyses the theoretical problems posed by the research already done and the further investigations needed. A careful reading of the monograph shows how circumspectly Bowlby formulates these theoretical problems.

#### RECENT RESEARCH

Since the publication of Bowlby's monograph research has gone deeper into the problem. The concepts of maternal deprivation, early emotional frustration and the ill effects of institutionalization have gained

wide currency. The conditions under which children live in hospitals and institutions have been the subject of numerous studies, which have certainly played a part in the improvement of material and psychological conditions. In general, as has just been said, these investigations have confirmed the results of the original research. Certain authors have, however, disagreed on a number of points, generally in connexion with one particular aspect of the problem. No claim is made to present in this chapter a complete review of all the papers published since Bowlby's monograph appeared. In analysing the trends apparent in some of them which have come to our attention, only passing reference will be made to the problems that still await solution.

It must be emphasized that the importance of the idea of maternal deprivation is apparent from all these studies, whatever their value—even those which do not fully confirm the general hypotheses formulated by Bowlby. The growing interest of many specialists who are concerned to a greater or lesser extent with emotionally deprived children has, in fact, proved useful. Paediatricians, for example, have ceased to be preoccupied solely with the control of physical disease in hospitals. The psychological conditions of hospital life and their emotional consequences have been dealt with in a number of interesting papers (e.g., those by Robertson, Rosenbluth & Bowlby,<sup>52</sup> Edelston,<sup>20</sup> Bakwin,<sup>4</sup> Davidson,<sup>19</sup> Faust,<sup>22</sup> Jackson,<sup>32</sup> MacKeith,<sup>43</sup> Moncrieff & Walton,<sup>45</sup> Pickerill & Pickerill,<sup>47</sup> and Powers.<sup>48</sup> A film on this subject, entitled "A Two-Year-Old Goes to Hospital", has been made by Robertson<sup>51</sup> and his colleagues; it is a study of the behaviour of a little girl, aged two years five months, during an eight days' stay in hospital. The purpose of this film, a purely scientific document, is to present objective data on the behaviour of the child in the hospital ward by noting her attitudes, her relationships with the nurses and her reactions towards her parents during their visits. Information on the attitudes of the child in her family during the subsequent months is given by the author in the literature accompanying the film. Finally, it should be mentioned that in September 1954 the Regional Office for Europe of the World Health Organization convened in Stockholm a meeting of a study group in which paediatricians and psychiatrists discussed together the problems of children in hospital.<sup>39</sup>

If the various researches on the consequences of maternal deprivation had merely succeeded in drawing the attention of many categories of professional worker and even of families to the problem, that in itself would be a matter for congratulation. It is right that some thought should be given to the consequences of placing infants in day nurseries; the policy of placing children in children's homes and boarding institutions for social reasons deserves discussion. Stays by children in an

open-air centre (*aérium*) or a preventorium are often useless and may even be harmful. It has become more and more apparent that very often the placing of children in these various types of institution is advised on the grounds of social and economic difficulties in their families. It may be wondered whether the social welfare service should not be completely reoriented: the policy of creating institutions that sooner or later have ill effects on those sent to them should be replaced by long-term planning to build many more houses and to provide assistance for mothers who have to go out to work. This is the sort of conclusion that seems finally to have been reached by all those who have had occasion to reflect on these problems, even though certain authorities, as will be seen, consider that sometimes too much importance is attached to the idea of the ill effects of institutionalization.

In order to sum up recent research and criticism on the problems posed by maternal deprivation, reference will first be made to a number of definitions on which Bowlby bases his work; this will be followed by brief accounts of some investigations and discussions on the subject.

Ainsworth & Bowlby<sup>1</sup> have defined research strategy in the study of the consequences of mother-child separation. They found their argument on a body of theoretical assumptions, the psychoanalytic basis of which is integrated into more general neurobiological theory. These authors recall the importance of the mother-child object relationship as defined by M. Klein<sup>38-35</sup> in the sphere of psychoanalysis. They emphasize, from the etiological point of view, the ethological studies of Lorenz<sup>41, 42</sup> and Tinbergen,<sup>60</sup> which demonstrate the relationship between instinct and object relations. They point out that Hunt<sup>51</sup> and Scott et al.<sup>54, 55</sup> have shown that in the training of the higher animals critical phases of development influence the whole of the rest of their lives. They emphasize that numerous authors have noted the irreversibility of responses learnt under stress.

