

## Lecture Outline

- I. Kapiladeva quote. We must consider the absolute source in order to understand the difference between life and matter.
- II. Matter/ Life. Scientific hypothesis.
- III. Origin of Life? The materialistic theory. Quote F. Crick.
- IV. Pasteur. Defeated 'matter causes life', not vitalism. He and other great scientists have opposed materialism, but this is not taught.
- V. Natural laws. Is this the absolute? Quote Watson, de Breglia. Cannot even solve for  $H_2O$  or  $C_6H_6$ , what to speak of DNA. Hypothesis: more and more laws will be needed - these are not enough.
- VI. Axioms. The basis of scientific theories. Quote Chaitin, Einstein. In the past simple axioms were sought - but unlimited axioms may be needed. Where do they come from?
- VII. General computer. Final reduction of the numerical world view. Can such a machine be conscious? Absurd! Therefore consciousness is beyond numerical description. Life cannot be reduced to matter, nor can it originate from matter.
- VIII. Observer/ Observed. Quantum mechanics has supported VII. for 40 years, but this is not widely taught. Quote von Neumann, Wigner.
- IX. Theories of probability. Probability is basis of evolution theory and modern physics. But its foundations are unsound. Quote T.L. Fine.
- X. Long protein sequence and its probability. The long time span. How long a span is needed in evolution theory for formation of macro-molecules by chance? Ans.:  $10^{107}$  billion years.
- XI. Natural selection. The basic causative principle of evolution theory. It is all speculation. Quote Huxley, Mayr, Waddington, Gannow & Ycas, Mayr again, Bateson, Broom, Osborn, Goldschmidt, Leakey, Darwin. It boils down to the natural laws ultimately. Peppered moths, Mimicry, E Coli motor, Time charts, strata sequences, and Darwin & feather.
- XII. Define information content. Proven: probability plus simple laws can ~~do~~ do no more than simple laws alone. Either life forms did not evolve, or they can be exactly computed by a short computer program. Take your pick.
- XIII. Gödel's theorem and other math problems: High (unlimited) information content is required by many math problems. Most number sequences have high information content. Hypothesis: We live in a world of high information content.

IIV. Probability of sequence as function of information content.  
Distribution of sequences.

3-d graph of information distribution in a physical ensemble.

Simple laws cannot discriminate between patterns of high information content, even over a long time span. Therefore, simple laws cannot select complex forms. Only laws of high information content can select, or manifest, patterns of high information content. Therefore: Either the absolute has a high information content, or only patterns of low information content are probable.

- IV. Examples of different possible physical ensembles. Note: We are dealing with the basic framework of physics. If this is invalid, then how can anyone say that life comes from matter? It is like saying life (Which we don't know) comes from matter (which we don't know). Matter may be completely different: Vedic description.

$H_2$  gas, water, glass, benzene, diamond crystal,

Cytochrome c, protein synthesis, metabolic reactions, E Coli data, DNA data.

Explain in terms of thermodynamic ensembles and 3-d graph.

Process of disintegration or degradation: Information can be lost, but specific information cannot be gained: blurring out of peak labelled 'B' in 3-d graph. 2nd law of thermodynamics. Fallacy of the "negentropy from the sun" argument of Oparin and others.

- I. Inspiration: Gauss, Mozart. The manifestation of wonderful displays of music, art, math, reasoning, etc. What is the source? Can a simple program do it? Is it random? Hypothesis: High information content is once again indicated for the absolute cause.

Quote Gauss, Mozart, Poincare.

Dimensions of personality,

- II. Reductionistic model.  
Higher information content models.  
Transcendental model.

Combine consciousness and high information content: Absolute Cause is sentient person, wellspring of vast knowledge. This makes good sense. Quote Wallace.