

# *The Carter–Jenkins Center presents*



# **Antal E. Solyom, MD, PhD, MA**

## **Lynchburg, VA**



# **INFANT PSYCHIATRY I.**

## **CLINICAL ASSESSMENT AND THEORETICAL CONSIDERATIONS OF THE AFFECTIVE DEVELOPMENT AND FUNCTIONING OF INFANTS (3 - 36 months of age)**

**Antal E. Solyom, MD, PhD, MA  
Lynchburg, VA**

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# OUTLINE

- **AFFECTS** and **AFFECT DEVELOPMENT** are grounded in biology
- **AFFECT EXPRESSION** by facial-vocal/verbal-motor behaviors is measurable
- **AFFECT BALANCE** = hedonic tone along the pleasure-unpleasure spectrum
- **AFFECT BALANCE** achieved by **AFFECT REGULATION** that aims at a **positive affect balance** (= the positive affects outweigh the negatives)
- **AFFECT REGULATION** determines **ATTACHMENTS, SELF-ESTEEM and PERSONALITY** development and functioning, but may **change** all of the above during the lifetime
- **ATTACHMENT, SELF-ESTEEM, PERSONALITY** guide **affect regulation**
- Certain **BEHAVIORS** may both **EXPRESS** and/or **REGULATE AFFECTS**

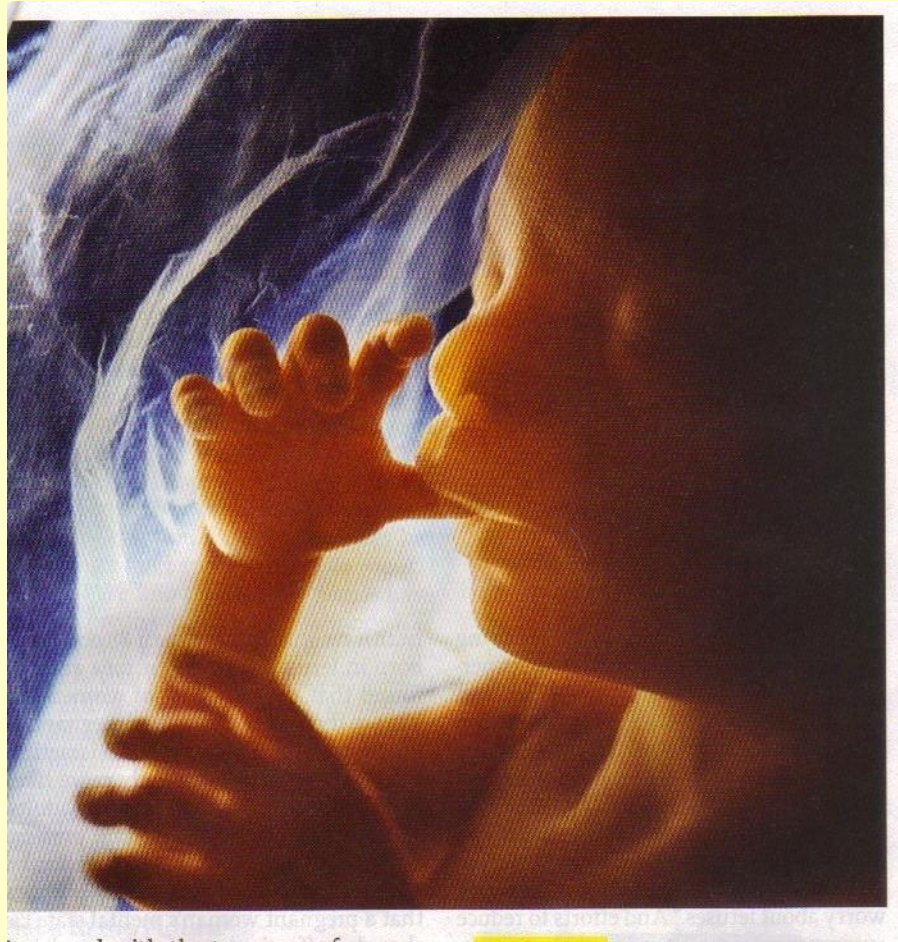
# PREAMBLE

## Infant Psychiatry starts here



# PREAMBLE

**Affect Regulation starts here**



# PREAMBLE

## AFFECT vs EMOTION

“affect” and “emotion” are often used interchangeably –  
which is erroneous and leads to confusion

“**affect**” is a scientifically **objectifiable** bio-behavioral state  
that has measurable hedonic tone and intensity/activation –  
**from the prenatal throughout the whole postnatal life**

“**emotion**” is a **subjective** experience of affect states that results from  
that level of brain and mental development when self-object  
differentiation makes it possible to reflect on one’s “feelings”–  
  
**this capacity develops in the postnatal life, but may be lost  
upon the deterioration of brain functions, like in severe brain  
injury or in Alzheimer’s dementia**

# CONCEPTUAL ASSUMPTIONS

## AFFECTS AND AFFECT DEVELOPMENT

- the newborn has no mind, only brain (= ego apparatus) that has perceptive and reactive potentials (visual, auditory, tactile, pain perception)
- the brain's developmental potentials depend
  1. on individual genetics and epi-genetics, and – for better or worse –
  2. on the influences of the care giving environment
- without adequate and specific stimuli certain neurological and mental functions (= ego functions) may not develop at all



## CONCEPTUAL ASSUMPTIONS

### AFFECTS AND AFFECT DEVELOPMENT

- in early infancy **there is no mind** (= psyche)
  - no psychology, no emotion –
  - but **there are affects** (= affect states)
- affective and cognitive functions of the mind (= ego functions) develop as part of brain development (= ego apparatus)
- **affects** and **cognition** are two sides of the same coin (Piaget)  
they are interwoven aspects of mental functions

