THEORY & REVIEW

THE PSYCHIC LIFE OF THE YOUNG INFANT: Review and Critique of the Psychoanalytic Concepts of Symbiosis and Infantile Omnipotence

Thomas M. Horner, Ph.D.

Children's Psychiatric Hospital, University of Michigan, Ann Arbor

The subjective life of the young infant is examined in the light of classical psychoanalytic theory and of recent empirical studies of early infant behavior and development. The concepts of symbiosis and omnipotence are argued to be products of poetic but largely misguided reconstructions from adult experience, providing a questionable developmental foundation for contemporary psychodynamic theories of object relations.

The psychic life of the human infant—that is, its subjective dimensions—is an elusive topic of psychological inquiry, standing as a hinterland of contemporary academic infant psychology. In the field of infant psychiatry, however, where there is an emphasis on affective processes and communication, the phenomenology of infancy is a tacit but fundamental part of considering the infant's mental and Most clinicians behavioral status. accept the proposition that there is at least a rudimentary phenomenology of infancy—that infants feel and experience events in their day-to-day lives. Adults, particularly those who are

involved in everyday contacts with infants, act as though there is a subjective domain, and there are processes by which adults, particularly primary caregivers, act selectively according to their understanding of the infant's subjectivity. 12, 68, 77, 105 everyone, however, would agree as to how the infant's subjective world is there be would organized. nor agreement as to the content of that subjectivity.

In psychoanalytic theory, three ideas concerning the qualitative, subjective dimensions of infant mental life have long stood at the forefront: 1) a condition of nondifferentiation of self and

other characterizes the earliest phases of infancy; 2) the infant's predominant experience of its relationship with others is one of omnipotence, and 3) this nondifferentiated condition is the basis of an intrinsic regressive pull throughout infancy as well as the whole of development.

Collectively these ideas are specific what is widely termed, Mahler,95,100 symbiosis and the differentiation subphase of the aration-individuation line of objectrelational and self development. To be sure, as Mahler herself has pointed out, the ideas describe conditions of infancy that are extremely difficult if not impossible to verify or disconfirm.99 Yet, they constitute a highly visible, influential segment of contemporary theory concerning early psychic experience and object-relational predispositions.

Infancy has been the focus of a number of recent reexaminations of psychoanalytic concepts of development.27,89,130 The aims of this paper will be to trace briefly and to examine critically these conceptions of infant psychic life. In the end I will assert that they have little behavioral foundation (that is, identifiable behavior correlates) in the actual life and development of infants and that they are related to adult proclivities for idealizing infancy as an original condition of innocence and perfection. At the same time there is the adult's recognition of the extreme vulnerability of the infant with respect to the power of surrounding caregivers. Such proclivities, when examined, expose the adult's penchant for attributing to infants qualities of subjective life that are not, in the ultimate analysis, truly explanatory.

SYMBIOSIS AND OMNIPOTENCE IN INFANCY: HISTORICAL ROOTS IN PSYCHOANALYSIS

Freud, Ferenczi and M. Klein

Freud used the term symbiosis only once in his writings4 but not to refer to phenomena associated with concepts listed above.60 Benedek used the term as early as 1949 to characterize the early mother-infant unit.4 **Before** Fromm used it to describe the developmental foundations of his social psychoanalytic theory of human adjustment.50 He also described separation-individuation phenomena that are essentially the same as those later described by Mahler.

Others also within or in contact with the early psychoanalytic movement incorporated the basic tenets of infantile symbiosis and individuation into their developmental frameworks, though these specific terms were not employed. Thus, Rank118 made separation and individuation factors, including the creation of symbiotic modes of functioning to deal with the trauma of birth, the central tenet of his conceptual framework (see also Ferenczi, below). Piaget several times referred to nondifferentiation of self and other as a central feature of development.116 Sullivan's prototaxic and parataxic modes of early infant experiences are drawn along similar lines.131 Despite the clear historical divergences of these schools of thought, the common acceptance of the symbiotic, undifferentiated nature of early psychic life is unmistakable.

It is well documented that Freud contemplated infancy from his position as a parent.^{21,73} He had a penchant for reconstructing childhood phenomena from the standpoint of an archeologist of adult mental life. It is intrinsic to every-

thing Freud wrote that he was a developmentalist, a trait Kaufmann has shown to have been largely influenced by Goethe. 75 Freud therefore quite naturally turned to the infant as a prototype of mental processes. 43, 46, 47 He averred that the infant's recognition of the object world is prompted by the rise of unavoidable experiences of pain (frustration). This formulation appears in a number of writings concerning early psychic mechanisms associated with the differentiation of the self and nonself. 43, 45 Freud's theory of reality testing, thought, and judgment pivoted in large part upon this conception of early psychic life.

Following Freud, Ferenczi³³ broadly outlined a series of steps taken by the child toward mature reality testing, emphasizing that primary feelings of omnipotence are embedded in the original psychic condition of nondifferentiation and that there is an innate regressive pull toward the original undifferentiated state:

If . . . the human being possesses a mental life when in the womb, although only an unconscious one—and it would be foolish to believe that the mind begins to function only at the moment of birth—he must get from his existence the impression that he is omnipotent. For what is omnipotence but the feeling that one has all that one wants, and that one has nothing left to wish for. The fetus, however, could maintain this of itself, for it always has what is necessary for the satisfaction of its instincts, and so has nothing to wish for; it is without wants. (p. 219) . . . The first wish-impulse of the child, therefore, cannot be any other than to regain this situation. (p. 221)

Historically, these ideas are predicated on Freud's principle of constancy, a principle holding the human organism to be, like a bird's egg, a closed biological system. Like Freud, Ferenczi also viewed the role of frustration and discrepancies between wish and reality (the "promptings" specified by Freud) to be the major impetus of the child's giving up magical-omnipotent thoughts and feelings over the course of its development.

While contemporary authorities dismiss or respectfully ignore much of Melanie Klein's work, basic tenets of infant psychic life that she incorporated into her thinking continue to reverberate in contemporary psychoanalytic theory of infant mental activity. They include the metapsychological constructions of good and bad objects and the strong notion that subjective-affective factors play a key role in the formation of self and ego structures as well as psychic conflict. The importance of Klein's contributions rests not with her extreme and unacceptable metaphorical dramatizations of infant subjective experience, anchored to the two poles of the paranoid-schizoid and depressive positions in object relations, but in her readiness to meet infant subjectivity on its own terms, that is, not solely as a reconstruction from adult material but as a domain of experience to be studied directly. The absence of language in infancy was not a deterrent to her pursuit of a suitable framework for conceptualizing infant psychic life. She believed that there are many details of early emotional development that can be gathered through modalities other than language. Thus, she asserted, if one is to understand the young infant it will be through empathic modalities ("a full sympathy with [the baby]") that are in many respects outside the domain of language.83 Recent studies of affective life in infancy have demonstrated that empathic perceptual modalities on the part of the observer can be objective—that is, reliably used in ratings of behavior and affect.^{52,64}

The few actual behavioral vignettes that occur in her works suggest that Klein was attuned to interactional data that today would be used to counter the theories she expounded. Thus, in her essay "On Observing the Behavior of Young Infants," one finds references to the wakeful periods of focused positive involvements that occur between young infants and their caregivers, including not only eye-to-eye contact at the breast but also the voung infant's interest in peek-a-boo activity.83 (See Kleeman80 in this regard.) Unfortunately, the concepts that emerged from Klein's pursuits found a vocabulary that essentially cast infant psychic life in terms of the grossly disturbed adult.

The theory of Klein and her associates81,119 incorporated the basic tenets of Freud and Ferenczi's model of the infant mind. The undifferentiated phase (merged objects) of development (autoeroticism) is retained, although, following Glover. Klein held firmly to the notion that early on (first three months of life) the infant experiences partobject relationships that are predicated on primitive distinctions between itself and not-self (i.e., the breast)—hence the paranoid-schizoid position that she considered to be dominant during this period. Klein and her colleagues also held to the notion of infantile omnipotence. Finally, they took the unmodified view that the experience of self evolves primarily out of painful experiences: "It seems that at first the conscious idea of 'me' is largely colored by painful associations. Phantasy is then taken up as a

refuge from the reality of 'me' " (p. 55).¹¹⁹ Yet withal, they emphasized the important domain of subjective life in infants:

This emphasis was later continued by Spitz (see below) and has continued, modified by extensive and systematic direct infant observational study, into important contemporary approaches to infant psychic life (see, for example, Emde²⁹).

