

# COGNITIVE EVOLUTION

*The Biological Imprint of  
Applied Intelligence*

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A Theoretical Treatise

Alice Travis

Universal Publishers  
Boca Raton, Florida

*Cognitive Evolution: The Biological Imprint of Applied Intelligence*

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Acknowledgement is made of permission to use Figure: The Exceptional Brain of Albert Einstein by Department of Psychiatry and Behavioral Neuroscience Mc Master University Hamilton, Ontario research team led by Sandra F. Witelson Albert Einstein Irving Zucker Chair in Neuroscience, reported in the journal *Lancet* vol. 353.

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For Alice Fassitt Jupiter

And the other architects of the legacy of  
The Camelback House

In Paradise

George Carroll Fassitt 1892-1960

Adele Nelson Fassitt 1895-1988

Mary Fassitt Demery Murphy 1919-1985

And For

St. Katharine Drexel 1858- 1955

Apostle to the Oppressed



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## FOREWORD

*The genetically close relationship of the Homo sapien with all expressions of life is documented in the genes which contain relics of our evolution going back eight hundred million years or more.*

Findings The Human Genome Project  
February 15, 2001

A readable text of the Book of life, the Homo sapien genomic landscape, allows research of the previously unfathomable. Quick to respond scientists have lined up on both sides of the issues of free will and determinism, randomness and predictability, without purpose and with God.

The Theory of Cognitive Evolution accommodates the seemingly contradictory, and holds that we are correct in describing chemical evolution as movement from non-life to life, but that we consequently err in describing biological evolution as the journey from simple life to intelligent life.

The far earlier than traditionally believed introduction of intelligence into life organisms requires that we redefine intelligence, instinct, and adaptation, for adaptation in plants and instinct in animals are evidenced also in the high order level of Homo sapiens. Flange or webbed feet,

genitalia aprons, highly specialized speech apparatus for production of the click language sounds are evolutionary evidence of adaptation of form and uncommon pre-geometry, extraordinary navigational abilities of some primitive peoples are neurological instinct in humans.



## INTRODUCTION

We race toward the new world where intellect promises to be the most coveted capital. Instruments that measure intelligence have proved to be increasingly reliable in identifying mental talent in individuals and groups. But there are winners and losers in the tabulations. Evidence mounts that there are significant correlations between measured Intelligence Quotients and economic and social indices. Further extrapolations of data point to the emergence of insulated pockets of cerebral strength disturbingly isolated from masses of the population, and tending toward insular breeding patterns.

Though we recognize intelligent behavior, and can diagnose an individual's probability of demonstrating it, we have not reached a consensus as to what it is, and the respective roles of genetics and environments in determining the degrees of its appearances. The debate is serious. Discernible patterns of its distribution can be read to suggest that some racial and ethnic groups are biologically intellectually inferior. By inference, others are biologically superior in intelligence.

Can the superior and the dull expect to share a common evolutionary future? Can society survive a recognized hierarchy of humanity?

The Theory of Cognitive Evolution holds that there are biological residues or imprints that result from the application of Homo sapien intelligence. Demonstrations of inequality among men exist not because of a genetic master plan but because of the equality of the species. Cerebral life is released or limited in accord with lineage, intrauterine experience, the patterns of thought internalized with the acquisition of language, and the culturally imposed identity of self.

Race and ethnicity are irrelevant to genius. The same cannot be said of cultures. Though categorically equal, cultures are decidedly unequal in cerebral impact.

Among no men can conclusions predicated on fallacy demonstrate truth. Illiteracy does not spawn literature.

PART ONE  
THE TENETS OF COGNITIVE EVOLUTION



# THE TENETS OF COGNITIVE EVOLUTION

COGNITIVE EVOLUTION IS A THEORY OF THE EVOLUTIONARY BIOLOGICAL INTERCONNECTEDNESS OF SURVIVAL, ADAPTATION, INSTINCT AND INTELLIGENT BEHAVIOR IN LIVING ORGANISMS.

The theory of Cognitive Evolution addresses how the brain makes mental behaviors possible. It is the result of an intensive analysis of interdisciplinary scientific efforts to codify the physiological underpinnings of cognitive functions in *Homo sapiens*. The theory proposes a new definition of biological evolution, and reaches other conclusions believed to be of scientific interest in areas as distinct as neurophysiology, psychology and computational theory.

Cognitive Evolution suggests that high order mental behaviors of *Homo sapiens* are rooted in the same biology as why moths are attracted to light, how worker bees know their assignments, how ants know the mechanics of executing the architectural design of an ant hill, or how a female cat knows to open the umbilical sack after giving birth.

## I. ALL LIFE IS INTELLIGENT.

Though we are correct in describing chemical evolution as the movement from non-life to life, it is submitted that we are mistaken in our definition of biological evolution as the movement from life to intelligent life. Instead, the theory of Cognitive Evolution suggests that the definition of life is in fact the internal possession of intelligence at the cellular level, providing even the one celled organism with the capacity to change in accordance with rudimentary but nevertheless intelligent behavior in carrying out its life processes.

Life is in fact an organism's embodiment of internal chemical capabilities which make possible the receipt and utilization of nourishment, the ability to respire and remove wastes and the ability to reproduce by virtue of the operation of internal intelligence at the cellular level.

Early viruses believed to be in a 'twilight zone' between non-life and life were such because they displayed halting emerging intelligence not sufficient for the internal maintenance of the becoming organism.

## II. ALL LIFE DISPLAYS INTELLIGENT BEHAVIOR.

To the extent that instinctive behavior is intelligent or purposeful behavior, the question we must address is, 'Does the line of demarcation between instinctive behavior and intelligent behavior really exist?' The theory of Cognitive Evolution holds that there are no lines of demarcation among structural adaptations in plants, instinctive behaviors in insects, birds and animals, and intelligent behaviors in *Homo sapiens*.

If we begin from the top of the intelligence pyramid and proceed downward, at what juncture does a mammal, fish,

bird, insect or plant display internal chemical processes absent intelligent purpose? If ivy adapts to its environment by sprouting suction cups for support, the internal chemical processes, which produced the needed support, did display intelligent or purposeful behavior.

### III. ALL LIFE DEMONSTRATES INTELLIGENT BEHAVIOR BY THE REGULATORY AND CONTROL FUNCTIONS OF GENES, WHICH ARE EXPRESSED AS SURVIVAL, ADAPTATION, INSTINCT AND INTELLIGENT BEHAVIORS.

A key to understanding how the human brain makes possible mental experiences is a clearer comprehension of the changes in the conditions of chemicals or hormones within an animal's body that are the stimuli for behavior which is labeled instinct.

Genes work by regulating specific chemical processes and control chemical and enzymatic reactions in cells. These regulatory and control features display the operations of internal intelligence at the cellular and systems levels. It is suggested that an understanding of the operation of intelligent behavior at the cellular level that produces adaptation behavior or instinctive behavior is the evolutionary key to understanding intelligent behavior at the level of the higher functions of the human central nervous system.

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