In their study the authors recall Bowlby's initial hypothesis:

"...actual physical separation from the mother in early childhood, to the extent that it involves privation or deprivation of a relationship of dependence with a mother-figure, will have an adverse effect on personality development, particularly with respect to the capacity for forming and maintaining satisfactory object relations."

Such a relationship may be inadequate under three conditions:

- (1) where the child never has any relationship with a mother-person;
- (2) where the relationship with the mother-person is discontinuous;
- (3) where the relationship with the mother-person is insecure.

The first two conditions imply real separation, either through absence (privation) or through loss (deprivation). A child only gradually becomes

dependent on a single person. It is at the moment when he has reached dependence that the effects of separation seem the most dangerous. At a later stage, on the other hand, the child's "autonomization" requires that he should be capable of bearing at least temporary separation. The authors therefore suggest the following classification for defining the conditions of separation of the child from its mother:

"(1) Separation from the mother *before* a stable and secure dependency relationship has been established, with

(a) lack of subsequent opportunity to form a stable relationship with any one mother-figure, as in institutionalization — the case of *complete privation*; or

(b) a temporary lack of opportunity to form a stable relationship with any one mother-figure but with later opportunity to establish one either with the natural mother or with a mother-substitute — the case of *temporary privation* of greater or lesser duration; or

(c) immediate substitution for the mother of a substitute mother with whom the child can establish a stable and secure relationship, as in early adoption; this probably results in *no appreciable privation*.

(2) Separation from the mother (or substitute mother) *after* a stable and secure dependency relationship has been established and before the child is old enough to be independent of the mother, with

(a) severance of the relationship and no subsequent opportunity to form a stable and secure relationship with the original or a substitute figure — the most severe case of *deprivation*; or

(b) severance of the relationship but with opportunity to form a stable and secure relationship with a substitute mother; despite the provision of the substitute figure this may involve *temporary deprivation* through the very breach of relationship; or

(c) a temporary interruption of the relationship followed by reunion with the mother. This case is also one of *temporary deprivation*...

The authors point out that this classification is only an outline and that actual case analysis should take into account numerous factors, such as the intimacy of the relationship with the mother before the separation, the length of the separation, the nature of the father-child relationship, etc.

The authors then turn to the study of the possible methods of approach and discuss four that had already been envisaged in Bowlby's monograph.

#### *Systematic case study*

This method requires the use of statistical tests to confirm the hypothesis of a connexion between the syndrome observed and the separation of the child from its mother. It was in fact the first method used, showing that the early separation of a child from its mother led to a lack of capacity to establish any but shallow relationships and that it could be responsible for antisocial or asocial behaviour. In this

connexion Bowlby's work on the forty-four juvenile thieves <sup>9</sup> and Bender's study of psychopathic behaviour disorders <sup>5</sup> are quoted.

### *The retrospective follow-up method*

This approach may provide an answer to uncertainties not resolved by systematic case study, such as, for example, when a case is encountered in which early separation has not produced the predicted effects. In retrospective studies the group is homogeneous in respect of the antecedent factor of separation, whereas in systematic case study it is homogeneous in respect of the observed effects. The work by Goldfarb <sup>26</sup> mentioned earlier was based on research of this type. Comparison with control groups is essential, and attention should be drawn to several inherent difficulties: first, the etiological factors under study together represent an extreme case; secondly, the selection of control groups is extremely difficult. (Spitz <sup>56</sup> provided a very ingenious model for comparing two institutional groups; in only one of the groups were the infants separated from their mothers.) A further difficulty is due to the uncertainty that must inevitably attend any effort to assess the condition of the patients studied: psychometric and testing methods are inadequate. Clinical interviews require the creation of a real therapeutic atmosphere.

