



# THE SECOND EVOLUTION

THE UNIFIED TEEM THEORY OF EVOLUTION, PERCEPTION,  
EMOTIONS, BEHAVIOUR AND INHERITANCE ©

BY

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papers, articles and essays on dozens of subjects covered by the various teen theory hypotheses. This information was indispensable to the success of the project and remains a wonderful testament to the generosity and intelligence of the global web community.

# INTRODUCTION

In 1999, I began writing a book on the relationship between myths and movies. Since first reading American anthropologist Joseph Campbell's compelling books on the universality of myths,<sup>i, ii, iii</sup> I have been intrigued by the fact that people from widely disparate cultures, often with no contact with each other, share identical mythic stories. From ancient Mesopotamia to modern Manhattan, from Amazonian Indians to American matrons, we appear so viscerally attuned to mythic stories about universal heroes, quests, perilous journeys, dragons and other monsters, it is as if they have been hardwired into our genes.

When I went to the biological literature for an explanation, I was surprised to find there wasn't one – at least none that made scientific sense. Certainly, there was Jung's theory of the collective unconscious, but for my purposes, that appeared too steeped in a quasi-spiritual ethos to provide a scientifically valid explanation. But even if Jung were right, and there really is a 'collective unconscious' that accumulates information and disseminates it down through the generations, how does this *genetic memory* work within a conventional biological context? Given the only way anything can be inherited is via protein-coding genes, how did these mythic monsters and tales permeate our chromosomes? Were they genetically encoded by random mutations as suggested by Darwinian theory? Can mutations create narrative, characterisation and imagery?

Eventually, I came to the conclusion that the Darwinian explanation was equally implausible. There was obviously a limit to what the random toss of genetic mutations could achieve. If I wanted to know why similar myths recurred not only in diverse cultures but also in modern films and novels, then I had to discover the furtive biological

mechanisms by which this particular form of complex information was genetically archived in DNA and inherited to offspring.

I began by reviewing the scientific literature on genetic inheritance, cognition, evolution, emotions, neuropsychology and subliminal perception, plus an array of anthropological topics from belief systems, cultural inheritance, emotional contagion and group communication. Over the next six years, the evidence gradually led me to one inescapable conclusion: that our predisposition to myths was not created by natural selection, but by a second, undiscovered evolutionary process that specifically regulated the inheritance of innate behaviour, instincts and emotions in multicellular animals.

Initially, I was excited that this evolutionary process – which I called ‘teemosis’ – appeared to explain how ‘environmental information’ (including instincts and emotions) was acquired and inherited. But as the evidence accumulated, it suggested the teemosis process may also exert an indirect influence over the evolution of complex *physical* traits, and speciation (the creation of new species), what biologists collectively call ‘macroevolution’. (See Box.)

#### **MICROEVOLUTION AND MACROEVOLUTION**

In the twenties, the Russian entomologist Lurii Filipchenko divided evolution up into two basic categories; *microevolution* and *macroevolution*. The terms, borrowed from the Greek words for 'small' and 'large' simply distinguish small scale, incremental evolution, (like a mutation that changes the colour of a pupil) - microevolution, from the bigger, more dramatic changes of macroevolution, as when one species transforms into a new one.

This suggested that teemosis was a kind of master evolutionary process – a fundamental mechanism that created and regulated many of the essential biosystems we are familiar with today – including emotions, memory, personality, attention, moods, perception, learning and motivation. This raises the possibility that teem theory may actually be a ‘unified field theory’ – a simple explanation of the workings of nature that holds true over a wide range of exploration.

In 2005 I had a paper on ‘teem theory’ and its medical implications accepted for publication by the British journal, *Medical Hypotheses*. *Noncoding DNA and the teem theory of inheritance, emotions and innate behaviour*<sup>iv</sup> provided a cursory overview of the main hypotheses. The goal of this book is to provide the detailed arguments and evidence to validate the principal teem theory hypothesis – that biological evolution on this planet is not moderated by a single evolutionary process, as we have believed for nearly one hundred and sixty years, but by two quite different evolutionary processes.