Loewald, Jacobson and Modell

While terms and collateral concepts have changed over the decades since Freud, the main presumptions and imagery concerning early stages of nondifferentiation, regression toward fusion states, and omnipotence have remained essentially unchanged in the developmental psychoanalytic literature. 38, 39, 40, 71, 78, 79, 93, 103, 128, 129 The writings all emphasize the basic compromise between the child's need to retain the symbiotic situation and opposing tendencies to loosen symbiotic ties largely by way of aggressive, narcissistic expansion and independent ego functioning. 71, 93 All stress the period of early infancy as being one of nondifferentiation. Jacobson71 and Modell104 viewed the early condition of nondifferentiation to be an abiding feature of object-relational development. Modell wrote, for example, that the "wish to merge, to fuse, to lose one's separateness" (pp. 61-62) is elemental to all

love relationships. Tensions and conflicts associated with merging wishes and fears were central to Jacobson's codification of these object-relational principles.

According to Modell, the function of omnipotence is to deny (eliminate) separateness between self and object—to create an illusion of action upon the object from a distance. Such denial serves to protect the ego from feelings of loss.

The object that is eaten is "all gone": it needs to be re-created . . . [I]instinctual demands made upon parental objects, . . . implicitly threaten the loss of the object. Therefore the danger of separation is not limited to the danger of actual, physical separation from the protecting parental object, but may also arise as a result of the fundamental ambivalent instinctual wishes that the child experiences toward the parents . . . We [sic] suggest that the capacity for magical thought mitigates the danger of catastrophic anxiety through the creation of an illusion of lack of separateness between the self and the object . . [This anxiety] is the motive of the institution of a magical, created environment that serves to mitigate the danger of the experience of total helplessness. (pp. 22-23)

Jacobson viewed complementary processes of symbiosis to be at work with respect to the mother's side of the early dyadic relationship. In this context she cited Benedek's and Greenacre's comments regarding the mother's emotional ties to the infant. These complementary processes were conceived as something to guard against. Drawing on the work of Olden 106. 107 and Mahler, Jacobson emphasized the need on the part of the mother to maintain a climate of essential differences between her own and her child's needs and roles, thereby insuring that the merging wishes

on the part of the infant are not solidified.

Modell, however, objected to the use of the term symbiosis because "there is no compelling reason to assume that the object of this dyad is bound to the subject in an equivalent manner" (p. 41).104 He stated that the concept of symbiotic object relationship is misleading in that it erroneously implies the existence of a particular emotional bond of the object to the subject. Curiously, he stated that the emotional attitude of the object to the subject may in fact be quite irrelevant; that is, a transitional object relationship on the part of the subject (i.e., infant) may be established regardless of the attitude of the object.

Direct Psychoanalytic Applications to Infants: Spitz and Mahler

Spitz¹²⁷⁻¹²⁹ and Mahler^{96,100} systemically applied themselves on an extensive scale to direct observations of the infant-mother caregiving unit, introducing to psychoanalytic theory systematic observations of the communications, interactions, and general behavioral patterns of infants with their mothers.* The work of both of these individuals has transmitted the prevailing notions of initial self/other nondifferentiation and the collateral sense of omnipotence, giving, at least ostensibly, an empirical foundation to theory formerly based on reconstructions and clinical observations from adult psychic experience.

In the main, Spitz remained within the classical framework of psychoanalytic theory of object relations. With

^{*} To be sure, direct observation of infants by psychoanalysts preceded the work of Spitz and Mahler (see for example, A. Freud; 41 Hoffer 66). However, unlike their predecessors, Spitz and Mahler represent focal points for contemporary developments in the field of infant psychiatry, and so their respective works are emphasized here.

Hartmann, Spitz¹²⁸ addressed the phenomenological dimension of the self, and he attempted to account for it in his conceptualization of self development in infants. Unfortunately, some convolutions in his analysis of the early stages of the self resulted in a failure to resolve some of the problems connected with distinguishing self, ego, and awareness. Thus, he cryptically asserted that the infant's

ever-increasing [external] cathectic investment finally compels the ego to become aware of the "I's" function in the unfolding object relations. Through this awareness of the ego the "I" achieves identity as the self. (pp. 120-121)¹²⁷

Following previous theorists, Spitz subscribed to the view that the infant stands poised between progressive developmental forces away from the objectless (undifferentiated) condition of primary narcissism and regressive forces toward that condition and that there exists a counterpart tendency in the mother: "the equally conflicting strivings of the mother, to embrace and to remove" (p. 124).¹²⁸

Under normal circumstances, in the first few months, the mother's antithetic tendencies are in harmonious interaction with the antithetic tendencies in the child. With the increase in the child's autonomy the synchronicity of child and mother is subjected to ever more disturbances. Such asynchronous incidents, as well as the attempts from both sides to re-establish synchronicity, contribute greatly to the richness of the developing object relations. (p. 124)*

Like his predecessors, Spitz held to the view that inevitable frustrations in the infant's behavioral-affective commerce with the environment facilitate the differentiation of the self. But he enlarged the crucible of self/not-self differentiation in an important way when he emphasized the function of action in the development of self/other boundary representations:

The clash between the child's will and that of the mother leads the child to recognize the limits of his will, his wishes, his fantasies about himself, and thus the boundaries of the self are narrowed and set up. (p. 139)

Finally, omnipotence, while infrequently mentioned by Spitz, was nevertheless a key part of his overall model:

One may say without exaggeration that the self is fashioned from the atrophied remains of magic omnipotence. . . This origin of the self, its linkage with magic omnipotence, will never be completely eradicated and can be traced even in the adult. Reality testing blocks the road of return to the omnipotent origin of the self. (p. 139)

Mahler's well-known theory separation-individuation^{95, 98, 100} epitomized contemporary psychoanalytic approaches to early child development and psychopathology. For Mahler, the starting point in development is the period ("first few weeks of extrauterine life") of absolute primary narcissism. termed the stage of normal autism. Mahler characterized this period as one of virtual absence of object cathexis, except for instances where transient responses to external stimuli can be demonstrated. Re-evoking Freud's analogy of the bird's egg,43 Mahler100 depicted the phenomenology of this period as one in which

^{*} This point comprises one of Spitz's many original and lasting contributions to psychoanalytic approaches to infancy, his emphasis on the communication matrix with its emotional climate and the critical auxiliary ego functioning of the mother. Some contemporary psychoanalytic approaches to the study of early affect communication^{26, 31} owe much of their impetus to Spitz's seminal work in these areas.

... the infant seems to be in a state of primitive hallucinatory disorientation [my emphasis] in which need satisfaction seems to belong to his own "unconditional" omnipotent, autistic orbit. (p. 42)

In the second month and beyond,

dim awareness of the need-satisfying object marks the beginning of the phase of normal symbiosis, in which the infant behaves and functions as though he and his mother were an omnipotent system—a dual unity within one common boundary. [It is] that state of undifferentiation, of fusion with mother, in which the "I" is not yet differentiated from the "non-I" and in which inside and outside are only gradually coming to be sensed as different. (p. 44)

In Mahler's theory, then, the motherinfant unit is viewed as the essential ego, an extension of Freud's concept of "purified pleasure ego"⁴⁵ and a direct application of Spitz's concepts of the auxiliary ego and "unified situational experience."¹²⁹

Although not the totality of primary narcissism that characterizes the normal autistic phase, the symbiotic phase, according to Mahler, is essentially a condition existing "within the orbit of the omnipotent symbiotic dual unity" (p. 46).⁹⁹ The ego is now being "molded under the impact of reality, on the one hand, and of the instinctual drives, on the other" (p. 46).¹⁰⁰ The infant's inner sensations.

