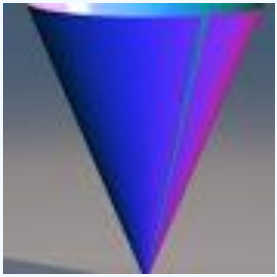


Topologic Ecology

Methods

Context of the Local Case© experimental method

Parameters: **PhysikeMorphism–AnthropoMorphism–SpiroMorphism** (e.g. DNA, spin, caduceus snakes, spirit)
Trans-Form under LARGE distortion: Trans-forming Disturbance ⟹ Deformed Trans-Formation
Non-Biological Complex systems are FRAGILE and often at risk (spin/vibration may appear 'living')
⇒ deployment is **Auto-Reinforcing**: [endless ∞ constraint limitation] ↻ [endless ∞ un-limited activity]
⇒ 'goes off track': general DRIFT with no end (asymptotic, endless)

Topologic Situation Modelling©

Topologic properties: 'gauging'
Reasoning in Dimensional geometry ⇋ Logical orders

deductive reasoning

General Principle → **Special Case**

inductive reasoning

Objective observation [sensory, measure instruments]
Subjective observation [self, word tools]
Behavioural observation [external to system observed]

Parameters: of Re-Presentation — Physical ⇋ Human ← → Material ⇋ Mental

Forgotten in mathematics — 1D vertical ⇵ generic symmetry — *Hidden in culture*

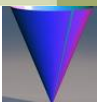
Direct Observation of *very small* distortions

Neither object nor subject 'inner': the observing body is affected & affects

Local Case©

Topologic ***Animated Geometry***: ***Generic gauging of small distortion & Grav-Intensity***
NO Parameters of Re-presentation but generic gauging of the situation that presents, without separating
Biological Complex Systems in Nature have STABLE ORGANISATION, maintain viable integrity
⇒ deployment is **Auto-Limiting** and 'stays on track' (no drift), **remains Safe & Sound**

Local-Case© experimental method



The *Local-Case*© method is an original experimental research design validated by the award of a Ph.D. (Bouchon, 2008). It is used informally by certain doctors (without defining a method, but guiding their use of conventional methods of enquiry).

Different from conventionalised approaches

This experimental method studies *topologic* properties of both a local case — a particular situation — *and* a global case, of which it is *an expression*. It does not use conventional parameters such as systems, physical parameters, or human/mind parameters. There are 3 differences, compared to conventional experimental designs.

Both global and local situations display the *same* topologic properties, 'work the same way'. The difference from a conventional design studying a particular case of a general case is that *both local and global situations are studied simultaneously*, as they are considered to undergo the same evolution or deployment. This is not taken into account in a conventional study of a specific case, which is then generalised. For example, these properties are found in both the physical and human general domains at different scales (e.g. physical health, cognitive elements; civilised behaviour, cultural influences; body, mind).

Another difference is that *the researcher is considered part of* the experimentation, since it is the researcher who observes, but not in a 'first person' manner. The more subtle the observations, made directly, without instruments, tools, or self-world system, the more important it is to include the 'sensitive' researcher in the experimental design.

This also allows formulating a topologic baseline that is inherently characteristic of *the researcher's* life and action – observation is a cognitive action –. This influences analysis and is never clarified in research, but taken for granted.

Topologic Situation Modelling© is an animated 'dimensional' geometry that describes *very small* distortions. It is demonstrated through videos containing computer animations. It is applied, in field work,

- through monitoring properties found at both global and local levels (of health for example). The researcher is also an expression of both local and global levels (or collective and individual).
- at the level of *the instrument of observation for very small distortions* (for topologic properties). The *'sensitive'* researcher is able to observe the *smaller distortions* that objective instruments (material), subjective interactions and external behavioural observation, cannot detect, as well as the observer's topologic state of deployment, which is baseline to experimentation.

This way, in the *Local-Case*© experimental method, the *observation biases* introduced by mind but also the baseline state of the researcher's body and his *modus operandi,* can be taken into account and formulated clearly as with assumptions and physical presuppositions. This approach is particularly suited studying influences in the case of 'sensitive' or neuro-A-typical

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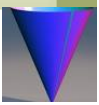
Topologic Situation Modelling© method



The Topologic Situation Modelling© method studies the topologic properties of a situation (e.g. swelling, expanding), rather than represent causes & effects on objects or statistical correlations, or formulating explanations and descriptions of human experience.

•Topology is a kind of geometry in motion, a 'rubber sheet geometry' of *small* distortion. In this work it is used without numbers, equations or algorithms [If curious, see the article *'A Biased Little History of Topology'*.]

•This method can model how the **situation deploys from 'state' to state (or stages) and back**, thus allowing to understand both the 'whence' and 'whither' of a situation, *simultaneously*, and to obtain a more complete picture than system theory can offer.

•It allows **'gauging' the 'shaping' of a situation** generically, **its 'orienting'** or tendency of baseline observations (e.g. do they tend to increase or decrease?). Typically, cultures use only one of two directions, as philosophies of 'life': either a philosophy of human advancement (increase) or a philosophy of nature (or 'return' to previous states). Topology enables to **model simultaneously both directions of orienting,** and thus to understand their connection and common ground, and find how to operate with both of them.

•Topologic modelling **apprehends local-global situations *simultaneously***, and permits to use a local exemplary and its evolving properties to gauge a global property and its changes, or to use a global situation's 'big picture' to take actions to resolve the deployment of a local situation that has complex, multi-factorial or multi-modal aspects (described in conventional methods). This is particularly useful for issues that affect both the global human world and the individual, in too many ways to apprehend even with a multi-factorial approach.

•**This method apprehends a situation «as it presents» directly,** independently of valuing (measurement, evaluation: valuing requires a reference point, center or frame of reference), of defining systems and dualistic inter-actions. That is, it models the situation *independently of re-presentations* or any filtering framework of understanding or framing for perspective – which do also have their uses –. Perspective and valuings introduce bias and prevent a direct gauging without bias of a situation as it *presents*, and of its deployment, independently of time or energy frameworks.

•This topologic method is less differentiating, more generic, but provides a more complete picture than even the largest systemic 'big picture'. However, direct gauging of the shaping of the situation or *Topologic Situation Modelling*©, can still be declined into various perspectives, for communication, to construct representations according to conventional parameters of representation, maps or word explanations. This gives access to the perspectives on the same situation given by the known methods.

• *Topologic Situation Modelling*© is an animated & dimensional geometry that produces a geometric «imaging», imaging that 'looks like' or has a geometric similarity (not physical) to the way the situation deploys and distorts. This can be used as ***a*** «***Geometry of Mind***», an intellectual tool for modelling that includes a dimensional logic of orders. The simple ***Animated Geometry*** is also a «***Geometry of Sensation***», a cognitive kinesic-spatial sensitivity.