To fine tune the theory, I posted six papers on teem theory on a web site, [www.thesecondevolution.com](http://www.thesecondevolution.com) and invited several hundred of the world’s top life scientists to critique the theory. This correspondence and stimulating discussion, which I would describe as ‘cautiously positive’ can be found on my web site. In the end though, the decisive test of the unified teem theory will be in its explanatory power, its ability to find practical therapeutic applications in behavioural genetics, psychiatry, psychology, medicine, education, politics and sociology, to explain problematical behavioural, evolutionary and palaeoecological phenomena, and to provide a more accurate natural history of metazoan evolution on this planet.

Like most people, I find reading vast tracts of jargon tiresome, so I’ve kept the technical terminology to a minimum, and what remains is explained, along with some new terms, in ‘Boxes’. Although the book is heavily referenced, it is not a textbook, or a review of the latest research. It is a speculative theoretical work, and as such is almost guaranteed to contain errors, both in theory and in fact. I apologise in advance for these.

To some biologists, steeped in a hundred years of adherence to Darwinian theory, these hypotheses will no doubt be extremely challenging, and perceived as a threat to the very fundamentals of a much respected scientific edifice. There is after all, a great deal at stake, as Professor Robert Trivers from Rutgers University implied when he emailed me – ‘If you are right, nearly everything I know about genetics and development is wrong’.<sup>v</sup> It may be inevitable that a theory that challenges a respected and prevailing scientific orthodoxy will arouse up a priori objections. Ironically, Darwin himself predicted this reaction to his own revolutionary *Origin of Species*. In the last chapter, he wrote, ‘I by no means expect to

convince experienced naturalists whose minds are stocked with a multitude of facts all viewed, during a long course of years, from a point of view directly opposite to mine'.<sup>vi</sup> Today the continuing assaults on evolutionary biology by creationists have rendered many biologists (particularly in the US,) defensive and unwilling to consider revisions to NeoDarwinian theory. But does teem theory support creationism? Am I out to discredit Darwin and replace him with an intelligent designer or God? Certainly not. As an atheist, I have no religious agenda. In fact, by explaining a number of problematical aspects that NeoDarwinian theory has not be able to explain, teem theory provides powerful new scientific arguments to counter creationist rhetoric.

Still, it will not be easy for scientists who have subscribed to a single evolution paradigm all their working lives and who have defended it against religious fundamentalists to impartially assess teem theory. But all I can do is argue the case as clearly and logically as possible, and hope, as Darwin put it, for a new generation of 'young and rising naturalists who will be able to view both sides of the question with impartiality'.<sup>vii</sup>

In the long term though, because teem theory appears to provide simple, verifiable explanations for numerous problematical aspects of biology, psychology, palaeontology, anthropology and genetics, and holistically unifies a number of diverse fields of the biological sciences, I am hopeful it will eventually become an exciting new part of an expanded NeoDarwinian paradigm.

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<sup>i</sup> Joseph Campbell (1949) *The Hero with a Thousand Faces*. Bollingen Foundation Inc.

<sup>ii</sup> Joseph Campbell (1987) *The Masks of God: Primitive Mythology*. Penguin Books.

<sup>iii</sup> Joseph Campbell (1988) *The Power of Myth*. Doubleday.

<sup>iv</sup> Vendramini, Danny. (2005) Noncoding DNA and the teem theory of inheritance, emotions and innate behaviour. *Medical Hypotheses*. v64, 3, pp512-519. doi:10.1016/j.mehy.2004.08.022.

<sup>v</sup> Robert Trivers. (2005) Personal correspondence, August 31<sup>st</sup>. 2005

<sup>vi</sup> Charles Darwin (1859) *On the Origins of Species by Natural Selection*. Chapter 15, Recapitulation and Conclusion. Murray.

<sup>vii</sup> Charles Darwin (1859) *On the Origins of Species by Natural Selection*. Chapter 15, Recapitulation and Conclusion. Murray.