


The UMass Chan Medical School
Fellowship in Early Relational Health



An In Person and Virtual
3-day intensive weekend - every 2 months
ROLLING ENROLLMENT

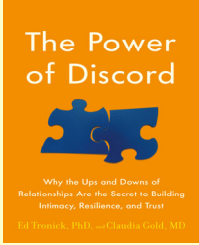
FACULTY
ED TRONICK, CHIEF FACULTY
PETER FONAGY, BRUCE PERRY;
JOY OSOFSKY; LYNN MURRAY; ALICE CARTER; ARETTA SLADE; PETER COOPER;
SERENA WEIDER; KEVIN NUGENT

Covering Topics of (and more):
DYADIC INFANT-PARENT PSYCHOTHERAPY
THERAPEUTIC USE OF VIDEO TAPE
DISORDERS OF ATTACHMENT AND COMMUNICATING
SENSORY INTEGRATION
EFFECTS OF TRAUMA
POSTPARTUM DEPRESSION AND INFERTILITY

Please contact:
Dorothy Richardson dorothy@drichardson.com

Tronick NZ 1

1



Tronick NZ 2

2

**Neurosmatic Embodied
Meaning Making**


Ed Tronick
UMass Chan Medical School

The New Zealand Trauma Conference
Part II
Christ Church
New Zealand
February 2023

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3

MEANINGFUL INFORMATIONAL RESOURCES
Infant's (Everyone's) Existential Problem



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4

"The Body Never Forgets"
Bessel van der Kolk

He was right and not right enough.
Everyday meaning is held in the
body and at multiple levels

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5

How Do We Make Meaning?

Neurosmatic Meaning Making
Systems:
Meanings Made Without
Awareness or Language or
Symbols
by
How Different
Somatic and Brain Systems
Process Information

CHOOSE YOUR FAVORITE

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6

Language and Symbols and Memory (The only system of making meaning?)

Prefrontal Cortex, frontal, temporal, and parietal lobes.
(Left prefrontal, temporal, parietal lobes; Wernicke area, middle temporal, inferior temporal, fusiform, and angular gyri, Broca area); hippocampus, the neocortex and the amygdala, basal ganglia and cerebellum.

The "Choice" of Many Therapists.
"Disregarded" by the Process of Change Group"

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7

But there is a BIG PROBLEM
for me to make meaning of my self in the world.
Some of my brain ain't working yet!

And I ain't got language or symbolic thought.

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8

So how do I make meaning?
I use all the bits of brain I got AND all my NeuroSomatic embodied systems.

NeuroSomatic Systems
Sensory Systems
Motor Systems
Autonomic Nervous System
NeuroEndocrine System, Genes, Epigenome, HPA Axis
Immune Gut Biome

MAKES ME WICKED SMAHT!

All Still Operate in Adults

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9

What about this Meaning Making System???

I feel flooded with anxiety, and I don't now what it is??

The Limbic System

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10

What about this Neurosomatic Meaning Making System?

Porges' Autonomic Nervous System
Fight, Flight, Freeze & Seek Others

"I can't calm down; I am afraid. But I can't run or fight. I need help"

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11

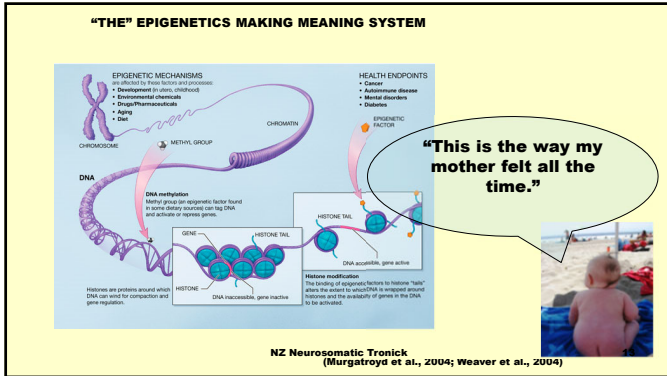
What about this Meaning Making System???

HPA and Cortisol

"I can't turn off the fear!"

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12



13

How do Neurosomatic Systems Make Meaning?

