

UNDERSTANDING THE BODY-MIND THROUGH BIOSEMIOTICS

Moving beyond anatomy to see the body-mind as an intelligent ecosystem of communication and connection. **Andrew Cook, MSc, RCST**

Over 30 years of reflective CST practice I spent a decade attempting to reconcile two apparently contradictory positions. First, the basis of CST: that the body contains and expresses health. Second, the reality of extreme childhood trauma, where a fragmentation of identity (dissociative identity disorder, DID) results in the functional compartmentalisation of metabolic, neurological and psychological states.

This inquiry arose because several people suffering from DID sought treatment at my practice. Twenty-five years ago, trauma theory was rarely integrated into hands-on bodywork. To bridge this, I attended a module in sensorimotor psychotherapy, which included a substantial serving of Stephen Porges' then-new polyvagal theory.

De-coupling as an Adaptive Strategy

For health and fragmentation to be compatible, I realised that what we see in DID is an extreme example of an everyday adaptive strategy. That is, a systemic partial 'de-coupling' of the human organism is used to facilitate internal adaptive re-ordering.

I noticed this in my own body when driving; not only was my cognitive mind de-coupled from the mechanics of navigation but my limbs operated on automatic — as did my breath. The point is that cognitive engagement is optional. We possess a very narrow window of cognitive attention, far smaller than the total amount of information that must be perceived to perform any action.

The capacity to redirect freely this window of conscious attention is of great importance and is fundamental to health. It became increasingly apparent that the idea of a healthy, living organism as a totally integrated, indivisible whole is something of a misunderstanding.

The Meshwork of "Selfless Selves"

Francisco Varela's research ¹ describes life as "Not-One, Not-Two", a "meshwork of selfless selves". Similarly, Gordon Pask's conversation theory ² describes the feedback loops that mediate information flow both between organisms and between processes within a single organism.

Instead of a single unified entity encased in skin, there are what Donald Hoffman³ calls *conscious agents* — small intelligent programs or Gestalts that allocate resources according to need and fill in when the field of conscious attention is elsewhere.

This leads directly into biosemiotics (the science of biological communication) which posits that the body-mind is an inter-communicating ecosystem, far greater than 'just' a brain or a vagus nerve, embedded in an external ecosystem ⁴. As Natureza Gabriel ⁵ notes: "*Anatomy is not physiology*". Anatomy is the means through which life operates but it can never equate to experience. While trauma often maps onto a two-dimensional model, health — which we are wanting to define — simply does not.

Intelligent Meaning-Making

During this period, I benefited from exchanges with professionals globally. I was introduced to Ukhtomsky's theory of dominants ⁶ which describes the relationship between sensory engagement, energy expenditure and adaptive capacity when an organism (even a single cell) faces a chronic stressor.

We have billions of years of evolutionary refinement as single-celled organisms, developing the ground rules for symbiotic relationships. This requires communication — not just to transmit data but to filter it and make meaning. In my understanding, health is a self-optimising ecosystem of intelligent meaning-making, operating largely through indirect signs and inference in feedback loops.

ON MEETING INFANTS
PART 5 *Franklyn Sills*

WORKING IN THE
FAMILY FIELD *Sarah Nesling*

FROM FRAGMENTATION TO
WHOLENESS: RE-IGNITING
THE SPARK IN RECOVERY
AFTER MILD TRAUMATIC
BRAIN INJURY *Erica McKeen*
& *Dr Priyanka Pradhan*

Clinical Application: Dissociation and Re-embodiment

Robert Scaer's *The Body Bears the Burden*⁷ indicates that nearly every mental and physical illness could be due to unprocessed trauma — a survival adaptation that failed to normalise once safety returned. I eventually realised that most people in my practice were presenting with embodiment issues.

A lack of embodiment is actually dissociation – the defining characteristic of all chronic imprints; the adaptation is retained only because of overwhelm. If a traumatic event didn't involve dissociation, we could simply support recovery by having a cup of tea with a friend (supportive socialisation signals safety) or a jog down the road (free movement signals safety).

CST is particularly good at re-embodiment and it is useful to become adept at spotting qualities of emptiness (absences are often invisible) without paying it too much attention. Whatever we or the client attend to creates an information feedback loop and is amplified. I found that treating embodiment issues as if they were PTSD cases resulted in quicker, deeper, more integrated treatments. I began teaching clients specific awareness skills — positive neuroception — to facilitate collaboration. In health, humans evolved to find safety so they could enjoy an abundant world and healthy neuroception reflects that balance.