... form the core. They seem to remain the central crystalization point of the "feeling of self," around which a "sense of identity" [ego feeling; 22 identity theme 91] will become established. ... The sensoriperceptive organ—the "peripheral rind of the ego," as Freud called it—contributes mainly to the self's demarcation from the object world. The two kinds of intrapsychic structures together form the framework for self-orientation. (p. 47)126

The child's movement through the four subphases of separation-individuation (differentiation; practicing; rapproche-

ment; individuation and object constancy) entails a long series of behavioral transformations and achievements aimed toward differentiating the self and object from the original dual unity. In the first three years of life the simultaneous or alternating attraction to (to combat separateness) and threat of remerging with the mother (and losing individuality) looms in the background of the infant's and young child's development. According to Mahler,96 it is the basis of an entire life cycle of longing, derived from the original symbiotic motive, for the actual or fantasized ideal state of self—that perfect and blissful state of union between infant and mother. (See also Joffe and Sandler.72 See again Modell, above. See also the recent experimental work of Silverman, Lachmann and Milich. 124) Correlatively, there is the potential parental liability of overgratification or overfrustration, which could draw the child regressively or fixate it to a level of nondifferentiation. (See again Jacobson, above.) It is not uncommon in clinical presentations for these liabilities to be interpreted as central causes of severe early childhood disturbances, 6, 15, 53, 85, 98 and they are certainly part of the theoretical foundation upon which several contemporary psychoanalytic models of severe adult psychopathology are built.79, 101, 122

EPISTEMOLOGICAL FACTORS

Given the foregoing psychoanalytic material, it is pertinent to consider briefly the genetic epistemology of Piaget, since his view, generated from a wholly different orientation, seems to corroborate some of the psychoanalytic points that have been cited.

The child interview data amassed and reported by Piaget is compelling when

one ponders the thesis that self and nonself are indistinct in the child's mind. Yet Piaget had in mind an ultimate formal logical distinction, not the practical and everyday distinctions made by young children between themselves and others. Thus, he averred that the self/ other distinction did not occur until 11–12 years of age (p. 241),¹¹⁶ and he held that not even by direct intuition could this distinction be made before then (p. 129).¹¹⁶ These are, of course, positions contrary to psychoanalytic thought.

"The problem of the child's consciousness of self is extremely complex and it is not easy to treat it from a general standpoint"—so begins the section on consciousness of self in Piaget's early book, *The Child's Conception of the World*. 116

The child may be aware of the same contents of thought as ourselves but he locates them elsewhere. He situates in the world or in others what we seat within ourselves, and he situates in himself what we place in others. In this problem of the seat of the contents of mind lies the whole problem of the child's consciousness of self, and it is through not stating it clearly that what is in fact exceedingly complex is made to appear simple. . . . The consciousness of self rises in fact from the dissociation of reality as conceived by the primitive mind and not from the association of particular contents. That the child shows a keen interest in himself, a logical, and no doubt a moral, egocentricity, does not prove that he is conscious of his self, but suggests, on the contrary, that he confuses his self with the universe, in other words that he is unconscious of his self. (p. 125)

... the child begins by confusing his self and the world—that is to say in this particular case, his subjective point of view and the external data—

and only later distinguishes his own personal point of view from other possible points of view. In fact the child always begins by regarding his own point of view as absolute. (p. 126)

Piaget's references to the self here are essentially epistemological, largely centered on the capacity for selfreflective (observing ego) thought. As much as his writing on the subject contains references to particular confusions between self and external world, Piaget's perspective is always from the standpoint of the child's inability to introspect and to conceptualize the other's point of view in a situation.* In his thinking, Piaget borrowed from earlier psychologists, particularly Baldwin,1 who spoke of an "adualistic" period in development in which perception and reality are not distinguished from one another. It is, however, a period in which, according to Baldwin, "an incipient perception of persons as different from things" does exist.13

Piaget's idea of how the self becomes differentiated in the child's mind from the external world is similar to the view held by psychoanalysts, namely, that it is through contact with and frustration from the object world that differentiation takes place. 109, 116 Psychoanalysts have been concerned, of course, with frustrations that are connected with drives (need satisfaction) or. Spitz's137 view, affect-motivated actions. From Piaget's standpoint, frustration centers primarily on the clashes between points of view that arise from the imposition of the child's interpretations on others:

^{*} While there is no basis whatsoever for disputing the infant's inability to introspect it is not so clear that infants lack totally the rudimentary capacity to take another's point of view. Hoffman⁶⁷ has recently communicated some highly interesting examples of infants aged 15 and 20 months, respectively, who, by virtue of actions taken toward others, must have possessed elementary capacities for evaluating the other's point of view (see also Hoffman, ⁶⁶ Borke, ⁷ and Lempers, Flavell and Flavell⁸⁶).

It is by a series of disillusions and through being contradicted by others that [the child] comes to realize the subjectivity of feeling. (p. 127)¹¹⁶

Thus, it is through the experience of being thwarted, hence frustrated, by others' points of view that the child's cognition of self as distinct from reality emerges. Interestingly, Piaget's remarks concerning the self and the external world referred to the five- to eightvear-old child, an age range in which, in contradistinction to Piaget, psychoanalytic theorists consider self/ object differentiations to be for the most part (see Jacobson⁷¹) established and functioning except in extreme psychopathological disorders.* (Observational studies of children's play during this age period in turn corroborate the psychoanalytic view. 139) All of Piaget's comments concerning the differentiation of self and external world, then, must be taken from the standpoint of his dealing strictly with self-reflective capacities. Thus, while findings from his interviews with children "point to the child's ignorance of the fact [my italics] of subjectivity"116 they do not imply anything in the way of an absence of conscious experiences of subjectivity; nor do they imply an absence of an awareness of distinctions between self and other in everyday social inter-

It is well known that Piaget characterized the thinking of the young child as essentially egocentric, a term referring to the child's inferior position in logical and objective analysis. Egocentrism is not synonymous with self-interest although individuals characterized by such qualities are often egocentric in their thinking. Objectivity, according to Piaget,

consists in so fully realizing the countless intrusions of the self in everyday thought and the countless illusions which result—illusions of sense, language, point of view, value, etc.—that the preliminary step to every judgment is the effort to exclude the intrusive self. (p. 34)¹¹⁶

Egocentrism ignores the existence of the self's impact on perceptions and thought, disregards the relativity of one's own perspective, and thus takes the subject's point of view as immediately real and absolute. According to Piaget,

so long as thought has not become conscious of self [which is to say, conscious of the impact made by one's self in everyday thought and communication], it is a prey to perceptual confusions between objective and subjective, between the real and the ostensible; it values the entire content of consciousness on a single plane in which ostensible realities and the unconscious interventions of the self are inextricably mixed. (p. 34)¹¹⁶

Nevertheless, these qualities of children's thinking are evidently related to the absence of introspective capacities—that is, self-observing ego capacities—not to the failure to differentiate representations of the self and of objects. Young children know they are not the wind, the sun, their fathers, etc. and act, except when pretending, in accordance with this knowledge. How-

^{*} It is perhaps ironic that none of Piaget's major discussions concerning the mental activities of children in the first two years of life^{111, 113, 116} specifically raised the issue of self and other. In fact, none of them directly involve others, only things and actions on things. In actuality, the observations themselves are not incompatible with a dismantling of the idea of self/other fusion, omnipotence, etc., from the larger framework of psychoanalytic object relations theory. Yet, it is clear throughout his writings that he held to the theory, following Baldwin (see Piaget¹⁰⁹), that the phenomenology of infancy is devoid of self-awareness (see also Piaget¹¹⁵).

ever, since children assume that all other objects in the world act and feel as they do, they confer traits on them that are similar to what they experience of themselves. But this animistic trait does not require the corollary assumption that children make or feel no actual distinction between themselves and others.

BEHAVIORAL FACTORS

The last two decades have witnessed a grand expansion of empirical investigatory interest in the human infant. New technologies, particularly videotaping, permit detailed (microanalytic) analyses of behavior sequences and interactive states and open new doors to the internal processing capacities of very young infants. Affect, once viewed as part of the passive discharge phenomena associated with drive fluctuations, now has transactional/communicative significance in the caregiving relationship, and Darwinian hypotheses along these lines are now being resurrected after a long period of relative dormancy.26 The concept of the infant as a sometime interactive partner has replaced the notion of the infant as a passive-dependent figure (Mahler's⁹⁷ "passive lap baby") in an asocial caregiving context.3, 10, 68

In this section I will emphasize that very early on in development the infant is a true agent in its social relationships. This emphasis is supported by an accumulating array of observations and experimental studies of early communicative and interactive capacities in infants (e.g., Lewis and Rosenblum, 89 Thoman, 133 and Kaye 77). While they do not entirely dispose of many of the ambiguities characterizing early infant developmental phenomena, these studies nevertheless offer glimpses of early organizational and dynamic properties of infant mentation that not only do not require symbiotic conceptions of early object relations but also challenge the utility of such conceptions.

