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T-patterns from DNA to protein and human mass-societies: self-similarity across billions of years and orders of magnitude

A T-pattern is a scale independent hierarchical self-similar structured cluster of point elements recurring with statistically significant translation symmetry and may be seen as a pseudo-fractal on a single discrete dimension, which has been successfully applied in a growing number of areas from human and animal behavior to neuronal interactions and is being applied to analysis of DNA structure, as it also corresponds to the structure of genes and proteins. The T-pattern is defined and its theoretical and empirical origins are described. It is exemplified with patterns detected using the specially developed algorithm and software, THEMETM (patternvision.com). Written verbal behavior or texts, 1D strings, are objects in human mass-societies showing such structural characteristics. Like DNA in Cell City, text has the recent unique situation among all animal mass-societies to contain long standardized control strings external to and outlasting all citizens which with the help of specialized citizens allows the creation of other specialists. The animal mass-societies that come closest to the mass-societies of proteins and humans are the multi-million strong social insect societies where the social structure depends on severe shrinking of the behavioral potential of most individuals. The role of text based, T-pattern based, religion in the emergence and maintenance of the human large-brain mass-societies is shortly considered in this light.

Biography

Magnus S Magnusson completed his PhD in 1983, University of Copenhagen. He is Author of the T-pattern model and the corresponding detection algorithms in the THEMETM (PatternVision). He has focused on real-time organization of behavior, Co-directed DNA analysis, published numerous papers and given invited talks and keynotes at international conferences in ethology, psychology, neuroscience, proteomics and mass spectrometry, and at universities in Europe, USA and Japan. He has worked as an Associate Professor and Deputy Director during 1983-1988, Anthropology Laboratory, Museum of Natural History, Paris. He has been a repeatedly invited Professor at the University of Paris, V, VIII and XIII. Since 1991, He has been the Founder and Director of the Human Behavior Laboratory, University of Iceland. Since 1995, he is in collaboration with 24 universities (on Methodology for the Analysis of Social Interaction, MASI) based on "Magnusson's analytical model" initiated at Sorbonne, Paris.

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