

## **From ‘Space-Time’ to ‘Place-Time’: The evolutionary geometry of inclusionality and natural inclusion**

Have you ever found yourself in ‘the wrong place at the wrong time’? For that matter, have you ever found yourself in the ‘right place at the right time’? Such is the nature of our human experience of misadventure and serendipity – experience that if we are honest with ourselves informs us all too clearly about how context-dependent our seeming successes and failures are, and how inapt it is either to assume *sole* credit or deny *any* responsibility for them.

Who we are and how we fare depends on *where* we find ourselves, and where we find ourselves cannot be isolated from the space that both includes and is included by the dynamic configurations of our bodily boundaries. We are always *somewhere* locally unique as dynamic inclusions of a boundless, non-local everywhere. We are continually in transition, inhabitants of a dynamic neighbourhood of ever-transforming spatial relationship that simultaneously both shapes and is shaped by us, like the water in a river that both creates and follows paths of least resistance to its flow.

We cannot therefore make random exceptions of ourselves from Nature, as if we were independently definable objects, capable of being anywhere, anytime and driven hither and thither from some magical, forceful control centre somewhere either outside or inside the fixed definition of our bodies and living space. But that is precisely what rationalistic logic, based ultimately on the exclusion of ‘space’ as ‘void nothing’ from ‘matter’ as ‘definite something’, has been persuading us to try vainly to ‘do’ for millennia, whilst becoming ever more deeply entrenched in our philosophical, mathematical and scientific foundations. The fundamental premise of this logic – the existence of independently definable and quantifiable objects – lies in an idealized freezing out of ‘imperfection’ (i.e. ‘space’) from discrete and regularized geometrical form, constrained within a three-dimensional box extended to infinity.

This abstract imposition of discontinuity by definition neither takes account of nor does justice to contemporary scientific findings and real life experience of the dynamic continuity of natural flow. Yet it continues to be defended most zealously by

those whose claim to authority rests in what they regard as disinterested objective observation and evidence. It also leads to the deep paradox, conflict, waste and damage that arises through dislocating 'self' from 'neighbourhood', making us believe in an unsustainable, competitive struggle for existence and individual perfection that is at odds with the variability of the natural world that both sustains and includes us.

The scientific beginnings of the ending of this dislocation, and associated recovery in awareness of our dynamically continuous natural geometry, have emerged with the advent of relativity, quantum mechanics and non-linear dynamical systems theory. All these theories signify, in one way or another, the inextricability of space from matter in a fluid dynamic cosmos of energy flow.

None of these theories, however, has yet been able to escape from self-imposed logical and mathematical constraints based on definitive initial assumptions, an upshot of which is that what is implicitly complementary in their reciprocal views of spatial inclusion in natural geometry appears to be contradictory. In particular, there has been continual altercation amongst proponents of 'stochastic' and 'deterministic' interpretations of dynamic processes. The former interpretations are based on models that default to a random distribution of independent events or objects, arising in effect from the degenerative influence of space, which results in an inexorable rise in 'entropy' ('disorder') within a defined system. The latter assume that all future evolution of a system is fully dependent upon (i.e. 'fixed' or 'fated' by) 'initial conditions'. These conditions are defined within a local frame or 'attractor' of space at an instant beginning point in time, albeit that tiny differences in these conditions can be amplified into enormous changes in long term behaviour (the famous 'butterfly effect' of chaos theory).

The altercation between deterministic and stochastic views of evolutionary processes is epitomized by the inconsistency between Einstein's saying on the one hand that the environment is 'everything except me' and on the other his protestation against quantum theory that 'God does not play dice'. The origin of this altercation lies in the alternative fixed geometries of space within which the two views are framed, neither of which is supported by actual evidence or experience. In these geometries space is

either confined, along with time, to the curved surface of a zero-thickness fabric that gets locally warped by material condensations of energy, or within a rigid container that discrete objects can pop into or out of, as if from or into nothing or nowhere.

This altercation parallels the 2,500 year-old battle between propositional ('either/or') and dialectical ('both/and in mutual contradiction'), and associated reductive and holistic forms of logic, each of which assumes the independent existence of definable *whole* entities whilst rejecting the rationality of the other's position. The battle, along with its implications for the origins of human conflict, is eloquently depicted in the following excerpt from C.S. Lewis's 'Screwtape Letters' from a senior to an apprentice devil:

*“The whole philosophy of Hell rests on a recognition of the axiom that one thing is not another thing, and, specifically, that one self is not another self. My good is my good and your good is yours. What one gains another loses. Even an inanimate object is what it is by excluding all other objects from the space it occupies; as it expands, it does so by pushing all other objects aside or by absorbing them. A self does the same. With beasts the absorption takes the form of eating; for us, it means the sucking of will and freedom out of a weaker self into a stronger. 'To be' means 'to be in competition'. Now the Enemy's philosophy is nothing more or less than one continued attempt to evade this very obvious truth. He aims at contradiction. Things are to be many, yet also one. The good of one self is to be the good of another. This impossibility he calls love, and this same monotonous panacea can be detected under all He does and even all He is - or claims to be. Thus He is not content, even Himself, to be a sheer arithmetical unity; He claims to be three as well as one, in order that this nonsense about Love may find a foothold in his own nature. At the other end of the scale, He introduces into matter that obscene invention the organism, in which the parts are perverted from their natural destiny of competition and made to cooperate... Family... is like the organism, only worse; for the members of the family are distinct, yet also united in a more conscious and responsible way. The whole thing, in fact, turns out to be simply one more device for dragging in Love.”*

No sooner are the restrictive definitions of matter, space and time relaxed, however, than a fluid geometry of Nature becomes obvious, in which material information, as a local condensation of energy, is understood to be a responsive dynamic inclusion of receptive immaterial space and *vice versa*. The informational and spatial phases are as solute and solvent are to one another in a natural solution, and the fluid geometry is to the fixed geometry as water is to ice, not in opposition to one another but in mutually transforming dynamic relationship. The receptive ('loving') influence of space extends everywhere without having to be dragged into paradoxically defined subjects and objects.

The concepts of 'inclusionality' and 'natural inclusion' that arise from appreciation of this fluid geometry offer a new logical foundation for understanding the dynamic relational quality of living systems in a more realistic and contextually aware way, which transcends the definitive limitations of propositional and dialectic formulations. Correspondingly, inclusionality can be described, but not defined, as a comprehension of Nature as a fluid continuum of mutually inclusive local informational and non-local spatial phases in which all form is flow-form, a dynamic receptive-responsive configuration of everywhere in somewhere, with no fixed centre. Natural inclusion is the co-creative, fluid dynamic transformation of all through all in receptive spatial context.

With these concepts, matter and space mutually melt into a heterogeneous, variable viscosity energy flow of 'place-time' or 'co-creative evolutionary geometry'. Notions of both 'competition' and 'co-operation' are understood to be predicated upon the prescriptive definition of at least initially discrete entities, for which there is no evidence and which does not make sense of actual scientific observations or personal experience of natural dynamic communion. Similarly, notions of 'selfishness' and 'altruism', based on the definitive assertion or denial of self-centredness are subsumed by awareness that our complex local-non-local self-identity arises within the dynamic context of, not in isolation from natural neighbourhood, and varies accordingly. To understand ourselves and others we ask not 'who' or 'what' we are as objects occupying the fabric of space-time, but 'where' we are as dynamic inclusions of the continuum of place-time. The whole basis for the philosophy of Hell collapses and

Love, as receptive-responsive influence is a dynamic inclusion of all, without contradiction.