The neurosomatic systems bias infants' (and adults') meaning making of internal and external events by how they process information

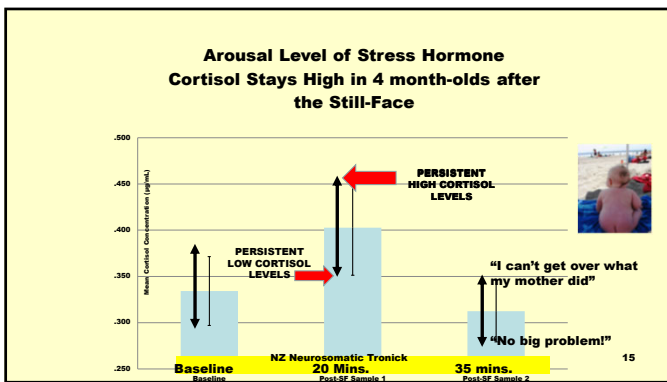
Variation in the "how" in the biasing occurs because of biologic variation and experience that sculpts how the systems operate.

Threshold to Respond
Reaction Time
Intensity of Response
Duration of Response
Shape of Response
Recovery Period
Refractory Period
Context of Event

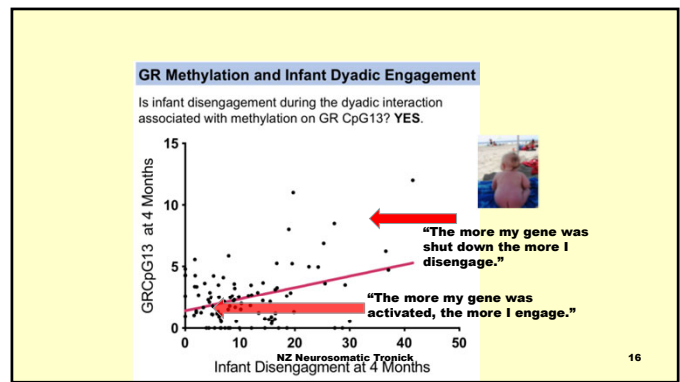
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14

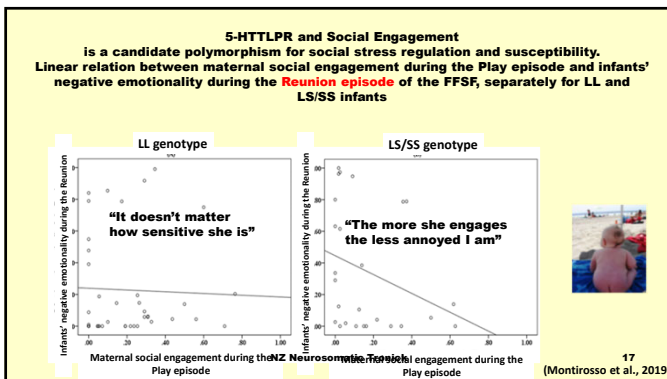
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15



16



17

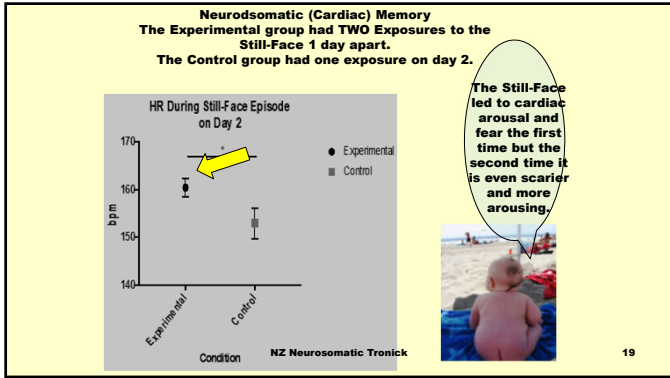
Cardiac Memory for a Social Stressor at 4 Months Over Two Days

Isabelle Mueller, 2017

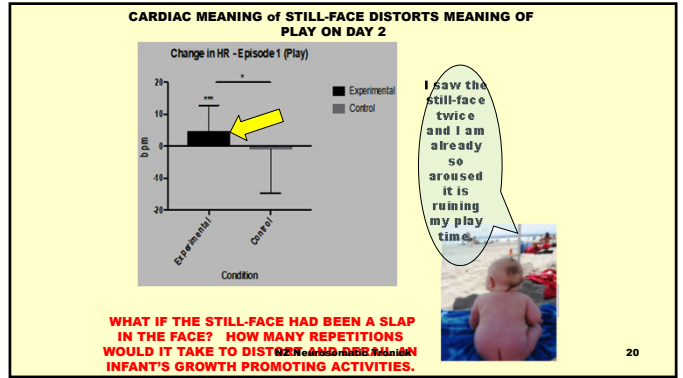
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18