# CONCEPTUAL ASSUMPTIONS

## AFFECTS AND AFFECT DEVELOPMENT

- affects are grounded in biology and observable objectively
- development manifests in the differentiation of affects that can be observed and categorized through the differentiated facial, vocal/verbal and motor behaviors
- specific affective responses in infancy
  - social smile, stranger distress, separation anxiety –
  - are the consequences and indicators of brain development and of the early stages of mental (= affective/cognitive) development

# **THEORETICAL FORMULATION**

## **AFFECT BALANCE**

**AFFECTS** constitute a **PLEASURE–UNPLEASURE SPECTRUM**

discrete affects have:

1. hedonic tone = positive or neutral or negative affects
2. intensity = high or medium or low

**AFFECT BALANCE** (= equilibrium = homeostasis)

- results from the blending of discrete affects
- may be positive, or neutral, or negative

and has:

1. hedonic tone on the **PLEASURE–UNPLEASURE SPECTRUM**
2. intensity depending on the intensity of the blending affects

**AFFECT BALANCE** is achieved by **AFFECT REGULATION**

PLEASURE - UNPLEASURE SPECTRUM  
(Hedonic tone)

POSITIVE  
AFFECT  
STATES

↑  
QUIET  
ALERTNESS

PLEASURE  
CURIOSITY

NEGATIVE  
AFFECT  
STATES

↓  
DIFFUSE  
TENSION

DISTRESS  
SADNESS  
ANGER

# CONCEPTUAL ASSUMPTIONS

## AFFECTS AND MENTAL DEVELOPMENT

- **definitions, functions and conceptualization of affects**  
bio-behavioral states (Spitz; Emde et al.)  
social signals (Stechler and Carpenter)  
intra-psychic signals (Freud)  
the trailblazers of development (Spitz)  
the language of (pre-verbal) infancy  
critical means of communication in the caregiver-infant relationship
- assessment of **affective and cognitive functioning** means the assessment of the **developing *mind (psyche)***, namely the assessment of the **mental health** of infants

## **Introduction to my research that follows (i.e., what I have learned from infants)**

I trained in child psychiatry at the Children's Psychiatric Hospital (CPH) of the Univ. of Michigan Medical School. Professor Humberto Nagera was the director of CPH, where he established a Child Analytic Study Program, and therein an Infant Study Program. Child psychiatrists learned about early development and about observational skills.

At the end of training, I joined the Infant Study Program led by Dr. George Greenman, pediatrician-psychoanalyst, who gave 10 hrs/week of his time to train child psychiatry fellows in the developmental assessment of infants during the first postnatal year .

I was interested in enriching the program's teaching and training functions and wanted to expand it to developmental and clinical research of affective development, and later to clinical service as well. With the support of Prof. Nagera, I was able to establish, in 1980, the first comprehensive academic Infant Psychiatry Program (IPP) in the country.

The research and clinical service components of the IPP required methods by which infants could systematically be assessed, particularly with regard to their affective functioning. The meticulously detailed monitoring of infants' affective functioning and the conceptualization of the data will be summarized in this presentation.

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## New psychiatry program helps infants

"People sometimes wonder what a psychiatrist can do for a child who's three weeks old—or three years old, for that matter," said Antal Solyom (Shoy-um), M.D., director of the Hospital's Infant Psychiatry Program. "But my answer," he said firmly, "is always the same: we can do quite a bit."

Solyom's program—believed to be the most comprehensive in the country—combines psychiatric research, training and treatment involving very young children. It emphasizes preventive psychiatry for infants at risk: newborns to three-year-olds who show signs of emotional disturbance.

"Young children, of course, can't tell their parents directly what's wrong," Dr. Solyom said, "but the problems they exhibit—trouble with sleeping, eating or language development, for example—can still offer a clue. We learn even more from our evaluation sessions where we watch parent and child together. We'll observe them in our office at Children's Psychiatric as a mother plays pat-a-cake with her child, at home as the parent feeds her child, or even at the child's day care center."

Although the clinical program itself, at four months old, is still in its infancy, Solyom is pleased with its success. As an example, he cites the case of a young woman who wanted her first child very much, but after only six



# **CLINICAL AND RESEARCH METHODS**

## **MICHIGAN INFANT AFFECT SCALES**

**(MIAS, Solyom et al., 1982 – based on the behavioral rating scales by Gaesbauer et al., 1979)**

### **POSITIVE affects**

**PLEASURE – enjoyment, joy, gratification, happiness**

**INTEREST – curious, expectant attention to person, object, activity**

**(doesn't require pleasure, but may mix with mild negative affects)**

### **NEGATIVE affects**

**DISTRESS – worry, fear, preoccupation, crying**

**(may be combined with anger and/or sadness)**

**SADNESS – letdown due to disappointment or loss, helplessness, despair**

**ANGER – hurt, frustration, dissatisfaction, protest**

**Yet, INTEREST and DISTRESS may be present concomitantly**



## **MIAS: CHARACTERIZATION of the DISCRETE AFFECTS**

Three **BEHAVIORAL MODALITIES** of expression are used for the **characterization** of and the determination of the **intensity** discrete affects:

(a) **FACIAL**, (b) **VOCAL/VERBAL**, (c) **MOTOR**

**Yet, BEHAVIORS ALONE DO NOT DEFINE AFFECTS:**

1. **crying**, as a behavior, could express discrete **sadness** or **distress** or **anger** –  
OR a combination of sadness and distress and anger –  
which can be determined by looking at the facial expression, vocalization and motor behaviors
2. **explorative activity**, as a behavior, could express **pleasure** or **interest**,  
OR the combination of pleasure and interest –  
which can be determined by facial, vocal and motor behaviors

