T-patterns and self-similarity from the RNA world to human mass-societies

Discovering self-similarity of temporal and spatial patterning across different levels of organisation obviously requires a pattern type common to two or more of the levels. The hierarchical self-similar T-patterns recurring with significant translation symmetry were initially defined for the detection of complex, highly flexible and parallel recurrent real-time patterns in mostly nonverbal behavior and interactions in animals and humans. But this type of pattern then also turned out to be common at a lower level, that is, in interactions in networks of neurones within brains. Eventually, spatial T-patterns seem very common (even omnipresent) at the still lower level of DNA, RNA and proteins. On the other hand, pattern types typically used to describe DNA structure are usually too simple or rigid to describe and discover real-time human interaction patterns. The RNA world added the DNA external memory and control strings and protein mass-societies (cell cities) evolved followed by mass-societies of cells (bodies). Finally, mass-societies of bodies evolved, but only in insects and humans; in insects over millions of years, but in humans in a biological eye-blink. Crucial in the mass-societies of proteins and humans, but absent in all the others, are extra-individual long T-patterned strings (respectively, DNA and text) typically lasting far longer than individual citizens. These have allowed near total domination of DNA based life and of the development of human mass-societies with population sizes rivaling the most populous cities of proteins and the appearance in human mass-societies of mass religions and laws as well as modern science and technology; finally leading among other, to the discovery of insights and their nano-scale mass-societies. It seems possible that the study of each of these kinds of mass-societies may provide new insights and ideas for the other.

Biography

Magnus S. Magnusson has completed PhD in 1983 from the University of Copenhagen. He is the author of T-pattern model and the corresponding detection algorithms in the THEME™ (PatternVision). He has focused on real-time organisation of behavior, co-directed DNA analysis, published numerous papers and given invited talks and keynotes at universities in Europe, USA and Japan and at international conferences in ethology, psychology, neuroscience, mathematical sciences and science of religion, proteomics and mass spectrometry. He was Associate Professor and Deputy Director in the Museum of Mankind, National Museum of Natural History, Paris from 1983-1988. He was repeatedly invited Professor in psychology and ethology (the biology of behavior) at the University of Paris, V, VIII and XIII. Since 1991, he is the Founder and Director of the Human Behavior Laboratory (hbl.hi.is), University of Iceland. He works in collaboration between now 32 universities on Methodology for the Analysis of Social Interaction (MASI) initiated in 1995 at the Sorbonne, Paris based on “Magnusson’s analytical model”.

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