



International Child Development Programme



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**“Why Hopes of Children Matter and Make Sense,  
For Them and for Us”**

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## I -- AGE-RELATED CHANGES IN MOTIVES FOR COMPANIONSHIP IN MEANING

### **The Apple in Eden: How Do We Share Meaning Before Words?**

Infant psychology teaches us that *knowledge is shared creativity in the experience of being alive.*

We are born to live in a cultural world of actions, beliefs and material creations, *all beginning as works of imitative art, sensing bodies in movement, together.*

Titian - “The Fall of Adam” This remarkable painting shows Eve happily taking the fruit of the tree of knowledge from a child. Adam appears concerned and is making a cautioning gesture.

Cultural knowledge and skills begin in *how we move together, and are learned with aesthetic feeling, and moral sensibility, in ‘musicality’.*

A proud, healthy family in a remote forest in Canada. Sampson and Leah Beaver with their daughter Frances Louise in 1907. As Blackfoot Indians they lived with little technical culture, not even using canoes. They are close to nature, rich in art, and very fit.

"Culture is activity of thought, and **receptiveness to beauty and humane feeling.** Scraps of information have nothing to do with it." Whitehead, A. N. (1929). *The Aims of Education & Other Essays*, (New York: Macmillan).

Young children, under school age, are eager to take part in creating, learning and evaluating meaning, as long as it is part of **life in companionship** -- that is, when it is performing actions that are **shared joyfully**, making things that others think are **useful, interesting and beautiful.** Children gain knowledge in different social worlds, by ‘collaborative learning’, helping to make imaginary and meaningful things in companionship with good teachers, those who share intentions and ideas generously.

*The Cultural Nature of Human Development*, by Barbara Rogoff, Prof. of Child Development, at UC Santa Cruz in California.

**Age-Related Developments in Body and Mind.** In the first 18 months after birth, advances in **communication** and **self-awareness**, and **learned meaning**, are related to developments in the body, in ***motives and emotions for movement***, and also to changes in ***perceiving, knowing and memory***. The ‘grasp’ of the mind is growing, with new ‘plans for activity’, and new friends are found. *The growth of a creative human cultural intelligence needs not ‘stimulation’, but the appreciation of sympathetic human company to share experiences, and help them intend and experience, with pride*

**Co-operative  
Awareness &  
Meaningful  
Tasks**

After 9 months



**Ritual Games &  
Pretence**

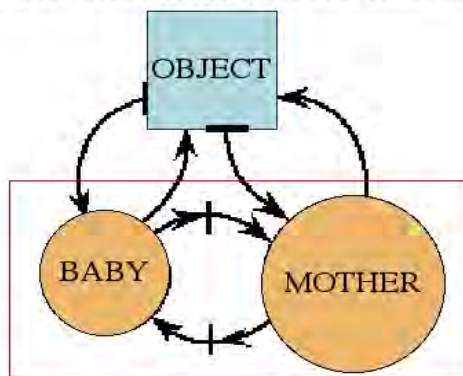
After 3 months



**Proto-conversations  
With Musicality**

Birth to 3 months

**Joint Attention (shared interest)**



**Mutual Attention (feeling for and with the other)**

SECONDARY INTERSUBJECTIVITY, easy person-person-object co-operation. The parent accompanies and teaches the baby, sharing the invented values, uses and meanings of things, in companionship. Trevarthen & Hubley, 1978; Hubley & Trevarthen. 1979.

**Imaginative Meaning Is Shared Before School** In early childhood knowledge is gained by *sharing make-believe*. Technology, science and mathematics strive to measure and master the material world by being free of sentiment and fantasy. They are *conventional products of romantic imagination*. However disciplined by rules to give stable definition to our collective experience of the time and space of our experience, they can begin only in *how human bodies, with their extravagant motility, move, know and share emotions together, with aesthetic feeling for what is creative and harmonious, and for good or evil in relationships which make cooperation possible*.

**STAGES OF EXPERIENCE, RELATIONSHIPS  
AND EDUCATION, TO SCHOOL AGE**

**Whitehead (1929)**  
(Creativity & Cooperation)

**Romance**

**Discipline**

**Generalization**

**Erickson (1950)**  
(Ego Development  
Emotions in Relationships)

**Trust**  
v Mistrust

**Autonomy**  
v Shame & Doubt

**Initiative**  
v Guilt

**Industry**  
v Inferiority

**Piaget (1947)**  
(Cognitive)

**Sensory-Motor**

**Pre-Operational**

**Concrete Formal**

**Bruner (1968)**  
(Cognitive Representation)

**Enactive**

**Iconic**

**Symbolic**

**Donaldson (1999)**  
(Modes, of Mind,  
Loci of Concern)  
Intellect & Emotion

**Point**  
(Here & Now)

**Line**  
(There & Then)

**Construct**  
(Anywhere Anytime)

**Transcendent**  
(Nowhere)

A newborn infant may look and listen with innocent concentration for confirmation of human expressions, already building knowledge of others' being *in SYMPATHETIC INTIMACY*. The process of shared consciousness and story-making advances rapidly, *from the 'ritual courtesy' of PROTOCONVERSATIONS, to the teasing fun of GAMES, then to COOPERATION IN TASKS and 'ACTS OF MEANING'* by which a common sense world learns to name its objects and actions with words. Natural *intimate language and play* becomes artificial *informative language and practical skills*