## **MIAS: INTENSITY of AFFECT EXPRESSION**

**rated on 5-point scale at 10 second intervals – from videotape recording –  
by considering all three modalities of expression**  
(for each affect, 18 scores are averaged for rating a 3-minute observation)

**Example: PLEASURE**

**Scores = the intensity of affects from low to high**

**1 = absent**

**2 = low**      (a) transient happy facial expressions (bright face, mouth open)  
                  (b) single pleasurable utterance (vocal or verbal)  
                  (c) transient, mild movements

**3 = medium**

**4 = marked**

**5 = high**      (a) broad, sustained smile, happy laughing face  
                  (b) excited, sustained vocalization/verbalization, laughing sounds  
                  (c) very excited, animated, sustained movements

# CLINICAL APPLICATION of the MICHIGAN INFANT AFFECT SCALES (CAMIAS, Solyom et al., 1985)

once one has learned to **reliably rate the intensity (1→5) of discrete affects** using the MIAS – he/she has acquired the skill similar to recognizing **letters**, and then is able to read **words**, and later even **sentences**

the **CAMIAS is methods for “reading affect sentences”** – i.e., to process the observed affect expressions over a few minutes and **assign the predominant intensity of each affect** (e.g., during these 3 minutes PLEASURE level was 4)

while the **researcher may use the MIAS** for detailed recording the intensity of discrete affects, the **clinician may use CAMIAS to give a narrative account** of the infant’s affective functioning in specific situations of an examination

# **AFFECT EXPRESSION**

## **observational vignette**

**15-month-old infant** is with her mother in the examination room and slowly moves away from her to look at the toys in the room (visual and manipulative exploration): she **manifests a mildly positive affect balance** as her INTEREST (level 3) and PLEASURE (level 2) outweigh her DISTRESS (level 2) in the unfamiliar room –

when the examiner enters and verbally approaches her and her mother, she shows DISTRESS by a surprised then frightened facial expression, by distancing herself and finally by sucking her thumb:

she **manifests a markedly negative affect balance** as her DISTRESS (level 4) totally overrides her INTEREST (level 1) and PLEASURE (level 2) – PLEASURE is due to physical contact with her mother and by thumb-sucking

(NOTE: the positive affect now is passive PLEASURE, not active INTEREST)

# THEORETICAL FORMULATION

## AFFECT REGULATION

**thesis: affective functions are constantly regulated**  
(as all organisms aim at maintaining functional equilibrium)

**purpose: positive affect balance**

**mechanism:** 1. maintenance or reestablishment of positive affect states  
2. prevention or amelioration of negative affect states

**NOTE:** maintenance and prevention may depend on  
a/ the individual's capacities  
b/ external factors (persons, objects)

**means:** a/ SOMATIC (biochemical processes in the brain)  
b/ **BEHAVIORAL** (solitary and/or social)  
c/ PSYCHOLOGICAL (cognitive and/or language)  
[the latter are the domains of the Affective System]

# THEORETICAL AND RESEARCH METHODS

## AFFECT REGULATORY BEHAVIORS IN INFANCY

(ARBI, Solyom, 1984)

**MEANS OF REGULATION** may be grouped into four categories of behaviors – 10 behaviors in each category are rated on a 5-point prevalence scale (% of time)

1. **ACTIVITY:** visual exploration, avoidance, motor activity, posture, search for object, manipulative exploration, mastery, play, etc.
2. **SELF-RELATED:** thumb-sucking, pacifier, self-feeding, rubbing self, using transitional object, self-entertainment, sleep, etc.
3. **PARENT-RELATED:** visual referencing, proximity seeking, contact, asking for help, interaction, physical or mental search for parent, etc.
4. **EXAMINER-RELATED:** same as parent-related

**NOTE:** a/ **the same behavior may both EXPRESS and REGULATE affects**  
(avoidance or thumb-sucking expresses and ameliorates DISTRESS)

b/ **many behaviors are precursors of psychological defense mechanisms**

# **AFFECT REGULATION**

## **observational vignette**

**15 mo/o infant has a positive affect balance** as her **INTEREST** in toys outweighs her **DISTRESS** in the unfamiliar examination room when alone with her mother

when the examiner enters she shows a marked shift to a **negative affect balance**, as her **DISTRESS** totally overrides her **INTEREST**, and now the goal is to **RESTORE a POSITIVE AFFECT BALANCE**

first, uses avoidance by turning away and distancing herself from the examiner, then, she seeks proximity to her mother, and proceeds making physical contact with her mother, and finally also sucks her thumb –

she reaches **a new affect balance** that is **still negative**, but more tolerable

[by the avoidance, distancing from the examiner, and proximity to mother her **DISTRESS** lessens, while the contact with mother and the thumb-sucking lead to **PLEASURE** that counterbalances it]

(continued)

since the presence of the strange examiner still causes some **DISTRESS** that prevents her from returning to the exploration of the toys, **additional affect regulation is needed to RESTORE a POSITIVE AFFECT BALANCE**

the **empathic mother** recognizes that the infant is unable to reduce her **DISTRESS**, she – as the auxiliary ego – verbalizes interest in and moves closer to and picks up toys (= modeling), thereby also demonstrates to her infant that the examiner represents no danger

the infant **accepts help** from her mother (= external affect regulator) to re-kindle the positive affect of **INTEREST** by **visual and manipulative exploration** of toys

these regulatory behaviors intensify her **INTEREST** and lessen her **DISTRESS**, thereby lead to a **POSITIVE AFFECT BALANCE**