### *The "current study" method*

This method is based on the study of children actually undergoing a separation experience and followed up right from the outset. In this way very varied observations can be grouped together and children can be kept under observation for as long as is wished. In this case also, however, it is essential to go beyond the stage of general investigation. The authors recall the work of Spitz, <sup>56</sup>, <sup>58</sup> showing that the damage caused by a separation of five months in the second six months of life is probably irreparable. Aubry-Roudinesco <sup>3</sup> considers that the following proposition can be formulated: the decline in developmental quotient is proportionate to the logarithm of the length of separation. In this type of research Ainsworth & Bowlby suggest that three periods should be studied:

(1) *Before separation*, in which the nature of the mother-child relationship and the degree of dependence on the mother-figure would be brought out.

(2) *During separation*, in which it would be important to find out the immediate effects and the degree of the child's adjustment to what might be called the "separation environment".

(3) *After separation*, in which observations would cover not only the effects of separation itself but also those due to the return to the original

environment or the entry into a new environment which provides a mother-substitute.

The study by Burlingham & Freud<sup>17, 18</sup> and the research by two teams working jointly under the auspices of the International Children's Centre (under the direction of Bowlby in England and Aubry-Roudinesco in France) have been based on this research method.

At this point the authors report the first results of their research on children whose relationships with their mother before separation had been good. They describe three phases of separation: protest, despair and negativism (or repression). It seems to them that the form of the response to reunion depends on the form of the response to separation.

#### *The psychoanalytic research study*

This seems of interest to the authors not so much because of the possibilities offered of reconstructing the past as because the psychoanalytic session provides an experimental situation in which the behaviour of a child can be studied either during the separation itself or after it.

The paper by Ainsworth & Bowlby has been analysed here because it seems to provide a fairly complete frame of reference for the classification of the research now to be mentioned. The questions dealt with in particular will be research on the adverse effects of institutionalization, clinical work on the establishment of object relationships, experimental research on animals and man, and follow-up studies that seem to have aroused a great deal of discussion.

#### ADVERSE EFFECTS OF INSTITUTIONALIZATION

In general, the work published on this subject has largely confirmed that of Spitz. Thus, in her book *La Carence de Soins Maternels*, Aubry-Roudinesco<sup>3</sup> describes the results of a multidisciplinary study of a group of children in the care of the Administration de l'Assistance Publique in Paris, at the Fondation Parent de Rosan. The first part of the book, which deals with methods, describes the research techniques used, including medical, paediatric and psychological observation, the last of these based on the Gesell test. The results of separation are described in the second part of the book, which states that physical condition, morbidity and psychomotor development are all affected by separation. The author studies the consequences of separation under the name of "distress reaction", of which she describes numerous clinical aspects.

For his part, Spitz in numerous studies has been able to go more deeply into the clinical basis of the ill effects of life in institutions. He has been particularly concerned with the description of what he calls "psychotoxic syndromes"—specific somatic syndromes corresponding

to early emotional frustrations experienced at different ages.<sup>87</sup> In his introductory report to the 4th International Conference on Child Psychiatry at Lisbon in 1958, Spitz quoted some statistical data which confirmed the seriousness of the adverse effects of institutionalization he had made in his first observations. Thus, in his report (which has not yet been published) he revealed that out of 91 children of whom it had been possible to keep track, 37.5% had died before the age of two years. Spitz was able to follow up 21 of the 91 children until the age of four. At that age, 20 of them could not dress themselves without assistance, 15 had only very inadequately acquired habits of cleanliness and six had no sphincter control. From the language point of view, six could not speak a single word, five only had a vocabulary of two words and only one could make up sentences. These facts offer sufficient confirmation of the seriousness of the effects of life in institutions.

Despite the interest of these follow-up investigations into the ill effects of institutionalization, some authors do not seem absolutely convinced. Heuyer,<sup>88</sup> while recognizing the importance of Spitz's work, thought that in describing states of deterioration in institutionalized infants, not enough attention had been paid to the possibility of an undiagnosed encephalopathy. The same author, in his introductory report on the somatic aspects of child psychiatry at the 4th International Conference on Child Psychiatry, stated that at a previous conference maternal deprivation had served as an explanation for all the behaviour disorders of the child, without the trouble being taken even to make a diagnosis, to study the child's past history, to make full use of biological and physiological investigations, and to draw up a scheme of individual treatment. The result has been a hotch-potch of verbal explanations of no great practical value. Heuyer thought that the concept of adverse effects arising from institutionalization was undoubtedly of interest. However, after daily repeated examination of children retarded in their physical and emotional development, he felt he could state definitely that he had never seen a pure case of the adverse effects of institutional life.

