

How efforts to prove Darwinism have led to many blunders, frauds and outright forgeries

Jerry Bergman Ph.D.

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Foreword by Carl Wieland

Ask the average person about evolution, and 'fraud' is far less likely to be the first association they would make than, say, the word 'science'. A few might know about the widely-publicized Piltdown Man fake, but even then, they would see it as more the exception than the rule; after all, evolution is 'science' and science is about facts, accuracy and truth. It is an ideologically neutral, self-correcting and inexorable march forwards to greater enlightenment (with perhaps the occasional misstep)—or so the story goes.

As always, things get a bit more complicated in the real world of fallible humans; and in any case, evolution has never primarily been about science. Even the leading anti-creationist philosopher (and self-proclaimed "ardent evolutionist") Michael Ruse recognized this when he wrote (National Post, May 13, 2000):

Evolution is promoted by its practitioners as more than mere science. Evolution is promulgated as an ideology, a secular religion—a full-fledged alternative to Christianity, with meaning and morality. ... Evolution is a religion. This was true of evolution in the beginning, and it is true of evolution still today. ... [it] came into being as a kind of secular ideology, an explicit substitute for Christianity.

This should be no surprise, given that the stakes are so high. The evolution-creation debate deals with some of life's most important issues—such as, were we created and thus have purpose, or are we and all other living things a spontaneous effervescence of nature, destined for nothing nobler than organic manure?

This tour de force by Dr Bergman plunges head-first into this emotion-charged arena. It confirms Ruse's point 'in spades' by dealing with an amazing array of not just frauds and forgeries, but blunders and embarrassments of all types by evolution's practitioners and promoters. And—importantly—it reveals the way in which they were so readily accepted and believed by some of the biggest names in academia. Many of these examples will be unknown to most; a good number of facts were completely new to me, despite decades of familiarity with the literature in the debate.

The book will be a very significant eye-opener for all who read it. It relentlessly exposes things that most evolutionists would probably rather not discuss, or hope stay forgotten. Readers are free to draw their own conclusions as to what could possibly drive and motivate such a sorry parade, but it becomes blatantly obvious that 'science' is no longer a good answer.

Dr Carl Wieland M.B., B.S. is a former medical practitioner who founded Creation magazine in 1978, now with subscribers in over 110 countries. He was the Managing Director of Creation Ministries International in Australia from 1987 until retiring from this position in early 2015. He is the author of numerous articles and several books, including One Human Family: The Bible, science, race and culture.

Endorsements

Talk about a smorgasbord of intriguing revelations—this is it! When I completed reading a chapter, I was already anxious to savor the next one, and not to discontinue reading when other responsibilities beckoned. Each chapter is well documented with scholarly references. Dr Bergman is a prolific writer and speaker and the author of more than 1,000 publications including books and scientific papers. He has been a personal friend of mine for many years, and in an email he sent to me on 14 December 2012 he said: "I hope this book will be the best one I have written so far." It may well be!

Wayne Frair, Ph.D.

Professor Emeritus of Biology, The King's College, New York.

Dr Bergman's earlier books on Darwinism have focused primarily on Darwin himself and the disastrous impact his ideas have had on the world. *Evolution's Blunders, Frauds and Forgeries* examines this pervasive philosophy from a different viewpoint, exploring some of the fakes, failures, falsifications and fictions that have mutilated the history of paleontology and turned countless young people away from their Creator.

Some of these accounts will be familiar to many readers, but the author has provided color and context that make them eye-opening. Others will probably be new to most, including his discussions of a mythical continent where a certain missing link was supposedly born, and truly horrific attempts at human/ape hybridization. In every case, he has done a masterful job of presenting the facts, in the process underscoring the wilful ignorance of this increasingly gullible world.

Major embarrassments to paleontology? You bet. But the truth will out; and with this book, Dr Bergman has given it a tremendous boost.

Kitty Foth-Regner,

Author of Heaven Without Her.

If you are a creationist and have a fascination to watch demolition crews implode buildings, this is the book for you. If you loathe the Bible record of creation, you will lose your appetite and your settled stomach only a few pages in. *Evolution's* Blunders, Frauds, and Forgeries is both enlightening and mind-boggling, a muchneeded revelation of the shenanigans doctrinaire evolutionists have committed and continue to wield against truth and integrity in the science of origins. Chapter by chapter, we watch repeated head-on train-wreck collisions of the Darwinian fundamentalists, see the mangled pieces fly, then watch with grudging admiration as the Darwinian fraternity 'cleaners' show up and attempt to cleanse the site spic-and-span until the next trains are due. We owe a great debt of gratitude to Jerry Bergman that he has managed to gather enough of the scattered pieces so we can reconstruct much of the 'whos, whats, and hows'. This book needs to be in the hands of captains of scientific progress, encouraging more caution, diligence, and restraint and to know the difference between a red light and a green light. Now I am anxiously awaiting publication so I can reference from this trove of research Dr Bergman has delivered to us. My questions are two: (1) What can be done to get this book onto the required reading list for every history and philosophy of science class in the country? And, (2) Can we all send Jerry enough energy bars to see him through producing a sequel outing the walking-whales fraud and its quiet 'cleaning' and the scandalous acceptance of that fraud even by Christian university scholars and Biologos officials?

Dr Vern Bissell

Ph.D. in civil and hydraulic engineering.

This book will probably be ignored ... by Darwinists. The problem for Darwinists is that they have no coherent answers to the blunders, frauds, and forgeries Bergman describes in exquisite, well-documented detail. So, as is usual when Darwinists are challenged, they will either ignore the challenge or hurl irrelevant *ad hominem* attacks and then attempt to change the subject. If you haven't read Bergman's other books on the topic of Darwinism's problems, you are in for a real awakening—and if you have, then be assured that you will be reading more of Bergman at his best. Like a Ringmaster at the Darwinism Circus, Bergman announces each act and describes the dare-devilry, animal acts, and even the clowns. And be sure to stay for the final act (chapter)—it's definitely a Grand Finale. This would all be Grand Entertainment...if only the effects of Darwinism on humankind weren't so sad.

David Oberpriller

Until retirement a professor of computer science at Arizona Christian University.

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Introduction

The history of efforts to support Darwinism is rife with blunders, frauds, and forgeries. Because Darwin's theory of evolution—including the many attempts to improve it such as neo-Darwinism—is fundamentally wrong, we would expect to find the history of Darwinism littered with blunders, frauds, and forgeries that such a faulty hypothesis would, of necessity, produce. Do we find such a history? Yes we do! This brief review presents some of the more well-known and better documented cases. The cases reviewed in this book are not controversial—the evidence is clear: Darwinists were proven wrong by the evidence.

Selecting cases to review was very difficult because there are so many to select from, but those used here will give the reader a feel for the plethora of blunders, frauds, and forgeries in the history of Darwinism. Darwinism is the theory that simple molecules such as carbon dioxide and hydrogen eventually evolved into people, given enormous amounts of time, chance, the outworking of natural law, the accumulation of mutations, and natural selection. Evolutionists admit that many disagreements exist over many details of evolution, but they claim none exist over the fact of evolution. This book documents otherwise. Because evolution is more history than repeatable science, consequently much disagreement about the theory exists even among evolutionists themselves—though it is only permissible among the evolutionary establishment to question the details of evolution, never its reality.

Disproven ideas serve the evolution establishment

Like many other evolutionary icons, Haeckel's embryos (chapter 10), Piltdown Man (chapter 11), and the facial angle (chapter 6), although long disproven, were all vital in the early years of Darwinism to propagate evolutionism. Unfortunately, their falsification did not result in the demise of evolutionism. One reason is that this worldview had, by that time, gained widespread acceptance and was plastic enough to be able to abandon many of the major 'pillars' that originally established it in the public consciousness. Darwinian evolution was also important in justifying racism for generations, even after this justification was proven to be wrong.

Another key point of this book is to document the fact that the role played by illustrations and simple concepts was crucial in convincing the public and scientists of Darwinism's validity. This is obvious in the chapters on Haeckel's biogenetic law, the progression, and the facial angle. In contrast, the extraordinary complexity that cell biology research is turning up at the molecular level of biological 'evolution' is far too complex for most people to grasp without intensive study.

How science actually works

A scientist insider with a Ph.D. in quantum physics has exposed the less well-known side of scientific discovery, documenting the fact that scientists and the media have purposely obscured how science actually works. The scientific establishment typically paints an image of themselves as logical, level-headed, objective people searching for the truth. The fact is, as Professor Brooks carefully details, many scientists will often do almost anything—follow mystical visions, lie, take drugs, and even cheat—to make a breakthrough or maintain their position in their field. In short, the ends justify the means. In Brooks' words,

scientists take drugs, they follow crazy dreams, they experiment on themselves and on one another, and occasionally they die in the process. They fight–sometimes physically, but mostly in intellectual battles. They try to entrap one another, standing in their colleagues' way to block progress and maintain the lead. They break all the rules of polite society, trampling on the sacred, showing a total disregard for authority.²

Furthermore, some scientists will even "commit fraud or deceive or manipulate others" and

conjure up seemingly ridiculous ideas, then fight tooth and nail to show that the ideas are not only far from ridiculous, but exactly how things really are ... Science is peppered with successes that defy rational explanation, and failures that seem even more illogical. ...

This is not the 'wacky' science, the crazy things that happen on the fringes of research. This is the mainstream. These anarchies are behind many of the Nobel Prizes of the last few decades ... It really does seem that, in science, anything goes.

And this is no modern phenomenon. Science has always been this way.³

One of the rare senior scientists to have dared to expose these facts was British biologist and Nobel laureate Peter Medawar. Brooks, quoting Medawar, wrote that it is not rare for scientists to

'actively misrepresent' themselves. The famed scientific routine of deductions based on experiments that were themselves based on logical hypotheses 'are simply the postures we choose to be seen ... when the curtain goes up and

Brooks, M., Free Radicals: The Secret Anarchy of Science, The Overlook Press, New York, p. 6, 2011.

^{3.} Brooks, Free Radicals, p. 6.

the public sees us,' Medawar said, 'The illusion is shattered if we ask what goes on behind the scenes'.4

Brooks added that, in the end

Science is civil war without the bloodshed. There are sieges, and there are bridges to be blown. There are people who must be removed: those who used to be heroes but are now complacent and ineffective must be forced aside for the good of the cause. But ... some of this old guard still have arms and ammunition, and will fight to the very end. ... many scientific anarchists know what it is to lose everything in the pursuit of discovery.⁵

Furthermore, for over half a century, "scientists have been involved in a cover-up [about how science actually works—Ed.] that is arguably one of the most successful of modern times." Both the creation and perpetuation of "the myth of the rational, logical scientist who follows a clearly understood Scientific Method" has affected everything in science, including

the way it is done, the way we teach it, the way we fund it, its presentation in the media, the way its quality control structures—in particular, peer review—work (or don't work), the expectation we have of science's impact on society, and the way the public engages with science (and scientists with the public) and regards scientists' pronouncements as authoritative. We have been engaging with a caricature of science, not the real thing. But science is so vital to our future that it must now be set free from its branding. It is time to reveal science as the anarchic, creative, radical endeavour it has always been.⁷

Brooks then spends over 300 pages documenting what seem outrageous claims. Most of his observations are well known to those who have a good background in the history of science and regularly read biographies of scientists. The problem is: "Science is a fight to the intellectual death, but not between equal adversaries. It takes place in a gladiatorial arena where the challenger has to overcome not only the established champion, but also his or (more rarely) her supporters. And, whether in attack or defense, the fight is rarely clean."8

Many scientists argue that, although it may take a millennium, errors in science eventually are corrected. German biologist Ernst Haeckel's fraudulent embryos, even though exposed over a century ago, are still published in many textbooks today

^{4.} Brooks, Free Radicals, p. 5.

^{5.} Brooks, Free Radicals, p. 193.

^{6.} Brooks, Free Radicals, p. 2.

^{7.} Brooks, Free Radicals, p. 2.

