The Development of the Mind: A Three Month Old Infant

Simone Setterberg*

**Summary:** Infant mental development occurs in interplay with a caregiver. The infant establishes an inner world, a psyche, by using his or her caregiver as transitional mental space for the development of a sense of self. This mental progress occurs simultaneously with motor elaboration, pre-conditioned by neurophysiological maturation. The bodily holding function of the caregiver, through initial skin-to-skin contact, enables the infant to develop a sense of bodily self. The pivotal role of the body as a first place of ego development is illustrated by the vignette of Nino, a 3-month-old infant whose caregiver is unable to provide the necessary physical contact, and therefore insufficiently containing the young infant. This lack of physical holding limits the infant from developing a sense of bodily self, a primary sense of self. Without the caregiver’s holding function, it is impossible for the infant to establish a relationship to a whole person.

**Key words:** Infant, psychic development, dyadic interaction, clinical vignette

1. Background

The first months of an infant’s development are characterized by rapid physiological and psychological maturation. There is, however, a marked latency and adjustment period in human infants to the extra-uterine condition. This phase--less evident in other primates-- emphasizes the importance of the caretaker in the development of the human infant. The affective physical contact with the caretaker through acoustic and visual functions, touch, movement, and smell has a wider function of emotional communication, symbol formation, thinking, and integration of the self by the infant.\[1\]

The case vignette of a 3-month-old infant who received limited early parental affective stimulation shall emphasize the consequences of an insufficient physical and psychological holding environment. Detailed written reports of Nino’s infant observation sessions provide the foundation of the discussion of the importance of early physical contact in the development of the human infant’s mind. Psychoanalytic concepts of parental holding and protective function are used to elaborate the role of the maternal body for the infant’s development.

Several French authors have emphasized the importance of combining touch and sight. Anzieu, in his work of the “skin ego”,\[2\] notes how gazing at the mother offers the infant contact with her psychic reality in the midst of longing for mutual incorporation. The latter is limited by pressure against the breast, which represents the limits of mutual absorption. The narcissistic seduction conducted by eye and skin contact is essential. The mother is, as he defined, a “protective envelope” for the child.\[2\] The envelope with its containing function can protect the child from his raw sense of falling apart or complete helplessness and avoids the introjection of these primitive feelings into him. The sensation of the mother’s touch and contact with the skin of the infant gives him a sense of unity. The importance of the mother’s containing function reflects itself in the child’s capacity of internal organization. Freud saw the skin ego as a mental projection of the surface of the body.\[3\] Bick developed the concept further and suggested that the infant’s good experience of skin sensations was the basis for a sense of a containing object. By experiencing positive bodily sensations, the child can then start to differentiate between the internal and external world. Fonagy and Target \[4\] extend the mother’s containing function on a more cognitive level to her capacity to mentalize and, through *reflective functioning*, be more sensitive to the child’s needs. Fonagy and Target \[4\] found evidence for an association between the quality of the attachment
relationship and reflective function in the parent and the child. They claim that it is reviewed and interpreted in the context of current models of theory of mind development. A model of the development of self-organization is proposed that has, at its core, the caregiver’s ability to communicate an understanding of the child’s intentional state.

The mother’s function as a “protective envelope” is her capacity to share her skin, touch, and smell with the child and to be sensitive to her child’s needs. Her capacity to mentalize and be sensitive to her child can be impacted by what Lebovici\(^{[5]}\) established: the mother’s unconscious, preconscious, and to some extent conscious representation of her child. This can perhaps best be conceptualized as the existence of two children. The first is an imaginary child, the product of the desire for pregnancy, about whom the mother develops preconscious daydreams concerning the desired gender. The mother’s own up, values, fantasies, and experiences are imposed on the child by intergenerational transmission. The second is a fantasized child from repressed infantile conflicts that were expressed in the desire to give a baby to the future maternal grandfather (the mother’s father). The imaginary child is transferred to the child held in the mother’s arms and becomes a “recreated” child. These are the reasons why the baby’s scenarios become observed: the genesis of the corporal self (“moi-peau”). This concept is supported by Bullinger\(^{[13]}\), who states that, the sensory-tonic balance resulting from different constraints biological, physical and social constitute a platform from which the child may initiate interactions with their environment. The size of this platform, which determines the stability of an individual, is determined largely by the operator, which allows for habits, anticipations, and representations.\(^{[13]}\) The body axis as a representative point of support is an important step in the process of individuation and makes possible instrumental activities. It makes the body an inhabited place (translation: Simone Setterberg).

### 2. Case history

Nino, at the time of the first visit, is a four-week-old boy, the first child of a 25-year-old mother and a 33-year-old father. During the observation, Nino was initially asleep in his pregnant aunt’s arms and carried through the apartment, while his mother and a cook prepared lunch for the family. The baby nurse was in Nino’s room resting after her nightshift. This initial infant observation situation was found to be typical of the family environment, where at least two other female employees or friends were present with the mother and Nino in their spacious urban apartment. The women were generally accompanied by one to two televisions, which played reality shows. The environment Nino grew up in was a busy, noisy, energetic place, high in external stimuli and characteristic of a young urban metropolitan life. The infant used his full body strength, which could be observed by his muscle tone and ability to hold his head up at a very early age, to cope with all the stimuli, impressions, and people surrounding him. Nino’s mother was a socially engaged and very active woman, though she was not working during the course of the observation. Intimate situations between her and Nino...
were rarely observed. While feeding Nino, the bottle was usually leaning on her arm and Nino had to suck on it without his mother’s support. In the meantime she was checking her phone, giving instructions to the cook, and glancing at the television in front of her. An entourage of people surrounded Nino and his mother. Besides the live-in baby nurse, the family employed a cook and a dog walker. Even with the group of people in the apartment there was a sense of Nino not being seen, perceived as an individual person with his own internal world, rather him being an accessory of his parents. By accessibility it is meant that Nino’s parents had difficulties to keep their child in their minds, acknowledging their child as an individual outside of them with its own needs. This shortage of being viewed as an individual mind prevents the protection and physical contact he needs in order to develop a core sense of self.

