

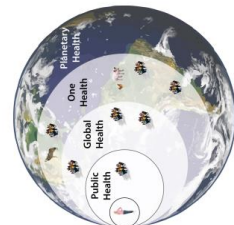
What is the difference with Sustainability?

Dr Marika Bouchon, August 2021

'**Sustainability**' is a hazy concept that has no precise definition. The more common understanding is that of '**sustainable development**', a population-level concept, often associated with United Nations goals, centered on human activity, in particular economic. This has little to do with ecological notions of 'limited carrying capacity', for example. This vagueness and rapid social diffusion of the word has allowed it to be interpreted in countless ways depending on perspectives and contexts, leading to ambiguity, and then empty 'sponge' words blended into justifications, just like the adjectives 'natural' or 'green'. None of these meanings fit the nature of the present field research, despite the same original 'long term' intent.

Moreover, the theoretical and modelling uses of the term 'sustainability' also pose intellectual problems:

- Conceptual confusion between sustainable or ecologically tenable in the long term, and sustainable *development or growth*
- Definitions, categories and frameworks such as environment, ecology, reality, human, natural, life, which have vastly different meanings in different contexts
- The dualistic dynamics of systemic formulations (in-out or go & back), their logic of 'balance', the reification of 'systems' abstractions or 'organisms' as real, the topologic properties of the holistic process of integration into a whole, and the often anthropo-centered quality of such representations.
- Unchallenged assumptions and presuppositions, rarely formulated openly, examined or investigated, for example: development as continuing indefinitely, as inevitable or even necessary endless growth, that human advancement or consciousness are the only way to be grounded in biological workings, or in the workings of one's own biological body (or for that matter to have the moral standard of respect in principle, not won), etc.



This field research therefore does not refer to 'sustainability' (nor 'natural'), but builds onto a more precise and grounded process of 'viability', as defined in *wild biology* sciences, and amenable to topologic modelling. This work centers on health, even though the properties described by the Animated Geometry can also be applied to 'the health of the planet' or other systems.

One field of practice helps clarify this notion. It is an unrealistic demand on anyone to try to fight if one cannot even breathe. On the other hand, a healthy animal missing limbs might not be able to live long or survive in the wild, but might live a long healthy life if its environment supports its needs and maintain permanently its basic capacity to be active – its viability. **Wildlife care veterinary science**

is one rare area in which 'survival' fitness, *capacity* and skills of an animal are distinguished from the permanent *basic ability* to be alive and functional – I 'biological viability'.

A broader view

Three dichotomies are similar in terms of logic, and plagued with the same philosophical dissonance, intellectual difficulties and practical opposition that represent an inversion of a direction 'up':


- 'sustainable development' and long-tenable 'sustainability'
- human health currently viewed as social-adaptive, stress-adapted, urban-adapted, and based on survival drives, *versus* the 'underlying foundation' of health in alternative medicines,
- definitions of human, nature, and 'it's human nature'.

Horizontal Symmetry (relative) & Vertical Symmetry (oriented)

Agreed:

- Vertical axis-'up' is linked to 'societally valued outcomes': 1-way direction
- Horizontal axis 2-way: cultural relativities: physical \leftrightarrow human: 2-ways

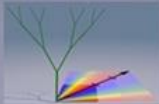
https://www.youtube.com/watch?v=gmc4wEL2aPQ&ab_channel=stanfordonline
https://www.youtube.com/watch?v=5hiQ28M-HIE&ab_channel=CognitiveAnimatedGeometryofMind



Barbara Tversky (psychology):
directions in thought

The 'ANIMATED GEOMETRY'

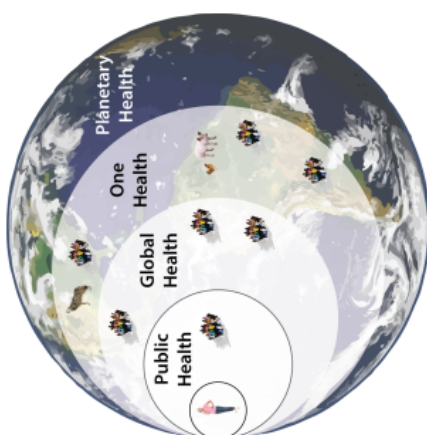
A 'thinking in imaging'