^{8.} Brooks, Free Radicals, p. 214.

to support Darwinism. ^{9,10,11} Piltdown Man took almost half a century to be exposed, and decades more after that for the forgery to cease being used as proof of evolution. It was used to support Darwinism as late as 2000. And many other examples exist. This fact supports the wisdom of evaluating and criticizing even highly accepted theories, including those postulated years ago and rarely questioned since. Although the truth usually will come out, and the process of science eventually works, it is sometimes far slower than its supporters believe.

As I will document in the following chapters, this is especially true of those ideas promulgated to defend Darwinism. Brooks concludes that success in science is not at all like the common public stereotype, a problem covered in detail in several chapters of this book. This work does not cover many other issues, such as eugenics, nor the problems resulting from attempts to apply Darwinism to society, such as occurred in Nazi Germany, or in many communist countries. That topic will be covered in another work by the author. The chapters are written so that they stand alone, allowing readers to pick and choose chapters to read that interest them.

Charles Darwin's revolution

Charles Darwin's 1859 *Origin of Species* produced a revolution in human thinking more profound than anything before or since in science. The Copernican revolution in the sixteenth century had previously removed the earth from its privileged position at the centre of the universe, but the Darwinian revolution removed God from His privileged position as the Creator of all the different kinds of life, most notably humans. Darwin paid lip service to a Creator as a remote first cause, but once natural selection was widely adopted as being the sculptor of life's details then the question of life's origin became academic. Educated atheists abound today and their reasoning is purely Darwinian.

But Darwin never did displace God with science. His central claim—that all species on Earth are lineal descendants of one or a few originating forms of life—has always lacked a causal mechanism. Causes have been proposed, and then abandoned, right up to the present. The problem has never been the survival of the fittest but the arrival of the fittest. Leading evolutionists have openly admitted that nobody knows the source of genetic variety that natural selection can select from. In essence, as Professor Niles Eldredge implied, evolutionists must 'keep it simple' and 'keep it Darwinian even if it isn't' to convince the public of the validity of

Assmuth, J. and Hull, E., Haeckel's Frauds and Forgeries, P. J. Kenedy & Sons, New York, 1915.

Wells, J., Icons of Evolution: Science or Myth, Regnery, Washington, DC, Haeckel's Embryos, chapter 5, pp. 102–104, 2000.

^{11.} Judson, H.F., *The Great Betrayal: Fraud in Science*, Harcourt, New York, pp. 82–83, 2004.

Darwinism.¹² The biggest scientific revolution in human history has turned out not to be scientific at all.

It is into this scientific vacuum of Darwin's own making—the lack of a causal mechanism—that true believers have laboured over the years to discover 'proofs' that evolution did occur, even if we don't know how. It is not surprising that a vacuous theory would produce faulty endeavours to find such proofs. And this is exactly what has occurred. In this book I have documented only a few of the many blunders, frauds, and forgeries that have been perpetrated in the name of Darwinian evolution. Individually they should be insignificant—nothing more than the failures which all scientists expect should litter the pathway in discovering genuine truths. But there is a more sinister side to this story. In the ongoing absence of genuine central truths, these blunders, frauds, and forgeries have become the museum pieces of Darwinian history. To the true believers they remain, like dusty idols in their temples of the mind, because there are no genuine truths to replace them. Without a genuine causal explanation, these untruths, like cobwebs moving in the wind, recall a vitality that never was.

CHAPTER 1

Darwin's blunder has been falsified: Evolution is true, but going backwards

Introduction

It should not surprise anyone that fraud is common in attempts to prove Darwinism because major problems have always existed, and still exist, in this worldview. The scientific method requires understanding that all scientific theories are provisional, open to modification or rejection by new scientific information and experiments. If the evidence warrants, all theories of science must be updated to reflect current knowledge and understanding. Many major scientific revolutions have resulted from new knowledge. The most famous example was Newtonian physics, which was overturned by Einsteinian physics at the turn of the last century. Darwin, though, displayed exactly the opposite approach to his theory, namely a dogmatic non-scientific attitude. Darwin

knew that he was right, and that his being right meant that much else people wanted to believe was wrong. Design was just chance plus time, greed not a sin from the devil but an inheritance from the monkeys. "Our descent, then, is the origin of our evil passions!!" he had written in his notebook back in ... 1838. "The Devil under form of Baboon is our grandfather!" Under the beard and beneath the sage wrinkles, he never lost the inner confidence reflected in those words, nor the urge to provocation, and found ways of getting them both expressed in his books.¹

In other words, Darwin was "what is now polemically called a Darwinian fundamentalist." In addition, far

from being a child prodigy, Darwin admits, "I was considered by all my [school] masters and by my father as a very ordinary boy, rather below the common standard in intellect." He [Darwin] did, however, master the fine art of telling tall tales and spreading false rumors. Though morally disgusted by the failures of amateur con artists, he appreciated the talent of skilled

Gopnik, A., Angels and Ages: A Short Book about Darwin, Lincoln, and Modern Life, Alfred A. Knopf, New York, pp. 160–161, 2009.

^{2.} Gopnik, Angels and Ages, p. 160.

hoodwinkers—unless he himself was a victim. He takes considerable time in his *Autobiography* to describe several notorious scientific hoaxes, which interested him immensely, and chuckles at some of his own juvenile successes.³

Furthermore, "his was the most fundamental and successful challenge to dogma [of theism] that had ever been launched—in a single generation, it caused intelligent people to accept claims about history and man's place in it that had been heretical for thousands of years." The reason was that in his most important work, The Origin of Species,

Darwin had said little about the origin of man except to hint that sexual selection might be important in the evolution of racial differences and to recognize that 'light will be thrown on the origin of man and his history'. But it was man's position in the world that interested his readers. The consequences for man—of Darwin's hypothesis—were clear. Man was no longer at the centre of the living world, a created being. He was not the product of a Divine Plan—evolution had no plan. No matter how tactful the author, Darwin's *Origin* shattered nineteenth-century man's belief in his traditional role.⁵

Ironically, in view of how revolutionary Darwin's theory was, "its reception was ... remarkably peaceable." This could be partly because there existed only a few arguments to support the doctrine of evolution, and Darwin did what he could to document his view

that natural selection was a plausible mechanism—not necessarily the best mechanism, but at least a plausible one, because he needed at least some mechanism that was better than Lamarck's theory, in order to have people buy his theory of evolution. His mechanism was natural selection.

Darwin could not prove that the natural selection of random, inborn variations caused evolution. He could and did argue, however, that it could do so; not that it did do so, but that it could. What were his evidences and arguments for this [conclusion]? ... his strongest one was artificial selection. Indeed, that is how he starts his book, and he spends much of his book on artificial selection.⁷

^{3.} Houston, B., *Natural God: Deism in the Age of Intelligent Design*, New Deism Press, Florida, p. 124, 2012.

^{4.} Gopnik, Angels and Ages, p. 161.

^{5.} George, W., *Darwin*, Fontana Paperbacks, Glasgow, p. 65, 1982.

^{6.} Gopnik, Angels and Ages, p. 161.

^{7.} Larson, E.J., *The Theory of Evolution: A History of Controversy*, The Teaching Company, Chantilly, Virginia, p. 58, 2002.

Of course, artificial selection no more proves evolution by natural selection than the fact that humans have built computers proves that computers can evolve solely by natural means without intelligence.

Darwin's science substandard

After documenting that Darwin's work was often substandard, Paul Johnson asked, in view of the fact that Darwin was a wealthy man, why did he not hire qualified researchers to improve the quality of his research? Johnson noted that Darwin's income

was periodically increased by his generous father and, despite a growing family, there were years in which a good half of it was saved and reinvested. It is curious to us that Darwin did not employ a clever young man as an assistant, preferably one with modern language skills who could have combed through the current scientific publications, especially those in German. He could well have afforded such help, and his failure to do so was to prove costly [to the validity of his conclusions—Ed].8

Professor Christine Nüsslein-Volhard added that

Darwin's biggest limitation—as many have pointed out—was that he did not understand genetics; this worried him a great deal, and he tried hard to delineate "laws of variation", but he could not explain the origin of variation. He emphasizes, however, that sexual reproduction increases variation and fitness ... it sometimes feels as if Darwin got close to Mendel's laws, but all was buried in a big mess of often contradictory reports about all sorts of crosses among wild and domesticated species ... [which] clouded Darwin's view and made it impossible for him to see the clear rules that Mendel recognized through his elegant experimental system.9

We now know that domesticating animals by interbreeding actually decreases genetic variety in the domestic animal breed. Johnson notes that Darwin flunked out of medical school, and this may be part of the reason why "he was always stronger on flora and fauna than on people" when writing to defend his theory.¹⁰

^{8.} Johnson, P., Darwin: Portrait of a Genius, Viking, New York, p. 60, 2012.

Nüsslein-Volhard, C., in: (Re)Reading the Origin, Current Biology 19(3):R96–R104, 2009; p. R100.

^{10.} Johnson, *Darwin*, p. 21.

Darwin forced to recant

In spite of Darwin's dogmatism, the problems with his theory were so overwhelming that he realized he had to deal with its many serious scientific flaws. His attempts failed, though, because his theory was factually flawed. Cambridge University professor Peter Vorzimmer wrote that

the evolutionary writings of Charles Darwin ... in the latter part of his life, when contrasted with the *Origin of Species* of 1859, indicate a considerable change in his evolutionary thought over the intervening years. ... the overall change effected appears great and the resultant view nearly antithetical to that of the first edition of the *Origin*, ... [and] such a radical change could not be looked upon merely as a modification of an earlier view, but as an adoption of a distinctly new one.¹¹

Professor Liepman concurred, writing that comparison

of the six editions of the 'Origin of Species' reveals a definite change in Darwin's propounded theory.

Although the tone of the statements seems to become more positive in later editions, the change of thought indicates a certain inability of the original theory to stand up to criticism.

 \dots in the last two editions non-selective forces come into play. \dots although all the factors had been presented in earlier editions the importance of their role had so shifted by the 6^{th} edition that it is difficult not to conclude that the basic axioms of the theory had changed. 12

In attempting to document his theory, Darwin eventually realized that there existed major "problems with the theory of natural selection. Indeed, these problems were so profound that even Darwin and Wallace increasingly sought other evolutionary mechanisms to supplant natural selection." Most notoriously, Darwin retreated back to the rejected Lamarckian theory of evolution, which postulated that biological

^{11.} Vorzimmer, P., Charles Darwin and blending inheritance, *Isis* **54**(3):371–390, 1963; p. 371.

^{12.} Liepman, H.P., The six editions of the 'Origin of Species', *Acta Biotheoretica* **30**(3):199–214, 1981; p. 199.

^{13.} Larson, The Theory of Evolution, p. 83.

characteristics acquired during one's lifetime could be passed onto one's offspring. 14,15 Darwin first published his *Origin of Species* in 1859, but he was forced to keep revising it, thus one must

look at the particular edition of *Origin of Species* to know what it says. He brought out ... [six] editions of *Origin of Species* over the next 20 or so years after the publication of the original; all of them were a little different, and if you look back at the original, it is very Darwinian. It is the account of Darwinian evolution that we know today. If you read the last one, however, you would think that you were reading Lamarck. ... It includes so many Lamarckian ideas. He changed his own ideas to meet these scientific objections. He still remains an evolutionist, but the mechanism changes in his own work.¹⁶

Even the term Darwin used for his theory evolved. Houston wrote that the

term "evolve," of course, means many things. It means change; it means grow up; it indicates macroevolution, and microevolution, and the current demand to distinguish between the two.