[there is a blending of the positive and negative affects, but **INTEREST** outweighs **DISTRESS**]



# **THEORETICAL FORMULATION**

## **THE AFFECTIVE SYSTEM**

**(an integrative concept – Solyom, 1982)**

- **The Affective System conceptually integrates all those capacities and functions (perceptual, cognitive, language, neuromuscular) that may play a role in affect expression, affect regulation, affective ties (attachment).**
- **It has three domains:**
  1. **somatic: neuro-chemical, neuro-physiologic, neuro-endocrine processes**
  2. **behavioral: solitary behaviors and social interactions**
  3. **psychological: cognitive and language functions**

### **NOTE:**

**the newborn has only the somatic and behavioral domains, but by 6 months the traces of the psychological domain may appear, indicating the beginnings of self-object differentiation with the traces of self awareness and of affective ties (= object relations or attachments)**

# THE AFFECTIVE SYSTEM

– in the context of psychoanalytic theory –

- **Affects are observable from the pre-representational, pre-psychological stages of brain development – when only the somatic domain (= ego apparatus) and the behavioral domain (= ego functions) of the Affective System exist.**
- **If drives were to be thought of strictly as psychological forces (per Brenner), not as somatic needs, there would be no drives to be considered before the psychological domain (= ego functions) of the Affective System become evident.**
- **Once positive affective ties (= cathexis) to the mental representations of persons, Self and others develop, those may become the sources of wishes (= libidinal drive derivatives), while negative affective experiences cause aversion (= aggressive drive derivatives).**

## CLINICAL AND RESEARCH METHODS

### INFANT CLINICAL ASSESSMENT PROCEDURE (ICAP)

(Solyom, 1980)

Incorporates elements of the Strange Situation paradigm (Ainsworth et al., 1978)

- **clinical and research tool** for the systematic longitudinal assessment of the affective, cognitive and motor development and functioning (3 – 36 months)
- **structured assessment** – like the medical physical examination – if performed repeatedly, it provides comparable data on affective and cognitive functioning for developmental, clinical and research purposes
- **the focus is on the infant's affect expressions and affect regulation** – as observable in facial, motor and vocal behaviors –
- **the infant is evaluated in the context of his/her relationship with the caregiver (parent)**, since the infant's affect states may depend on it

**The 8 episodes of ICAP represent a variety of  
affective and cognitive and social stimuli**

**examination room is like a playroom or living room, but equipped with  
a one-way mirror for videotaping and observation**

**infant (I)** is in the **crib** before the age of independent walking,  
but on the **carpeted floor** once able to walk independently –  
in both situations there are toys available to the infant

**parent (P)** sits along the wall directly visible to the infant

**examiner (E)**, when not directly interacting with the infant, sits along the wall

# INFANT CLINICAL ASSESSMENT PROCEDURE (ICAP) OUTLINE

**Examiner** meets **Parent** and **Infant** and ushers them to the examination room

- |                |   |             |
|----------------|---|-------------|
| 1. (5 min)     | – <u>free play</u>  | P + I       |
| 2. (3 min)     | – <u>reaction to the examiner</u>                             | P + I + E   |
| 3. (3 min)     | – <u>Parent - Infant interaction</u>                          | P + I + (E) |
| 4. (20-30 min) | – <u>Examiner - Infant interaction: developmental testing</u> | E + I + (P) |
| 5. (3 min)     | – <u>free play</u> (comparison with Episode 1)                | P + I + (E) |
| 6. (3 min)     | – <u>separation from parent</u>                               | I + E       |
| 7. (3 min)     | – <u>reunion with parent</u>                                  | P + I + (E) |
| 8. (5 min)     | – <u>physical contact by the examiner with infant</u>         | E + I + (P) |

**NOTE:** the episodes are not constrained by timing them with a stop watch

**Examiner** briefly summarizes the findings and answers questions (total: 70-80 min)

# ICAP episodes

**E meets P and I in the waiting room and hands over written instructions as to what to do during the assessment process –**

## **1. FREE PLAY (5 min)**

**E introduces P and I to the examination room and leaves them alone – initially, I is to explore independently, but P may point out toys to look at, later, P gets directly involved in exploring and playing cooperatively with I –**  
**Question: affective and cognitive abilities for independent and cooperative exploration and play? – impression of the I–P relationship?**

## **2. RECTION to the EXAMINER (3 min)**

**E enters, and talks to I and P while slowly moving towards them, then sits down and encourages continued free play as a silent observer –**  
**Question: is there stranger anxiety?**

# ICAP episodes

## 3. PARENT – INFANT INTERACTION (3 min)

**E** instructs **P** to play interactively with **I** using cubes and a cup:

the task is to put cubes into the cup, then build towers and trains –

[in the crib, on a tabletop in front of the seated **I**, while **P** at the side  
on the floor, they both sit on the opposite side of a small table]

note: the particular task is adjusted to the infant's age or developmental level

**E** sits and observes

Question: more aspects of the **I–P relationship?**

## 4. DEVELOPMENTAL TESTING and INTERACTION with EXAMINER

(20 - 30 min)

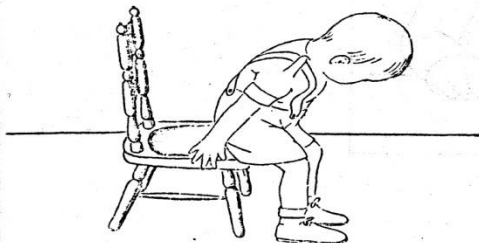
**E** takes the place of **P** and administers the test items

[according the Mental Scales of the Bailey Scales of Infant Development]

Question: cognitive and fine motor abilities?  
affective and social responsiveness to E?



