

# Topologic Ecology of Health report

(not system-based as physical Ecology or General Human Ecology; But using non-critical **basic topologic modelling**)

– Dr Marika Bouchon – 2012

## The Trepina Gorge Field Experiment

– *An informal report* –

5 months at Trepina Gorge National Park, a remote area in NT (Alice Springs, Australia), spent volunteering, courtesy of Ranger Dan Adams (2011)

### Aim:

Testing the role of general ecologic factors of pressure, including positive societal, ecologic, and crowding pressures, and 'negative human pressure' (invalidation, pressure to not be as one is, not behave as one needs to for health) in 'brain-central-control' driven agitation-exhaustion; exploring the restoration of 'local' vegetative function (not centrally controlled) and systemic role of acetylcholine (Ach), using basic means such as

- Walking and more basic living conditions
- Rehydration and metabolic nourishment support.

### Results:

#### ➤ **External: general ecologic factors:**

- Reduction of pressures** (stressors acting on the person):

Ecologic-physical: including sensory and crowding

Ecology-Human: including economic/financial and basic (access to shelter, giving up the modern diet of stimulating and dry 'energy' foods).

This produced the most obvious first effects.

- Unstraining breathing and walking:**

Rather than anaerobic 'exertion' or 'cardiovascular aerobic's (the two medically recommended forms of 'healthy' physical activity, also formulated as binary stamina and endurance/resistance), what proved more effective for a postmenopausal / fibromyalgic body (becoming fibrotic) was pre- & post-sleep short walk, walking about camp in daily life tasks (about a hundred paces a number of times per day), and non-straining physical activity (as opposed to 'work', bending, focusing).

Non-straining means stopping when breathing and heart become straining and activate stress hormone adrenaline. These changes allowed the reappearance of 'spontaneous yoga' (unwilled bodily motions):

(a) corrective: acting on spine, rib cage, and limb joints, stretching **fibrotic** tissues, which improves motion and breathing mechanics;

(b) non-reactive: 'looking in the vague' de-focus that restores ease to breathing, heart, and circulation. Derived from this were

-sanity effects related to reducing agitation-exhaustion ('stress states' 'survival mode' or 'emotional lability' so frequent in women, conventionally psychologised as anxiety-depression (or hysteric/neurasthenic)

-general health effects: consequently, 'resolved' basic physiologic effort and osmotic strain; improved all basic vegetative functions such as breathing (no more swelling of sphenoid sinus, nose or lungs), digestion, circulation, sleep, eating, and capacity for physical self-care).

#### ➤ **Topologic Ecology factor:**

- **'Negative' human pressure:**

The globally endorsed pressure to deploy survival mechanisms permanently, and its symmetric correlate, the bio-psycho-social/societal suppression of the inability thereof, is a constant pressure expressed in people's behaviour toward someone they perceive as stressed socially/financially or 'weak' societally (e.g. chronic fatigue, chronic migraine with aura, and ageing women). Reducing this was unsuccessful because of remote technological means of communication (pressuring emails could still reach). Local country

people tend to not impose such pressure because they are more grounded in the struggles that *physical* survival in difficult weather imposes, with long term damage if it continues more than 2 weeks.

➤ **Internal: fundamental health and vegetative functions factors:**

•Reduction of physiologic strain:

Some degree of reduced welling→dehydration and pain; improved breathing and sleep; finally some degree of brain-mind rest and body recovery, were the most striking benefits.

The 'Water Stress Hypothesis'\* was confirmed: **osmotic strain** constitutes the baseline of 'normal' health, also known to be adaptive health, i.e. governed by the brain's adaptive 'central' capacity to correct chronically and occasionally through acute changes, involving behaviour and mind aspects.

•Reduction of brain/vertical high 'drive':

Somewhat reduced speed/degree/amplitude of stress states, 'acceleration', 'drive', and critical extremes characterized by lifeworld manifestations as well as emotional lability, and behavioural & autonomic dysregulation. This effect lasted for months after the experiment, until crowding & societal pressures increased again, creating problems that entrain the 'necessary' survival mechanisms. One such increase is the medically induced overdrive in the brain, for example by high-dose folic acid in someone with pyrrole disorder.

This suggests *some* recovery of the brain's adaptive capacity, even *within* the constraints of 'captive animal' civilised lifestyles in advanced human organized society, but only until a certain point of deployment or entrainment of survival mechanisms is reached.