For Darwin, even the term itself evolved: In the first edition of *The Origin of Species* ... published in 1859, he uses only forms of the word "*descent*" rather than "*evolution*." Not until the sixth edition, published in 1872, does he use the word evolution.¹⁷

Darwin recognized that variation in life was central to the process of natural selection, however,

Darwin could not explain its sources. Sharp criticism worsened the problem. Darwin, rather than leave his theory incomplete perhaps, ultimately appealed to external forces (use or disuse, or habit, say) in generating favorable variants. That seemed to echo Lamarck's earlier idea (now discredited) of the inheritance of acquired characters. Darwin also claimed that domestication itself increased the rate of variants. ¹⁸

We now know that by domesticating animals, we actually *decrease* genetic variety in the domestic animal. Professor Allchin stated that many admirers of Darwin today are forced to wonder

^{14.} Allchin, D., Celebrating Darwin's errors, *The American Biology Teacher* **71**(2):116–119, 2009; p. 116.

^{15.} Ghiselin, M., *The Triumph of the Darwinian Method*, The University of California Press, Berkeley, pp.162–163, 181–186, 1969.

^{16.} Larson, *The Theory of Evolution*, p. 83.

^{17.} Houston, Natural God, p. 124.

^{18.} Allchin, Celebrating Darwin's errors, p. 116.

How could The Great Darwin have succumbed to such nonsense? Indeed, modern portrayals of Darwin often treat this politely as a blemish or mild embarassment [sic]. They tend to "excuse" it as a product of the times. (What idea is not a product of its time?)—Or they downplay Darwin's level of commitment, implying that he didn't really believe it [his mechanism required for natural selection to select from—Ed].¹⁹

Furthermore, there is a belief about Darwin that still persists to this day, namely that "Darwin was a diffident and circumspect observer of animals, not a confident theorist of life." Darwin biographer Adam Gopnik responded to this claim by noting that

Darwin was humble and modest in exactly the way that Lieutenant Columbo is humble and modest. He knows from the beginning who the guilty party is, and what the truth is, and would rather let the bad guys hang themselves from arrogance and overconfidence while he walks around in his raincoat, scratching his head \dots^{20}

The fact is researchers today are "still not agreed on whether natural selection is the dominant driver of genetic change at the molecular level" and "rather than enhancing fitness, natural selection can generate a redundant accumulation of molecular 'defences', such as systems that detect folding problems in proteins. At best, this is burdensome. At worst, it can be catastrophic. In short, the current picture of how and where evolution operates, and how this shapes genomes, is something of a mess." ²¹

Darwin was also devious in converting the world to his worldview. His "strategy was one of the greatest successes in the history of rhetoric, so much so that we are scarcely now aware that it was a strategy," and it was so successful that "it immediately inserted him into the Victorian pantheon" of great scientists and eminent persons. ²² One 'fact' that Darwin observed was influenced by his racist misperception of humans, namely his incorrect belief that "the gap between savages and civilized men was greater than that between wild and domesticated animals. He [concluded] ... that evolution had occurred. What he wanted to discover was why it had occurred, as a prelude to finding out how it had occurred."²³

It was not finches, but humans, that were critical in motivating Darwin to develop his theory of evolution. The fact is, Darwinism caught on in spite of its many major and lethal scientific flaws. Today, among scientists it is dogma that is supported by the universities and the courts.

^{19.} Allchin, Celebrating Darwin's errors, p. 116.

^{20.} Gopnik, Angels and Ages, p. 160.

^{21.} Ball, P., Celebrate the unknowns, *Nature* **496**(7446):419–420, 2013; p. 420.

^{22.} Gopnik, Angels and Ages, p. 160.

^{23.} Johnson, *Darwin*, pp. 42–43.

Evolution of man's mind

A central problem that Darwin faced was "how could the human mind evolve?" He knew from his theological training at Cambridge University that

Christianity had attributed these attributes to divinely created souls, in that we all have souls that were created by God, and that the existence of these souls, which only humans have, fundamentally divide [sic] humans from other animals. Scientists had generally bought this view. ... all the way back to Aristotle ... where, in ancient Greece, Aristotle posited that only humans have actual souls, and that they divide humans, fundamentally, from all different animals. Darwin had equivocated on this matter in *Origin of Species*, but he announced his support for, and threw his entire weight behind, origins for humans from simian ancestors in his 1871 book ... *The Descent of Man.*^{24,25}

In this book Darwin "looked at the two main differences that scientists and people in general thought divided humans from other animals: the mind, in that humans' minds are fundamentally different than animals' minds, and moral behavior, moral attributes are different." Larson added that, for this reason, "The Descent of Man is pretty tough to read today" because Darwin

tried to downplay the differences between the human mind and the animal mind. He did this systematically throughout his book by exaggerating the human-like qualities of animals: their intelligence, their emotions, their ability to communicate ... far above what scientists would accept today. He also downplays the mental attributes of some humans. Consequently, he takes the "lower forms of humans," as he describes the Australian aborigines, for instance, and makes them almost apelike, almost like primates in his description. He has a hierarchy of humans.²⁷

Houston added that the arguments in his 1871 *The Descent of Man* book were very speculative, thus this book was "not nearly as credible as Origin of Species", and if one reads the *Descent of Man* one can think of a million explanations as to why it doesn't work. It's filled with "just so" stories that could be, but really seem like idle speculations.

Even some of Darwin's most loyal supporters could not buy these arguments. Charles Lyell, and even Alfred Russel Wallace, did not buy human

^{24.} Darwin, C., The Descent of Man, John Murray, London, 1871.

^{25.} Larson, *The Theory of Evolution*, p. 64.

^{26.} Larson, The Theory of Evolution, p. 65

^{27.} Larson, The Theory of Evolution, p. 65.

evolution. They thought that the human mind and moral attributes were simply too different from animals; that they could not have evolved in a step-by-step process.²⁸

To make these arguments, Darwin "appealed heavily to Lamarckian mechanisms." In fact

Darwin became more of a Lamarckian over time. In later editions of even *Origin of Species*, as certainly is true of *Descent of Man*, you almost think you're reading Lamarck This is because it's easy to show how some things like love, and moral attributes develop as acquired characteristics. We love our offspring, and so they have more love. Rather than through the "survival of the fittest" or a natural selection process of acquired characteristics, we see more of these ideas worked into his book.²⁹

Several Darwin scholars have concluded that his evolution theory was less the result of science than a projection of Darwin's own personality into nature. Beth Houston wrote that throughout

his life, Darwin had a passion for three things: collecting (his obsession being beetles), dissecting, and hunting—especially hunting, or shooting, as the Brits call it.

It should not be surprising that Darwin supported a scientific theory established on the principle of kill or be killed (the phrase itself coined by economist Herbert Spencer), being himself a person who enjoyed the pleasure of killing for its own sake, collecting life forms for the pleasure of displaying conquest and perfecting his own superiority, and dissecting to objectify life for the satisfaction of voyeuristic perusal.³⁰

Although lionized today, Darwin's theory has caused much harm and, after 150 years, the evidence is still as problematic now as it was then, actually more so due to the advancement of scientific knowledge, especially cell biology and genetics. Darwin himself recognized that his theory had major problems, and for this reason he kept revising his evolution bible until the last edition ended up being significantly different from his first edition.

The simple fact is, from all we know about physics, chemistry and biology, evolution—defined as the upward progression from simple molecules, such as carbon, oxygen, hydrogen and water, to humans—never could have happened and never did happen.

^{28.} Larson, The Theory of Evolution, p. 66.

^{29.} Larson, The Theory of Evolution, p. 66.

^{30.} Houston, Natural God, p. 128.

Survival of the fittest and arrival of the fittest

It is obvious that life more fit to survive will be more likely to survive. The problem with evolution has never been the survival of the fittest, but the arrival of the fittest, and today this is still by far the most serious problem with Darwinism. The main theory of the source of phenotypic variations for natural selection to select from is mutations. Professor Richard Mayer wrote that

evolution by natural selection ... is not predetermined. It is heavily dependent on the variations to be found between members of the species. All variations between species and between individual members of species can ultimately be sourced to random mutations. In effect, whenever a mutation occurs, it is checked for effectiveness with effective mutations leaving more offspring and ineffective mutations leaving fewer or even no offspring.³¹

The late Harvard Professor, Ernest Mayr, wrote that "Ultimately, all variation is due to mutation." ³² Professor Theodosius Dobzhansky wrote "mutation is the only known source of the raw materials ... and hence of evolution" ³³ and much later he wrote with a co-author, Professor Ayala, that mutation is "the source of the raw materials for evolutionary changes ... without mutation all evolution would eventually stop." ³⁴

Evolution true, but going the wrong way

The research has shown that beneficial mutations are exceedingly rare, and near-neutral and deleterious mutations far more common. The best evidence of this is the well-known long-term evolution experiments by Lenski *et al*. They first estimated that only one mutation in a billion was beneficial.^{35,36} In a recent *Science* overview article,^{37,38} Lenski reports that he has cultured around 10¹⁴ cells, and in *e.Coli* he

- 31. Mayer, R.E., *The Cambridge Handbook of Multimedia Learning*, Cambridge University Press, New York, p. 23, 2005.
- 32. Mayr, E., in Moorehead, P.S. and Kaplan, M.M. (Eds), *Mathematical Challenges to the Neo-Darwinian Interpretation of Evolution*, Wistar, Philadelphia, 1967.
- 33. Dobzhansky, T., On methods of evolutionary biology and anthropology, *American Scientist* **45**(5):381–392, 1957; p. 385.
- Ayala, F.J. and Dobzhansky, T., Studies in the Philosophy of Biology: Reduction and Related Problems, University of California Press, p. 315, 1974.
- 35. Elena, S., Ekunwe, L., Hajela, N., Oden, S., and Lenski, R., Distribution of fitness effects caused by random insertion mutations in *E.Coli.*, *Genetica* **102/103**:349–358, 1998; p. 356.
- 36. Gerrish, P.J and Lenski, R., The fate of competing beneficial mutations in an asexual population, *Genetica* 102/103(1–6):127–44, 1998.
- 37. Pennisi, E., The man who bottled evolution, *Science* **342**:790–793, 2013.
- 38. Wiser, M. J., Ribeck, N., and Lenski, R. E., Long Term Dynamics of Adaptation in Asexual Populations, *Science* **342**:1364–1367, 2013.

found about one mutation per 1,000 cells, which means that roughly 10¹¹ mutations—about 100 billion—are present in his sample. Of these, only a few were measurably beneficial. Being generous, there were 1,000 beneficial mutations in 100 million, and the overwhelming majority of the 'beneficials' were 'loss-of-function' mutations. Thus, the vast majority of mutations, over 99%, are either near-neutral, mildly deleterious, or clearly harmful. Some years ago it was discovered that human DNA has a high mutation rate and is deteriorating at an alarming rate.³⁹ The result is a steady accumulation of damage to the genome, eventually causing genetic catastrophe, then mutational meltdown and species extinction. As Lynch and Blanchard wrote:

It is well established on theoretical grounds that the accumulation of mildly deleterious mutations in nonrecombining [This appears to be a correct usage in context—Ed.] genomes is a major extinction risk in obligately asexual populations. Sexual populations can also incur mutational deterioration in genomic regions that experience little or no recombination, i.e., autosomal regions near centromeres, Y chromosomes, and organelle genomes.⁴⁰

In each new generation of humans an estimated 100 to 200 new mutations are added to the average child and eventually, if the child survives to become an adult and has offspring, most of these mutations are added to the human gene pool. ⁴¹ Professor Michael Lynch *et al.* wrote that "a parent ... can never produce an offspring with fewer deleterious mutations than it carries itself." ⁴² The number of new harmful mutations varies, but they always increase and never decrease. Darwin was correct when he titled his 1871 book *The Descent of Man* and not *The Ascent of Man*, which, incidentally, was the title of evolutionist Jacob Bronowski's book on human evolution. The fact is, we are descending genetically as the Christian Scriptures teach, a result of the fall of humankind from the original perfection when sin entered the world, and not ascending upward biologically, as evolutionism claims. For this reason evolution is true, but is going the wrong way, as Judaism and Christianity have taught since almost the beginning of humankind's sojourn on Earth.

^{39.} Beardsley, T., Mutations galore: humans have high mutation rates. But why worry? *Scientific American* **280**(4):32, 36, 1999.

