



## NOTES ON STERNS' INTERPERSONAL WORLD OF THE INFANT

### OVERVIEW:

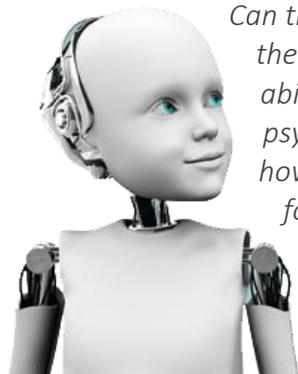
Daniel Stern observes three separate sets of over-arching questions in pages 41 - 161 of *The Interpersonal World of the Infant* (1984). One, the differing views of constructionist and transformative views of human development. Secondly, he addresses the stages of development at different ages of the infant. Thirdly, he introduces evidence for theories of transformative development. Agency, coherence, memory, and affectivity are pivotal invariants that contribute to a cohesive sense of self over time and helps the infant to abstract those experiences and stimuli that make up himself vs. those that are attributed to others and external stimuli. The discovery of self in continuity through long-term memory as a pathway to shared experience is especially poignant for us to understand this early stage of development.

### PERSONAL THOUGHTS & QUESTIONS:

*I find the **Interactions Fantasmatique** particularly interesting. French thinkers assert that mother's "meanings" reflect not only what she observes, but also her fantasies about who the infant is and is to become. Intersubjectivity, for them, ultimately involves interfantasy. This reciprocal fantasy interaction is a form of created interpersonal meaning at the covert level" (Stern, 134).*

*How does this fantasy continue to play out over the development of the child's lifetime? How do these unspoken, transmitted fantasies impact the child's own dreams and aspirations? Are these same IF's present in other relationships such as friendships, intimate relationships, or work relationships? How much of these transmissions depend on the 'transmittees' openness to the 'transmitters' fantasies? How much of the 'transmittees' openness depend on other factors developed in early infancy such as agency and trust built over time?*

### *Developing Ai from 'Infancy'*



*Can the space between traditional constructivist theories and non-traditional theories such as Stern's human-group-psychic-membership be bridged by abiding all at once? Is it possible that, infants are born with a core system of psychic abilities and constructivist-like concepts are simply an explanation of how the psychic and 'realistic' are integrated for the soul's survival in human form? Is it possible to develop a droid from infancy by finding connections between these two theoretical differences? Would we concern ourselves with the feedback loops between our own fantasmatique and that of infant Ai?*

## STAGES OF DEVELOPMENT BY AGE

### Birth to 2 months

Infant is in a pre-social, precognitive, preorganization life phase. Stern thinks this is where the process of formation and organization of *self* is taking place. They come equipped with the ability to occupy states of alert inactivity where they are able to take in external events (Wolf 1966) and the ability to discern the smell of mother's milk. They prefer looking at human faces to random objects in a room.

### 2 Months

Clear boundary, direct eye contact. More frequent smiles are reflective and infectious. Learning is inclusive. Sleep and activity cycles begin to stabilize. Parents and observers including Piaget, Sander, Spitz, Emde, Bazelton, Haith, Greenspan and Lourie, Bronson, et al. Physiological regulation and homeostasis. Eating, sleeping, etc. are accompanied by parents' social behaviors. Classical psych focuses in on physiological input as the prime source of its regulation where Stern's approach looks at the exchange of social behaviors as the primary source of physiological regulation. Stern believes the infant experiences both the process and result of the emerging self. Touch and vision are connected, and the passage of time can be sensed.

**Amodal Representation** is encoded into the infant's early development. Activation and hedonic tone come into play. Vitality affect can be distinguished between emotions. Infant experiences "forms of feeling" from within. (

### 3-4 months

Three features of causal structure available to infant: appreciation of relationships between events, ability to correlate intensity and behavior, spatial awareness and laws/consequences of behavior (Stern, 81). Here begins the ability to separate self and non-self-based acts attributed to self and those attributed to external environmental or non-self-acts.

### 4-6 months

Primary focus for child is having sense of experience with the other. Helps regulate levels of arousal. Overall experience of being with Dad, has a general quality.

The child can now also imagine being with Dad. (The evoked companion)

Sense of the subjective self -focused on how their inner subjective experience can be shared.

### 5-7 months

Infants have long-term recognition. They can remember a face they've only seen once for about a week's time. Around six months, infant show evidence of memory recall by demonstrating a cued response for the expected experience (Stern, p.92-93).

### 7-9 months

Infant discovers they have a mind and the other people have a mind as well and that experiences between the two [ ethereal machines] are shareable. Psychic intimacy and empathy is recognized. (Stern, p 124).

## 9-12 months+

Attunement-Ways in which the parent can tune in to the child's experience. Can be done through imitation and matching. The quality of the shared attunement is what makes it effective.

Changes in the intensity of the tone, pitch, temporal beat, rhythm-body motion matching. quality of attunement effects vitality affects.

Interaction between caregiver and child are opportunities for baby to "identify invariants that specify a core self ... and a core other" (Stern, p. 56). They look for feedback once they feel they've succeeded in games of expected experiences and attempt to openly communicate rather than influence communication or behavior (Stern, p. 129-131).

## IMPORTANT TERMS IN INFANT DEVELOPMENT

**Agency: authorship of action.** Includes three possible experiences - sense of volition preceding motor act, proprioceptive feedback not inherent in the act, and the predictability of consequences (p 76).

**Self-Coherence.** Features include Unity of locus, coherence of motion, temporal structure (matching sound and pace with source of stimuli), intensity of structure, and form

**Self-Affectivity:** infants older than about 2 months come to recognize various emotional outputs and the experiences and consequences associated with them. They can understand that certain kinds of experiences come with certain kinds of emotions (Stern, p. 90).

**Self-History.** Continuity of self-experience across time and memory associated with self as part of both the present and past and includes motor function recall. Perceptible changes in environment can interrupt speed and success of cued motor recall (Stern, p. 91).

**Episodic vs. Generalized Memory.** Infants can remember specific instances of episodes. They can also abstract and average several similar experiences over time to accrue a generalized memory of an experience or type of experience. These memories contribute to a sense of continuity attributed to the self. (Later mentioned as **RIGs:** Representations of Interactions that have been Generalized).

**Attachment and Being With.** Somatic state regulation in dramatic transformation is self-state that require the intervention of another to be successful. So, the infant must have some sense, not only of being separate from, but being *with* another. Infants can recognize not only the "I" but also the "we" (Stern, 104).

**RIG.** Representations of Interactions that have been Generalized. Different from theory of attachment in that RIGs are dynamic where attachment tend to be secure, less dynamic experiences.

**Evoked Companion.** The other person recognized as not the infant's self either in real time or in memory. The Evoked Companion, sensory and environmental stimuli associated with the EC can also cue certain emotional and motor responses in the infant. They are not restricted to any one past occurrence and serve as a guide to present and future occurrences (Stern, p. 112-115).

**Three Mental States of Interpersonal World.** Sharing joint attention, sharing intentions sharing affective states.