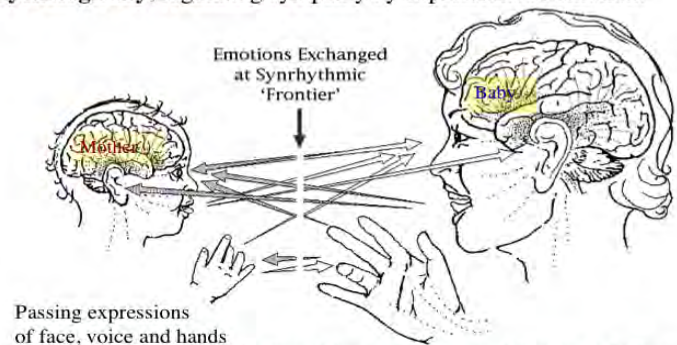
A newborn in Hyderabad, 1/2 hour old, is coordinated, alert and aware. He is eagerly tracking a lively ball because **someone is moving it in a 'game'**, teasing him.

MOTHER AND BABY READY FOR A CHAT Newborn Shamini and her Mother, Vasu (Prof. Vasudevi Reddy, Department of Psychology, Portsmouth University). At 30 mins. old, Shamini imitates mouth opening and tongue protrusion

NEONATAL IMITATION IS FOR TWO: Research of Dr. Emese Nagy in Szeged, Hungary, with Newborns. They can be **provocative** in a dialogue of imitations regulated by **their** interest, determination and pleasure.

IN EARLY WEEKS A BABY SEEKS INTIMATE CHATS. At 7 weeks Téa is very interested in communicating.

**SYNRHYTHMIC REGULATION:** Mother and infant can communicate **psychologically**, regulating sympathy by expressions of emotion.



**Telling and acting out stories with emotion, listening to thoughts and imitating actions is how humans learn -- in shared vitality and awareness.**

**Laura**, at 6 weeks, starts to chat with her Mother, **Kay**, at Edinburgh University. She pays attention, smiles, coos and waves her right hand.

THE PERIOD OF GAMES, IN WHICH THE BABY ENJOYS TEASING AND SHOWING OFF After 3 months, a baby quickly becomes stronger, more curious, eager to look at surroundings, and to grasp and manipulate things. There is a growing tension between doing something for oneself, or with others -- and this makes for **self-consciousness, teasing and fun, and invention of games**.

This is why the infant begins to find mirrors interesting -- they tease expectations of communication. Vasudevi Reddy has studied 4-month-old babies' 'coyness' in front of the mirror. This began her interest in 'other awareness'. She has published an important book, "How Infants Know Minds" Harvard University Press, 2008.

A mother and all the family become more lively. They start playing **rhythmic body games**, and enjoy **music, songs and dancing** which become part of the fun of their life together. They are sharing their **special rituals and dramas**, feeling them intimately in their bodies and minds, and remembering them in a **'proto-culture'**.

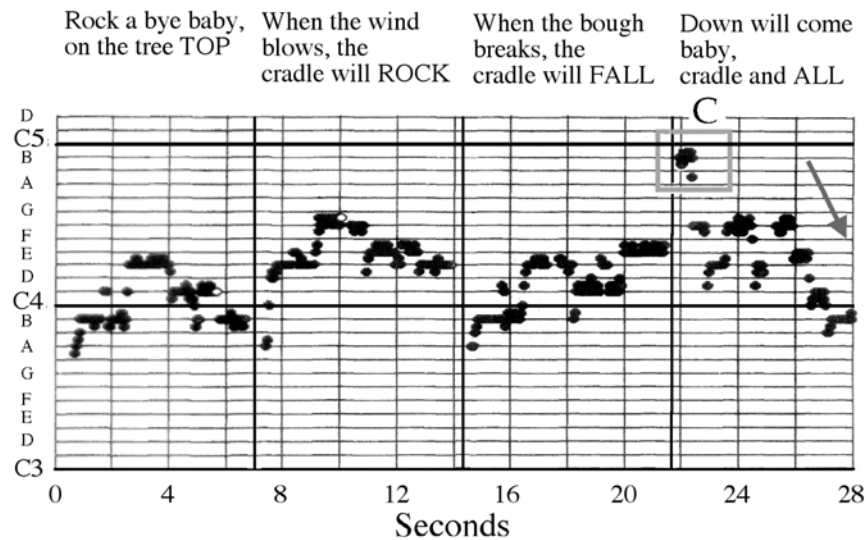
**They negotiate the invented life of meaning. Jack, 4 Months, learns to say, "AAH BOO", and when he does it, his mother says, "You get a kiss for that", and she kisses him on the forehead.**




Research on **songs for infants** in many languages has taught us how we share **story-telling** underneath, or beyond, the spoken word -- in expressive movements of the body.

**In the middle of the first year the infant's rhythmical feelings can be mirrored and modified by song and instrumental music.**

Responses to music prove that the organized **rhythm and melody catch a baby's attention** and move him or her to dancing in time with hands and legs.