^{40.} Lynch, M. and Blanchard, J.L., Deleterious mutation accumulation in organelle genomes, *Genetica* **102/103**:29–39, 1998; p. 29.

^{41.} Meisenberg, G. and Simmons, W., *Principles of Medical Biochemistry*, Mosby, Philadelphia, p. 153, 2006.

^{42.} Lynch, M., Conery, J. and Burger, R., Mutational meltdowns in sexual populations, *Evolution* **49**(6):1067–1080, 1995; p. 1067.

A history of macromutation theory failure

Lamarckianism remained strong long after Darwin died, especially among pale-ontologists. It was strongest around 1900 when Dutch botanist Professor Hugo de Vries (1848–1935) proposed "mutation theory as a plausible ... explanation for the evolution of species." The problem was

Classical Darwinism seemed discredited, because it had no mechanism for preserving variations. ... Lamarckianism was discredited by the work of August Weissmann. What was the alternative? Biologists all over Europe and America were scrabbling to try to come up with some answer. If you read scientific papers from this period, you'll just see them struggling with what possibly could be the cause of variation and inheritance, and therefore, evolution. ... "We believe in evolution, but we really don't have a clue of what mechanism is plausible."⁴³

Therefore de Vries "came up with a possible solution, and that was 'mutation' theory" which also had "its problems" but in the 1900s every evolution theory had its problems. People were looking for alternatives.

... De Vries proposed a rather radical solution. He proposed that mutations ... would create a big "*jump;*" ... not slightly better talons, but dramatically better talons, dramatically changed eyes; dramatic changes.

That was implausible enough, but then he added that they would be widespread enough to happen throughout a population, or at least a significant minority in a population.⁴⁴

The result was that the "affected population would almost abruptly form a ... new variety of species." These seem like broad claims, and they were. To him, natural selection still existed, but it really wasn't central. For him, it operated mostly to preserve beneficial mutations. Larson writes:

Interest soon passed [lapsed—Ed.] among scientists. 45

De Vries first demonstrated from his research on the evening primrose that dramatic new varieties and traits can arise suddenly and without explanation.⁴⁶ He and others believed that the explanation for the new traits was macromutations, which

^{43.} Larson, *The Theory of Evolution*, pp. 108–109.

^{44.} Larson, The Theory of Evolution, p. 109.

^{45.} Larson, *The Theory of Evolution*, p. 109.

De Vries, H., The Mutation Theory: Experiments and Observations on the Origin of Species in the Vegetable Kingdom, Vol. 2, The Origin of Varieties by Mutation, The Open Court Publishing Company, Chicago, 1910.

finally gave evolutionists a mechanism for producing new genetic traits in plants and animals.

Further research revealed that de Vries' results were not due to mutations, but rather were a result of the fact that the evening primrose has an unequal chromosome number that caused hybrid plants to appear to produce new varieties. In fact, a rearrangement of existing genetic variation was the cause of the plant's new physical appearance, not mutations as de Vries postulated. Larson noted: "It created an initial stir in mutation theory, but within half a generation, interest in mutation theory had pretty well passed. It left a legacy and influence, however."47



An evening white primrose, the plant that de Vries used for his research on mutations.

Early opposition to mutation theory

The opposition to the mutation theory as the origin of variation for natural selection to select from has a long and complex history. As early as 1925, Harvard University Biology Professor Edward Jeffrey recognized that mutations could not be a significant source of new genetic varieties. He wrote that for

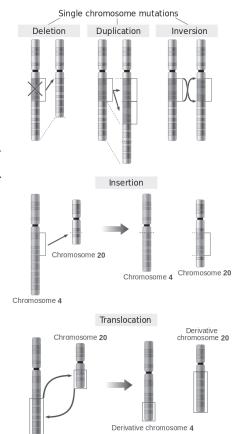
two decades the hypothesis of mutation or the saltatory origin of species has enjoyed a large vogue in American biological laboratories. ... first formulated ... as the result of the investigations of the Dutch physiologist, De Vries, on Lamarck's evening primrose, Oenothera lamarckiana. In this

species De Vries ... observed the appearance of a relatively small number of [new] forms from seed, which differed in marked degree from the parent species.⁴⁸

Jeffrey carefully researched this example, finding that the variety produced was not due to mutations or "saltatory" evolutionary jumps as de Vries proposed, but rather it is now "conceded, even by geneticists and physiologists, that the species of the genus Oenothera often present strong evidence of hybrid origin, and the mutability frequently found in their offspring receives its obvious explanation as the result of previous crossing."⁴⁹

Jeffrey added that "It has since become increasingly obvious ... that large numbers of species of plants are of hybrid origin and that these hybrid species, as well as known hybrids, give rise to phenomena ... exactly similar to those found in Oenothera and Drosophila." ⁵⁰ Jeffrey concluded from examining several hundred divisions of the D. melanogaster spermatocytes that the

all-important reduction divisions of *D. melanogaster* ... present the identical peculiarities of those observed in known hybrids. The cytological investigation of *Drosophila melanogaster* seems accordingly to establish beyond



Illustrations of five basic types of chromosomal DNA mutations.

any reasonable doubt that the species is of hybrid origin.⁵¹

^{48.} Jeffrey, E.C., Drosophila and the mutation hypothesis, *Science* **62**(1592):3–5, 1925; p. 3.

^{49.} Jeffrey, Drosophila and the mutation hypothesis, p. 4.

^{50.} Jeffrey, Drosophila and the mutation hypothesis, pp. 4–5.

^{51.} Jeffrey, Drosophila and the mutation hypothesis, p. 5.

Thus, neither case was an example of new species due to mutations, but simply common hybrids of existing species. Jeffery concluded in 1925 that the mutation theory is dead, and in the future this theory would be an embarrassment to science:

The Morgan hypothesis of mutation ... runs counter to practically all the inductive conclusions of the biological sciences. ... science appears to warrant no expectation of long life for the mutation hypothesis. It is, moreover, inconceivable that a science ... should itself progress by ... the subversion of the fundamentals of the biological sciences. It is in fact not impossible that before many years have elapsed the doctrine of mutation will appear to the eyes of men a fantastic Fata Morgana. ⁵²

Unfortunately, Jeffrey's prediction about the demise of the mutation doctrine has not yet come true after almost 100 years of new research has verified that his conclusions were fully valid. This is despite the now overwhelming evidence that mutations did not, and cannot, evolve simple organic compounds into people. Evolution by mutations is accepted in spite of (or perhaps because of?) the fact that no other hypothesis has been able to replace the mutation theory.

Hopeful monsters

The macromutations theory was briefly resurrected in the 1940s by University of California, Berkeley, geneticist Richard Goldschmidt. Goldschmidt concluded that the origin of major new animal and plant types was due to single mutations that caused large and complex changes, which happened to produce more successful lifeforms than those without these new macromutations. Such creatures Goldschmidt called "hopeful monsters".

Research has now confirmed that large mutations do not produce hopeful monsters but hopeless monsters as a result of causing major genetic damage. Since then no satisfactory mechanism to produce progressive upward 'molecules to human' evolution by macromutations has been proposed by modern neo-Darwinists.

The fact is, as Darwin's son, Leonard Darwin, wrote, "how it [evolution] came about is still a matter of dispute and is likely to remain so for some time." ⁵³ Jeffrey is correct and Leonard Darwin's conclusion still is fully valid today.

The Altenberg Conference

Presentations at the famous Altenberg 16 Conference by 16 of the world's leading evolutionists admitted that "the theory of evolution which most biologists accept and

^{52.} Jeffrey, Drosophila and the mutation hypothesis, p. 5.

^{53.} Quoted in Miller, A.M., Evolution and education in the Tennessee trial, *Science* **62**(1594):43–45, 1925; p. 43.

which is taught in the classrooms today, is inadequate in explaining our existence." ⁵⁴ An Altenberg 16 attendee, evolutionist Dr Jerry Fodor, added, "I don't think anybody knows how evolution works." ⁵⁵

Stanford University biophysicist Howard Pattee, referring to natural selection and chemical evolution, wrote that evolution could not have begun from random molecules or DNA sequences because evolution, then and now, teaches that natural selection can only start from "well-ordered" sequences. In his words:

The origin of the degree and type of order found in biological macromolecules is not adequately explained solely as an accumulation of genetic restrictions acquired through natural selection ... since the biological process of replication is itself dependent on the pre-existence of such order, and since the number of sequences that could ever have been tested by selection on the earth is an insignificant fraction of the number of unrestricted sequences which would be possible. Therefore the hypothesis is considered that replication and selection began from well-ordered sequences, rather than random sequences.⁵⁶

The main mechanism for producing genetic variety required for evolution, random mutation, has been falsified, as have all of the other mechanisms postulated to cause macro-evolution.

The more rational evolutionists have known for years that neo-Darwinism cannot work, but have been reluctant to openly say so. It is becoming increasingly difficult for them to suggest a mechanism for evolution that would not imply, or point to, intelligent design. Mutations have failed as a source of genetic variation used to produce phenotypic variation and, as discussed, this fact was known as early as 1925. In 2012 the distinguished Professor of Biological Sciences, Austin Hughes, wrote that of

all the fads and foibles in the long history of human credulity, scientism in all its varied guises—from fanciful cosmology to evolutionary epistemology and ethics—seems among the more dangerous, both because it pretends to be something very different from what it really is and because it has been accorded widespread and uncritical adherence. Continued insistence on the universal competence of science will serve only to undermine the credibility of science as a whole. The ultimate outcome will be an increase of radical skepticism that questions the ability of science to address even the

^{54.} Quoted in Mazur, *The Altenberg 16*, p. 19.

^{55.} Quoted in Mazur, *The Altenberg 16*, p. 34.

^{56.} Pattee, H.H., On the origin of macromolecular sequences, *Journal of Biophysics* 1(8):683–710, 1961; p. 683.

questions legitimately within its sphere of competence. One longs for a new Enlightenment to puncture the pretensions of this latest superstition.⁵⁷

A conversation recounted by Victoria University adjunct biology professor John Ashton summarized the modern state of affairs. He wrote that, while sitting around the lunch table with his colleagues, he

asked the research scientist in charge of the plant-breeding project a question. "Do mutations ever give rise to new purposeful genetic information?"

His answer was immediate. "Of course—yes!"

"Can you give me an example?" I then asked.

He thought for a moment and replied along the lines of "Um, I can't think of a specific example right now but ask our geneticist ... he will be able to."

Later that afternoon I caught up with the senior genetics researcher in the university plant-breeding department and asked him the same question.

His reply was just as quick, but the very opposite! "Never!"

Surprised, I pressed him further. He explained that mutations always lead to damaged DNA, which usually results in the *loss* of genetic information. He knew of *no* instances where new purposeful genetic information arose, either by a natural process or through a mutation induced chemically or with radiation.⁵⁸

The problem with extrapolating microevolution to macroevolution

We now know that far more than a few mutations are required to produce the changes required to evolve a new animal order—actually many hundreds or thousands would usually be required. Many evolutionists today postulate that a large number of very small mutations, and not the macromutations that de Vries and Goldschmidt postulated, can account for macroevolution. This conclusion is not based on experimental evidence, but on the assumption that the evidence for microevolution (which creationists call variation within the Genesis kinds) can be extrapolated to macroevolution.

Hughes, A.L., The folly of scientism, The New Atlantis; Journal of Technology & Society 37:32–50, 2012; p. 50.

^{58.} Ashton, J., Evolution Impossible: 12 Reasons Why Evolution Cannot Explain the Origin of Life on Earth, Master Books, Green Forest, Arkansas, pp. 15–16, 2012.