Other authors have put forward much less thorough-going criticisms than those of Heuyer. Thus Launay and his colleagues,<sup>89</sup> while recognizing the frequency of reactive disorders following separation from the mother upon entering hospital, and accepting the description of halts in development and seeming backwardness followed by total recovery, consider nevertheless that no final disintegration of the personality can be observed in these children. In their opinion, some of the children were probably suffering from infantile encephalopathy. Launay considers that the dramatic picture of anaclitic depression, the reality of which

cannot be doubted, "seems to paediatricians used to hospital paediatric services and children's homes to occur very rarely".

The less stark picture painted by these authors is, in their view, more frequent and consists essentially of initial upset after separation. The child reacts noisily but the reaction only lasts a few hours or a few days. Return to the family produces a cessation of symptoms. Readjustment takes longer only in the more anxious types of children. If separation occurs again, the child's reaction is less noisy and takes the form of apathy with regression.

Launay and his colleagues consider that regressions due to institutional life are encountered mainly in undernourished infants, with a weight very much below normal for their age owing either to congenital debility or to antecedent illness, accompanied in general by inadequate care. Developmental quotients not exceeding 50 are habitually found in such cases. Generally the children's mental state improves in step with their physical condition.

In the case of other children, the effect of hospitalization varies. Some may regress a little, others appear hardly different on discharge from what they were when admitted, and some may even show considerable progress because of the poor conditions of their previous life. The diversity of the consequences of hospitalization is obviously due to several factors: the conditions in the hospital and particularly the attitude of the nursing staff to the children, the conditions of family life before admission, the individual characteristics of each child and even its physical appearance (an attractive and intelligent child, for example, will be made much of by the nurses and will suffer less than the others from its stay in hospital).

Bertoye<sup>7</sup> draws conclusions very similar to those of Launay. For example, he writes: "There remains a large number of children who show various degrees of abnormality in their psychomotor behaviour; this abnormality must be considered as having existed before their admission to the nursery."

In conclusion, the first descriptions by Spitz of the evil effects of institutionalization, their break-down into specific clinical and etiological forms, and their later confirmation by other authors form a striking picture and have made an immense contribution to social paediatrics. The most specific criticisms only affect details and consist in general of concepts or observations underlining the inconstancy or the varying seriousness of the trauma. In some cases, the authors show that a stay in hospital may have an educative or even a therapeutic effect. Here a distinction must obviously be drawn between the case of the older child, whose separation from his parents is useful or even essential (as has long been appreciated in psychiatry—e.g., in cases of psychogenic

anorexia), and that of the infant—the only case studied by Spitz—in which separation at the end of the first year of life without the provision of a mother-substitute can have catastrophic consequences.

The seriousness of this latter type of case can be better understood on the basis of the hypotheses set forth below concerning the establishment of object relationships.

#### CLINICAL AND THEORETICAL RESEARCH ON THE ESTABLISHMENT OF OBJECT RELATIONSHIPS

It will be recalled that Bowlby submitted as his basic hypothesis the idea that early separation from the mother constituted a serious and lasting impediment to the establishment of solid and secure object relationships. Spitz's findings, based on direct observation of groups of children, statistically analysed and supported by filmed evidence, show that the crucial period for the establishment of true object relationships occurs in the second half of the first six months of a child's life. During the first few months the child lives with its mother in a pre-object relationship which is based only on its needs and the anonymous satisfaction it receives. The smile at the sight of the mother's face is the first trace of a true relationship between mother and child, and is observed from the third month onwards. Towards the ninth month the child is capable of recognizing its mother without needing her. Spitz observed during this period real manifestations of anxiety when the mother disappeared.