➤ **Negative human pressure is the strongest initiator and perpetuator of the vertical high drive.**

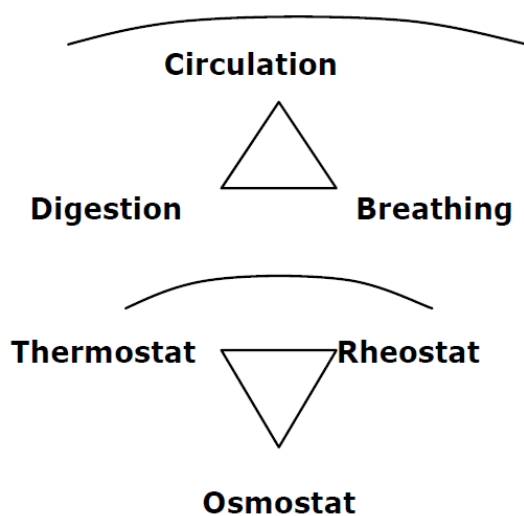
•Sensitive responses induced: raising the Vertical Axis

Under the 'negative human pressure' still too high, which provokes deployment of the vertical axis, no improvement was achieved in body sensitivity or brain reactivity:

-φs sensitive reactions initiated by φs-stimulation including reactions to food stimulants (e.g. sugar, salt, grain-based gluco-carbohydrates, strong vitamins...) and to temperature changes (incl. in shower and internally driven hot flushes arising from compensating for weak breathing and metabolic cold); and

- H/ψ-stressors- induced necessity of problem solving and hard work to solve them.

Another way of formulating this is that the **osmostat, thermostat and rheostat** were not freed from sensitive induction, but the extremes they drive were indeed much reduced.



**Baseline High-order deployment:**  
**'Normal' health:** adaptive (to stress, crowding, social-adapted), brain-central-controlled  
*Counter-productive high-order effects:*  
critical external damage (injury, disease, lethal accidents)  
internal dysfunction (mind, psyche, unaware of physical dysfunctions)  
degeneration & eventual failure of basic organic functions;  
most common degenerative diseases: heart attack, brain stroke, colon cancer, kidney failure. (similar effects of osmostat-thermostat-rheostat but obvious at end stage illness)

**Low order deployment:**  
**Osmostat-Thermostat-Rheostat**  
**Intense health:** cyclic flaring but fluidly responsive (unpatterned)  
*Counter-productive low-order effects:*  
Activation of higher functions coupled with suppression of basic functions, and increased susceptibility to low-order critical states (disturbance, diffuse symptoms, accumulating social difficulties & life problems esp. involving societal position, meeting basic physical needs and belonging) & eventual atrophy  
Most common: Flaring syndromes (chronic-acute reactivity)

Figure 1: **Two orders of deployment of survival mechanisms,**  
correlated to different roles of the catecholamines, cortisol, and oxytocin

The higher order of deployment has more steps of deployments, which were mentioned in my Ph.D. thesis; they are connected to foods, drinks, immunity, and the overarching rule of behaviour.

## Experimental Conclusions:

This experiment confirmed the ['Water Strain Hypothesis'](#)\* as

(1) the underlying osmotic strain induced systemic dysfunctions in low-order syndromes, probably related to impaired diffusion / impermeability (rather than 'leaky' surfaces) and

(2) the baseline strain in normal adaptive 'health' that is brain-central-controlled; it involves degeneration (hidden until mid-life because bodily resources are not yet exhausted, and higher-grade chronic syndromes or diseases, depending on the state of deployment).

All ecologic factors have the capacity to push into deployment of SurVival mechanism (including the great 'Life' of the brain and mind) and cause 'multi-factorial' disorders. This includes plain crowding.

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\*This hypothesis arose from a Ph.D. research (Bouchon, 2008, UWS) and an independent experiment using oxytocin hormone (Bouchon, case report 2010). It is introduced in non-academic terms in a web blog.

### **'Diet-&Lifestyle' and 'Stress-relaxation-&EXER-cise' frameworks (exertion)**

This experiment tested also the 'Diet-&Lifestyle', 'Stress-relaxation-&EXER-cise' medical anti-disorder/ anti-degeneration frameworks, which are usually aimed at normalizing behaviour, mind, or inflammation, with physical activity viewed as 'exertion', anaerobic or aerobic).

#### ➤ Theoretical findings:

These frameworks are inadequate to ensure vegetative functional ease. These practices are also insufficient for proper baseline hydration of the human body (especially female and child), for spontaneous health maintenance, for sensitive equilibration (different from rigid stability) of responses in both sexes. They have limited effectiveness in reducing reactions of the **Hypothalamic Osmostat/Thermostat/ Rheostat** so crucial to women. (affecting emotions, behaviour, cognition and brain functions) because they require effort and self-control in the first place. The female and child body suffer more damage and pain from these frameworks than most men.