The empirical evidence, however, is clear—neither macromutations nor micromutations can provide a significant source of new genetic information. The fact is: "Mutation accumulation does not lead to new species or even to new organs or new tissues."⁵⁹

What mutations eventually lead to is sickness and death because, as noted, the vast majority, over 99.99%, are near-neutral or harmful. Professor Lynn Margulis, while president of Sigma Xi, the honour society for scientists, added that "many biologists claim they know for sure that random mutation (purposeless chance) is the source of inherited variation that generates new species of life . . . 'No!' I say." ⁶⁰ The question now often asked is, due to "Contamination of the genome by very slightly deleterious mutations: Why have we not died 100 times over:" ⁶¹

Both creationists and Intelligent Design advocates conclude that the only plausible source of genetic information is intelligence. Because, of the estimated 100–200 new mutations that are added to the offspring compared to the parents, 99.99% are near-neutral or harmful, Intelligent Design postulates only an intelligent source of genetic information can explain what exists in the natural world. Creationists conclude the source is an Intelligent Creator we call God.

In contrast to the facts, the contemporary evolutionary theory involves primarily the accumulation of genetic mistakes called mutations that are selected by natural selection. They believe that, in essence, the evolution of humans from molecules such as carbon, hydrogen, water, and nitrogen occurred by the accumulation of DNA copying mistakes and mutations. Thus, humans are the result of the accumulation of many billions of mistakes. As noted, the problem has always been that the vast majority of mutations are near-neutral or harmful, even lethal, causing disease, including cancer and about 5,000 other diseases.

One study of 15,336 genes from 6,515 individuals concluded that, given Darwinistic assumptions, 73% of the protein-coding single nucleotide variants and about 86% of those predicted to be deleterious were believed to have arisen in the past 5,000 to 10,000 years. ⁶² Thus, the human genome is rapidly accumulating deleterious mutations and this has a "profound effect" on increasing the burden of deleterious single nucleotide variants in humans. ⁶³

^{59.} Margulis, L. and Sagan, D., *Acquiring genomes: A theory of the origins of species*, Basic Books, New York, p. 11, 2002.

^{60.} Margulis, L., The phylogenetic tree topples, American Scientist 94(3):194, 2006.

^{61.} Kondrashov, A.S., Contamination of the genome by very slightly deleterious mutations: why have we not died 100 times over? *Journal of Theoretical Biology* **175**:(4):583–594, 1995.

^{62.} Fu, W., *et al.*, NHLBI Exome Sequencing Project, and Akey, J.M., Analysis of 6,515 exomes reveals the recent origin of most human protein-coding variants, *Nature* **493**(7431):216–220, 2013; p. 216.

^{63.} Fu *et al.*, Analysis of 6,515 exomes reveals the recent origin of most human protein-coding variants, p. 216.

Conclusions

Although lionized today, Darwin's theory, as this book documents, has caused much harm and, after 150 years, the evidence for evolution is far more problematic now than it was in Darwin's time due to the advancement of knowledge in science, especially cell biology and genetics. Darwin himself recognized that his theory had major problems and for this reason he kept revising his bible of evolution until the last edition ended up significantly different than his first edition. The blunders, frauds, and forgeries documented in this book are not surprising in view of the fact that Darwin's major thesis is scientifically wrong.

Evolution is 'true', but the clear trend shows it is going the wrong way. The problem is that the vast majority of mutations are near-neutral, i.e. mildly deleterious, and most of the rest are harmful, even lethal. Life is gradually accumulating these deleterious mutations and is facing genetic catastrophe (mutational meltdown), eventually causing extinction. The fact is, never did a

mutation make a wing, a fruit, a woody stem, or a claw appear. Mutations, in summary, tend to induce sickness, death, or deficiencies. No evidence in the vast literature of heredity change shows unambiguous evidence that random mutation itself, even with geographical isolation of populations, leads to speciation.⁶⁴

Over 5,000 genetic diseases are now known and the number is growing for several reasons, one of which is the accumulation of deleterious mutations. As Ashton wrote, "What we observe in research laboratories today is DNA slowly deteriorating, not new DNA evolving. This means we actually observe the very opposite of evolution." The evidence is clear: evolution is true, but it is going backward.

^{64.} Margulis and Sagan, Acquiring genomes, p. 29.

^{65.} Ashton, Evolution Impossible, p. 132.

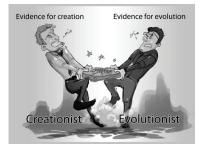
CHAPTER 2

The pervasive problem of fraud and forgery in paleoanthropology

Introduction

A review of the history of paleoanthropology, the study of the physical evidence for the evolution of humans, leads to the conclusion that this discipline is far less objective than is the case for most other sciences. In fact, the field is rife with controversy and fraud. Several well-documented examples are cited in some detail to illustrate the types of problems encountered, and also the results of fraud in paleoanthropology.

Extensive historical research has documented the fact that the scientific investigation of human origins is highly subjective—and bias, fraud, and even forgery are common.¹ The best known examples include



The interpretation of fossil evidence has been a problem from the beginning of paleoanthropology, as illustrated by these two people arguing over a few scraps of bone.

Piltdown Man, which has been proven to be a composite of a human skull and an ape jaw (see chapter 11) and Nebraska Man (*Hesperopithecus*), which turned out to be a pig's tooth (see chapter 12), but many other major examples exist.

The scientists involved in these controversies include many of those who have dominated the field of paleoanthropology in the twentieth century. The effects of their fraud can be far reaching and may affect entire disciplines.^{2, 3} Even well-known modern paleoanthropology leaders, including the Leakey family (especially Louis, Mary, and Richard Leakey), have been involved in much controversy, including accusations of misrepresentation, sloppy work, and poor documentation.

- Judson, H.F., The Great Betrayal: Fraud in Science, Harcourt, New York, pp. 82–83, 2004.
- 2. Feder, K.L., *Frauds, Myths, and Mysteries: Science and Pseudoscience in Archaeology,* 6th edition, McGraw Hill, 2008.
- Kohn, A., False Prophets: Fraud and Error in Science and Medicine, Basil Blackwell Ltd, New York, 1988.

Sides are taken in these conflicts and, as Morell⁴ eloquently documents, the participants sometimes end up in altercations not unlike those fought between nations—where unethical behavior, and almost everything else, is fair game.⁵ Only physical aggression is normally ruled out, though even that sometimes occurs.

Craig Childs noted that so high are the personal stakes—prestige, money, honours, and academic awards—that, he claims, not only paleoanthropology but the fields involving human archaeological artifacts as well, are rife with suicide, murder attempts, and hired hit men.⁶ He writes that in

no other field of research have I encountered so many people who have wanted the other party dead. At one point I interviewed an antiquities broker...and a few days later heard a rumor he had put a price on the head of a troublesome foreign journalist. Another man, a pothunter now in prison, explained to an undercover agent that you should always go into the field well-armed—and if law enforcement pays a visit to your digging operation, you "drop 'em...and never come back."

He added that, while

reporting on a federal raid on looters in the Southwest, a friend sent me a note warning me to watch my back, saying the illicit artifact community was out for blood. You don't get this kind of talk from geologists or stamp collectors.⁸

Childs cites three cases where professional problems motivated suicide, and a "string of deaths" (p. 93). He also documents a case where one woman (Roxanna Brown, PhD from UCLA, a prominent authority on Southeast Asian ceramics and director of the Bangkok University's Southeast Asian Ceramics Museum) was jailed for her involvement in the artifact community. The report said she died in jail, under very questionable circumstances, from "choking on her own fluids".9

Her son sued for wrongful death and settled for \$880,000 in July 2009.10

- Morell, V., Ancestral Passions: The Leakey Family and the Quest for Humankind's Beginnings, Simon and Schuster, New York, 1995. See chapter 15, Murder and Mayhem pp. 210–224 and pp. 477–481.
- Brooks, M., Free Radicals: The Secret Anarchy of Science, The Overlook Press, New York, p. 193, 2011.
- 6. Childs, C., *Finders Keepers: A Tale of Archaeological Plunder and Obsession*, Little, Brown and Company, New York, 2010; p. 24.
- 7. Childs, *Finders Keepers*, p. 6.
- 8. Childs, Finders Keepers, p. 6.
- 9. Childs, Finders Keepers, pp. 92–93, 116.
- 10. Carter, M., U.S. pays \$880,000 in death of detained antiquities expert, *The Seattle Times*, July 7, 2009

Paleoanthropology is an especially contentious field for reasons including the strong human interest in our origins. In addition, "because conclusions of emotional significance ... must be drawn from extremely paltry evidence, it is often difficult to separate the personal from the scientific in disputes raging within the field." Fix noted that one critical reason for the conflicts is that the human fossil record is still so sparse

that those who insist on positive declarations can do nothing more than jump from one hazardous surmise to another and hope that the next dramatic discovery does not make them utter fools. ... Clearly, some people refuse to learn from this. As we have seen, there are numerous scientists and popularizers today who have the temerity to tell us that there is "no doubt" how man originated. If only they had the evidence.¹²

Reminiscent of the issues of personality conflicts in paleoanthropology, Oxford professor Bryan Sykes commented that:

The whole debate about the timing and origin of the first Americans has the familiar feel of a stagnant intellectual circus, still balanced between entrenched academic foes who will never agree. This, I have realised over the years, is the natural equilibrium that sets in when a field has reached an impasse and where the rigid stance of personalities and their fiefdoms, rather than evidence, has become the deciding factor in an argument. Although this statement is the antipathy of science as a branch of philosophy, where evidence alone is king, it is surprisingly widespread. When a field stagnates like this, the cycle can only be broken by a completely independent kind of evidence.¹³

Another major reason for the numerous controversies in paleoanthropology is that

paleoanthropology is a field in which the students far outnumber the objects of study. There are lively—and sometimes acrimonious—debates about whether a given fossil is really something new, or merely a variant of an already named species. These arguments about scientific names often mean very little. Whether a humanlike fossil is named as one species or another can turn on matters as small as half a millimeter in the diameter of a tooth, or slight differences in the shape of the thighbone. The problem is that there are simply too few specimens, spread out over too large a geographic area, to

^{11.} Holden, C., The politics of paleoanthropology, *Science* **213**(4509):737–740, 1981; p. 738.

^{12.} Fix, W.R., The Bone Peddlers: Selling Evolution, Macmillan, New York, p. 150, 1984.

^{13.} Sykes, B., *DNA USA: A Genetic Portrait of America*, Liveright Publishing Corporation, New York, p. 17, 2012.

make these decisions with any confidence. New finds and revisions of old conclusions occur constantly.¹⁴

Yet another reason for the many controversies and forgery allegations is that the anthropological field is divided into 'camps', 'schools', or cliques that are not uncommonly at war with each other. Each school often is dominated by a small group of scientists who are well-known and well-connected charismatic leaders. Each camp tries to 'prove' its own evolution theory, often dogmatically, by using fossils, most of which consist of badly damaged fragments open to multiple interpretations. In the words of evolutionist Henry Gee, the problem is that the "Fossil evidence of human evolutionary history is fragmentary and open to various interpretations." ¹⁵

Reading various paleoanthropology publications reveals both the extent and the degree of conflicts in a field that, as a whole, has very little relevant hard data, most of which can be construed in several different ways. One reason why much controversy is common is that new fossil discoveries are typically not shared with other scientists for years, if ever, due to factors such as publishing priority concerns. A common complaint is that the people claiming the discovery are far too slow to publish their findings—and are flinging around arguments and interpretations without giving others something solid in print to evaluate. The Leakey and Johanson camps also claim each others' popular books are filled with inaccuracies. White and Johanson in particular complain that while Leakey refuses to accept the designation and placement of *Australopithecus afarensis*, he will not offer an alternative.¹⁶

To get full credit for a fossil discovery, one normally must publish a scientific article describing the find before anyone else does. To do this, the discovering paleoanthropologists retain exclusive access to their fossils for a decade or more before allowing others to study them. Since these fossils often are fragile and easily broken, working with them tends to damage them. This fact, though, may be used as an excuse by the group that discovered the fossils to not allow others access to them.

For all of these reasons, most researchers have access only to photographs or, at best, casts of the fossils. Most anthropologists must rely on descriptions and interpretations produced by the fossil's discoverer—the very person who has a vested interest in proving his or her own theories. In view of this fact, it is not surprising that major disagreements are common.