**Songs are quickly learned** and remembered. They become favourite messages of friendship, **emblems of the infant's identity, or membership of a group.**



<p>Round and round the garden, like a teddy BEAR</p> <p>One step, two step ... and a tickly under THERE</p> 	 <p>Clap-a-clap-a handies, Mummy's at the WELL</p> <p>Daddy's away to Hamilton, to get Emma a BELL</p> 
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Leanne, at 5 months, shares “Round and round the garden”, with *Interest* and *Pleasure*. Emma, 6 months, on father's knee. Her mother says, “Clap handies!” Emma ‘shows’ or ‘performs’ to the camera, with intent look and a proud grin. That's pride! But, With a Stranger she is worried and ‘Ashamed’ -- He does not ‘get it’ Even a nice stranger is hard for a 10-month-old to bear.

#### DEVELOPMENT OF COOPERATING IN TASKS

Beginning the endless game of cultural practice  
**Secondary Intersubjectivity & Sharing Tasks**  
**With Good Company = ‘Cultural Learning’**

At about 9 months a change in the infant's motives and interests begins **cooperative practical learning.**

The baby's curiosity about what other people are doing with voice and eyes, and the things they use with their hands, leads to **following directives, trying to make conventional messages and trying to use objects properly -- as tools.**

This is vital preparation for learning language to name meanings. *Language is built in shared action; it depends on the rhythmic musicality of moving.*

The baby's increased interest in **what other people are doing** and the things they use leads to following *directive* messages, trying to make conventional messages or to use objects 'properly' -- in the approved way.

This **Joint Attention, with Synchronised Evaluation of Experience** is vital preparation for learning language to name, or *refer to*, meanings or conventions of 'human sense'.

Basilie pointed and vocalised a 'protolanguage' request for the magazine. Her mother said, "Oh, she recognizes the *National Geographic* by its yellow cover, and likes to look at the pictures."

Children Are Story Sharing Creatures, From Birth. That is why a book, and a mother's telephone bill, are very interesting for a one-year-old

Toddlers master language in cooperation with good companions. Leanne at 3 years knows the names for *Cup Spoon Fork Knife Saucer* as her mother questions her as they play at having a cup of tea.

Emma, at 27 months. Reading her book, counting her coins and having a cup of tea. The hot tea and a piece of cake are imaginary, and her mother shares the ritual.

Little girls in Mexico learn to weave at three years, using their miniature loom beside their mother while she works on her big one. (They call school 'paper learning')

IN OUR CULTURE, TOO, THE PRESCHOOL WORLD IS ONE OF THE RICHEST TIMES OF LEARNING Toddlers seek friendships with parents, peers -- people of all ages -- and want to show the serious fun of what companions know and understand.

See the Child's Curriculum web site: [www.childscurriculum.org.uk](http://www.childscurriculum.org.uk)

**A Nursery School is a Place Education in all kinds of Useful Knowledge about People, and What They Do.** Where meaning grows in companionship, making a community beyond, but with, each family, letting each child's talents thrive.

Stories, personalities and the rituals of agency become more elaborate, and there is more understanding of the view points and feelings of others.

***Cameron House Nursery School Edinburgh*** (With permission of the Head Mistress)



## II -- COMMUNICATIVE MUSICALITY

“It is by NATURAL SIGNS chiefly that we give force and energy to language; and the less language has of them, it is the less expressive and persuasive.” (p. 106-107).

“ARTIFICIAL SIGNS signify, but they do not express; they speak to the understanding, as algebraical characters may do, but *the passions, the affections, and the will, hear them not: these continue dormant and inactive, till we speak to them in the language of nature, to which they are all attention and obedience.*” (p. 108).

Reid, T. (1764). *An Inquiry into the Human Mind on the Principles of Common Sense*. Edinburgh. **Artificial Language** is invented in common experience, *a fabricated tool of human collective fantasy*. It can be thought for oneself, or studied as a ‘thing’ in text, but is *learned by sharing, with emotion, in active, embodied dialogue and cooperative tasks*.

**Music and Dance** cultivate **human motives for action and affective time in movement**, *for their own sake*, making stories from the **Natural Language** of the body – *from inside the human spirit, in the time of its life*.

### CHILDREN ARE BORN MUSICAL

They have the fundamental sensibilities of an adult musician without training in conventions of composition or skills of performance.

They move in rhythmical ways and explore the tones and melodies of their voice, imitating the intonations and narratives of other persons' expressions long before being able to talk.

And they love to perform for the attention and affective appraisal of others.

"After the pleasures which arise from gratification of the bodily appetites, there seems to be none more natural to man than Music and Dancing. In the progress of art and improvement they are, perhaps, the first and earliest pleasures of his own invention. ... Without any imitation, instrumental Music can produce very considerable effects... : by the sweetness of its sounds it awakens agreeably, and calls upon the attention; by their connection and affinity it naturally detains that attention, which follows easily a series of agreeable sounds, which have all a certain relation both to a common, fundamental, or leading note, called the key note; and to a certain succession or combination of notes, called the song or composition. ... Time and measure are to instrumental Music what order and method are to discourse; they break it into proper parts and divisions, by which we are enabled both to remember better what has gone before, and frequently to foresee somewhat of what is to come after: .... the enjoyment of Music arises partly from memory and partly from foresight."