1. Walks alone; seldom falls



2. Seats self in small chair



3. Turns pages two or three at a time



4. Builds tower of three



5. Fills cup with cubes



6. Dumps pellet from bottle



7. Imitates stroke



8. Identifies one picture



#### **4. DEVELOPMENTAL TESTING** **observational vignette regarding** **AFFECT REGULATION**

**15 month old infant** facing the examiner over a table to work with the test items for affect regulation, she holds a **“security blanket”** for sufficient PLEASURE to counterbalance her DISTRESS about the unfamiliar challenges while distanced from mother – she also uses **referencing** (glancing at mother) for affect regulation: this way she has a **mildly positive affect balance** (so as to be able to “take the test”) while working with the pegs and peg-board, the **mastery of the task** increases the intensity of INTEREST so much that she lets go of the “security blanket”

[she does not need the “security blanket” for PLEASURE, neither does she need the referencing to regulate DISTRESS]

**by her own mastery activity she is able to achieve a high positive affect balance** which she would like to maintain by continuing the mastery activity –

## **observational vignette regarding AFFECT REGULATION (continued)**

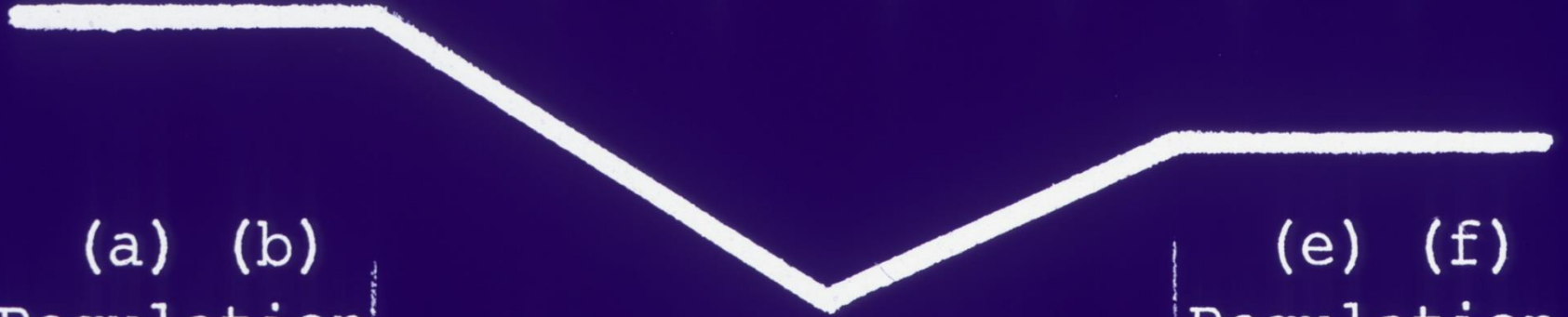
however, upon finishing this test, the examiner removes the pegs and peg-board – the infant reacts with whiney protestation expressing ANGER and DISTRESS: she **has lost the affect regulatory behavior that maintained positive affect balance –**

having, again, a **negative affect balance**, she picks up the “security blanket,” and strokes her face with it which generates enough PLEASURE to **re-establish a mildly positive affect balance by her own affect regulatory activity** that enables her to look at what the examiner will bring to the table:

visual exploration generates INTEREST and upon receiving the next item, a baby doll, she grabs it with both hands and experiences so much PLEASURE and INTEREST that she lets the “security blanket” drop to the floor, again!

**by her visual and manipulative exploration and play with the baby doll, she generates such robust positive affect balance on her own that she does not need the “security blanket” for affect regulation**

STIMULUS INTRODUCED & MAINTAINED



(a) (b)  
Regulation

(e) (f)  
Regulation

(c) (d) (e) (f)  
New Regulation

STEADY  
STATE

PERTURBATION

NEW  
STEADY  
STATE

ADDED REGULATION



(a) (b)  
Regulation

(c) (d) (a) (b)  
New Regulation

(c) (d)  
Regulation

STEADY  
STATE

PERTURBATION

NEW  
STEADY  
STATE

LOSS OF REGULATION



(a) (b)  
Regulation

(c) (d)  
Regulation

(a) (c) (d)  
New Regulation

STEADY  
STATE

PERTURBATION

NEW  
STEADY  
STATE

# ICAP episodes

## 5. FREE PLAY (3 min)

**I and P** spontaneous activities of

**E** sits and observes

**Question:** affective and cognitive abilities of independent and cooperative exploration and play in the context of the familiar environment? – comparison with Episode 1?

## 6. SEPARATION from PARENT (3 min)

**P** leaves the room while telling **I** that she will come back shortly

**E** sits and observes, but responds to and/or reassures **I** that **P** will return, and may even get up and try to engage **I** in exploring or playing with toys

**Question:** is there separation anxiety?

# ICAP episodes

## 7. REUNION with PARENT (3 min)

**P** enters, greets **I**, sits down and lets **I** initiate physical contact

**E** sits and observes

Question: affective reaction to the return of **P**?

## 8. PHYSICAL CONTACT by the EXAMINER with the INFANT (5 min)

**E** performs neuromuscular screening (also weighs **I** if crib-aged)

**P** may assist, if necessary

[The screening follows that in Developmental Diagnosis by Gesell and Amatruda.]