Lebovici & Diatkine<sup>38</sup> studied afresh, on a theoretical basis, the first object relationships of the child. In their work on the study of child phantasies it was shown that phantasy images of disintegration are only the later elaboration of the first experiences in which the infant, incapable of recognizing himself as a body, can only conceive of his mother in a partial fragmentary way, the parts not being differentiated from but confused with himself. In a confused relationship, which develops gradually in time but which is merely a functional relationship only manifesting itself in case of need, the child becomes aware of his mother as a nourishment object with which he seeks total fusion. As his maturation progresses he becomes aware of his own body, at the moment when he is capable of recognizing the body of the other person—i.e., that of his mother. It is thus that the first object relationships are established on the basis of pre-object relationships that are solely functional. When the object relationship has taken shape, a real rudimentary psychological life linking the child to his mother can be considered to have begun.

Lebovici & Diatkine<sup>38</sup> in a study of obsessions in children, investigated the significance of functional games of the end of the infant's first year. Thus, when a child drops an object in order to experience the jubilant satisfaction of having it picked up by his mother, he is assuring himself of his power over her. He shows us at the same time that he is capable of having a certain mental picture of the object here symbolized by the toy: he assures himself that when the object has gone he can make it come back. Thus this game is the basis of what psychoanalysts call object hallucination.

This very rapid and cursory sketch of the theories of the genesis of object relationships shows clearly that separation from the mother is particularly dangerous at the time when a true object relationship has been established—i.e., at the end of the first year of life. In the first six months of life the mother is only a functional object, whose presence is essential, or at least so it appears, only in case of need. A whole range of maternal contributions seems, however, to be necessary to establish the later bases for a valid object relationship. (This will be discussed again later.) But it is at the moment when the child recognizes his mother as such that she is indispensable to him, and that maternal deprivation through loss is likely to have the most fateful consequences.

This theory of the early aspects of the object relationship is founded not only on direct observation of the child but also on data provided by neurobiological studies of children. It has given rise to much research by psychoanalysts (in America, by the school of genetic psychoanalysis—H. Hartmann, E. Kris and R. Loewenstein, as well as René Spitz;<sup>57</sup> in Great Britain, by Anna Freud in her studies in psychoanalytic psychology; and in France, by Ajuriaguerra et al.<sup>2</sup> and Lebovici<sup>37</sup>). The basic idea can be summarized as follows: the establishment of an object relationship is a consequence of the child's dependence—i.e., its state of incomplete maturity at birth. It must therefore be postulated that the object is encountered and experienced before even being perceived. It is on the basis of a stage of initial lack of differentiation that this development is possible. This theory of primary dependency in many ways confirms the Freudian hypothesis of early narcissism.

In a series of recent works Bowlby has criticized this attempt to integrate psychoanalytic studies with the body of neurobiological knowledge. He bases his work, on the contrary, on the hypothesis of a primary object relation put forward by the psychoanalysts of the so-called Hungarian school (A. & M. Balint). They prefer the concept of attachment—the existence of which they claim to be confirmed by much ethological research—to that of dependence. The attachment of the infant to its mother brings about a real "monotropy" which, according to Bowlby, goes far beyond the sphere of oral needs. Primary object attachment,

he holds, is expressed in a certain number of instinctual responses which appear at successive periods in time, as can be explained by the theory of innate releasing mechanisms. Five components are essentially involved: sucking, clinging, following, crying, and smiling. All these enable the child to survive, since they elicit the maternal care needed and permit intimate contact between infant and mother.

In this work on the nature of the ties between the child and its mother, Bowlby<sup>11</sup> therefore rejects the dependency theory and the theory of secondary tie to support not only the theory of the Kleinian psychoanalytic school (primary object sucking or primary attachment to the mother's breast) but also and especially the theory of primary object attachment, which seems to him to take into account the ethological evidence, such as the research on genetic psychology carried out by Piaget.

More recently still, Bowlby<sup>14</sup> has studied the consequences of separation between mother and child at a later age. He thinks that these are more important than is generally believed—separation puts in jeopardy the instinctual bonds and triggers off the "work of mourning" very similar to that observed in adults. Finally the anxiety of the child seems to Bowlby<sup>15</sup> to be the consequence of the breaking of these same bonds.