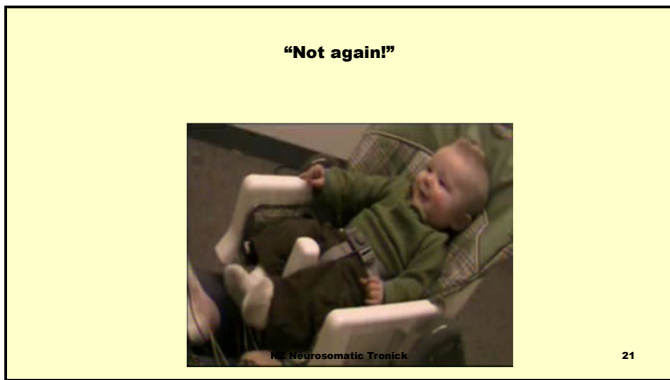
18



19



20



21

The Effect of Experience

ALL (neuro-somatic) psychobiological systems are plastic and sculpted by chronic reiterated experience

Bruce Perry

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22

22

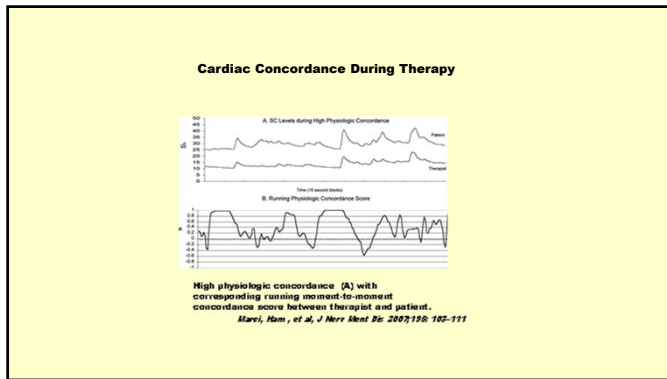
- During Early "Normal/Typical" Cultured Development, Chronic Experience Induces/Sculpts The Operation/Processing of All of these Neuro-somatic Psychobiological Meaning Making Systems**
- Shift in lateralization of EEG power
 - Change of baseline and reactivity of cortisol
 - Change in cardiac and respiratory set points
 - Change in emotion regulating brain systems
 - Increase in opiates
 - Atrophy/cell death of neurons
 - Changes in metabolism and bioenergetics
 - Number of neurons in Amygdala and Hippocampus
 - Amounts of neuronal pruning in anterior cingulate, & amygdala, and hippocampus
 - Number of glucocorticoid receptors in hippocampus
 - Reactivity autonomic nervous system
 - Immune system and cardiac system
 - Regulatory and adaptive behavior
 - Perception
- 23

23

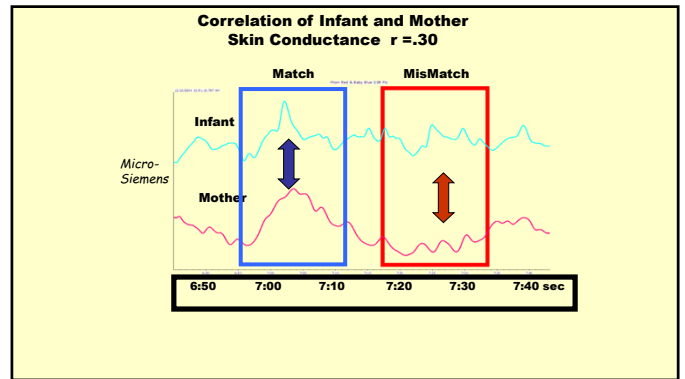
Relationships, Physiologic Levels, & The Unknowns of Making Meaning

24

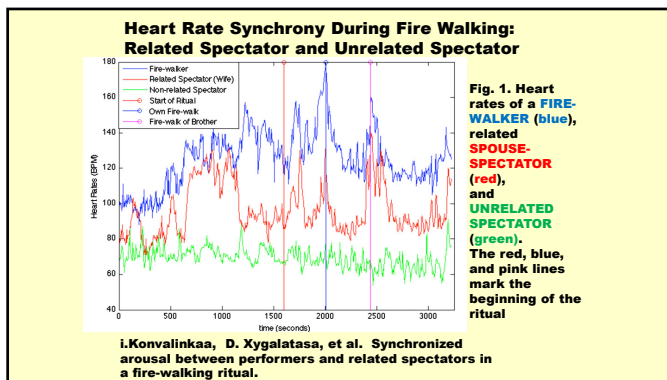
24



25



26



27

Implications for Therapeutic Thinking of Infant-Parent Research

28

WHAT IF therapist and patient were (a bit) like infants-mothers?