^{14.} Coyne, J.A., Why Evolution is True, Viking, New York, p. 197, 2009.

^{15.} Gee, H. Return to the planet of the apes, *Nature* **412**:131–132, 2001.

^{16.} Holden, The politics of paleoanthropology, p. 739.

Hoarding important fossil finds

An example of this conflict is when a fossil is discovered, for various reasons the discoverers tend to hoard it to prevent others outside of their clique from exploiting or receiving credit or fame for their discovery, or to prevent others from contradicting their interpretations of the fossils.^{17,18} A growing tendency exists for certain paleoanthropologists to refuse access to their finds even after they have published a preliminary description of their fossil discoveries. When published, their artifacts are under the paleontological code that stipulates fossils are to be shared with other researchers. The discoverers may ignore this rule, often arguing they have the right to withhold their fossil finds because of the dubious claim that the

initial publications, even when prepared in accord with the dictates of the *Code* and published in major vehicles such as *Nature* and *Science*, merely constitute "announcements" ... "Publication," it is disingenuously contended, occurs only with the appearance of a long interpretive monograph.¹⁹

Tattersall and Schwartz add that it is common for this monograph publication period to take decades or longer, and may never be completed. Examples they provide include Louis Leakey's *Homo habilis* fossil finds, which were finally written up in the form of a detailed technical monograph by Professor Phillip V. Tobias "some 30 years after their discovery, while the important fossil crania from Forbes' Quarry and Steinheim" sites have yet to be written up in any detail 150 and 69 years respectively since their recoveries. More recently, several new hominid species

published as early as 1994 still remain off-limits to researchers not belonging to the describing cliques. This has potentially harmful consequences, for, if not rapidly subjected to informed scrutiny, the initial describers' interpretation of the specimens' significance tends automatically to become established wisdom in the field. In this way, untested notions readily become incorporated into textbooks, the secondary literature, and the vast reaches of the popular media, without any consideration of alternative interpretations. As things too often are, alternative interpretations are difficult or impossible to formulate, because even casts (poor substitutes for the originals in any event) are rarely available and ... photographs of specimens published in *Nature* or

^{17.} Tattersall, I. and Schwartz, J.H., Is paleoanthropology science? Naming new fossils and control of access to them, *The Anatomical Record* **269**(6):239–241, 2002.

^{18.} One reviewer of this book noted that this is a serious problem in archaeology as well; with finds often published years after they were found, dig reports delayed for decades, and announcements to the media being made before publication. He suggests this may well indicate a prevalent attitude in archaeology generally, and in other historical sciences.

^{19.} Tattersall and Schwartz, Is paleoanthropology science? p. 240.

Science tend to be so small and lacking in contrast that much useful information is obscured.²⁰

A more recent example is Professor Teuku Jacob who stalled in returning the *Homo floriensis* fossils to the original researchers in Jakarta. One researcher commented that he is "not optimistic about the bones' return to Jakarta" and even though the "conflict continues" the Jakarta researchers plan to continue their research and publication. Fortunately, in this case several qualified researchers were later allowed access to the fossils. ²¹ The problem is "science is a system of provisional knowledge that constantly requires re-examination and testing. It cannot function as a system in which assertions have to be left unchallenged for want of free access to the primary data." ²² This goal is hindered by restricting access to fossils by other scientists, especially creationists.

Blocking access to creationists

The difficulty that creationists and others have in obtaining access to fossils is another problem. Museums and other human fossil remains repositories commonly refuse access requests made by creationists. The difficulties that confront creationists, such as Dr Jack Cuozzo when he attempted to access fossil humans, illustrate the problems in challenging existing interpretations. His experience is detailed in his 1998 book *Buried Alive: The Startling Truth About Neanderthal Man*.

Cuozzo discusses in detail what he claims was a "violent reaction" that his research into Neandertal Man caused, providing another illustration of the extreme reaction that Darwin doubters can provoke. In this case, there were seven witnesses to the events—two adults and five children.²³

It all began in the late 1970s when Cuozzo began to question the evolutionary interpretation of the fossil record.²⁴ The antagonism resulted from his attempt to study the original Neandertal skeletal material housed in several Paris museums.

Cuozzo had taken numerous radiographs of the Neandertals with a portable cephalometric X-ray machine developed by General Electric Corporation for use in fossil research. At the time there were only two portable cephalometric X-ray machines in the world. He believed that the radiographs provided evidence against the orthodox evolutionary view of the Neandertals. Fortunately, as Cuozzo details in his book, he was able to arrive in the United States with his radiographs intact. The X-ray photographs, it turned out, produced important new information about

^{20.} Tattersall and Schwartz, Is paleoanthropology science? p. 240.

^{21.} Culotta, E., Battle erupts over the 'hobbit' bones, Science 307(5713):1179, 2005.

^{22.} Tattersall and Schwartz, Is paleoanthropology science?, p. 239.

Cuozzo, J., Buried Alive: The Startling Truth About Neanderthal Man, Master Books, Green Forest, Arkansas, p. 13, 1998.

^{24.} Cuozzo, Buried Alive, p. 17.

Neandertals that was detrimental to Darwinism, including evidence showing that many textbook measurements were incorrect.²⁵

Arrogance in paleoanthropology

A major issue in dealing with the problem is that no small amount of arrogance exists within the scientific community. Hooper concluded that some scientists dogmatically believe not only that they have the answer, but also that only they have the right to ask the questions—and if they don't, no-one else should.²⁶ A review of history vividly shows that an 'other side' to the dominant views of scientists exists. The dominant side is the views of scientists who control publication in *Nature*, *Science, PNAS, Cell*, and other leading scientific journals.

This fact illustrates a common problem in paleoanthropology related to the difficulties leading scientists have in evaluating the data fairly and objectively. An example is Tim White, a professor at the University of California, Berkeley, who had a falling out with Dr Donald Johanson to the extent that "White and Johanson now barely speak to each other because of earlier bitter disagreements over research style and conduct." Tim White's former University of Michigan professor, Dr Milford Wolpoff, supported this negative assessment:

Tim knows the "*right*" way ... and that's with a capital "R" I used to think that once he got a job and was treated with professional respect, he'd calm down a bit. But I was wrong.²⁸

Morell noted that "White's self-righteous stance surfaced [in the field] ... leading him to be 'unspeakably rude and arrogant to others.'"29

She concluded that, like Wolpoff, Richard Leakey also "assumed that White would eventually outgrow this behavior. Instead, Richard himself became a target" of White's arrogance.³⁰ For example, when Richard Leakey, the leader of the fossil expedition, explained his objections to White's writing a scientific paper about his (White's) interpretations of some fossils, including some unpublished hominid fossils, without Leakey's awareness until the final draft was completed, Leakey wrote: White "started shouting at me, called me a dictator, said it was a disgrace that I should be in charge—all this rubbish ... he wanted to have nothing more to do with me, and finally walked out of my office and slammed the door."³¹

^{25.} Cuozzo, Buried Alive, p. 17.

^{26.} Hooper, J., Of Moths and Men: An Evolutionary Tale—The Untold Story of Science and the Peppered Moth, Norton, New York, 2002.

^{27.} Dalton, R., The history man, *Nature* **443**(7109):268–269, 2006; p. 269.

^{28.} Morell, Ancestral Passions, p. 477.

^{29.} Morell, Ancestral Passions, p. 477.

^{30.} Morell, Ancestral Passions, p. 477.

^{31.} Morell, Ancestral Passions, p. 478.

Similar conflicts are not uncommon in this field: "Squabbles over credit for discoveries and permits to work at key sites are common." An example Dalton cites is that paleoanthropologists Donald Johanson and Maurice Taieb's competitors used a potentially inflammatory passage in a book that Johanson published to upset the Ethiopian authorities and cause Johanson and Taieb to be banned from research in Ethiopia. The ploy was successful—they were banned for a decade.

Many anthropologists have concluded that we should not be surprised by this behaviour because humans are "bloody aggressors" as a result of the evolutionary survival of the fittest battle. Leakey's critics view him as the leader of a small clique of researchers that are trying to build their

own scientific empire in East Africa; a clique of what Tim White terms "academic loyalists" devoted to Louis Leakey's stubborn adherence to unfounded theories about man's origins. Critics also say that a favorite Leakey theme—that man is innately a cooperative and food-sharing creature rather than a bloody aggressor—is at best only thinly supported by available evidence.³³

The Leakeys have been at the centre of this war for the last half-century. And unfortunately, for several reasons "paleoanthropology has a history of being dominated by individualists, and the late Louis Leakey, perhaps the most colorful of them all, bore major responsibility for enlarging the endeavor by drawing in the public's interest—and along with that, money." ³⁴

Johanson versus the Leakeys

One of the most well-known missing link wars was between the two giants of paleoanthropology, Richard Leakey and Donald Johanson. The early human evolutionary theory postulated that humans descended "from the apes."³⁵ When no convincing evidence was uncovered for this view, Leakey and others came up with an alternative view—that humans and apes "evolved from some other, unknown creature that was antecedent to both humans and apes."³⁶ This theory postulated that humans did not evolve from apes but humans and apes evolved from some distant long-extinct common ancestor, the so-called missing link. A major problem with this idea was there existed

a big hole in the fossil evidence for the human line of descent. We had ourselves at one end of the scale, and we had our cousins the modern apes at the

^{32.} Dalton, The history man, p. 269.

^{33.} Holden, The politics of paleoanthropology, p. 739.

^{34.} Holden, The politics of paleoanthropology, p. 737.

^{35.} Hellman, H., Great Feuds in Science, Wiley, New York, p. 160, 1998.

^{36.} Hellman, Great Feuds in Science, p. 160.

same end. We also had some fossil evidence for ancient apes, thought to date way back to an estimated 10 million years ago and more.

But how about the intermediary stages? Where was the "missing link"? Next to the Holy Grail, the missing link may be the most sought-after prize in human history. Every civilization, every recorded society has myths and legends attempting to explain where we came from. It was about this link, basically, that Leakey and Johanson were wrangling.³⁷

After 30 years of fruitless searching, the Leakeys finally found some skull fragments and simple tools near the skull that they argued was the missing link. Now named *Australopithecus boisei*, the find changed their lives forever—fame and fortune soon followed. Human evolution now had its Holy Grail.

A few years later Johanson's team found some badly damaged skull pieces and other bone fragments they named Lucy, which they claimed was 40% complete, when actually it was closer to 30% or less complete. The find soon rocketed him to worldwide fame. Johanson gave the scientific name *Australopithecus afarensis* to his find, claiming that the creature was a new species. Johanson also claimed she (some claim Lucy was a male, a controversy still being debated) was the oldest human ever found, thus she would be the mother of mankind, and further maintained that she was bipedal.³⁸ Hellman explained that

A. afarensis sits at the base of a neat Y-shaped tree. Lucy, the Mother of Mankind, forms the stem, which branches off in one direction to Homo habilis, which in turn leads eventually to Homo sapiens, modern man. The other branch of the Y leads to Louis Leakey's A. boisei and thence to extinction. This directly contradicted the Leakeys' belief that



The skull pieces and other bone fragments of *Australopithecus afarensis* commonly referred to as Lucy.

the human line began much earlier. Thus were several lifetimes of work put on the line, and with some Leakey fossils used as ammunition against their own position. Also, Johanson thereby claimed the title to being finder of *the* missing link.³⁹

^{37.} Hellman, Great Feuds in Science, p. 160.

^{38.} Hellman, Great Feuds in Science, p. 168.

^{39.} Hellman, Great Feuds in Science, p. 170.

Mary Leakey disputed most of his claims, even calling the Johanson team's work "slovenly." 40

Their argument is over the central facts of human evolution, and this controversy illustrates the fact that theories of human evolution are mostly speculation. The evidence available is scant, fragmentary and equivocal.