Sensual integration is an essential counterbalance in order to avoid pathology, as a result of disintegrated sense organs. Nino’s sensual integration was affected by the constant external stimuli and limited physical closeness within the parent-infant dyad. Nino’s sensual integration was impacted by his mother’s scattered and multitasking presence, rather than an olfactory experience. From Nino’s scattered sensual experience, an analogy can be drawn using Anzieu’s concept of skin-ego development and the mother’s role as a protective envelope. In Nino’s case, rather than acting as an envelope, the mother’s interactions with the child would be better characterized as the stamp on the envelope. He was unable to get a full sensual experience and therefore created a body ego through muscular tension protecting him from external stimulation and internal disorganization.

While visiting the home, the observer often experienced a sense of being overwhelmed, a bodily sensation that raised the awareness of the internal experience of the infant. The observer’s urge to intervene and rescue Nino out of his situation has been described in the literature of infant observation: the adult identifies with the infant thus highlighting the internal processes through observer-infant counter-transference.

Nino was observed using all available body sensations to create his own protective envelope, such as the high muscular tonus, established early in his developmental trajectory. His muscular tonus and strength were present already during his first weeks of life. At two weeks, he was able to hold his head up without support and gazed with wide-open eyes. During this early stage of development, the primary sensation was centered on his body, as source of muscular action. Nino’s body was often tense and rolled up like a little ball, his legs pulled in and his upper body curled forward towards his legs. His hands were in soft fists and he moved his arms like a boxer. Nino developed an animated use of his oral zone and made numerous soft lip movements, twisted and turned his tongue, played with his saliva and sporadically stuck out his tongue and produced bubbles. By seven weeks, Nino began to frequently spit up breast milk, which at that time was his only nourishment. The amount of breast milk he received was monitored and recorded since he was born. This had been suggested by the baby nurse and contributed to the mother pumping breast milk and feeding Nino with a bottle rather than the breast to achieve better monitoring. Nino’s milk spilling was further accompanied by colic and eczema. Nino’s physiological symptoms, the colic, eczema and milk spilling, combined with the concern of him not getting enough nutrition, contributed to frequent visits with his pediatrician. Yet the origin of his colic and eczema remained unclear, as he was exclusively fed breast milk. His physiological symptoms provided a source of many interpretations by his mother, baby nurse, and pediatrician. They were all trying to find a physiological, medical reason, rather than looking at Nino’s internal experience. If we interpret Nino’s milk spilling as an effort to rid him of negative internal experiences that were not contained by his caregivers, his behavior gains meaning. In the same way, his eczema can be understood as a somatic externalization of internal experiences, a lack of a protective parental envelope. The infant’s skin remains exposed to external and internal stimuli, which can invade the unprotected child. Nino’s colic, a symbol of an undigested raw feeling in the infant’s body that got stuck inside, could not be digested by the parent and returned to the infant in a more tolerable way.

3. Conclusion: Integrating theoretical concepts of the dyadic interaction with clinical material

Nino engaged his entire body, his skin, muscles and oral zone to stimulate and protect him from bad internal experiences. He was seeking a caregiver, a primary protective envelope that would hold him together to maintain homeostasis. In Bion’s terms a “container,” the caregiver’s “alpha function”, digests the infant’s bad experiences, which he defined as “beta elements”, due to the containing function of the caregiver the child can “digest” the emotional experiences in a lighter digestible way. In Nino’s case these “beta elements” manifested in expelling breast milk, his colic and eczema. The mother’s capacity to “contain” these “beta elements” and therefore provide meaning for the infant’s experience, make it possible for the infant to become a psychic being, an individual human.

In conclusion, through the support and capacity of the mother to transform raw and primitive anxieties, the infant is capable to establish an independent psychic reality. The mother’s capacity to contain and provide a protective envelope for the infant has consequences for the infant’s development of a primary ego, a “skin-ego.” This primary establishment of a psyche includes an internal representation of the primary object, the mother and the infant’s self. This mental development is paralleled in the neurological development, by looking at the area of the earliest postnatal myelination. This earliest myelination takes place in the corticolumbic areas presubiculum and neighboring presubiculum,
responsible for spacial navigation. The infant is predisposed to interact with his caretaker and build up a neurological foundation of this primary interaction. These psychological and neuroanatomical findings emphasize the quintessential importance of the early dyadic relationship's quality for the child's psychic and physiological development.

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Simone Setterberg, Researcher and PhD fellowship in perinatal mental health at Karolinska Institute, Department for Women's and Children's Health, Stockholm and fellow at Columbia University, College of Physicians and Surgeons, New York and psychoanalytic trained in parent infant psychotherapy at Columbia University Center for Psychoanalytic Training and Research. Worked as a psychotherapist in Shanghai, New York, and currently in Zurich and Stockholm. M.S. Psychotherapy (New York City University, 2015), M.A. Linguistics, M.S. in Psychology

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