Question: gross motor abilities and reflexes, and responsiveness to **E**

# INFANT CLINICAL ASSESSMENT PROCEDURE (ICAP) with the MICHIGAN INFANT AFFECT SCALES (MIAS)

EXAMPLE: Patterns of Change in PLEASURE and DISTRESS ratio

## 12 months

Episode	5 – free play	3.1	2.6	1.2
	6 – <b>separation</b>	<b>1.9</b>	<b>3.1</b>	<b>0.6</b>
	7 – reunion	2.1	2.5	0.8

## 18 months

Episode	5 – free play	3.2	1.3	2.5
	6 – <b>separation</b>	<b>1.3</b>	<b>4.4</b>	<b>0.3</b>
	7 – reunion	2.1	3.1	0.7

## 24 months

Episode	5 – free play	2.9	2.6	1.1
	6 – <b>separation</b>	<b>2.3</b>	<b>3.6</b>	<b>0.6</b>
	7 – reunion	2.2	2.6	0.8



# The Use of ICAP in Clinical Practice

- assessing the infant's **affective, cognitive, motor functioning** (=ego development)
- assessing the infant's **attachment to the caregiver** (= object relations), as well as the individual **sense of self** (= self-object differentiation)
- assessment of **parental attitudes** during the Parent-Infant Task (Episode 3) using the **Parental Task Facilitation** (PTF) scale that rates parent behaviors: modeling, cooperation, interference, controlling and non-involvement
- **interpreting for the parent** the relevant observations and conclusions about the infant's behaviors (less than 3-year-old child):  
how to interpret and understand the expression and regulation of affects, as well as the ways the parent might help those, if necessary

(NOTE: “under 3 years” is not a chronological, but developments category, as it includes those who function at that developmental level.)

## THEORETICAL FORMULATION

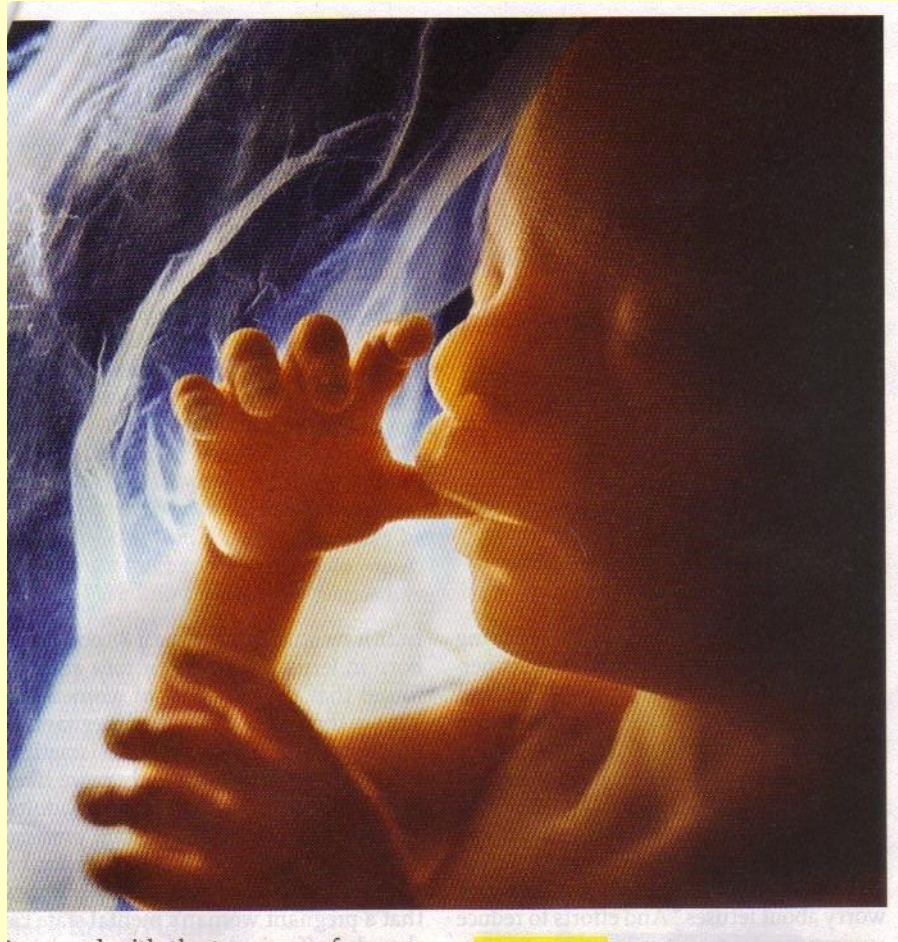
### AFFECT–BALANCE PRINCIPLE (Solyom, 1984)

the above described observations and systematic research show the importance of **AFFECT REGULATION** for the achievement and maintenance of a **positive affect balance** – (i.e., a positive hedonic tone, but not PLEASURE *per se*)

that led me to the postulation of the **Affect-Balance Principle** that

- corresponds to **brain development** (= ego apparatus) and to the **development of affect regulation** (= a fundamental ego function) from the time that the **fetus becomes sentient** (= may perceive pain or stress)
- points to the **basic need** of controlling affect states (= **affective homeostasis**)

# **Affect Regulation and the Affect-Balance Principle start here**



## The **Affect-Balance Principle** postulates that it

- **governs the behaviors of infants *via* affect regulatory behaviors** of the caregivers and of the infant
- determines the development of affect-linked **memory traces** and then the **mental representations** of Self, other persons, inanimate objects, own body parts and activities based on their **affect regulatory functions**
- offers a **testable explanation of attachments** — including the type, quality, changes and disorders of attachments, and for the treatment of the attachment disorders
- has **diagnostic and therapeutic benefit** by considering that an anxious and/or depressive emotional state of a patient may be the consequence of the loss of an important affect regulator (own functional capacity, another person, object or activity)