Directionality

- Vertically loaded: UP is more, better, stronger, more powerful
- Horizontal: cultural: writing, handedness

These perspectives result in the globally anthropo-centered view of the generic notion of health through the lens of systems theory:



<https://pim.martens.com/2021/07/30/know-commissie-planetary-health/#comments>

This typical image is an example of how framing the current situation with 'systems' reinforces anthropo-centered and self-centered re-representations that *localise* humans at the 'center'. Doing this ad infinitum, as an 'in-out' dualist separation across borders, even if larger or bigger or more complex than 'us', inevitably links to evaluations that humans are 'more important' or the 'deciders', just as a person in survival mode feels.

The biological state of survival is inherently self-centered to be effective in preserving a life, but it also leads to extremes, and it is not the only biological state.

Systemic representations (defining borders, bodies, objects, subjects, selves, groups, categories, worlds, universes, edges... with various parameters of representation and in various perspectives) introduce bias in both cognition and behaviour, reducing them to 'go in or out', 'go or go back'... all 'Go, go, go'.

This precludes the understanding of operations around limits, of how to operate *away from* limits rather than 'push past limits' and 'break boundary'. The dimensional geometry of 'topologic Boundary' offers another way of looking at things.

Scientists and thinkers now mostly agree, sustainability is 'possibly the most pressing issue ever to face humanity'. <https://www.herox.com/blog/977-why-crowds-and-prize-challenges-are-the-solution-t>

What the issue of 'sustainability' brings up is the complete lack of collective agreement on what to do about it because the *ways of defining* the issue or problem – *the frameworks of explanation* – cannot come into agreement, and 'we' do not find a way of changing human behaviour in general based on the frameworks used. This is a matter of perspectives, in both theory and practice, both thinking and action, and particularly their spatial orientation – in which direction are we going or supposed to go?

This article offers the very attractive solution, for both engineering minds and economy, of technological ideas crowd sourcing with reward. However, problem-solving, technology and other solutions, *unexamined for their orientation 'UP'*, only contribute to what got us to this 'most pressing problem': this very orientation 'up' is systematically biased one-way towards 'more' and more power (Tversky). We need to review how 'the problem' is mentally modelled according to the accepted frameworks that accept this direction 'up'.

Modeling instead 'the situation' generically, in both its global and local aspects (local to the tinker, for example), reveals the nature of the 'UP' vertical axis,

- its underlying parameters of representation – physical and human, or body and mind, or nature versus humans –,
- its daily life root of problem solving as the 'only' way out in the scientists and thinkers' minds,
- its root in the daily life experiences of life, work, health, shelter, and finance that give rise to these mental frameworks and the focus on a matter of pressure and survival.

Both the sense of daily life pressure and mental frameworks correlate for consistency, and give a diffuse sense of pressure, up to 'spiralling out of hand'.

The abstract *Topologic Situation Modelling* method[®] offers an understanding of properties in this broader view. The 'up' direction, usually opposed to the 'down' direction (e.g. 'back to nature', or 'return to self', or 'down to the present moment') can be viewed as a topologic 'vertical symmetry' at boundary, and this manifests in general human behaviour. The concrete *Local-Case method*[®] provides a means of exploring this directly.

This leads to a field experiment, the *Foraging Station Experiment*, aimed at investigating how this works in practice and could be undone. Using individuals who are plagued with crises and extremes of both 'up' and 'down' could show a new way for human health and behaviour to approach the 'most pressing issue', that of Pressure, both locally in their biology, which is human biology, and globally in their interaction with 'the world', the material world of humans that contributes to global and local crises and pressures.

Key words

Sustainability, sustainable development