They also do not allow to undo the collective habit of deploying systematically survival and effort sustaining mechanisms (in chronic/acute forms), and the *adapted* patterned behaviour (stabilised, established) that are considered the normal biases of personality and body type. They maintain brain 'highjack' (conceived as 'central' or 'high' function) of hormones as neurotransmitters mediating brain-central-control of the body's vegetative and other functions, and directly related to conditioned/ educated 'self-control' in childhood. This is particularly the case for ACh (acetylcholine) that is used up for common cognition (e.g. recognition, memory of details), at the expense of 'local' vegetative functions, thus inducing chronic disturbance, and systemic under-nourishment and mal-distribution of water (e.g. fluids in tissues but dehydrated cells at low order, or the opposite at high order in killer disease, silent or not), up to dessication in old age & sub-clinical syndromes.

These approaches, reinforced by the worldwide normal high-energy diets, maintain an agriculture-like drought - a 'ground/soil dehydration'- of the ground substance connective tissue and of cells, while swelling is rife in the other compartments. This baseline 'water stress' is reinforced by undernourishment induced by hyper-sensitive HPA/'sensitive brain' (or hyper-reactive, sensitised in high order condition), and initiated by the **hypothalamic osmotic strain system** (conventionally 'the first stress system').

NOTE: 'water stress' is a biology/agricultural name referring to dying plants; here 'water strain' would be more adequate: forced motions of water between inside and outside of cells and tissues, resulting in diffusion problems and dying cells in various parts of the body and brain. This is exPERIenced as a perilous 'in-dying'.

In other words, the above frameworks aim for a '**nutrient balancing**' approach to support brain or body, but it **does not stop 'central sensitivity' (or 'central sensitisation' syndromes)** and **only stops extremes**, especially the somato-psyche states related to entraining the vertical axis, and high brain functions. The medical or healing approaches, modern or traditional or alternative, may be effective for the conditioned 'sensitised' brain (e.g. conditioned pain reactions in 'most' fibromyalgia patients), but it **cannot 'desensitize' a merely sensitive system (usually conceived as a 'sensitive brain')** because the practices **require brain and body reactions**. Thus these frameworks contribute to the auto-reinforcing collective & individual habit of raising the vertical axis. This strategy may be 'necessary' in high-order normality, but it initiates the damage at low-order.

These frameworks do not undo this damage. They cannot deactivate the hyperactive raising fast and hard of the HPA axis and other survival mechanisms that is induced in childhood by all ecological factors, societal and diet especially, and constantly reinforced later. Nor can they prevent the brain-driven damage by low oxygenation (including to itself) and dehydration damage to the ground substance (particularly salient in female ageing), to the cells, the neurons... the body.

➤ **Practical findings:**

**These approaches still perpetuate the hypothalamic osmotic strain that *both***

**(a) initiates the HPA axis, entraining the brain's high-function,**

**(b) and is constantly re-initiated by it.**

The current framework of medical explanation that underlie treatments perpetuate, in an increasing drift of consequences:

- Emotional, behavioural liability, general mood and cognition 'ups & downs', and long-term periodic critical instability (with lifeworld-wide detrimental consequences of societal marginalization and, effectively, banishment)
- loosing periodically the ability for physical 'self-care' (eating properly, sleeping, hygiene, thirst mechanism...)
- systemic swelling→dehydration.
- chronic digestive difficulties and induced under-nourishment (using up nutrients, excreting some with toxics / autophagy)
- haemoglobin synthesis difficulties (e.g. platelets dysfunction, anaemia, pyroluric anemia (Pyrrole disorder): suppressed heme synthesis), systemic low oxygenation, and impaired healing.

One of the most global consequences is the drift in human health degeneration and the societal increase of the 'burden of disease and ageing'.

***The physical common sense 'slow down' framework***

The common sense 'slow down' framework proved far more effective, especially much faster at reducing agitation-exhaustion (conventionally reduced to 'emotional liability'), but it requires fundamental change in living conditions, and access to the favourable conditions is systematically and actively denied in normal living conditions.

**Conclusions: the Topologic Ecology framework**

Both based on a general-systems conventionalisation, the 'General Human Ecology' and the medical frameworks of 'Diet-&-Lifestyle' and 'Stress-relaxation-&-EXER-cise' frameworks do not account for the anomalies of the low-order diffuse flaring syndrome of sensitivity (as opposed to higher-grade chronic syndromes, which are established and stabilised), nor do they provide means to resolve the physical symptoms or the societal difficulties. A framework of 'Topologic Ecology' is required to model these phenomena. Further experiments and theorising will come under this term.

The next steps of research will involve finding practical ways of reducing this burden, through the investigation of other **neglected 'basic' options**. One of them is a 'sleep cure'. If these are made inaccessible still, then **metabolic treatment** will have to be investigated, in order to reduce metabolic suppression in the whole body.