[Adam Smith (1777). *Of the nature of that imitation which takes place in what are called the imitative arts*. In, *Essays on Philosophical Subjects*. (Ed. W. P. D, Wightman and J. C. Bryce) Indianapolis: Liberty Fund, 1982)].

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TIMES OF THE MIND AND OF MUSIC ARE INNATE Basic rhythms, and their emotional qualities, are the same in infants and adults. This makes communication of the shared vitality of **intentions, interests** and **feelings** possible, before 'facts' of shared knowledge about actions and objects are identified in speech.

THE SHORTEST PERCEPTIBLE & CONTROLLABLE EVENTS 0.05 to 0.2 seconds

THE PRESENT MOMENT OF CONSCIOUS ACTING From 0.3 to 6 seconds

IMAGINED FUTURE & RECALLED PAST IN ACTION & THOUGHT (GENERATING & REGULATING MEMORIES & EXPECTATIONS) From verses/stanzas of songs & performances, short narratives/stories, reasoned arguments, to plans of the day & lifetimes

The inside stories go on slowly when you are asleep, imagining and remembering, dreaming of acting and experiencing with feeling. The rhythm of energy in the body can be shared in streams of intimate vitality, unconsciously.

### THE RHYTHMS OF SPEECH ARE INNATE

**Even a premature infant can share a conversation.** A video of Naseera, who was born 3 months premature, was made by Saskia van Rees in an ICU in Amsterdam. She makes videos of birth, neonatal care, communication with infants and children with special needs. See her website: Saskia van Rees *Stichtinglichaamstaal (Body Language Foundation)*

Secretariat: Scheyvenhofweg 12, 6093 PR Heythuysen, The Netherlands.

**Internet:** <http://www.stichtinglichaamstaal.nl/> **Email:** [info@stichtinglichaamstaal.nl/](mailto:info@stichtinglichaamstaal.nl/)

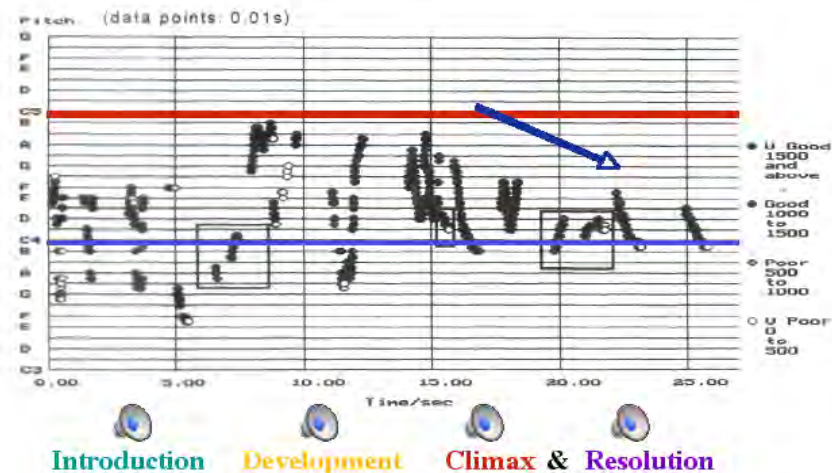
A CHILD IS BORN WITH BODY & BRAIN READY TO MOVE IN COMPANY - MUSICALITY IS INNATE - IT CONDUCTS OUR MENTAL DRAMA & SHARES IT  
Infants are much cleverer than we had thought at discriminating *musical rhythms and tones of human sounds*. They hear the musicality of mother's talk and learn simple melodies *before birth*. A two-month-old can be a skilled performer in an *improvised vocal duet or protoconversation, a shared story over tens of seconds*. And movement time is between the senses  
A Swedish Mother Sings to Her Blind 5-Month-Old Daughter



How Maria shows us the shape of phrases and stories in song. This five-month old blind baby girl conducts her mother's songs with her left hand. Her hand moves 1/3 second before the melody of her mother's voice, making graceful gestures, telling a story she knows well.

We tell one another our intentions, interests and feelings from birth, by **moving in sympathy** -- creating stories of life with people we love.

**Laura**, at 6 weeks, starts to chat with her Mother, **Kay**, at Edinburgh University.



The whole 'Narrative' of Laura with her Mother.

They share the Cycle of Excitement expressed in the Pitch.

It lasts 27 seconds -- a story in human sound, with four classical divisions or episodes that chart the changing energy or emotion.

**INTERSUBJECTIVE CHRONOBIOLOGY** The rhythms, expressive qualities and narrative making in movements of dialogues or 'protoconversations' with 2-month-old Laura in Edinburgh led to Dr. Stephen Malloch, a violinist and music acoustics expert, to a theory of **Communicative Musicality**. This explains how time and energy in moving communicates by sensing messages in the expressive vitality, or 'flow' of energy, in human movements. *The theory is explored in a book published recently*

*Communicative Musicality: Exploring the Basis of Human Companionship*

Edited by Stephen Malloch and Colwyn Trevarthen.