Therapy Would Be:

- Co-creative Mutual Regulation
- Patient and therapist both continuously and actively make meanings together
- Characterized by matches-mismatches and reparation
- Change emerges from a process of mismatches & reparations

>>>Therapy is changing individual's neurosomatic meanings held in the individual's State of Consciousness which prevents the growth of his/her sense of self in relation to others, to the world, and to his/her self.

29

TX AS IF MOTHERS AND INFANTS

Successful therapeutic change requires changing neurosomatic meaning making processes from the molecular (e.g., epigenetics) to awareness (e.g., language and symbols)

e.g., Trauma and other psychopathologies 'live' in multiple levels.

30

TX AS IF MOTHERS AND INFANTS

Multimodal Therapy

A therapeutic intervention that relies on only one form of meaning making (analytic, dyadic, cognitive, body therapies, sensory integration) may only have limited success in changing multilevel meanings.

Therapeutic interventions aimed at multiple processes that affect different sites over time are likely to be most effective in bringing about change

A wide variety of therapies are useful: touch, massage, holding, playing alone and with others, reverie, mindfulness, psychophysiological interventions.

The challenge is which one to do when?

31

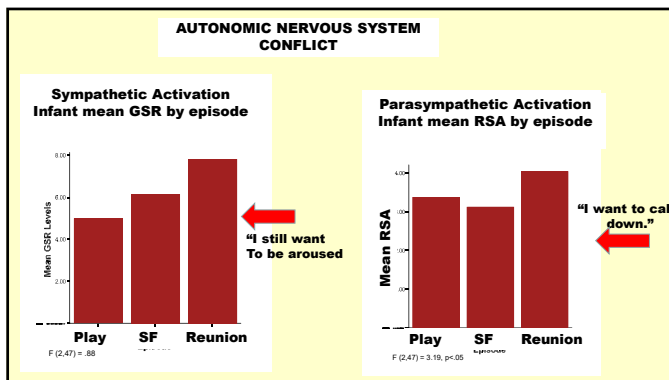
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Neurosomatic Conflict

With so many neurosomatic ways that meaning gets made at so many levels the likelihood of messiness among the levels is obvious and likely constant.

The likelihood of conflict is ubiquitous.

32



33

TX AS IF MOTHERS AND INFANTS

Neurosomatic Conflict cont.

It is not the classic form of psychodynamic conflict that is made from explicit or symbolized meanings or out of experience no longer available to awareness for whatever reason (repression, anxiety).

Rather, it is a dynamic conflict of neurosomatic meanings made at various levels that without awareness determine our way of being in the world.

Now add to these internal dynamics the interplay (again however they actually are happening) of these multilevel meanings continuously going on between the therapist and the patient and you have opened the door to all sorts of mischief.

34

TX AS IF MOTHERS AND INFANTS

Transference Unknowns

In the therapeutic relationship meaning is conveyed in unknown ways (firewalkers) and these unknowns are part of the relationship and always present in the transference. They can enhance or disrupt the relationship totally out of awareness.

Knowing the unknowns develops over time - knowing the patient -

We must begin to understand these unknown forms of meaning and how they affect the therapeutic process

35

TX AS IF MOTHERS AND INFANTS

Transference

The firewalker findings are particularly telling in relation to transference and counter-transference because the synchrony was different - depending on the relationship between the individuals.

It only occurred between individuals who had a relationship with one another.

What happens over time in a successful therapy - patient and therapist - come to know each other in a thick multileveled way.


Perhaps the unknowns become known.

Maybe this is clinical intuition - the accumulation of past knowing that eventually leads to the emergence of a new insight which feels spontaneous but was there all the time.

36

**THE THERPIST MUST ALWAYS TRY TO FIGURE
OUT WHAT MEANING IS MADE BEING CO-
CREATED WITH HIS/HER PATIENT**

**BE LIKE A BABY
GET MESSY**



WHAT IS THE MEANING?

Tronick NZ 37

37