<u>Implicit Knowing:</u> (Dan Stern: chp. 7, *The Present Moment*), Dec 11, 2007 This is an amalgamation and elaboration of our group discussion; TG

Our infant is born with a 400 gm brain. Our one year old has a 1000 gm brain. What are the tasks for this infant brain? A major task is to expand and practice emotions that are embodied in the evolving attachment processes of daily life. Few authors give a more luminous account of this than Dan Stern. By the end of the first year the baby/caregiver dyad have evolved ways of being that have created within the baby rudimentary qualities of how to be; how to be content, how to be distressed, how to love, how to be angry and afraid etc. (BCPSG, Schore etc.).

Dan Stern calls this way of relating to another and through another *implicit relational knowing*. This fundamental cognitive and emotional way of being in the first year of life functions without higher mentalization capacities (Fonagy et al.) and without the dynamic unconscious. The BCPSG feels that the cohesiveness (or lack thereof) of being within a relationship creates the "uhr" stamp of the personality, of who we are as infants and who we become as we grow up. The classical Freudian version is that much of the infant's existence consists of primary process functioning.

The neurophysiological correlates of the infant's psychological development are myriad. But it appears that myelinization and synapse building of pathways to the R PFC is central to many cognitive and emotional executive functions, including attention, intention, motivation, intuition, and emotionally centered cognition (Schore). The R PFC shows full activation by 12 months and appears to be fully myelinated by 15 months.

The BCPSG note that stress and conflict clearly exist in every baby and in the baby/caregiver dyad. Extreme stress is handled by dissociation. In the toddler we have been understanding this recently using Schore's hyperstimulation/hypostimulation paradigm. (Schore sees the hyperstimulating sympathetic branch of the ANS coming online between 10-14 months and the hypostimulating parasympathetic branch of the ANS coming on-line thereafter.) However, it may be that in the first year of life the infant's dissociation correlates to the most rudimentary mammalian memory system. This involves the fight/flee/freeze systems that probably access the amygdala and PAG and are the last vestiges of instincts (see nov discussion). These systems have the potential to condition the infant to fear, anger, and separation distress.

Implicit procedural memory asks the question "How to"?

Definitions of major memory systems have been created by memory investigators and have become a convention. The terms do not feel convivial to most analysts.

How to feel emotions, how to feel sensations, how to move an arm, how to balance on a leg.

Traditionally, implicit memory addresses motor procedures. In my private definition I am expanding it to include any *how to* process that implies action. It could be motoric action,

feeling action, thinking action, remembering action, fantasy action, and ultimately, language and music action. Of course, the underlying process of all these functions is neurobiological.

At the phenomenological, mental end of the spectrum, this translates in the mind to embodied functions like running, loving, hating, blocking out emotions, remembering the feelings of love and hate and the accompanying memories or fantasies.

We think that what Dan Stern means by implicit relational knowing is that in the first year of life the infant is learning how to feel many things but especially emotions and their "people connections" *implicitly*, that is *without awareness*. The infant lives in the "present moment" in a conscious or nonconscious realm that is growing, evolving, and reorganizing daily.

It may be that part of the difficulty in using the same word to describe procedural memory systems and mental activity is semantic. Perhaps we analysts need to find a term that describes this nonconscious/conscious activity of the mind without implicating procedural memory systems? Perhaps memory systems are in need of clarification? Perhaps we need to find an intermediate realm/system that translates implicit memory into the mental realm of implicit knowing much as we assign metaphor the function of transitioning and linking subsymbolic schemas (Bucci) with symbolic representations both ontogenetically and phylogenetically (Modell).

As the infant grows and evolves to the point of manifesting self reflective functions and narrative memory, we usually say he is *aware* of running, feeling loving or hating emotions, having ideas, and having memories or fantasies in different time contexts. That is the point in development when we talk of explicit declarative memory and might add the recontexualizing function (Modell).

Explicit memory asks the *what* question; what is it?

What is this round object? An apple, a ball, a curled up kitten, the sun, the moon, a jelly fish?

In first year of life, the infant is developing *recognition* memory for objects which seems not to require the hippocampus but are stored in the cortex. And our infant is developing very local and limited *spatial* "where is it" memory. *Recognition* memory is different from *recall* (autobiographical) memory.

In our discussion we remembered Jerry Stechler's use of **Babies** as a teaching paradigm.

The Freudian intrapsychic, *one mind* baby with primary process; Winnicott's relational mother-baby unit; the intersubjective baby who lives in the dyadic bond with the caretaker.

For Dan Stern and colleagues (BCPSG) one mind by itself does not exist. The baby and caregiver form a "dyad of two minds" (Stern).

We propose a neuropsychoanalytic baby, a composite all, with the addition of a neurodevelopmental underpinning and a neuroevolutionary perspective.

Vygotsky envisioned that *intermentalization* creates *intramentalization*. This accords with the BCPSG's perspective and is diametrically opposed to the classical Freudian perspective. Perhaps in our age it is necessary to have a both-and perspective. That will allow for both a "dyad of two minds" created in the intersubjective experience and for one mind and the private mind (Modell) and intrapsychic existence.