Oxford University Press 2009 (Paperback. 2010)

THE THEORY OF COMMUNICATIVE MUSICALITY (Malloch, 1999)

**Music** communicates because it engages an **Intrinsic Motive Pulse (IMP)** in the brain.

The sense of 'musicality' comprises:

- (1) **PULSE**: A rhythmic time sense (syllables, the beat, phrases and longer elements);
- (2) **QUALITY**: Sensitivity for the temporal variation in intensity, pitch and timbre of voices and of instruments that mimic the human voice;
- (3) **NARRATIVE**: Perception of the emotional development of the melodic line, which supports anticipation of repeating harmonies, phrases and emotional forms in a vocal or musical performance.

- Pulse and Quality are combined in the forms of emotional narrative, **which allow two persons to share a sense of purpose in passing time.**

- We examine the musical companionship that is created with her baby as a mother shares a protoconversation or chants a nursery rhyme.

- We conclude that Communicative Musicality is vital for companionable communication between mother and infant.

Stephen Malloch (1999).

<http://news.bbc.co.uk/2/hi/science/nature/8117915.stm>

Scientists in Germany find flutes dating back to the time that modern humans began colonising Europe, 35,000 years ago. They are the oldest musical instruments found to date. The researchers say that music was widespread in pre-historic times. It may have been one of a suite of behaviours displayed by our own species which helped give them an edge over the Neanderthals. The flute

makes notes for a pentatonic scale based on Middle C. Pitch awareness, in the range that Laura and her mother preferred, is innate in the human brain, and has been for 35,000 years, at least. Research on **songs for infants** in many languages has taught us how we share **story-telling** underneath, or beyond, the spoken word -- in the body.

**The infant's rhythmical feelings can be mirrored** and modified by song and instrumental music. Responses to music prove that the organized **rhythm and melody catch a baby's attention** and move him or her to dancing in time with hands and legs. **Songs are quickly learned** and remembered. They become favourite messages of friendship, **emblems of the infant's identity, or membership of a group.**

### MUSICAL COMPANIONSHIP

The rhythm and expression of music carries *a message of human company*, the friendly 'Other', telling a moving narrative, giving fresh human purpose to time in the mind.

Dr. **Katerina Mazokopaki**, music teacher and psychologist, has studied the development of rhythmic talents of babies in Crete. She studied how babies at home in Crete celebrate the pleasure of a traditional Greek children's song. They happily express their appreciation of musical rhythm. Georgos, 3.5 months, dances with face and hands.

Katerina, 9 months, beats time with her arms. Both sing.

Seated on the carpet, Panos, 9 months, beats time with his hand and Anna, 10 months, who stand in her cot, bounces and sings with her whole body, wiggling her hips. Both also sing their delight.

Baby Panos hears the story the music is telling. He is sitting on the floor at home in Crete by himself when a cheerful song comes on from the radio. •First he is surprised and interested.

•Then he looks around, "Who is there?". •He smiles with pleasure, recognising the happy sounds. •And then he joins in, celebrating the rhythm with his hand and 'singing'.

### A FAVOURITE ACTION SONG

Round and round the gar-den,

• ' • ' • •

Ran a ted-dy **bear**,

• ' • ' • -

One step, two step,

• • • •

Tic-kl-y un-der **there**.

• ' • ' • • -

Leanne, 5 months. "Round and round the garden", with *Interest* and *Pleasure*.

### A POPULAR SCOTTISH CLAPPING STORY

Clappa, clappa handies,

• ' • ' • •

Mommy's at the **well**,

• ' • ' • • -

Daddy's away to Hamilton,

• ' • ' • ' •

To buy wee Megan a **bell**.

' • ' • ' •

Japanese Boy, 10 Months Old, With His Mother, Appreciating Her Performance. He watches her rhythmic hand play to accompany a nursery song, and bows politely to her at the end.

Gaelic Clapping Song in the Shetlands. Grisela and Christina Dancing in the Shetlands to Annie Lennox Singing "Thorn In My Side"

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### III -- THE BIOLOGY OF LIFE IN BODY AND MIND

#### HOW DID THE SELF BECOME A COMMUNITY?

“The nature of the self has been one of the central problems in philosophy and most recently in neuroscience. Here, we suggest that animals and humans share a ‘core self’ represented in homologous underlying neural networks. We argue that the core self might be constituted by an integrative neuronal mechanism that enables self-related processing (SRP).”

Continued ...

“Because mammalian organisms are capable of relating bodily states, intrinsic brain states (e.g. basic attentional, emotional and motivational systems) and environmental stimuli to various life-supporting goal-orientations, SRP appears to be a core ability preserved across numerous species. Recent data suggest that SRP is operating via a central integrative neural system made up of subcortical–cortical midline structures (SCMSs), that are homologous across mammalian species.” (p. 259)

Continued ...