In this section, two questions will occupy the discussion of behavioral factors, each having to do with one of two aspects of separation theory reviewed thus far: 1) Is the 3-6-month-old infant symbiotic? 2) Does the infant feel omnipotent in its relations with others?

Is the 3-6-Month-Old Infant Symbiotic?

This question has a corollary question: Is the 0-3-month-old infant normally autistic? The questions go together because both refer to the premise that the young infant is incapable of making the fundamental distinctions critical to the differentiation of self from object. These questions will be considered with reference to infants' periods of wakefulness, leaving aside those periods when infants are asleep or upset to a degree that they cannot or do not sustain focused attention to surrounding events.

Peterfreund¹⁰⁸ has already exposed the terminological fallacy in the concept of *normal* autism. A number of studies have shown that the infant is capable, from neonancy onward, of alert visual interest in the face—or more precisely, in features of the face.* Brazelton⁸⁹

^{*} The bulk of formal research strongly suggests that the face of the parent is not perceived as a Gestalt until 3-4 months of age. 16. 123 Yet, the capacity for feature analysis and extraction of information from the face is a conspicuous and documented set of visual factors from neonancy on. 16. 62 The point

based a significant part of his behavioral examination of the neonate on this premise. emphasizing the distinct tracking of the examiner's moving face. Haith's remarkable studies of neonatal visual perception indicate that far from being strictly reflexive—that is, obligatory to the stimulus—the neonate's "approach" to visual stimuli (and presumably faces as well) is an active, selfguided process of inspection and analysis.62 Field et al 35 and Meltzoff 103 have separately reported findings that, while highly controversial from the standpoint of imputing actual imitative capacities to the newborn, take advantage of the quiet, wakeful states of facial interest commonly evident in healthy full-term newborns.

Contemporary theories of early infant cognition emphasize the importance of motor processes in the formation of mental representations of space and objects. (Piaget, of course, is a major proponent of this view.) Yet well-known and widely cited neurophysiological studies by Hubel and Weisel⁷⁰ (see also Colonnier, 17 Edelman and Mountcastle,²² and Szengothai and Arbib¹³²) provide evidence of probable innate feature analytic mechanisms in sensory perception that permit the organism to make basic perceptual distinctions. Their findings are compatible with another view of early mental representational processes, namely, that object

representations are not solely derived from actions upon the object but from direct perceptions of the object.*

These neurophysiological and epistemological considerations provide an empirical foundation for conceiving of the very young wakeful infant as oriented toward external events in the surrounding world—capable, in other words, of direct perceptions of objects as existing apart from its own body. The organism is equipped to act not as though an external/internal distinction exists but on the basis of an ability to make an actual external/internal distinction. Thus, Ball and Tronick2 have documented neonates' anticipations of impending collisions with approaching objects, and Wishart, Bower and Dunkeld143 have shown through infrared photography that young infants would suddenly cease reaching for objects when the laboratory lights were extinguished. Recent observations of patvisual-behavioral interests terned (pre-peek-a-boo-activity) made between 6½-17 weeks of an infant's development have suggested the ability to make external/internal representational distinctions.68

Very young infants prove capable of face-to-face engagements, and they are equipped as organisms to register the textural and spatial information that is required to make such representations at neurophysiological levels. It is likely,

underlying my comments about the 0-3-month-old infant is not that the infants are visually drawn to (and visually alert to) the "faceness" of the parent but that they are alert to the facial *features* of the parent. Far from being phenomena that can only be exposed through the advanced technology of the infant behavior laboratory—the latter does, of course, allow for crucial refinements to be made at microtemporal levels—they are conspicuous phenomena in everyday contact with parents and their 0-3-month-old quietly awake infants.

^{*} This is a distinct alternative to Piaget's constructivist account and it is the subject of a recent cogent theoretical discussion by Butterworth. He Butterworth draws on Gibson's theory 24.54 of direct perception, which holds that perception does not depend on action patterns for mental constructs. The theoretical orientation, then, is one of "direct realism" as opposed to the "indirect realism" of Piaget.

then, that almost from the very beginning the infant makes elementary body/nonbody distinctions that are the direct precursors of self/nonself distinctions. These body/nonbody distinctions call not for a theory of autism or symbiosis but rather for further elaborations of a theory of the body self 65 that is from the beginning imbued with primary self feeling, *i.e.*, a sense of presence in the perceived world of objects.*

Does the Infant Feel Omnipotent?

Does the infant feel all powerful? Doesn't the infant feel omnipotent when it is fed in response to its cries? The tacit assumption in these questions is that the infant feels an illusory omnipotence illusory because objectively the infant is vulnerable, dependent, and helpless; omnipotent because things happen when the infant wants them to. But do infants ever not get what they want? Is a feeling of efficacy in the world—the feeling that one can make things happen, which is certainly a characteristic of the 3-6-month-old, 88, 113, 138 the same as the feeling of omnipotence? We have accumulated in our behavioral laboratory evidence that many attempts by babies to make things happen, both interactionally as well as nonsocially, fail. Trying to capture the mother's attention, trying to get out of a high chair. trying to reach an object that is just out of reach-all constitute instances wherein the feeling of efficacy is not forthcoming because the aim of the behavioral attempt is not achieved. The babies' reactions in Brazelton et al's

study¹¹ of still-faced mothers constitute additional evidence that the infant whose intended interactions are thwarted is not in a position to feel omnipotent.

Freud was correct in ascribing a role to pain and frustration in the development of a sense of the limits in reality. Similar assertions can also be found in Piaget¹¹⁶ and in some Soviet psychological writings (e.g., Leowald⁹⁴). But Freud did not dwell on experiences of a nonpainful, nonfrustrating, nonthwarting nature—experiences that also contribute to the acquisition of sensorimotor impressions of self, not/self. things-affected-by-self, etc. Too much is now known about the early intentional capacities of infants to fall back on a theory of symbiosis and omnipotence as explanatory or even descriptive of the infant's subjective experiences. The behavior of infants, preserved on videotape and calculated to the second, 3, 134, 135, 136 attests to the very young infant's active interests in the social world-and even to some differential behavior patterns according to who (father, mother, unfamiliar adult) the partner is.²⁰ Lewis and Brooks-Gunn⁸⁷ have described the distinct action-outcome pairings (cognitions) of this period which, despite an absence of permanence, could well be the basis of clear-cut sensorimotor self/other distinctions during the 3-4 month period and beyond. These are not concepts, of course, but perceptsproprioceptive in large part but also cross-modal (i.e., visual-tactile, visual-proprioceptive, etc.). They do not

^{*} There is, of course, a substantial psychoanalytic literature that addresses the topic of primary self (or ego) feeling (see, for example, Federn, 32 Greenacre, 57 Rose, 120, 121, Jacobson, 71 and most recently Pine 117) but which does not deal with any of the issues I have raised in the service of correcting problems with symbiotic postulates.

achieve concept status per se until the child has gained the capacity for rudimentary self-observation and reflection, a capacity that is native to older childhood and adolescence. But the absence of a self-reflective capacity should in no way be used as the standard by which the capacity for self/other distinctions is judged, for they truly are of a different order of experience (see Epistemological Factors, above).

The characterization of infant subjectivity as a condition of felt omnipotence derives largely from the presumption of undifferentiated self/other representations during the symbiotic period. Naturally, if one is all and all is one, there must be an all-encompassing sense of existence. However, behavioral and subjective analyses of the infant (supra) suggest that the perceptual and affective worlds involve experiential distinctions, even though they are not a matter of self-knowledge per se. Following Piaget, the infant's actions upon objects may be viewed as the predominant vehicles through which these representational distinctions are constructed. Intra modal perceptual-behavioral experiences (e.g., object seen/not seen, obiect palpated/not palpated) and intermodal perceptual-behavioral experiences (object seen can be touched/not touched; object shaken can be heard [rattle]/not heard [teething ring]), each corresponding to early stages of sensorimotor development,113 are both predicated on such distinctions.

