

SCIENCE, EVOLUTION AND RATIONALITY

INDIAN INSTITUTE OF
SCIENCE EDUCATION AND
RESEARCH (IISER PUNE)
PRESENTS

A PUBLIC LECTURE
SERIES WITH
INTERNATIONALLY
ACCLAIMED
BIOLOGIST
PROF. JERRY COYNE



Jerry Coyne, Ph.D.

*Professor, Department of Ecology and Evolution,
University of Chicago, U.S.A.*

Jerry Allen Coyne is an evolutionary biologist, known for his work on speciation and his commentary on intelligent design. His work prominently focuses on understanding the origin of species: the evolutionary process that produces discrete groups in nature.

He is the author of the books *Why Evolution Is True* and *Faith Vs. Fact: Why Science and Religion are Incompatible* and is a co-author of the book *Speciation*. Coyne has written over 115 refereed scientific papers and 130 other articles, book reviews, and columns and is a frequent contributor to *The New Republic*, *The Times Literary Supplement*, and other popular periodicals. Coyne also maintains a website called *Why Evolution Is True*.

LECTURE ABSTRACTS

Two flies on an island: Speciation in African *Drosophila*

Two sister species of *Drosophila*, *D. yakuba* and *D. santomea*, are sympatric on the island of São Tomé off the west coast of Africa. In this talk I describe a number of studies that investigate the biogeography, genetics, and evolutionary dynamics of these species, comparing our findings to other species in the genus in an attempt to discover if there are generalizations to be found about how new species form.

Ways of knowing: Science versus everything else

It is often claimed that there are ways of knowing what is true about the Universe beyond science, including philosophy, mathematics, the humanities and social sciences, personal revelation, and religion. Here, after defining “science” and “knowledge,” I show that science “construed broadly” is in fact the only valid way of knowing anything about the cosmos, ourselves, and our planet. I also address, and dispel, the notion that there are “big questions about the Universe that science cannot answer but religion can.

You don't have free will

The idea that people have free will—that at any moment they can freely choose one alternative versus another—is widespread. In this talk I show that that notion is false: our body is a complex computer, made of meat, that can produce only a single outcome, a decision, in any given circumstance. I discuss the scientific evidence behind this conclusion, its implications for our society and personal behavior, and the numerous but failed philosophical attempts to show that we can still retain a kind of “free will” even though our behaviors are completely determined by our genes and our environments.

Why evolution is true

Despite a mountain of evidence for the truth of evolution from diverse scientific fields—genetics, paleontology, biogeography, embryology, and geology among them—many people in America (and India) still doubt that evolution happened. After defining what I mean by “the theory of evolution,” I present some of the compelling evidence that the theory is indeed a fact in any meaningful sense of that word, and then discuss some of the reasons people still resist such a well-established truth.

CHANDIGARH

IISER Mohali

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Two flies on an island: Speciation in African *Drosophila*

Technical Talk
December 18, 2017

Ways of knowing: Science versus everything else

Public Talk
December 19, 2017

BENGALURU

(JNCASR)

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Indian Academy of Sciences
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Two flies on an island: Speciation in African *Drosophila*

Technical Talk
December 26, 2017

Ways of knowing: Science versus everything else

Public Talk
December 27, 2017

PUNE

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Two flies on an island: Speciation in African *Drosophila*

Technical Talk
December 21, 2017

You don't have free will

Public Talk
December 22, 2017

Why evolution is true

Public Talk
December 23, 2017

THIRUVANANTHAPURAM

IISER Thiruvananthapuram

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Two flies on an island: Speciation in African *Drosophila*

Technical Talk
December 29, 2017

Ways of knowing: Science versus everything else

Public Talk
December 30, 2017

DELHI

Indian National Science Academy

<http://www.insaindia.res.in/>

Why evolution is true

Public Talk
January 4, 2018