

# **Consciousness, Entropy and Evolution**

## **The Laws of Biology**



**An unconscious bird cannot fly**

**DMR Sekhar**

**Transcience Transactions Vol. III**

# **CONSCIOUSNESS, ENTROPY AND EVOLUTION**

**The Laws of Biology**

**DMR Sekhar**



**SCIENTIFIC**  
**PUBLISHERS (INDIA)**  
[www.scientificpub.com](http://www.scientificpub.com)

*Published by:*

Scientific Publishers (India)  
5 A, New Pali Road, P.O. Box 91  
Jodhpur 342 001 (India)

E-mail: [info@scientificpub.com](mailto:info@scientificpub.com)  
Website: [www.scientificpub.com](http://www.scientificpub.com)

*Branch Office*

Scientific Publishers (India)  
4806/24, Ansari Road, Daryaganj  
New Delhi - 110 002 (India)

© 2012, DMR Sekhar

All rights reserved. No part of this publication or the information contained herein may be reproduced, adapted, abridged, translated, stored in a retrieval system, computer system, photographic or other systems or transmitted in any form or by any means, electronic, mechanical, by photocopying, recording or otherwise, without written prior permission from the authors and the publishers.

Disclaimer: Whereas every effort has been made to avoid errors and omissions, this publication is being sold on the understanding that neither the author nor the publishers nor the printers would be liable in any manner to any person either for an error or for an omission in this publication, or for any action to be taken on the basis of this work. Any inadvertent discrepancy noted may be brought to the attention of the publishers, for rectifying it in future editions, if published.

ISBN: 978-81-7233-794-0  
eISBN: 978-93-86347-49-7

Printed in India

*I dedicate this monograph on Consciousness, Entropy and Evolution to Shri K. S. Money Saheb IAS who served M/s RSMML as Managing Director. Under his leadership we implemented an unconventional project that retrofitted roller press in the grinding circuit of Jhamarkotra Phosphate Beneficiation Plant which is successfully running since 2003. The implementation of this project resulted in power savings to the tune of 15 kWh per ton of ore treated.*

*Sekhar, DMR*

## Acknowledgement

The monograph on genopsych is just released and it was possible due to the interest taken by Prof. AK Purohit, Editor, transcience transactions. This monograph on Consciousness, Entropy and Evolution where eight basic laws of biology are stated is a follow up to GENOPSYCH. In the absence of these biological laws we come to misleading conclusions that there is nothing called life and that there is no difference between a driver and his car as both the car and the driver are governed by the same physical laws! This is nothing but insulting science as well as human intellect. Yet we do have people who argue that living systems are not “self driven”. These people say that living systems are driven by external electromagnetic forces but fail to identify those electromagnetic forces and hence I call that vain science of intellectually dishonest people. Also I am yet to come across a physical law that can explain as to why an unconscious bird cannot fly. The purpose of science is to explore the truth and not to hide it. Lacing science with either theism or atheism has the same effect as both are simply beliefs. Science should be kept away from personal beliefs in the interest of truth. Arrogance can hardly solve any scientific problem rather it can impede the advance of science.

I greatly appreciate the initiatives being taken by Prof. AK Purohit as Editor of transcience transactions and as the president of PROM Society. I am indebted to all those scientists and engineers who commented on various topics of CEE presented in this monograph. I am thankful to Scientific Publishers (India), Jodhpur. I am thankful to Er. John Britto for formatting the text and designing the cover pages.