The symbiotic foundation removed, it is difficult to mount a reasonable case for infantile omnipotence or grandiosity. True, in the play of children one frequently witnesses sequences and episodes of omnipotent contents, which are largely associated with the egocen-

tric cognitions of children. Much of this kind of play derives from imitations of and, in older children and adolescents, identifications with adults; or from temporary excitements engendered by being powerful; or from the temporary abandonment of constraints imposed by external and internal limits; or from needs to counteract pervasive feelings of vulnerability, helplessness, or inferiority. There is, then, a capacity to represent and feel oneself as omnipotent within the bounds of play or pathologically suspended reality testing. This capacity, however, may well be an acquired one, whose appearance of innateness is inevitable given the child's cumulative experiences with adults in caregiving relationships that are suffused with the latter's power. The adult's experience of the child (and infant) is, in turn, a key factor in the ascription of omnipotence to the latter. This will be elaborated further in the next section.

SOURCES OF INFERENTIAL ERROR

There is poetry in the antithetical concept of a dual unity100 or of "a self-object polarity, even when self and object representations are not yet differentiated" (p. 17)79. Poetry, which appeals to us as a medium for bringing the ineffable into relief against a backof nonverbal experience, bridges the verbalized and nonverbalized realms of experience. It is not surprising, therefore, that some of the most elegant depictions of infant psychic life in terms of symbiotic theory are indeed poetic.74, 142

The poetry in this case, however, does not necessarily capture the realities under scrutiny and may reflect more of the poet than the poetic object.

Because the theory of symbiosis and omnipotence is formulated on the basis of psychic material drawn from adults as well as from direct observation of and interaction with infants, objective analyses of the phenomenological terrain of infancy must first deal with two sources of inferential error: 1) errors involving reconstructions from adult psychic material and 2) errors deriving from ascriptive processes in adults' perceptions of infants.

Reconstruction

Freud had a well-known penchant for archeological-evolutionary technique and analogy, according to which it was possible to reconstruct (archaeology) the past on the basis of presently observed structures and according to which early forms were germinal to later forms (evolution). In a timely discourse on the processes of psychoanalytic inquiry and inference, Spence¹²⁵ has recently drawn into sharp focus some of the fallacies that attend reliance upon reconstruction as a tool of scientific reasoning. His thesis is that inference made from clinical data concerning past events in an individual's life, which are gathered from free associative or active recollection material, is better conceptualized as

... a construction ["creative proposition"] rather than as a reconstruction that is supposed to correspond to [an actual] something in the past. (p. 35)

Spence's discourse enlarged on the important distinction to be made between two kinds of truth, historical and narrative, in the conceptualization of re-

lationships between past events and present circumstances. Drawing on cogent methodological critiques by Viderman¹³⁷ and Lock, ⁹² Spence carefully demonstrated why reconstruction of past history is an extremely tentative and illusory proposition. According to Spence, historical truths may ultimately be less important than narrative (constructed) truths to the individual's selfcoherence. To the scientist and clinician concerned with infant phenomenology. the narrative truths derived from adult phenomenology must defer to the data of direct observation and inference, much as the historian faced with both primary documents and secondary sources will defer to the former.

To summarize Spence's reasoning, without recapitulating its careful and straightforward demonstrations,* 1) the existence of formal correspondences between present circumstances and past events does not imply a causal relation between the two, and 2) finding even partial correspondences is likely to be by chance (p. 151ff).¹²⁵ As Spence pointed out, strong observer bias undermines the possibility (let alone the feasibility) of making meaningful assessments of the chance factors operating in reconstructive inference processes. There is also the question of how specifically the reconstruction is to be formulated. Global reconstructions are much more likely to be confirmed than highly specific ones, particularly if they overlap with universal truths or conventional wisdom.

In the history of psychoanalytic theories concerning symbiotic, om-

^{*} Spence illustrated, for example, how in case studies Freud and other analysts have sometimes hypothesized the occurrence of early events on the basis of manifest patient material and then taken the reconstructed events as facts upon which later events, as explained by them, were based.

nipotent, and regressive characteristics of infancy, much of what has been suggested to us about infant phenomenology is based on observations of adult psychopathology, particularly under primitive or regressed conditions. Spence's points expose the essential methodological flaws in deriving views of infancy from observations of the functioning of older children or adults.

Ascriptive Processes

Infants are natural projective screens for adults: embodying a host of individual (most often parental) and collective aspirations and trepidations, they are the most palpable link between the individual and immortality. The infant's position in life is therefore profoundly, if not cosmically, charged for the individual, and subject to the timeless ascriptions that flow from the mortal soul.

In "On Narcissism" Freud44 wrote:

The primary narcissism of children which we have assumed and which forms one of the postulates of our theories of the libido, is less easy to grasp by direct observation than to confirm by inference from elsewhere. If we look at the attitude of affectionate parents towards their children, we have to recognize that it is a revival and reproduction of their own narcissism, which they have long since abandoned. . . . Thus they are under a compulsion to ascribe every perfection to the childwhich sober observation would find out occasion to do-and to conceal and forget all his shortcomings. Moreover, they are inclined to suspend in the child's favor the operation of all the cultural acquisitions which their own narcissism has been forced to respect, and to renew on his behalf the claims and privileges which were long ago given up by themselves. . . . At the most touching point in the narcissistic system, the immortality of the ego, which is so hard-pressed by reality, security is achieved by taking refuge in the child. Parental love . . . is nothing but the parents' narcissism born again, which, transformed into object-love, unmistakably reveals its former nature.

Thus. Freud was keenly aware of ascriptive processes underlying adult perceptions and interpretations of infant psychic life. Yet he opted for a view that the primal narcissism of infancy is revived in parenting rather than derived from adults' fantasies and ideals about infant psychic life. While parental narcissism as described by Freud is easily observable and, to a large extent, penetrable by means of psychoanalytic inquiry, its genesis need not be attributed a priori to the early forms and conditions of narcissism he postulated-that is, narcissism characterized by the absence of self/other distinctions (with its corollary regressive pulls) and omnipotence. Equally tenable, for example, is the hypothesis that parental ascriptions of narcissism and omnipotence to the psychic life of the infant are a function of the parents' deeper knowledge that the infant is in fact vulnerable to and largely helpless in the face of the powerful adult world surrounding it. A corollary hypothesis might be that narcissistic ascriptions made by parents are in fact idealizing defenses against hostility or potential aggression toward the child,140 a factor in civilization well-documented by history. 19, 56, 60

There are several infant traits common to everyday adult contacts and interactions with babies, and they bear directly on the ascription of omnipotence to infant subjectivity. Thus, infants are in a position to arouse many affects in adults that frequently favor perceptions of the former's omnipotence. First, the physiological-behavioral states of infants, particuarly in the first few months of life, frequently change and thereby affect their manner of engagement. Correlatively, their attentional states are brief. They charac-

teristically focus their attention from object to object; or, as numerous examples from our videotaped observations of infants show, attention may shift cyclically from autoactivity to interactivity. As anyone who interacts directly with infants knows, the baby always takes the lead in such circumstances. In fact, when one "forces" oneself on the infant. for example, either by constantly adjusting oneself in order to remain in the infant's visual field³⁴ or by intensifying the social stimulation of the baby (unpublished observations in our laboratory), infants visibly thwart the insistent partner through gaze aversion. As unsocialized beings, infants do not follow the rules that govern ordinary social intercourse. However, they seem to follow many simple interactive rules (routines) that are either innately endowed or acquired through interactions. It is a fact of everyday laboratory experience, easily replicable in the natural environment, that when adults violate these rules infants behave in ways geared toward "restoring" them. 136

Second, through self-directed, egocentric pursuits, older infants and toddlers frustrate and thwart their adult caretakers. Persistence and insistence in matters of self-interest and a refusal to take the other's point of view (which is not the same as failing to differentiate the self and other), are familiar and sometimes aggravating traits in infants and toddlers, which lead occasionally to their being characterized as tyrannical.