There can be nothing but agreement on the need to extend the description of mother-child relationships at the anaclitic, pre-object stages far beyond the oral and alimentary sphere, despite its predominant value in psychoanalytic reconstruction. Rather than speculate about the part played by innate releasing mechanisms, whose nature we only know in reference to the ethological study of the decoy, it is preferable to take one's stand on an indisputable fact: the incomplete maturity of the infant places it in a state of need and dependence. Differentiation is achieved within the relationship that specifies the object at the same time as the self. It goes without saying that instinctual attachment behaviour, whose existence can legitimately be acknowledged, strengthens this tie.

#### EXPERIMENTAL RESEARCH ON MATERNAL DEPRIVATION IN MAN AND ANIMALS

Reference is made here to a number of experimental studies which tend to show that insufficiency of stimuli approximating (other things being equal) to deprivation of maternal care seems to have a significant effect in man and animals.

Donald Hebb has studied dogs reared in complete isolation from their mother. He claims that they become stupid and abnormal and,

above all, that they have no aptitude for learning, drawing no profit from painful experiences to which they are subjected.

Benjamin, Bernstein and Conger describe the following experiment, made on two equal groups of rats of identical origins. The experiments began on the 20th day after weaning. The first group of rats were stroked for 10 minutes a day, while the rats in the second group were reared in complete isolation. The rats in the second group developed less well than those which had been stroked. On the 40th day of the experiment it was found that they were less capable of learning. Their weight was lower, although they ate and excreted more. When they were sacrificed, it was found that they succumbed to a dose of thiouracil which was two or three times lower than that required to kill the stroked rats. The adrenal glands of the isolated rats were of greater weight, which the experimenters attributed to greater distress. The comparisons drawn between the two groups of rats are statistically valid.

Hebb arranged an experiment in which a group of volunteers were totally deprived of tactile, visual and auditory stimuli for several days. On coming out of their isolation the volunteers showed a very marked diminution in capacity for learning. They stated that during the experiment they had had hallucinations accompanied by a genuine confusional state. Asima was able to repeat this experiment with insane patients. In some cases the experiment proved beneficial, while in others it triggered off an acute psychotic episode after four or five days.

These experiments, which are described by Spitz, certainly deserve detailed study. A good proportion of them should undoubtedly be repeated in greater detail. It is, however, useful to quote them since they apparently show clearly the importance of stimulation in the development of personality. They explain why the concept of maternal deprivation is being replaced more and more by the idea of frustration and emotional deprivation, which is, of course, much less precise, although its consequences are accepted by very many psychiatrists.

#### FOLLOW-UP STUDIES OF MATERNAL DEPRIVATION

Some of the accounts of experiments mentioned above may appear open to criticism on the grounds of imprecision, but the workers who have devoted all their activities to studying the consequences of maternal deprivation have been very exacting in regard to their own work. This applies particularly to Bowlby. It will be recalled that in the work on research strategy analysed at length earlier in this chapter, Bowlby proposed that follow-up studies should be as thorough as possible. Naturally, as this work has developed certain hypotheses have had to be reformulated. The work of the team in question is reflected in cor-

respondence published in the *Lancet* in 1958. Correspondents had criticized an article published in the *British Journal of Medical Psychology*<sup>18</sup> in which a comparison was made between the personality of children placed in a sanatorium before the age of four and that of classmates who had not been separated from their families. The comparison was based on teachers' reports and on psychological testing. It was found that certain children in the group placed in the sanatorium before the age of four were capable of contracting ties of friendship and did not appear to be suffering from the serious disorders in object relationship that underlie delinquency. Although there were significant differences, Bowlby concluded that it could not be asserted that children lodged in an institution in their early childhood in general presented a psychotic or affectionless character.