For this reason, a fundamental problem in anthropology is naming, and thereby creating, a new species. It "is always a traumatic event. In this case, Johanson's introduction of Australopithecus afarensis created a storm on several fronts ... Mary [Leakey] had probably known of his intention, [but] the public announcement was particularly galling because his classification ran exactly counter to the position long held by the Leakeys."⁴¹

A good example of the many major naming disagreements among evolutionists was provided by Oxford Professor Richard Dawkins. Dawkins writes that taxonomists, those scientists who name different life-forms, often dispute names, which indicates the level of controversy about origins and evolution. For example, he writes that many taxonomists

speak of *Homo neanderthalensis* not *Homo sapiens neanderthalensis*, elevating Neanderthal man from sub-species to species status. Generic names and specific names are also often disputed, and often change with successive revisions in the scientific literature. *Paranthropus boisei* has been, in its time, *Zinjanthropus boisei* and *Australopithecus boisei*, and is still often referred to, informally, as a robust australopithecine—as opposed to the two 'gracile' (slender) species of *Australopithecus* mentioned above. One of the main messages ... concerns the somewhat arbitrary nature of zoological classification.⁴²

Dawkins added that the accepted

rules of zoological nomenclature are strict to the point of pedantry. Priority of naming takes precedence over sense and suitability. 'Southern ape' might be a lousy name but no matter: it predates the much more sensible *Plesianthropus* and we seem to be stuck with it, unless ... somebody will uncover, ... a long-forgotten fossil, clearly the same kind as Mrs. Ples and the Taung Child, but bearing the scrawled label, 'Hemianthropus type specimen, 1920'. At a stroke, all the museums in the world would immediately have to relabel their Australopithecus specimens and casts, and all books and articles on hominid prehistory would have to follow suit. Word-processing programs across the world would work overtime sniffing out any occurrences of Australopithecus and replacing them with Hemianthropus. I can't think

^{40.} Hellman, Great Feuds in Science, p. 171.

^{41.} Hellman, Great Feuds in Science, p. 170.

^{42.} Dawkins, R., *The Greatest Show on Earth: The Evidence for Evolution*, Free Press, New York, p. 190, 2009.

of any other case where international rules are potent enough to dictate a worldwide and backdated change of language overnight.⁴³

An example of the identification problem that Dawkins cites is the following three fossils. The museum number is followed by the various names in italics given to the fossil by the experts, as shown:

KNM ER 1813: Australopithecus habilis, Homo habilis

KNM ER 1470: Australopithecus habilis, Homo habilis, Australopithecus rudolfensis, Homo rudolfensis

OH 24 ('Twiggy'): Australopithecus habilis, Homo habilis⁴⁴

Why is terminology such a problem? Dawkins explains a major reason is because of the sparse fossil evidence, which obviously allows much room for interpretation:

I wish we really did have a complete and unbroken trail of fossils, a cinematic record of all evolutionary change as it happened. I wish it, not least because I'd love to see the egg all over the faces of those zoologists and anthropologists who engage in lifelong feuds with each other over whether such and such a fossil belongs to this species or that, this genus or that [emphasis added].⁴⁵

The conflict worsens

When Louis Leakey's son, Richard, was invited on Walter Cronkite's television program to discuss evolution and creationism as an ardent evolutionist, Richard agreed to appear. This ploy to get him on the show turned out to be a ruse—Cronkite actually did not want Richard to rail against creationism, but rather to pit him and Johanson against each other to debate their radically different opinions about *Australopithecus afarensis* and other putative hominids.

It turned out as the show progressed that Johanson was less interested in an intellectual exchange to achieve a better understanding of human evolution than he was in attacking those with whom he disagreed. Some people, such as Milford Wolpoff, felt Richard Leakey came out better in this acrimonious exchange. Shortly after the Cronkite show, the National Geographic Society—the Leakeys' main source of financial support—presumably in part as a consequence of the bad publicity it generated, turned down Richard's grant application for funds to support his

^{43.} Dawkins, *The Greatest Show on Earth*, pp. 191–192.

^{44.} Dawkins, The Greatest Show on Earth, p. 194.

^{45.} Dawkins, *The Greatest Show on Earth*, p. 196.

^{46.} Morell, Ancestral Passions, p. 520.

Koobi Fora fossil exploration research and for new explorations in the areas north and west of Lake Turkana.⁴⁷

The endless, vicious, and sometimes physical confrontations between the Leakeys and other leading anthropologists, such as Donald Johanson and Timothy White, are very illuminating as to how critically important preconceptions are in interpreting and understanding the fossil evidence. Because fossil evidence usually accounts for less than 10% of the animal by volume (rarely are organs, muscles, skin, hair or other parts preserved), this evidence can be interpreted in several ways, even in the very rare situation in which a skeleton is fairly complete.

Lucy (*Australopithecus afarensis*) is the most complete putative human ancestor skeleton discovered so far. ^{48,49,50} As noted, less than 40% of the skeletal remains were eventually recovered at Hadar, and debate still exists whether the bones recovered all belong to the same individual. Most other fossil finds consist of, at best, a few bone fragments, sometimes only teeth. As Lewontin noted, when we study the

remote past, before the origin of the actual species *Homo sapiens*, we are faced with a fragmentary and disconnected fossil record. Despite the excited and optimistic claims that have been made by some paleontologists, no fossil hominid species can be established as our direct ancestor.⁵¹

A problem noted above is that cliques develop, and the leader of one of these cliques justified excluding others from examining the fossils by implying "that he had assembled the best possible team to study one set of fossils concerned (and thus by implication that it was unnecessary for others to see them)." The author of a Science report on the fossils asked "if it 'really mattered' whether only the describers and their cronies saw the type specimens of new species at first-hand." The second of the

Tattersall and Schwartz conclude that it is "absurd to act as if the finders of particular fossils are alone qualified to study them", and that it is "one thing for high priests in temples to reserve access to religious relics; science is an entirely different case. Science is not a matter of faith (or of power); it is a matter of the free flow of information."⁵⁴

- 47. Morell, Ancestral Passions, p. 523.
- 48. Dalton, The history man, p. 268.
- Regal, B., Human Evolution: A Guide to the Debates (Controversies in Science), ABC-CLIO, Santa Barbara, California, p. 109, 2004.
- Kimbel, W. and Delezene, L., Lucy Redux: A Review of Research on *Australopithecus afarensis*, American Journal of Physical Anthropology, Volume 140, Issue S49, pp. 1–163. Supplement: Yearbook of Physical Anthropology 2009. pp. 2–48.
- 51. Lewontin, R.C., *Human Diversity*, Scientific American Library, New York, p. 163, 1995.
- 52. Tattersall and Schwartz, Is paleoanthropology science? p. 240.
- 53. Tattersall and Schwartz, Is paleoanthropology science? p. 240.
- 54. Tattersall and Schwartz, Is paleoanthropology science?, p. 241.

Debates part of science

Debates are also required to make progress in science—but the viciousness that Morell eloquently documents is hardly what we would expect of paleoanthropologists who are interested in truth and desire to rationally evaluate their ideas. Nor is this behavior rare. Gardner notes that mainline anthropologists reacted to one fellow anthropologist, Dr William Arens, who disagreed with the orthodox view, "with the same kind of fury they displayed toward Derek Freeman's Margaret Mead and Samoa, a book exposing Mead's gullibility in taking at face value the myths told to her by Samoan pranksters." Gardner adds that

Anthropologists have yelled insults at Arens in meetings. They have pounded him relentlessly in their writings. Reviewers called his book "dangerous" and "malicious." 55

The extent of the outrageous behavior shown by these individuals was so extreme that it could not be discussed in a family publication. In addition, the morals of some leading paleoanthropologists leave much to be desired. Some people have claimed that Louis Leakey took advantage of women by using his position to exploit them for sexual favours. He had several affairs, which earned him a reputation as a ladies' man. ⁵⁶ Some also condemn Louis's son, Richard, as not only wrong but also ignorant. Holden wrote that some authorities actually view him "as a nonscientist who parades his lack of credentials in the many speeches he delivers." ⁵⁷

For example, University of Michigan paleontologist C. Loring Brace, in a scathing review of Richard Leakey's two books *Origins* and *People of the Lake*, wrote that Richard Leakey's "deficiencies in his education" (he does not have a university degree in paleontology or any other subject) show up in "sheer ignorance of basic evolutionary principles and the non-African aspects of this field" and also "in his inability to appraise the nature of the facts that have been discovered as a result of his fieldwork." He adds that these two books by Richard Leakey "present an amalgam of recent discoveries, sweeping generalizations, and gross errors in fact that is guaranteed to produce intellectual indigestion in those who really know the field—at the same time that the nonspecialist regards it all as the authoritative voice of 'science'." 58

Professor Brace also contends that Leakey held very antiquated incorrect views of human evolution. The major 1980s and 1990s war between the Leakey and

^{55.} Gardner, M., Did Adam and Eve Have Navels? Discourses on Reflexology, Numerology, Urine Therapy, and Other Dubious Subjects, Norton, New York, pp. 139–140, 2000.

^{56.} Morell, Ancestral Passions, pp. 242–244.

^{57.} Holden, The Politics of Paleoanthropology, p. 739.

Loring Brace, C., Review of What New Discoveries Reveal About the Emergence of Our Species and Its Possible Future and People of the Lake, *American Anthropologist* 81(3):702, 704, 1979.

Johanson camps involved not only differing interpretations, but also strident claims that the other side was ignorant of the field.

Professor von Zieten's key research finds falsified

A more recent case is the work of German anthropologist Professor Reiner Protsch von Zieten. Research has confirmed that what the British *Guardian* called "one of archaeology's most sensational finds"—what they claimed was a 36,000-year-old skull fragment discovered in a peat bog near Hamburg—has now been falsified. Until falsified, this fragment was believed to be a "vital missing link between modern humans and Neanderthals." The 30-year academic career of the distinguished Protsch "has now ended in disgrace after the revelation that he systematically falsified the dates on this and numerous other 'stone age' relics."

Furthermore the crucial skull fragment once believed to have come from the world's oldest Neandertal has, according to Oxford University's radiocarbon dating unit, now been determined to be closer to a mere 7,500 years old. Other skulls were incorrectly dated by Protsch as well. After redating the evidence, it was concluded that Protsch had methodically falsified the dates on numerous artifacts: he had simply made up the dates to fit his theories. Testing revealed all of the skulls dated by Protsch were, in fact, far younger than he had claimed.

Thomas Terberger, the scientist who discovered the fraud, stated that as a result of the hoax, "anthropology is going to have to completely revise its picture of modern man." A committee also found that Protsch committed numerous other "false-hoods and manipulations." His deceptions were so serious that it "may mean an entire tranche of the history of man's development will have to be rewritten."

Yet another of Protsch's finds, the Binshof-Speyer woman, was determined to have lived in 1,300 BC, not 21,000 years ago as Protsch claimed, and the Paderborn-Sande man, which was dated by the professor at 27,400 BC, died only "a couple of hundred years ago, in 1750." Further research determined that Protsch had passed off fake fossils as real, and had also plagiarized other scientists' work. The scandal was finally exposed when Protsch was caught trying to sell his university department's entire chimpanzee fossil collection to a museum in the United States.

The committee that investigated him required ten different meetings with 12 witnesses, documenting that Protsch's actions "were increasingly bizarre. After a while it was hard to take it seriously. ... It was just unbelievable. ... what he did was incredible."⁶⁴ It was also determined that the professor, who had a fondness for

Harding, L., History of modern man unravels as German scholar is exposed as fraud, *The Guardian*, February 19, 2005.

^{60.} Harding, History of modern man unravels ..., p. 1.

^{61.} Quoted in Harding, History of modern man unravels ..., p. 1.

^{62.} Harding, History of modern man unravels ..., p. 1.

^{63.} Harding, History of modern man unravels ..., p. 1.

^{64.} Harding, History of modern man unravels ..., p. 2.