Third, infants and toddlers require large amounts of attention and involve-

ment from the caregiving environment. Matters of safety and protection, discipline and control, and basic affiliative needs on the part of the young child stand ready to press the vulnerable adult caregiver (e.g., the socially isolated parent, the highly ambivalent parent, and the parent who has no other duties or personal outlets) into feeling enslaved by the child.

Finally, adults' own generative needs as beings conscious of their individual mortality may spiritually incline them to exalt the condition of infancy. The infant as *tabula rasa*, fresh start, renewal of life, innocent creature—all convey basic existential themes that devolve from adults' contemplations of their own limits and finiteness in life.

Ascriptions are made throughout everyday intercourse with infants. Most are innocuous in substance and reflect shifting affects aroused in the course of stimulating, controlling, or prohibiting them. 76 Ascriptions may be idealizing or indicting in quality and serve to enhance or diminish the infant. In toxic forms, ascriptions become dangerous forces in the caregiving practices of parents and lead to abuse or other damaging events in the life of the infant. In both positive and negative forms, though, it is the adult's experience of the infant that is central, not an archaic condition of infancy that reasserts itself.*

CONCLUSION

Although more behavioral observational material could be adduced to counter the alleged utility of symbiotic

^{*} The point here is not that introjects derived from early childhood experiences do not operate to form adult outcomes (see the valuable insights of Fraiberg, Adelson and Shapiro³⁷ concerning the insidious role played by negative maternal introjects in the mothering of some infants), only that the outcome is not a derivation of an inherent pattern of infantile omnipotence.

theory, such data may still not amount to deductive proof. As Mahler and McDevitt⁹⁹ have recently stated:

Whereas there is no conceivable method by which the validity of the hypothesis of a symbiotic phase of the mother-infant dual unity can be proven, it is just as impossible, we think, to empathically or otherwise provide or militate for acceptance of the contrary hypothesis—namely, that the infant of a few weeks "knows" or even "feels" that it is hisself that reacts to stimuli emanating from the "other," or that he can in any way discern them from stimuli arising intrinsically within his own body. (p. 828)

Hypotheses that cannot be falsified are of little value to the scientist unless they have some heuristic value. Ironically, the chief heuristic value of symbiotic theory consists of providing a plausible set of syntheses concerning the etiology and subjective correlates of many conditions of adolescent and adult psychopathology, particularly borderline and psychotic conditions. 79, 102 Yet. symbiotic features of psychopathological, as well as normal, adult adjustment (and this includes rapprochement themes as well) cannot be argued to derive from earlier stages that, in circular fashion, have been essentially constructed out of the adult experience. The infant specialist must seriously question the value of symbiotic theory because its explanations and predictions of the infant's everyday behavior often seem less reliable than those based on simple description.

Theories serve two purposes in science. On the one hand, they organize and synthesize facts derived from systematic observation and inference. On the basis of such syntheses, hypotheses are formulated that either predict or lead to new facts or to new interpretations of old facts, and thus to new insights and

new actions on behavioral events and situations. On the other hand, theories are used to speculate in areas where facts are few or absent. Such theories, while compelling for their apparent logic or their appeal to intuition or imagination, are, as Freud^{48, 49} once characterized psychoanalytic instinct theory, mythologies: philosophical excursions awaiting empirical tests. One cannot escape the impression that the symbiotic theory of object relations grasps for a kind of philosophical rectitude when it emphasizes the intrinsic tension between oneness and separateness. But the remaining questions for symbiotic theory, with its corollary postulates of omnipotence and intrinsic regressive pulls toward self/object fusion, are: What predict (correlatively does it causally)? To which behavioral data does it refer correlatively? To what internal events, in terms of the infant's and child's actual state of helplessness and naive experience of adults, do these traits actually apply in the infant's direct experience of the world?

REFERENCES

- 1. BALDWIN, J. 1976. Thought and Things. (3 Vols.) (1906-11). AMS Press, New York.
- BALL, N. AND TRONICK, E. 1971. Infant responses to impending collision: optical and real. Science 171:818-820.
- 3. BEEBE, B. AND STERN, D. 1976. Engagement-disengagement and early object experiences. *In* Communicative Structures and Psychic Structures, N. Friedman and S. Grand, eds. Plenum, New York.
- BENEDEK, T. 1949. The psychosomatic implications of the primary unit: mother-child. Amer. J. Orthopsychiat. 19:642-654.
- BENEDEK, T. 1959. Parenthood as a developmental phase. J. Amer. Psychoanal. Assn. 7:389-417.
- BERGMANN, A. 1971. "I and you": the separation-individuation process in the treatment of a symbiotic child. In Separation-Individuation, J. McDevitt and

- C. Settlage, eds. International Universities Press, New York.
- 7. BORKE, H. 1972. Chandler and Greenspan's "Ersatz ego-centrism": a rejoinder. Devlpm. Psychol. 7:107-109.
- BRAZELTON, T. 1973. Neonatal Behavioral Assessment Scale. Clinics in Developmental Medicine No. 50. Lippincott, Philadelphia.
- BRAZELTON, T. 1979. Evidence of communication during neonatal behavioral assessment. In Before Speech. The Beginning of Interpersonal Communications, M. Bullowa, ed. Cambridge University Press, New York.
- BRAZELTON, T. AND ALS, H. 1979. Four early stages in the development of mother-infant interaction. Psychoanal. Stud. Child 34:349-369.
- BRAZELTON, T. ET AL. 1975. Early motherinfant reciprocity. In Parent-Infant Interaction, CIBA Foundation Symposium 33. Associated Scientific Publishers, New York.
- BRINICH, P. 1982. Rituals and meanings: the emergence of mother-child communication. Psychoanal. Stud. Child 37:3-13.
- BROUGHTON, J. 1981. The genetic psychology of James Mark Baldwin. Amer. Psychol. 36:396-407.
- BUTTERWORTH, G. 1983. Structure of the mind in human infancy. In Advances in Infancy Research, Vol. II, L. Lippsitt, ed. Ablex, New York.
- CALL, J. 1983. Toward a nosology of psychiatric disorders in infancy. In Frontiers of Infant Psychiatry, J. Call, E. Galenson and R. Tyson, eds. Basic Books, New York.
- COHEN, L. DELOACHE, J. AND STRAUSS, M. 1979. Infant visual perception. In Handbook of Infant Development, J. Osofsky, ed. John Wiley, New York.
- COLONNIER, M. 1966. The structural design of the neocortex. In Brain and Conscious Experience, J. Eccles, ed. Springer-Verlag, New York.
- 18. COOLEY, C. 1902. Human Nature and the Social Order. Scribner's, New York.
- DE MAUSE, L., ed. 1974. The History of Childhood. Harper, New York.
- DIXON, S. ET AL. 1981. Early social interactions with parents and strangers. J. Amer. Acad. Child Psychiat. 20:32-52.
- 21. DYER, R. 1983. Her Father's Daughter: The Work of Anna Freud. Aronson, New York.
- 22. EDELMAN, G. AND MOUNTCASTLE, U. 1979. The Mindful Brain: Cortical Organization and the Group Selective Theory of Higher Brain Function. MIT Press, Cambridge, Mass.
- EDGECUMBE, R. 1981. Toward a developmental line for the acquisition of language. Psychoanal. Stud. Child 36:71-103.