**Sekhar, DMR**

April, 2012

## Prelude to Transcience transactions Vol. III

### Consciousness, Entropy and Evolution (CEE)

Science is an enquiry in continuity. It's a journey from darkness to light (a la Vedic hymn – *Tamaso ma jyotirgamay*). The dark zone and light are interspersed with grey area. It's only through interacting with Dr. DMR Sekhar on issues of Evolution, Uniqueness of Life Processes, Consciousness as Fundamental to Biology and the Theory of Genopsych, that it could be reckoned that Consciousness forms that sector, which should have belonged to Science but has been dealt by Metaphysicists. In my prelude to Genopsych (Transcience transaction Vol. II), it was conceded that Biologists ignored the issue of Consciousness, despite the simple fact that without consciousness no living activity could have been possible. The dimensions of Plant Intelligence, Plant Neurobiology, Responses of Prokaryotes, and other such simple life forms, to environment gradually started forming semantics of Biology; yet exploring scientific basis as well as manifestations of consciousness remained a Transcience entity. This perspective led to conception of Transcience Transactions (TT) and publication of TT volume I- ***The Philosophy of Evolution*** (Eds. UVS Rana, K Srinivas, NC Aery, AK Purohit, Yash Publishing House, Bikaner, 2010) & Vol. II- ***Genopsych: A coinage in the foundry of Biology*** (Monograph by DMR Sekhar, Scientific Publishers, Jodhpur, 2011). Evidently, Transcience Transactions did not seek explorations beyond logic, but endeavored to expand boundaries of rational comprehension.

Dr. Sekhar had contributed a Chapter on ***Genomic Consciousness*** in TT Vol. I. In Vol. II the idea was crystallized enough to be brought out as a new coinage of a term- the ***Genopsych*** which would link Biology with its intrinsic trait of consciousness, instincts of procreation and self preservation and free will. It, not only filled an important gap, but prompted innovative thinking and research in Biology. Even for students of modern biology, the book contained valuable information on advances in DNA structure particularly intra DNA electronic structure and information processing therein.

The book brought forth an assertion that life processes were ought to be understood with laws and principles based on intrinsic characteristics of life to comprehend a simple fact that living systems are different from non-living inanimate objects. Dr. Sekhar had, very candidly proffered to ask - ***If it is not by genopsych then how can we explain the strange properties of DNA [self repairing, replication and self programmability], the organisation [non random structures] of genome, the genomic ability to create new information and the execution of genomic programmes, autotomy, instincts, intuition, and placebo effect through one single model?***

The present monograph on Consciousness, Entropy and Evolution (CEE, TT Vol.III) is a natural sequel to these ideas. It reaffirms the aforesaid notions and takes forth the theory to suggest that DNA has the innate primacy over all other cellular processes. Dr. Sekhar has silhouetted his theory in the light of Nobel winning research of Barbara McClintock who wrote, ***the conclusion seems inescapable that cells are able to sense the presence in their nuclei of ruptured ends of chromosomes and then to activate a mechanism that will bring together and then unite these ends, one with another. And this will occur, regardless of the initial distance in a telophase nucleus that separated the ruptured ends. The ability of a cell to sense these broken ends, to direct them to each other, and then to unite them so that the union of the two DNA strands is correctly oriented, is a particularly revealing example of the sensitivity of the cells to all that is going on within them.*** The conclusion drawn by Barbara McClintock amounts to saying that cells are “self aware” or conscious.

The monograph offers many new insights on Evolution, Entropy and some serious comments on the scientists’ attitude, in lighter vein. Besides everything else, the present monograph underlines the need of Laws of Biology, independent and in equivalence to Laws of Physics and Chemistry.

The coin of ***Genopsych*** is out of foundry and is in circulation also. The CEE is in your hand. Science monographs are meant for reading and discussion. Wake up Biologists, Our laws have been framed, it’s a call to accept, modify or object. Happy reading.

**A.K. Purohit**

# Contents

• Eddington's Psycho-Syndrome	1
• Random Birds	7
• Reality of the Self	11
• What is self?	18
• Living Systems	20
• Entropy and its dual nature	27
• Survival strategies of living systems	31
• Genomic processes have primacy over cell processes	36
• The drive and the direction of evolution	39
• The first law of biology	49
• Sir JC Bose and the second law of biology	59
• Conscious systems and the third law of biology	61
• Laws of biology	65
• Libet's puzzle	67
• Summary	78