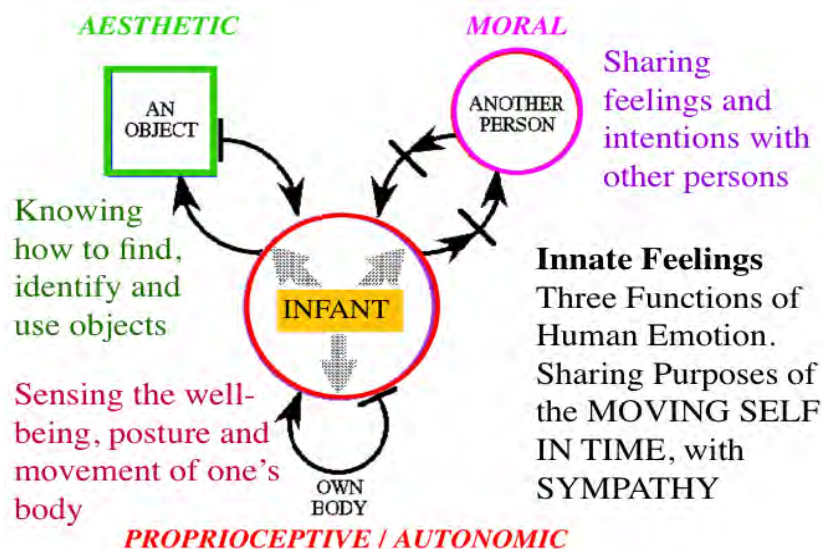
“Subcortical midline networks regulate core attentional, homeostatic, emotional and motivational functions of the body. Although both ... neurochemical details and the macroscopic psychological functions are well known, subcortical regulatory functions ... remain somewhat unclear. This gulf between behavioural and cognitive neuroscience has been partly bridged by affective neuroscience. ... [emotional] brain activations routinely yield a variety of ‘rewarding’ and ‘punishing’ effects that can be parsed neuropsychologically.” (p. 260)

The Human Mind directs the movements of a **Self-As-Agent with Feeling**, with *one sense of time for acting, and one set of emotions for evaluating the risks and benefits of acting*, for keeping the Vital Self alive and well.

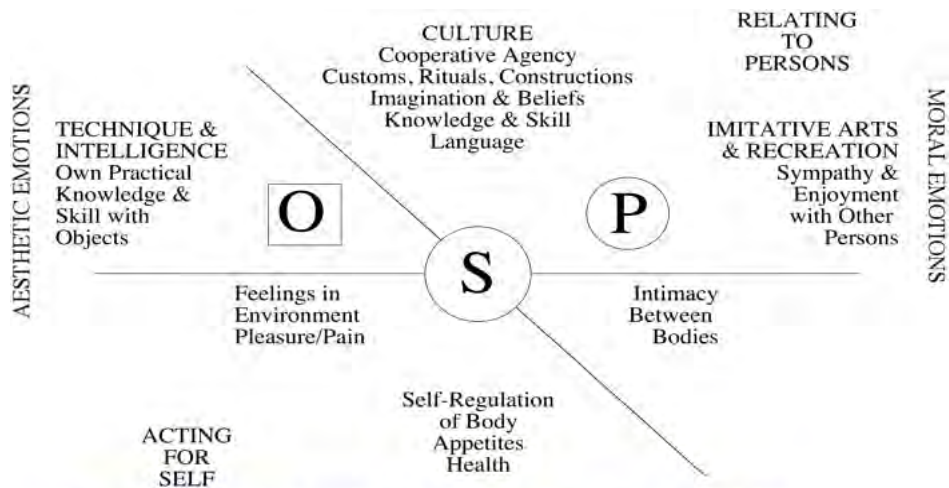
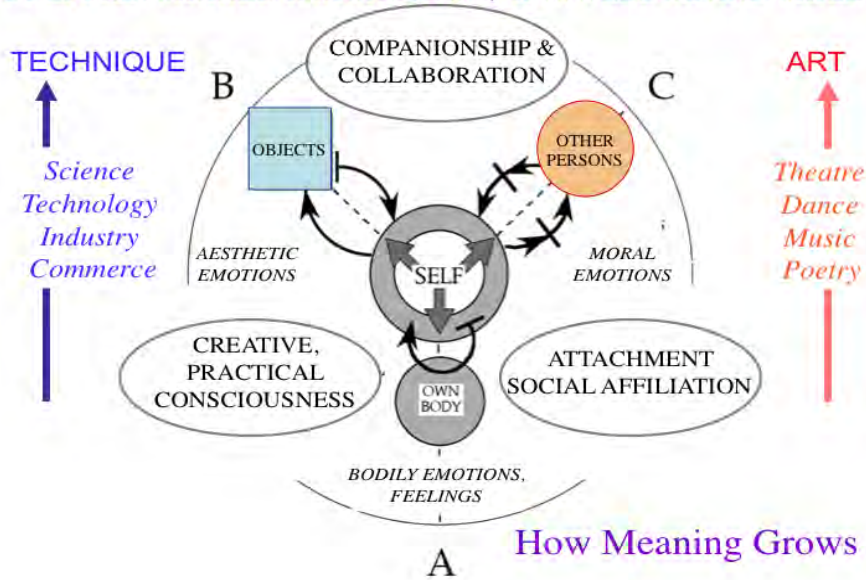
Human Selves live by communicating their *Motives and Emotions of Agency* – as **Persons-In-Relation**, giving one another both care and imaginative company

#### *INNATE INTENTIONS OF A HUMAN BEING*

*Motives for imaginative action, their emotions, and their sharing.* Three kinds of Experience, Three uses of Moving & Three ways of Feeling, can be distinguished in a Self -- and they are born in us.