- 24. ELKISCH, P. 1971. Initiating separationindividuation in the simultaneous treatment of a child and his mother. In Separation-Individuation, J. McDevitt and C. Settlage, eds. International Universities Press, New York.
- 25. EMDE, R. 1980. Toward a psychoanalytic theory of affect. In The Course of Life: Psychoanalytic Contributions Toward Understanding Personality Development. Vol. I: Infancy and Early Childhood, S. Greenspan and G. Pollock, eds. National Institute of Mental Health, Washington, D.C.
- 26. EMDE, R. 1980. Toward a psychoanalytic theory of affect, I: the organizational model and its propositions. In The Course of Life: Psychoanalytic Contributions Toward Understanding Personality Development. Vol. I: Infancy and Early Childhood, S. Greenspan and G. Pollock, eds. National Institute of Mental Health, Washington, D.C.
- EMDE, R. 1981. Changing models of infancy and the nature of early development: remodeling the foundation. J. Amer. Psychoanal. Assn. 29:179-219.
- 28. EMDE, R. 1981. Searching for perspectives: systems sensitivity and opportunities in studying the organizing child of the universe. In Prospective Issues in Infancy Research, K. Bloom, ed. Erlbaum, Hillsdale, N.J.
- EMDE, R. 1983. The prerepresentational self and its affective core. Psychoanal. Stud. Child 38:165-192.
- 30. EMDE, R. 1984. The affective self and its origin in infancy. Presented to the Department of Psychiatry, University of Michigan.
- EMDE, R., GAENSBAUER, T. AND HARMON, R. 1976. Emotional expression in infancy: a biobehavioral study. Psychol. Issues (Whole No. 37) 10(1):1-198.
- FEDERN, P. 1952. In Ego Psychology and the Psychoses, P. Federn. International Universities Press, New York.
- 33. FERENCZI, S. 1950. Stages in the development of the sense of reality (1913). In Selected Papers of Sandor Ferenczi, Vol. 1. Basic Books, New York.
- FIELD, T. 1977. Effects of early separation, interactive deficits, and experimental manipulations on infant-mother face-to-face interactions. Child Devlpm. 48:763-771.
- FIELD, T. ET AL. 1982. Discrimination and imitation of facial expressions by neonates. Science 218:179-181.
- 36. FRAIBERG, S. 1980. Clinical Studies in Infant Mental Health. Basic Books, New York.
- FRAIBERG, S., ADELSON, E. AND SHAPIRO, V. 1975. Ghosts in the nursery. J. Amer. Acad. Child Psychiat. 14:387-422.

- 38. FREUD, A. 1981. Child analysis as the study of mental growth, normal and abnormal (1979). In The Writings of Anna Freud, Vol. VIII. International Universities Press, New York.
- FREUD, A. 1965. Normality and Pathology in Childhood: Assessments of Development. International Universities Press, New York.
- FREUD, A. 1969. The assessment of borderline cases (1956). In The Writings of Anna Freud, Vol. V. International Universities Press, New York.
- 41. FREUD, A. 1973. Infants Without Families. International Universities Press, New York.
- 42. FREUD, s. 1966. The Etiology of Hysteria (1896). Standard Edition of the Psychological Works of Sigmund Freud. Hogarth, London.
- FREUD, s. 1962. Formulations on the two principles of mental functioning (1911). Standard Edition of the Psychological Works of Sigmund Freud, Vol. 12. Hogarth, London.
- FREUD, S. 1957. On narcissism: an introduction (1914). Standard Edition of the Psychological Works of Sigmund Freud, Vol. 14. Hogarth, London.
- FREUD, s. 1957. Instincts and their vicissitudes (1915). Standard Edition of the Psychological Works of Sigmund Freud, Vol. 14. Hogarth, London.
- FREUD, S. 1961. Negation (1925). Standard Edition of the Psychological Works of Sigmund Freud, Vol. 19. Hogarth, London.
- FREUD, S. 1961. Civilization and its discontents (1930). Standard Edition of the Psychological Works of Sigmund Freud, Vol. 21. Hogarth, London.
- FREUD, S. 1964. Why War? (1932). Standard Edition of the Psychological Works of Sigmund Freud, Vol. 22. Hogarth, London.
- FREUD, S. 1964. New introductory lectures on psychoanalysis (1933). Standard Edition of the Psychological Works of Sigmund Freud, Vol. 22. Hogarth, London.
- 50. FROMM, E. 1941. Escape from Freedom. Holt, Rinehart and Winston, New York.
- FROSCH, J. 1964. The psychotic character: clinical psychiatric considerations. Psychiat. Quart. 38:81.
- GAENSBAUER, T. 1982. The differentiation of discrete affects. Psychoanal. Stud. Child 37:29-66.
- 53. GALENSON, E. 1981. Evaluation for in-depth comprehensive treatment. Presented to the Training Institute of the National Center for Clinical Infant Programs (Indicators of Mental Health Disturbance in the First Eighteen Months of Life), Washington, D.C.
- 54. GIBSON, J. 1950. The Perception of the Visual World. Houghton Mifflin, Boston.

- GIBSON, J. 1966. The Senses Considered as Perceptual Systems. Houghton Mifflin, Boston
- 56. GIL, D., ed. 1979. Child Abuse and Violence, AMS Press, New York.
- GREENACRE, P. 1958. Early physical determinants in the development of the sense of identity. J. Amer. Psychoanal. Assn. 6:612-627.
- GREENACRE, P. 1960. Considerations regarding the parent-infant relationship. Inter. J. Psychoanal. 41:571-584.
- GREENSPAN, H. 1982. Psychopathology and Adaptation in Infancy and Early Childhood. International Universities Press, New York.
- GRUBB, W. AND LAZERSON, M. 1982. Broken Promises: How Americans Fail Their Children. Basic Books, New York.
- GUTTMAN, S., JONES, R. AND PARRISH, S., eds. 1980. The Concordance to the Standard Edition of the Complete Psychological Works of Sigmund Freud. G. K. Hall, Boston.
- 62. HAITH, M. 1980. Rules that Babies Look By: The Organization of Newborn Visual Activity. Erlbaum, Hillsdale, N.J.
- 63. HARTMANN, H. 1950. Comments on the psychoanalytic theory of the ego. Psychoanal. Stud. Child 7:9–30.
- HIATT, S., CAMPOS, J. AND EMDE, R. 1979.
 Facial patterning and infant emotional expression. Child Devlpm. 50:1020-1035.
- 65. HOFFER, N. 1950. Development of the body ego. Psychoanal. Stud. Child 5:18-23.
- 66. HOFFMAN, M. 1975. Developmental synthesis of affect and cognition and its implications for altruistic motivation. Devlpm. Psychol. 11:607-622.
- 67. HOFFMAN, M. 1981. Perspectives on the differences between understanding people and understanding things: the role of affect. In Social Cognitive Development. Frontiers and Possible Futures, J. Flavell and L. Ross, eds. Cambridge University Press, New York.
- 68. HORNER, T. 1985. Intentionality and the emergence of reality testing in early infancy. Psychoanal. Psychol. (in press)
- 69. HUBEL, D. AND WEISEL, T. 1963. Shape and arrangement of columns in the cat's striate cortex. J. Physiol. 165:559-568.
- HUBEL, D. AND WEISEL, T. 1974. Sequence regularity and geometry of orientation columns in the montuey striate cortex. J. Compar. Neurol. 158:267-294.
- 71. JACOBSON, E. 1965. The Self and the Object World. Hogarth, London.
- JOFFE, W. AND SANDLER, J. 1965. Notes on pain, depression, and individuation. Psychoanal. Stud. Child 20:394–424.

- JONES, E. 1953. The Life and Work of Sigmund Freud. Basic Books, New York.
- KAPLAN, L. 1978. Oneness and Separateness: From Infant to Individual. Simon and Schuster, New York.
- KAUFMANN, W. 1980. Discovering the Mind, Vol. 3: Freud Versus Adler and Jung. McGraw-Hill, New York.
- KAYE, K. 1980. The infant as a projective stimulus. Amer. J. Orthopsychiat. 50:732– 736.
- KAYE, K. 1982. The Mental and Social Life of Babies. University of Chicago Press, Chicago.
- KERNBERG, O. 1977. The structural diagnosis of borderline personality organization. In Borderline Personality Disorders, P. Hartcollis, ed. International Universities Press, New York.
- 79. KERNBERG, O. 1980. Internal World and External Reality. Aronson, New York.
- KLEEMAN, J. 1967. The peek-a-boo game: part I—its origins, meanings, and related phenomena in the first year. Psychoanal. Stud. Child 22:239-273.
- KLEIN, M. 1948. Infant analysis (1928). In Contributions to Psychoanalysis. Hogarth, London.
- 82. KLEIN, M. 1952. Some theoretical conclusions regarding the emotional life of the infant. *In Development in Psychoanalysis*, J. Riviere, ed. Hogarth, London.
- KLEIN, M. 1952. On observing the behavior of young infants. In Development in Psychoanalysis, J. Riviere, ed. Hogarth, London.
- 84. KOHUT, H. 1971. The Restoration of the Self. International Universities Press, New York.
- KUPFERMAN, K. 1971. The development and treatment of a psychotic child. In Separation-Individuation, J. McDevitt and C. Settlage, eds. International Universities Press, New York.
- LEMPERS, J., FLAVELL, E. AND FLAVELL, J. 1977. The development in very young children of tacit knowledge concerning visual perception. Genet. Psychol. Monogr. 95:3-53.
- LEWIS, M. AND BROOKS-GUNN, J. 1979. Social Cognition and the Acquisition of the Self. Plenum, New York.
- 88. LEWIS, M. AND GOLDBERG, s. 1969. Perceptual-cognitive development in infancy: a generalized expectancy model as a function of the mother-infant interaction. Merrill-Palmer Quart. 15:81-100.
- LEWIS, M. AND ROSENBLUM, L., eds. 1974.
 The Effect of the Infant on his Caregiver.
 John Wiley, New York.
- LICHTENBERG, J. 1983. Psychoanalysis and Infant Research. Analytic Press, Hillsdale, N.J.