Biosemosis and the Feedback Loop of Safety
The body-mind has several primary survival agendas that go back to the very beginnings of life. One of which is to optimise its adaptive capacity and energy expenditure at all times. This requires the body-mind to be well-calibrated to its environment. Adaptation and de-adaptation should be fluid, bi-directional biological processes. In theory, biosemosis can reverse temporary survival adaptations (trauma) by engaging the correct feedback loops.

So what stops these normal, biologically-evolved communications of meaning between the cognitive level of attention and the body-mind? To answer briefly, the task of the cognitive mind is to provide a nuanced appraisal of the world. However, the

cultural abuses of attention normalised in 21st century western techno-industrial civilisation and our built and social environments are generally incompatible with the evolved body's way of processing information, preventing it from calibrating itself to safety. One major factor in this is the asymmetry of safety and danger.

State-of-the-art treatment methods for extreme trauma are a good model for how ALL trauma, dissociation and reduced embodiment should ideally be approached. That does not mean that trauma or PTSD has to be mentioned; the principles that work with the most intransigent and profound traumas will work with any dissociation.

High-end PTSD treatment begins with stabilisation — identifying a person's resources. This aligns with the CST principle of attending to health. As practitioners, our attention acts as a proxy for the patient's conscious attention. My goal is to encourage patients to participate in this same 'attending'. My practical salutogenic approach to stabilisation includes:

Proxemic space: A large enough room (6–8 feet) allows patients to normalise to my presence.



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Arriving: Helping the patient drop from left-cortex dominant modes into right-cortex appreciation and genuine interest. This includes engaging the chair and floor through positive use of leg/core muscles and the orienting reflex (turning the head). Note that the vagus is engaged in orienting activity rather than trying to create relaxation. Relaxation begins when the body-mind feels safe, and this begins to happen when the immediate environment is appraised with right-cortex-dominant cognitive attention. I follow this up with a similar arriving process on the table.

The edge of presence: Starting at the feet, I lightly identify fields of consciousness that are not well meshed into the body and bring my attention on the outside edge of them. This edge is a holographic field with a lot of information and is also a second skin; presence within this can feel rather bioinvasive to an activated body-mind.

Biasing “what’s right”: I acknowledge absences but remain more interested in where there is more energy and presence in the tissue — where it already feels embodied and ‘comfortably alive’. I train the patient to use their interoceptive attention in the same way, exploring states of love, gratitude and appreciation and the whereness (3D geography) of sensation. Both appreciation and exploration are perceptual states that cannot be entered during danger and so are two particularly useful biosemiotic “signs” of safety.

The biggest challenge is meeting the client's need for attention to “what’s wrong” while (so far as possible) bringing their attention to “what’s right” in a way that will communicate safety deep into their biology. We are not telling them they are safe; rather, the body/biology knows what is happening externally by observing how the cognitive mind employs attention and responds to it. When the body decides for itself to become less adapted to danger, the process can be remarkably fast and profound. I have seen a couple of instances of chronic central sensitisation⁸ totally disappear in less than 15 minutes when applying this principle. 🌱

This approach is described more fully in my online web-book: www.body-mind-resilience.com

A craniosacral practitioner with 30 years experience, **Andrew** has spent the majority of his career working with trauma and scar tissue recovery. For the past two decades, he has further refined his practice to focus on the challenges of dissociation, bringing a wealth of clinical depth to his work.

References

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3. Donald D. Hoffman (2014) *The Origin of Time In Conscious Agents*. *Cosmology* 18, pp494-520 <https://sites.socsci.uci.edu/~ddhoff/HoffmanTime.pdf> and <https://www.youtube.com/watch?v=7E-MwJgy2II> (and a Vedantic spin on the same theme can be seen here <https://aurocafe.substack.com/p/understanding-human-behavior>)
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8. Central sensitisation is a form of self-induced PTSD in which the sensory system responds by cranking up sensory volume because it interprets the way of attending as indicating potential mortal threat. The body is not evolved to handle internally directed fear and anxiety - which invoke adaptations “designed” for dealing with external danger.