**CULTURE: SHARED IMAGINATION, KNOWLEDGE AND SKILL**



Activities of the Self (S), with objects (O) and in sympathetic relations with other persons (P), and the motives and emotions between them.

Cultural life requires both *aesthetic appreciation* of the values of objects and *moral engagement* with the life of other human beings, with hope to share meaning  
 A Human Life begins in cooperation with a Mother's Life. It grows for coordinated Activity and Awareness, and is regulated by Emotions, which are evolved to share the rhythms and qualities of Vitality.

Human vitality generates narratives of action and awareness of the future and the past which become projects, problems, and propositions, which are shared to make life meaningful with companions.

**ACTS OF MEANING – AND THEIR MUSICALITY**

There are two sides to *the dynamic power of human actions*: **self-regulation of feeling in the body and in its moving**; and **sharing meaning in stories of imagined action and interactive communication or drama**.

Human action has **beauty of self-conscious form**, and **moral purpose in community**. Music, for example, as art in sound must be well done, but it is *not only formal technique or sound technology*, either in composition or in performance.

The theory of Communicative Musicality, based on research with the musical talents of infants, attempts to give these principles precise definition, identifying the essential parameters of **pulse**, **quality** and **narrative**.

'Musicality' may be defined as **the Human Way of Moving, with Rhythm and Expression** -- to *Create Action* of all the Body, and to *Communicate* Stories of Purpose, Thought and Feeling.

It is active in all the 'imitative arts', which play with the pulse and melody inherent in movements, however they may be transmitted, in sound, by acting and dancing, by drawing and painting, and by speaking and writing -- all are 'musical' in form and meaning, for those who are moved by them. Georg Northoff and Jaak Panksepp (2008).

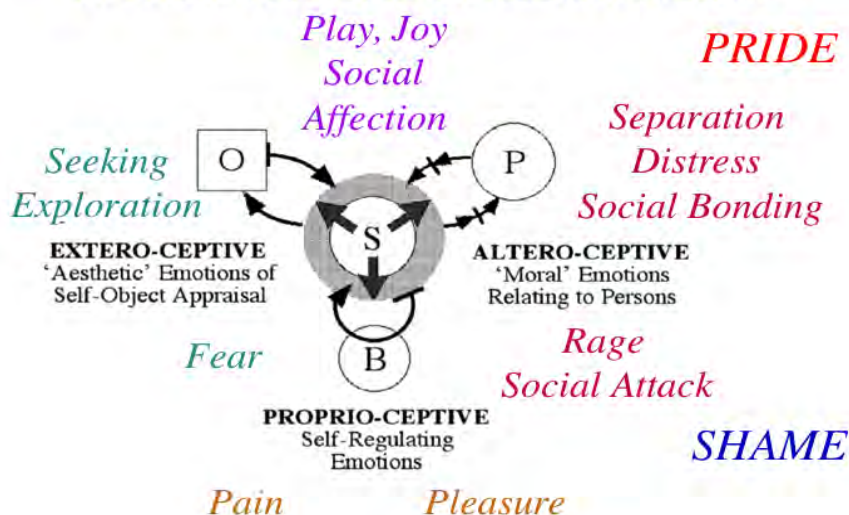
The trans-species concept of self and the subcortical-cortical midline system  
*Trends in Cognitive Sciences*, 12(7), 259-264.

The **neurochemistry of the emotions** in mammals has been studied in the rat brain.

Nerve cells that produce key transmitters are in the brain stem and they project into the cerebral cortex and cerebellum, regulating their actions.

The emotions named in this diagram, in italics, have been identified by Jaak Panksepp as the foundation for regulation of life in all mammals, and they are richly evolved in humans.

**A MAP OF HUMAN MOTIVES AND EMOTIONS,  
IN THE WORLD AND IN RELATIONSHIPS**



At birth the human brain is one third the size of an adult brain, **but it has all major parts in place, including unique human organs for communicating states of vitality and imagination.**

The parts of the cerebral cortex that grow most in childhood are those for cultural learning, and language, *but these parts are already adapted to their tasks in a young baby, and ready to engage with other persons' expressive behaviours.*

The baby is listening, for care and cheerful company. The movements of the baby are paced by 'time in the mind' -- by 'neural clocks' that control the energy of actions in steps of time. This is the **Intrinsic Motive Pulse (IMP)** of the baby's animal nature.

Though sometimes chaotic with reflex 'corrections', the infant's movements show different 'vitality dynamics' -- of *urgency* or *peacefulness*, graceful *ease* or *tension*, *pleasure* or *displeasure*. They are controlled by **coherent, and powerfully communicative emotions**.

Ben, a 6-week-premature baby tells his story, and his mother responds appreciatively.

Mother's speech follows the narrative actions

INTRODUCTION [ATTENTIVE]

- 1 - Arc you woken up, mister?
- 2 - Good afternoon!
- 3 - Good afternoon, wee Ben
- 4 - How are you doin'?
- 5 - Eh?

DEVELOPMENT [RESPONSIVE]

- 6 - Oorh, look at that big smile!
- 7 - *[Oh ... That's all great]*
- 8 - Look at that big smile

CLIMAX [LIVELY/ENGAGED]

- 9 - Hi Ya!
- 10 - Hello there!
- 11 - *Kiss and Glide*

RESOLUTION [REFLECTIVE]

- 12 - Oh, you're kicking your Mom!