This article raised a controversy in which, on the one hand, the study itself was attacked, while, on the other, in a more general way the importance of the whole concept of maternal deprivation came under fire. For example, in his letter to the *Lancet*, Taylor<sup>59</sup> indicates that the study of the groups of children had been inadequate. For instance, no account had been taken of the fact that there were twice as many boys as girls in the sample of 57 children involved. Almost half the teachers' reports had been discarded as not seeming sufficiently reliable. Taylor wondered whether the discarding procedure was not due to a desire to prove the validity of the initial hypotheses. In the same way, he pointed out that only 31 psychologists' reports had been retained, but that it had not been stated whether these referred to the children on whom the teachers' reports had also been retained.

In the same correspondence, Howells<sup>29</sup> criticized the study in question in the light of Bowlby's own concepts. He thought that a distinction should have been drawn in the sanatorium group of children between the effects of separation from the mother and the effects of deprivation in the sanatorium. Howells recalled a study that he had published in 1955,<sup>30</sup> in which he compared a group of emotionally disturbed children and a control group of healthy children, by studying their separation experiences before the age of five years. No significant difference was found. He thereupon concluded that it is not separation that is necessarily injurious but rather privation. Privation need not arise after separation, and may, in any case, exist even though the mother is present. Howells concluded by pointing out that children may suffer privation of maternal care in the family, whereas improved organization of children's hospitals, nurseries, etc., would doubtless make it possible to eliminate many of the effects of such privation.

Edelston,<sup>21</sup> when he intervened in this correspondence, supported Howells' point of view. He recalled a quip of Margaret Mead's<sup>44</sup> to

the effect that the campaign against maternal deprivation has become a subtle form of antifeminism in which men, under the guise of exalting the importance of maternity, are tying women more tightly to their children.

Bowlby intervened in this correspondence on several occasions. It will be recalled that in his opinion the principal value of the study of the two groups of children concerned had been to display the great heterogeneity of personality organization in the group of children who had undergone a prolonged separation starting before the fourth birthday. Very modestly, he stated that if he had to prepare a revised edition of *Maternal Care and Mental Health* he would include in Part I, which deals with research on the adverse effects of maternal deprivation, many new studies, of which most, but not all, confirmed the initial hypotheses.

In his final letter<sup>13</sup> in reply to his critics, Bowlby acknowledged the importance of the difference between separation and deprivation, but maintained that they were both adverse factors, neither of which should be neglected, and that separation could not but affect the emotional attachment between child and mother. Stays with relatives and friends, when the child is separated from his own family, might not have bad effects, but very often a child experienced acute distress which increased cumulatively with successive moves. He therefore remained convinced that a child should be separated from his mother only in exceptional circumstances.

In his first letter<sup>12</sup> he had said that some people appeared to think that he no longer regarded the separation of young children from their mothers as serious. This was not so, he stated in the conclusion to this letter; he simply wished to discourage anyone from supposing that he had changed his position in any material way.

#### CONCLUSIONS

Thus, research workers interested in the consequences of maternal deprivation have been able to give more precision to their theories, partly because they have gone deeper with their studies and experiments and partly because they have had to take into account the arguments of those whose observations sometimes contradicted their original hypotheses. It remains true, however, that maternal deprivation in young children is a serious matter with serious consequences and requires a co-ordinated social policy to deal with it.

It would indeed be highly dangerous to attribute the overwhelming majority of emotional and mental disorders in adolescents and adults to such deprivation: that would be a great step backwards, to a time when it was thought that neuroses and psychoses must be traumatic in

origin—a hypothesis that later research did not confirm. Psychopathological structures which have been built up slowly and constantly reshaped obviously cannot be due to a single event, however serious its significance, even if it occurred at a decisive time in the establishment of object relationships. It is nevertheless true that the concept of maternal deprivation has gradually been extended in psychopathology: studies of early frustrations<sup>49, 50</sup> show to what extent.

Knowledge of the consequences of early frustration presupposes the taking into consideration of the needs of the infant for varied stimuli, of which our knowledge is very limited. These needs probably belong to the domain of extraverbal communication. Their importance is explained by the physiological lack of maturity of the newborn baby, which puts it in a state of anaclitic dependence upon its mother. It is not only a question of the need for food. The infant must come into close contact with its mother and receive from her sensory stimulation—visual, vestibular, auditory and cutaneous—that must provide it with certain sensations of contact and warmth, and certain rhythmic sensations. Due regard must be paid to the need for sucking and movement.

