

Attuning Feelings for Work with Children

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 Seminar II: The Child's Social World
 The Well-Connected Child Seminar Series
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 Early Years
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How do we understand each other?

It is **not** principally by **thinking** about what other people are doing

- this is a 'Theory of Mind' that enables a 'Folk Psychology'
- this is a way to understand the reasons people may do what they do using third-person rationalisations (e.g. Dennet, 1987; Frith and Frith 2012)
- e.g. "He is going to the kitchen because it is lunch time."
- e.g. "He hit Paul because he does not know how to share."

The Mirror Neuron System

This is **direct neural resonance of motor intentions**.

Furthermore,

The same brain regions are equally active when

1. perceiving intentions in others' acts
2. making the same intentional acts oneself
3. thinking about the same intentional acts

(reviewed in Gallese, 2013)

The Mirror Neuron System

This is **direct neural resonance of motor intentions**.

This means that

when we see someone act with his set of intentions, we perceive those intentions *as if* we had those intentions

This is a foundation for **direct, implicit social understanding**.

ie. social understanding without words or reasons.
ie. social understanding based on feeling

How do we understand each other?

It is principally by **directly perceiving** intentions in body movement

- e.g. "He is going to the kitchen because it is lunch time." becomes "Hungry-and-getting-food-in-the-kitchen"
- e.g. "He hit Paul because he is does not know how to share." becomes "Leave-me-alone."

This direct perception of social intentions is enabled by the Mirror Neuron System (Gallagher, 2008; Gallese, 2007; Singaglia & Rizzolatti, 2011)

How do we understand each other?

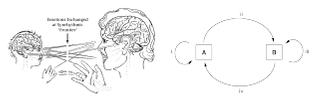
It is also by **direct regulation** of one's autonomic system through facial expression (Foges & Furman, 2011)

- e.g. regulation of heart beat, arousal, anticipation to act, etc.

So that altogether we **feel the other's feelings and intentions**.

This is an affective and embodied understanding.

How do we understand each other?



Toward a Primary Sensorimotor Intentionality

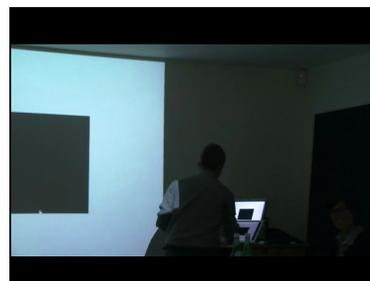
Actions are Prospective by Necessity

- biomechanical inertial forces necessitate prospective control (Bernstein, 1967; von Hofsten, 1993; 2004)
- actions are expensive; to act economically and with adaptive effect they must be guided by prospective perception (von Hofsten 1993; 2004; Lee, 1998; 2009)
- all units of action must be goal-directed (Lee 1998; 2009)

The Mirror Neuron System

A systems of neurons in the brain that respond **specifically to the intentions of an action** (Fogassi et al, 2009).

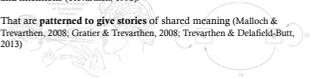
First discovered in experiments with monkeys where a single neuron was monitored using electrophysiological patch clamping...



How do we communicate with each other?

Through **gestures of body and voice** that communicate wants, desires, and intentions (Trevarthen, 1998)

That are **patterned to give stories** of shared meaning (Malloch & Trevarthen, 2008; Grater & Trevarthen, 2008; Trevarthen & Delafield-Butt, 2013)



Attuning Feelings for Work with Children.

Non-verbal, Challenging Child with Autism Spectrum Disorder and a New Therapist

The teenager was, for several years, almost non-verbal, violent, anti-social, and even dangerous. She would bite and scratch her care-takers. She was chronically hospitalized and taken into a special home.

This session is the first and only meeting with this therapist.

Initiation Through Imitation

Engagement 1



Initiation and Development

Engagement 3



How do we communicate with each other?

Through **feeling in body movement** that is affective and intentional (Stern, 2010; Delafield-Burt & Gangopadhyay, 2013).
 These felt body movements and social understanding in affective body movement are **primary**.
 They are the phylogenetic (evolutionary) and ontogenetic (developmental) **basis of the mind** from which we learn and develop.
 Primary embodied consciousness, not cortical rationality.

All movements are 'intentional'

- intentionality of
 - a non-conceptual, non-reflexive, primary type (Delafield-Burt & Gangopadhyay, 2013)
 - an anoxic conscious action (Vandekerckhove & Panksepp 2010)
- nevertheless,
 - imbued with feeling
 - perceptually aware of the vital self-in-relation to its world through (i) a viscerosensitive awareness of vital, somatic need; (ii) a proprioceptive awareness of the body-in-action; and (iii) an exteroceptive awareness of the world of objects and other animals

Getting Closer to Each Other

Engagement 4



Sharing A Complete, Joyful Story

Engagement 6



The Primary Self is Non-rational

- the seat of the integrative 'core self' at the upper brain stem and midbrain region (Merker, 2007; Northoff & Panksepp, 2008; Panksepp & Northoff, 2009)
- the core SELF (Simple Ego-type Life Form) at the midbrain and upper brain stem is
 - anatomically subcortical, but functionally supracortical*
- it is connected to skeletomusculature by ca. 14 weeks G.A.
- it is common and fundamental to vertebrates
- it is likely to control primary prospective action
- it is conscious and acts with felt appraisal
- it is still present in anencephalic children

The Centrencephalic Me



Figure 9. The reaction of a three-year-old girl with hydranencephaly in a social situation in which her baby brother has been placed in her arms by her parents, who face her attentively and help support the baby while photographing. (Merker, 2007)

Mutual Joy and Intimacy

Engagement 10



Lasting Relationship for Growth & Learning

Engagement 12



The Centrencephalic Me

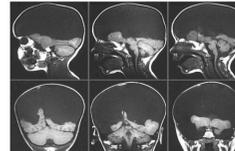
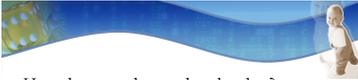


Figure 8. Sagittal and frontal magnetic resonance images of the head of a child with hydranencephaly. Spared ventromedial occipital and some midline cortical mantle overlie an intact cerebellum and brainstem, while the rest of the cerebrum is filled with cerebrospinal fluid. Reprinted with the kind permission of the American College of Radiology (ACR Learning File, Neuroimaging, Edition 2, 2006).

The Centrencephalic Me

- a cortex is not necessary to
 - be conscious,
 - have feelings,
 - act with intentions,
 - perceive and appraise the environment,
 - engage socially and purposefully
- c.f. surgically decerebrate cats and rats



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It is also through **imitation**, and sharing feeling in movements of the voice and action.

[twin youtube video showing imitation of movement and voice making dialogue, and video of two girls watching the twins imitating each other, imitating the twins]



Thank you.

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