- LICHTENSTEIN, H. 1964. Narcissism and primary identity. Inter. J. Psychoanal. 45:49-56.
- LOCK, W. 1977. Some comments on the subject of psychoanalysis and truth. In Thought, Consciousness and Reality, J. Smith, ed. Yale University Press, New Haven.
- LOEWALD, H. 1951. Ego and reality. Inter. J. Psychoanal. 32:10-18.
- LURIA, A. 1966. Human Brain and Psychological Process. Harper and Row, New York.
- MAHLER, M. 1963. Thoughts about development and individuation. Psychoanal. Stud. Child 18:307-324.
- MAHLER, M. 1967. On human symbiosis and the vicissitudes of individuation. J. Amer. Psychoanal. Assn. 15:740-763.
- MAHLER, M. 1972. On the first three subphases of the separation-individuation process. Inter. J. Psychoanal. 53:333-338.
- MAHLER, M. AND FURER, M. 1968. On Human Symbiosis and the Vicissitudes of Individuation, Vol. 1. International Universities Press, New York.
- 99. MAHLER, M. AND MCDEVITT, J. 1982. Thoughts on the emergence of the sense of self, with particular emphasis on the body self. J. Amer. Psychoanal. Assn. 30:827-848.
- 100. MAHLER, M., PINE, F. AND BERGMANN, A. 1975. The Psychological Birth of the Human Infant. Basic Books, New York.
- 101. MASTERSON, J. 1976. Psychotherapy of the Borderline Adult. Brunner/Mazel, New York
- 102. MASTERSON, J. 1981. The Narcissistic and Borderline Disorders. Brunner/Mazel, New York.
- 103. MELTZOFF, A. AND MOORE, M. 1977. Imitation of facial and manual gestures by human infants. Science 198:75-78.
- 104. MODELL, A. 1968. Object Love and Reality. International Universities Press, New York.
- 105. NEWSON, J. 1979. Intentional behavior in the young infant. In The First Year of Life. Psychological and Medical Implications of Early Experience, D. Shaffer and J. Dunn, eds. John Wiley, New York.
- OLDEN, C. 1958. Note on the development of empathy. Psychoanal. Stud. Child 13:505– 518.
- OLDEN, C. 1953. On adult empathy with children. Psychoanal. Stud. Child 8:111-126.
- PETERFREUND, E. 1978. Some critical comments on psychoanalytic conceptualization of infancy. Inter. J. Psychoanal. 59:427-441.
- PIAGET, J. 1927. La première année de l'enfant. Brit. J. Psychiat. 18:97-120.
- PIAGET, J. 1952. Language and Thought in the Child (1916). Routledge and Kegan Paul, London.

- PIAGET, J. 1954. The Construction of Reality in the Child (1937). Basic Books, New York.
- 112. PIAGET, J. 1962. Play, Dreams and Imitation in Childhood (1951). Norton, New York.
- 113. PIAGET, J. 1963. The Origins of Intelligence (1936). Norton, New York.
- 114. PIAGET, J. 1968. Judgement and Reasoning in the Child (1928). Littlefield, Adams and Co., Totowa. N.J.
- 115. PIAGET, J. 1968. The mental development of the child (1940). In Six Psychological Studies. Vintage, New York.
- PIAGET, J. 1976. The Child's Conception of the World (1929). Littlefield, Adams and Co., Totowa, N.J.
- 117. PINE, F. 1982. The experience of self. Psychoanal. Stud. Child 37:143-167.
- 118. RANK, O. 1929. Truth and Reality. Knopf, New York.
- 119. RIVIERE, J. 1952. Genesis of psychical conflict in earliest infancy. In Development in Psychoanalysis, J. Riviere, ed. Hogarth, London.
- 120. ROSE, G. 1966. Body ego and reality. Inter. J. Psychoanal. 47:502-509.
- 121. ROSE, G. 1964. Creative imagination in terms of ego "core" and boundaries. Inter. J. Psychoanal. 45:75-84.
- 122. SETTLAGE, C. 1980. The psychoanalytic understanding of narcissistic and borderline personality disorders; advances in developmental theory. In Rapprochement: The Critical Subphase of Separation-Individuation, R. Lax, S. Bach and J. Burland, eds. Aronson, New York.
- 123. SHERROD, L. 1979. Social cognition in infants: attention to the human face. Infant Behav. Devlpm. 2:279-294.
- 124. SILVERMAN, L., LACHMANN, F. AND MILICH, R. 1983. The Search for Oneness. International Universities Press, New York.
- 125. SPENCE, D. 1982. Narrative Truth and Historical Truth. Norton, New York.
- 126. SPIEGEL, L. 1959. The self, the sense of self, and perception. Psychoanal. Stud. Child 14:81-109.
- 127. SPITZ, R. 1955. The primal cavity. Psychoanal. Stud. Child 10:215-240.
- 128. SPITZ, R. 1957. No and Yes: On the Genesis of Human Communication. International Universities Press, New York.
- 129. SPITZ, R. AND COBLINGER, W. 1965. The First Year of Life: A Psychoanalytic Study of Normal and Deviant Development of Object

- Relations. International Universities Press, New York.
- 130. STERN, D. AND SANDER, L. 1980. New knowledge about the infant from current research: implications for psychoanalysis. J. Amer. Psychoanal. Assn. 28:181-198.
- SULLIVAN, H. 1947. Conceptions of Modern Psychiatry. William Alanson White Foundation, Washington, D.C.
- 132. SZENTAGOTHAI, J. AND ARBIB, M. 1975. The "module concept" in cerebral cortex architecture. Brain Res. 95:475-496.
- 133. THOMAN, E., ed. 1979. Origins of the Infant's Social Responsiveness. Erlbaum, Hillsdale, N. I.
- 134. TREVARTHEN, C. 1977. Descriptive analyses of infant communicative behavior. *In* Studies in Mother-Infant Interaction, H. Schaffer, ed. Academic Press, New York.
- 135. TRONICK, E., ed. 1982. Social Interchange in Infancy, Affect, Cognition and Communication. University Park Press, Baltimore.
- 136. TRONICK, E., ALS, H. AND ADAMSON, L. 1979. The communicative structure of face to face interaction. In Before Speech: The Beginnings of Human Communication, M. Bullowa, ed. Cambridge University Press, Cambridge.
- VINDERMAN, S. 1979. The analytic space: meaning and problems. Psychoanal. Quart. 48:257-291.
- 138. WATSON, J. 1979. Perception of contingency as a determinant of social responsiveness. In Origins of the Infant's Social Responsiveness, E. Thoman, ed. Erlbaum, Hillsdale, N.J.
- 139. WHITESIDE, M., BUSCH, F. AND HORNER, T. 1976. From egocentric to cooperative play in young children: a normative study. J. Amer. Acad. Child Psychiat. 15:294-313.
- 140. WINNICOTT, D. 1958. Hate in the countertransference. In Collected Papers: Through Pediatrics to Psychoanalysis. Basic Books, New York.
- 141. WINNICOTT, D. 1965. Ego integration in child development (1962). In The Maturational Process and the Facilitating Environment. Hogarth, London.
- 142. WINNICOTT, D. 1967. Mirror-role of the mother and family on child development. In The Predicament of the Family: A Psychoanalytical Symposium, P. Lomas, ed. Hogarth, London.
- 143. WISHART, J., BOWER, T. AND DUNKELD, J. 1978. Reaching in the dark. Perception 7:507-512.