# **Affect Regulation and Attachment**

**MY THEORY OF ATTACHMENT** (Solyom, 1984)

**is based on the Affect-Balance Principle**

**as its underlying and explanatory mechanism and definition:**

**THE INFANT'S EXPERIENCE WITH AFFECT REGULATION**

**determines the development of an attachment**

**to the mental representation of**

**persons, parts of persons, Self, own body parts and activities,**

**inanimate objects,**

**(not just to the mental representation of the mother!)**

# Attachment theories

**The classical theory of attachment by Bowlby (1969) postulates that the**

**(1) infant's innate biological tendency is to seek safety, security and protection –**  
**(this is vague and not measurable, particularly in the early postnatal months)**

**my theory states that the**

**infant's (even the fetus') innate biological need is to seek positive affect balance**

**(2) infant, as a social creature, initiates relationship with the caregiver –**

**my theory states that the**

**a/ infant does not initiate relationship but expresses her affect state**

**b/ develops relationship with the caregiver only if the caregiver proves to be**

**c/ an effective and reliable affect regulator – in the infant's experience –**

**by maintaining her positive affect balance**

# Attachment theories

**The theory by Ainsworth et al. (1978) – based on Bowlby's theory –**

- **conceptualizes a “secure base” by which the mother provides the needed safety, security and protection -**
- **the Strange Situation paradigm – involving infants of about 1 year of age – serves to characterize the different types of attachments**
- **maternal attunement (= response) determines the quality of the “secure base,” i.e., determines the type of the attachment to the mother: secure or insecure – (the latter may be avoidant, ambivalent or disorganized)**

**My theory states that the**

- **“secure base” is where the infant reliably experiences a positive affect balance –**
- **the quality and effectiveness of the maternal attunement in providing a “secure base” depends on the infant's subjective experience**

# **Affect-Balance Principle vs. Attachment**

**– typical generic observations –**

- the few months old infant **repeatedly experiences** over a period of time that when she is in negative affect states it is her mother who consistently and effectively relieves her from the distress, pain, etc –

the process of a **secure attachment is underway:**

the infant starts to **look for mother** to provide such relief when it is needed –

- the 2-3 years old infant (toddler) is in some cooperative play with peers
  - while the adult relatives socialize at some distance –
  - but suddenly gets upset (= frightened, angry) about something and cries in **DISTRESS** and/or **ANGER** –

she looks for and runs to the person among the adults who would most likely and effectively relieve the negative affective experience:

**who has been experienced** so far to be the **best affect regulator** among those present, toward whom the securest, strongest **attachment has developed**



# **Affect-Balance Principle vs. Attachment**

## **Case of Katy, 4-month-old – repeated early traumas**

**Katy progressed well in her early development. Her mother was pleased by her calm nature, but concerned about her 4-year-old brother's aggressive behavior toward her. When mother stepped out of the room, he often hit Katy right in the head, threw toys at her, or tried crash into her with his 4-wheeler. In her fright, Katy cried intensely which made mother rush in and pick her up to console her.**

**When seen at 4 month of age, she was calm, alert and curious in her mother's arms. However, soon after she was placed in the crib and looked at the items the examiner presented to her, she became distressed and cried, so mother had to console her. In a sequence of repeated intense distress responses only the mother's holding helped: it stopped the crying instantaneously. Once in mother's arms and could see her face, she was able to look around and even smiled at the examiner.**

**Thus, when the test items were presented to her in the crib she was not distressed by what she saw, but by what she did not see (i.e., lost contact with): her mother!**

## **Case of Katy , 4-month-old (continued)**

**Katy's distress was precocious *Stranger Anxiety* (eight-month anxiety – Spitz)**

- **a measure of brain development evident in cognitive and affective functions,**
- **a measure of the developing attachment to the mother.**

**The early repeated traumatic experiences in the absence of mother accelerated Ego development, including the self–object differentiation. As her reliance on mother for affect regulation increased, so did the intensity of her attachment: **affect regulation and attachment went hand-in-hand.****

**Katy's stranger distress remained intense through 10 months of age: being held by her mother was necessary to re-establish a positive affect balance. By 12 months, as she sat at the table during testing, she held her “security blanket” and when her distress increased she also sucked her thumb and/or looked at her mother – no physical contact was needed.**

**Her **anxious insecure attachment** would have bearing on her **sense of self**, too. Yet, future experiences with affect regulation **may change the quality of her attachment**, as well as **her self-esteem** later in her childhood or adulthood.**

# **The Caregiver as Affect Regulator may Determine the Quality of Attachment**

- **promotes** affect regulation → **secure** attachment
  1. interactions with the infant generate or maintain positive affect states
  2. responding to infant so as to ameliorate or eliminate negative affect states  
(these may mean empathic reciprocity or emotional availability)
- **fails to promote** affect regulation → **ambivalent/anxious attm**
  1. withdrawing from interactions that generate or maintain positive affects
  2. not responding appropriately to or ignoring the infant's negative affects  
(these may be empathic failures or emotional unavailability)
- **interferes** with affect regulation → **avoidant/disorganized attm**
  1. responding in a non-contingent or controlling way to the infant's activity
  2. removing or prohibiting the means of the infant's own affect regulation  
(these may be empathic failures or emotional unavailability)