[DISENGAGED]

- 13 - Are you kickin' me?
- 14 - Eh?
- 15 - Have a big wriggle, then

INTRODUCTION

DEVELOPMENT

CLIMAX

RESOLUTION



A



E



I



M



B



F



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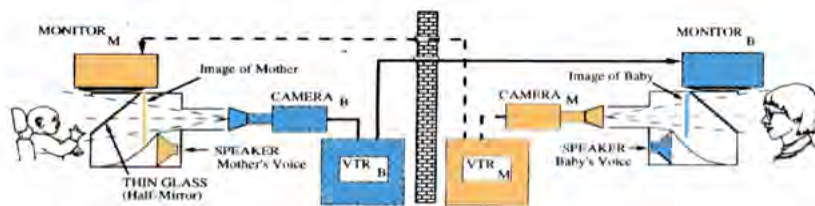
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DEPRESSED MOTHERS LOSE MUSICALITY -- THEY CANNOT SHARE MOTIVES AND FEELINGS. When they talk with their infants, taking part in adventures of action and of thought is more difficult for both. The baby may become depressed, too.

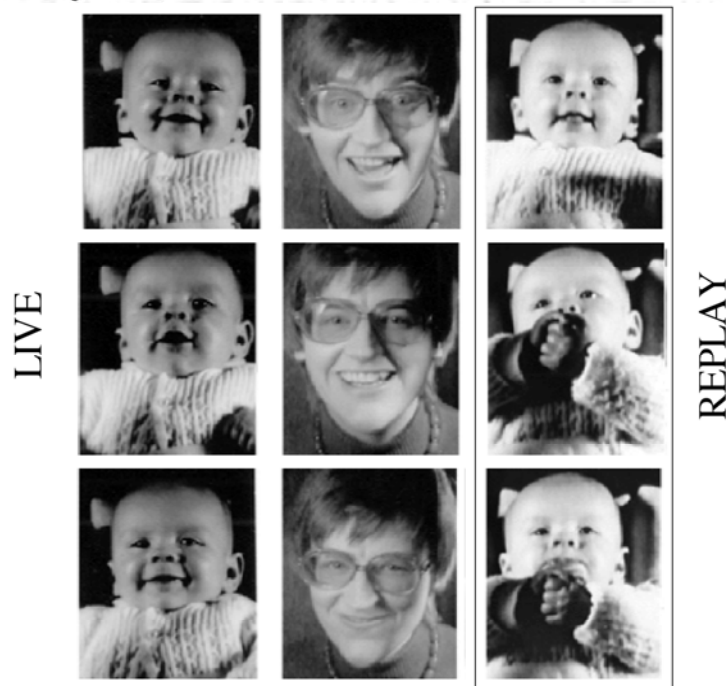
WHEN THE RHYTHM OF VITALITY IS NOT SHARED, JOYFUL INTIMACY BECOMES DISTRESS. Babies detect when the rhythm is wrong. They express their sadness at loss of 'contingency' -- when 'out of touch' in the dance.

Researches of Prof. **Lynne Murray** at Reading University, and Dr. **Maya Gratier** in Paris, have explored how the mother-infant dyad is affected when interpersonal timing is disturbed, experimentally, or by illness.

### Lynne Murray's Double Television Replay Test



Baby Shona, 8 Weeks, in one Room,  
Her Mother in Another.  
They See, and Hear, Each Other on Television



The happy minute of Shona's mother is replayed. Shona is out of touch, withdrawn, sad when mother is just a recording

## THE HIDDEN REALM OF ‘VITALITY DYNAMICS’:

Daniel N. Stern, M.D. has produced an important book on how human vitality is regulated and communicated:

*FORMS OF VITALITY: EXPLORING DYNAMIC EXPERIENCE IN PSYCHOLOGY, THE ARTS, PSYCHOTHERAPY AND DEVELOPMENT.* Oxford: Oxford University Press

He describes how vitality dynamics are psychological, subjective phenomena. They concern temporally contoured movements that are initiated by invisible felt forces felt as aliveness. Vitality dynamics are designed to fit the workings of the human world

*Consider the following list of words.*

exploding	surging	accelerating	swelling	bursting	fading
drawn out	disappearing	fleeting	forcefull	powerful	weak
cresting	pulsing	tentative	rushing	pulling	pushing
relaxing	langourous	floating	fluttering	effortful	easy
tense	gentle	halting	gliding	swinging	tightly
holding still	loosely	bounding			

*and many more.*

These words are common, but the list is curious. Most of the words are adverbs or adjectives. *They are not emotions or motivational states ... pure perceptions ... sensations -- they have no modality. They are not cognitions or acts, as they have no goal state and no specific means.* They fall in between all the cracks. They are *the felt experience of force – in movement – with a temporal contour - and a sense of aliveness. ... shapes of expressive movement.* They concern the **How**, the manner, the style, not the What nor the Why.

Vitality dynamics are the child of movement. Movement is our primary experience and vitality dynamic experience is the most primitive and fundamental of all felt experience.

EFFICIENT FREE MOVEMENT HAS PACE, FORM & TONE, LIKE MUSIC