The study of frustration pathology now takes into account not only the decisive separation experiences that occur at the time when object relationships are being established, but also privation at an earlier period, known as the pre-object or anaclitic period. The consequences of early frustration on future mental health can be stated only with great caution. The first consequence that was suggested, particularly by Bowlby in his study of forty-four thieves, was the development of a delinquent character. While Kate Friedlander,<sup>28</sup> in her description of the apathetic character, confirms the existence of difficulties in early experiences with the mother, other authors dispute the importance of emotional deprivation. Thus Heuyer in his report to the Lisbon Conference stated that the examination of numerous child and juvenile delinquents enabled him to assert with confidence that maternal deprivation had in most cases played only a subordinate role in the causation of delinquency. This, he added, is the danger in isolating an undoubted fact, for the most part incidental, and treating it as the essential cause.

Early frustrations seem indubitably to play a role in certain pathological character structures. This occurs essentially when there is excessive dependence on other persons by those who, in their never-ending quest for affection, constantly need to have proofs of love given to them. A deep-seated masochism seems to be at work in what have been called "ego distortions". Nacht<sup>46</sup> considers that such persons have undergone serious early frustrations at the hands of sadistic

mothers: in any case their lives are governed completely by frustration, which is expressed in their active and constant demand for affection.

Finally the role of early frustration in the psychoses has been under discussion. It is questionable whether depressive states in the adult can be causally linked with anaclitic depression. The effect of early frustration has been studied particularly in relation to the etiology of schizophrenia. To begin with, the therapeutic value of systematic or empirical mothering is significant in the context of the most varied forms of treatment. Many authors, such as Green,<sup>27</sup> think that the mothers of schizophrenics have a psychotic character structure and are seriously frustrating and rejecting. The consequences of early frustration have also been alleged to play a part in chronic alcoholism, psychosomatic disorders, etc.

Certainly the increasingly important position being accorded to studies of disorders of the object relationship in psychopathological research tends to underline the significance of early frustration. However, the handling of object relationships during psychotherapy does not offer confirmation of the historical value of reconstructions of traumatic events related to separation and privation during the first months of life. These are, at the very least, hypotheses that would require confirmation by means of the whole series of investigations on the consequences of maternal deprivation that have been mentioned here. It must also be said in this connexion that there is great danger involved in assessing the effect of traumatic events in an attempt to explain a psychopathological state whose etiology cannot be anything but complex.

Even if it is impossible as yet to make an exact assessment of the seriousness of maternal deprivation, mental health requirements indicate that everything must be done to avoid it. This is a problem that must be dealt with from the social aspect. Only an improvement in housing and in women's working conditions can lessen and mitigate its consequences. And only under such conditions can the separation of children from their mothers be reduced to a minimum. Sending a child to hospital, for which every possible preparation should be made beforehand, will also be less injurious if hospital buildings are improved and hospital staff suitably trained, if the child is kept occupied, and if its contact with its parents is maintained. In fact, Launay et al.<sup>28</sup> and Lelong & Lebovici<sup>29</sup> have shown that in certain cases a child's stay in hospital or in welcoming institutions can have an educative effect.

In this connexion it should be recalled that, contrary to what hasty popularization has asserted, the principles of psychoanalytic teaching emphasize the importance and usefulness of frustration in the formation of the ego. Only frustrations in the proper doses, so to speak, can enable aggressiveness to turn outwards against external objects instead of

turning in against, and thus weakening, the developing ego. Hypothetically speaking, if the child has been sufficiently indulged he needs frustrations. It should be recalled to what extent the anxiety in the ninth month of life, described by Spitz, and the functional games through which it is expressed, are constructive in nature: at this point the child is capable of imagining away its mother's absence and enjoying her presence as an internal image. It is quite clear, however, that to enable the child to make his mother "live" by himself and to look upon her as present when she is absent she must still be largely available.

Several years ago Huxley wrote "Give me good mothers and I shall make a better world". The converse is true: "Make me a better world and I shall give you good mothers". The prevention of the effects of maternal deprivation will only be possible when these two requirements can be met.

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