# The Infant's Experience with Affect Regulation Determines Attachment to Caregiver

- the quality of attachment may be **secure** (65%) or **insecure** (35%)
- the **insecure attachment** may be
  - ambivalent/anxious:** experiences caregiver as inconsistently reliable
  - avoidant/anxious:** experiences caregiver as rejecting – not an affect regulator
  - disorganized:** experiences caregiver as confusing and/or abusive
- there may be an **aversion** instead of attachment –
- **once secure attachment has developed** to somebody or something, it will be **preferentially used for affect regulation** (e.g., caregiver, thumb-sucking, inanimate objects)
- the **“attachment behaviors”** (proximity, contact seeking, communication) are **affect regulatory behaviors**

# **The Atypical Infant has Atypical Experiences with Affect Regulation and has Atypical Attachments**

**The key to this definition of attachment is the infant's experience**

- the infant's subjective **experience** –
  1. if the infant was **not able to experience** somebody or something as an affect regulator, no attachment would develop
  2. if the infant **experienced the affect regulator** in a distorted way, the attachment would be distorted (insecure)
- the infant may develop **attachment to others than the caregiver**, if she **experiences other means of affect regulation reliable and effective**:
  1. people: siblings, relatives, peers
  2. activities: exploration, mastery, playing
  3. self: physical self-soothing, self-feeding, falling asleep, self-entertainment, use of transitional object

(continued)

- an infant may have **limited or compromised affect regulatory experience with some external affect stimuli**, because of anatomical anomalies, damages, or neuro-chemical and neuro-physiological dysfunctions, or chronic pain
- since an **atypical infant** also has the need to experience a positive affect balance, his/her **affect regulation and attachments will be atypical, too** – such are the infants suffering from autistic spectrum disorders, or traumatized by repeated painful experiences due to corrective medical interventions, etc.
- such limiting conditions **interfere with the caregiver being experienced as affect regulator**, i.e., interfere with the development of secure (or even insecure) attachment to the caregiver  
(some such attachment disorders may look as if caused by the caregiver)

# **Affect-Balance Principle vs. Attachment**

## **Case of David, 4-years-old – an autistic child**

**David was referred for psychiatric consultation for the management of his behaviors. He had no words or any other means to communicate with anybody. He seemed to live in his own world. His stereotypic activities seemed aimless and were incomprehensible even to his parents. They often isolated him in a cage, as if he was an animal.**

**I examined him using the ICAP. It was immediately evident that he had no attachment to his mother. He completely ignored her, without evidence of avoidance, and didn't even notice when she left the room. He showed interest only in the inanimate objects in my office.**

**I noticed, however, that he carried a tennis shoe in his hand, in addition to the ones he had on his feet. For brief periods – while he handled a new object with both hands – he relinquished the special shoe.**

**(It was like the 15-month-old girl dropping her security blanket while performing test items that served as affect regulator that improved her affect balance.)**

## **Case of David, 4-years-old – an autistic child (continued)**

**In a given moment, when he put down that shoe to attend to and explore other objects, I picked it up and hid it behind my back. When he reached for it and couldn't find it, he “exploded” into panic-like intense agitation. He seemed desperate in his search for it. He soon figured it out that I had made his shoe disappear and kept it behind my back.**

**He got into a purposefully personal and aggressive physical fight with me. He hit me and tried to overpower me just to get his shoe back. There was no let-down in in his determination: he seemed totally committed to the shoe, as if he couldn't live without it! He continued to ignore and didn't turn to his mother in his distress!**

**When, finally, I gave the shoe back to him, he immediately relaxed. I was of no further interest to him. He didn't show any animosity toward me, continued his activities and didn't want to leave.**



## **Case of David, 4-years-old – an autistic child (continued)**

### **Interpretation**

- **autistic children do have affectivity and need for affects regulation, and thus, the affect-balance principle applies to their behaviors as well**
- **autistic children develop attachments, too, if they experience something as a reliable affect regulator – as David showed strong attachment to his tennis shoe**
- **they experience inanimate objects and simple activities as affect regulators, because they can control those for their own affective benefits**
- **their brain pathology prevents them from experiencing human interactions as affect regulators, probably because those are distressingly complex stimuli**
- **parent and therapists may be able to help them in reaching and maintaining positive affect balance by understanding and guiding the autistic child's affect regulatory activities – and thereby foster a slowly developing attachment – but when those are blocked or interfered with the affect balance turns negative – and thereby foster aversion, instead of attachment**

# Conclusion

- **AFFECT BALANCE** is a basic need achieved by **AFFECT REGULATION**
- **AFFECT REGULATION** ↔ **ATTACHMENTS** and **SELF-ESTEEM**
- **AFFECT REGULATION** ↔ **PERSONALITY DEVELOPMENT**
- **AFFECT-BALANCE PRINCIPLE** governs the early development of and later changes in **attachments** and **self-esteem** which are important building blocks of an individual's **personality development** (relationships, self-regulation, coping)
- **CLINICAL APPLICATION OF AFFECT-BALANCE PRINCIPLE** means to look at **behaviors** in order to **understand the affective dynamics**:
  - a/ for the **affects they express** and/or **regulate**
  - b/ **not for clinical problems** the behaviors represent
  - c/ **not as problem behaviors** are to be corrected

**In the next lecture we'll continue with the**  
**CLINICAL APPLICATION OF THE AFFECT-BALANCE PRINCIPLE**

**Thank you for your attention.**

# **INFANT PSYCHIATRY I.**

## **CLINICAL ASSESSMENT AND THEORETICAL CONSIDERATIONS OF THE AFFECTIVE DEVELOPMENT AND FUNCTIONING OF INFANTS (3 - 36 months of age)**

**Antal E. Solyom, MD, PhD, MA  
Lynchburg, VA**

**Carter–Jenkins Center**

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