Porsches and Cuban cigars, could not even operate the carbon dating equipment that he had claimed to have used to produce his now discredited dates! This claim should have aroused suspicion because carbon-14 dating is almost always done by highly trained specialists in well-equipped labs, rarely by paleontologists.

Protsch was forced to end his career after the confirmation of his many "false-hoods and manipulations" came to light. This scandal is critically important in physical anthropology because his 30-year academic career yielded many sensational finds that were important evidence for modern evolution theory. He evidently found that he could get away with the frauds, and continued to make outrageous claims until they became so ludicrous that his peers were forced to investigate. The university administrators admitted that they should have discovered the professor's bizarre fabrications much earlier, but the "high-profile anthropologist ... proved difficult to pin down." 65

The hobbit bone war

One of the latest paleoanthropology conflicts was over the so-called hobbit fossil man bones believed to be those of eight individuals, discovered in 2003 in the Liang Bua cave on the Indonesian island of Flores. The bones are from a creature now given the scientific name *Homo floresiensis*.

The bones' discoverer believed that they represented a new branch of human evolution. A major problem in this interpretation is that the bones were dated at only 18,000 years old. Although discovered by a team led by Mike Morwood, a rival team soon had taken possession of the skeleton. The conflict was exacerbated when Indonesian paleoanthropologist Dr Teuku Jacob, noting that pygmies still live nearby, concluded



A cast of the fossil hobbit (*Homo floresiensis*) skull.

Source Wikimedia Commons

that the bones are not from a missing link, but rather are a "modern human pygmy with microcephaly." Morwood judged this conclusion mind-bogglingly wrong. 67

Tensions built when Jacob made public his conclusion that *H. floresiensis* is *not* a new human species but a *Homo sapiens*. The bones were later returned to the

^{65.} Harding, History of modern man unravels ..., p. 2.

^{66.} Culotta, Battle erupts over the 'hobbit' bones.

^{67.} Culotta, Battle erupts over the 'hobbit' bones.

scientists that discovered them "after months of dispute with a competing scientist [i.e. Teuku Jacob] who had taken them away."68

Tim White and Chris Stringer both rejected Jacob's conclusions. ⁶⁹ To help settle the dispute, Jacob sent rib bone pieces to be DNA-analyzed, but those who advocated the new species theory demanded that they be returned immediately. ⁷⁰ Soon after the bones were returned, Morwood reported that they were "seriously damaged" but Jacob insisted that the bones were intact when they left his lab. ⁷¹

Morwood also claimed that the bones were not only damaged, but a "still-unpublished jawbone 'broke in half ... and was badly glued back together, misaligned" and "the left side of the pelvis—which he calls one of the hominid's most distinctive features ... was 'smashed", 72 making it much more difficult to determine what kind of human or animal the fossil was from. The jaw was broken in half between the front teeth, obliterating structures that were critical to determining its proper identification, and the pelvis was broken into two large and four smaller pieces. 73

Jacob's critics also alleged that, in the process of making a mould to produce copies of the bones, "breakage and loss of anatomic detail" occurred and the cranial base of the skull and jawbone were seriously damaged. Jacob denied doing any damage, noting that his lab was the only one in Indonesia equipped for paleoanthropological study having both highly trained staff and up-to-date testing equipment. In fact, Jacob noted that "his team reconstructed some of the remains, putting pieces together in order to study them." A number of paleoanthropologists have sided with Jacob, one noting that when he saw the bones, including the left side of the pelvis, they were all undamaged. Another researcher doubted if making moulds could damage the bones.

In October 2005, details of a new find were published in the scientific literature, including another new jawbone that was virtually identical to a previous find. Morwood claimed the newest discovery supported the 'new species' interpretation. Examples he cited in support of his interpretation include the jaws' lack of a chin structure. The researchers argued this was important because chins are a distinguishing feature of *H. sapiens*. They also found spectacularly long arm bones

^{68.} Dalton, R., Fossil finders in tug of war over analysis of hobbit bones, *Nature* **434**(7029):5, 2005.

^{69.} Dalton, Fossil finders in tug of war over analysis of hobbit bones.

^{70.} Dalton, Fossil finders in tug of war over analysis of hobbit bones.

Culotta, E., Discoverers charge damage to 'hobbit' specimens, *Science* 307(5717):1848, 2005.

^{72.} Culotta, Discoverers charge damage to 'hobbit' specimens.

^{73.} Dalton, R., More evidence for hobbit unearthed as diggers are refused access to cave, *Nature* **437**(7061):934–935, 2005.

^{74.} Culotta, Discoverers charge damage to 'hobbit' specimens.

^{75.} Culotta, Discoverers charge damage to 'hobbit' specimens.

^{76.} Culotta, Discoverers charge damage to 'hobbit' specimens.

identified as being from two individuals.⁷⁷ These finds raised more questions than they answered.

Dalton wrote that disputes such as the Liang Bua Cave controversy were not rare, but this one was unprecedented. Another problem was, as noted by Morwood, that the conflicts which developed between the different paleoanthropologists resulted in his team not being allowed to work at the hobbit work site, the Liang Bua Cave. As this case illustrates, conflicts

over paleoanthropology dig sites are not uncommon—there has been considerable squabbling over the control of hominid sites in Africa. But it is unprecedented to close down such a spectacular site. "*Liang Bua is the crown jewel of the caves*," says Brown, adding that only a small percentage of it has been excavated so far. "*This is where the team should be focusing*."⁷⁸

Research that continued at other sites on Flores and nearby islands has found some

promising hints about the origin of *H. floresiensis*, but no new hominid bones. Work in the Soa Basin, for example, suggests that hominids were present on Flores significantly earlier than 840,000 years ago, the earliest date previously reported ... But without access to Liang Bua, the mysteries of the ancient 'hobbit' people will probably remain secret for the foreseeable future.⁷⁹

Nonetheless, the quarrel over whether the find really represents a new species continues to the extent that paleoanthropologist Peter Brown concluded it proved "a complete circus." Roll atest finds include fragments of six or more individuals, producing the observation that "Overall, H. floresiensis presents a fascinating conundrum, and prompts some tantalizing predictions that will continue to strain credulity without more fossil evidence." Roll

One reason for this conundrum is that a "minuscule brain in a species so recent that also made stone tools, has strained credulity", at least in the eyes of some paleon-tologists. 82 The new view is problematic for the evolutionist because "if proponents of the new view of hobbits are right, the first intercontinental migrations were undertaken hundreds of thousands of years earlier" than previously believed

by a fundamentally different kind of human, one that arguably had more in common with primitive little Lucy than the colonizer paleoanthropologists

^{77.} Dalton, More evidence for hobbit unearthed ..., p. 935.

^{78.} Dalton, More evidence for hobbit unearthed ..., p. 935.

^{79.} Dalton, More evidence for hobbit unearthed ..., p. 935.

^{80.} Dalton, Fossil finders in tug of war over analysis of hobbit bones.

^{81.} Lieberman, D.E., *Homo floresiensis* from head to toe, *Nature* **459**(7243):41–42, 2009; p. 42.

^{82.} Lieberman, Homo floresiensis from head to toe, p. 41.

had envisioned. This scenario implies that scientists could conceivably locate a long-lost chapter of human prehistory in the form of a two-million-year record of this primitive pioneer stretching between Africa and Southeast Asia if they look in the right places.⁸³

Needless to say, this conclusion "does not sit well with some researchers" for many reasons, including the concern that the "further back we try to push the divergence of the Flores [hominin], the more difficult it becomes to explain why a [hominin] lineage that must have originated in Africa has left only one trace on the tiny island of Flores" [Editorial inserts in original].⁸⁴

The view that *H. floresiensis* is a legitimate new species has been challenged by a number of other scientists, including Field Museum of Chicago primate evolution expert Dr Robert Martin.⁸⁵ He has opined that the first find, called LB1—the only example whose brain size can be estimated—could have been a modern human with some yet unidentified medical disorder, which others claim may be microcephaly. As of this date, the conflict continues, but meanwhile

many scientists are welcoming the shake-up. LB1 is "a hominin that no one would be saying anything about if we found it in Africa two million years ago," asserts Matthew W. Tocheri of the Smithsonian Institution, who has analyzed the wrist bones of the hobbits. "The problem is that we're finding it in Indonesia in essentially modern times."

Tocheri added that "If we don't find something in the next 15 years or so in that part of the world, I might start wondering whether we got this wrong ... The predictions are that we should find a whole bunch more" new floresiensis fossils.⁸⁷ After over ten years since the Hobbit was uncovered, and scores of scholarly papers on the Hobbit, many questions about its identity still remain unsolved.

Conclusions

In a field based on little empirical evidence, many assumptions, and strong personalities, the so-called 'bone wars' illustrate the conflicts common among scientists in this academic discipline. The unprofessional, and at times even fraudulent behaviour, of the leading participants is far from what one would expect from highly

^{83.} Wong, K., Rethinking the hobbits of Indonesia, *Scientific American* **301**(5):66–73, November 2009.

^{84.} Martin, R., quoted in Wong, Rethinking the hobbits of Indonesia, p. 72.

^{85.} Wong, Rethinking the hobbits of Indonesia, p. 72.

^{86.} Wong, Rethinking the hobbits of Indonesia, p. 73.

^{87.} Wong, Rethinking the hobbits of Indonesia, p. 73.

trained professionals.⁸⁸ Holden wrote that the problem in paleoanthropology is the fact that this field

naturally excites interest because of our own interest in our origins. And, because conclusions of emotional significance to many must be drawn from extremely paltry evidence, it is often difficult to separate the personal from the scientific in disputes raging within the field.

He added that

The very nature of paleoanthropology encourages divisiveness. The primary scientific evidence is a pitifully small array of bones from which to construct man's evolutionary history. One anthropologist has compared the task to that of reconstructing the plot of *War and Peace* with 13 randomly selected pages. Conflicts tend to last longer [than in other fields—Ed.] because it is so difficult to find conclusive evidence to send a theory packing.⁸⁹

Archaeologist Craig Childs has documented the epidemic of fraud and forgeries in not only ancient bones but also in the whole field of human artifacts. He documented three suicides—Dr James Redd, Ted Gardiner, and Steven Shrader—which resulted over conflicts in this pursuit, adding that "In no other field of research have I encountered so many people who have wanted the other party dead. ... Another man ... explained to an undercover agent that you should always go into the field well-armed." 90

As we have documented, the fact is paleoanthropology is an "unexacting kind of science." This fact is compounded by the problem of researchers refusing outside access to their fossil finds, even though, as Tattersall and Schwartz argued, published fossils have to be freely available for research if science is to work as it should. Pand, partly for this reason, although the field is more sophisticated today, "it continues to be riddled with controversies and dominated by personalities." This brief survey supports Holden's conclusion that the "very nature of paleoanthropology encourages divisiveness. ... Louis Leakey's personal ideas about the extreme antiquity of the Homo line ... continue to divide the field years after his death."

Fraud and new discoveries are forcing so much revision in the paleoanthropology field that *Time* magazine's senior science editor, a former science teacher, Charles Alexander, stated that so many of the facts he once believed to be true in evolution

^{88.} Grant, J., Corrupted Science: Fraud, Ideology and Politics in Science, Facts, Figures and Fun, Surrey, UK, 2007.

^{89.} Holden, The Politics of Paleoanthropology, p. 737.

^{90.} Childs, Finders Keepers, pp. 6, 89–93.

^{91.} Medawar, P., quoted in Hill, A., The gift of Taungs, Nature 323(6085):209, 1986.

^{92.} Tattersall and Schwartz, Is paleoanthropology science?, p. 239.

^{93.} Holden, The politics of paleoanthropology, p. 737.

^{94.} Holden, The politics of paleoanthropology, p. 737.

have been found to be false that he was forced to concede "just about everything I taught them [his students—Ed.]" he said "was wrong."95

^{95.} Quoted in Headland, T.N., Revisionism in ecological anthropology, *Current Anthropology* **38**(4):605–630, 1997, p. 605; and Long, E.V., "To our readers", *Time* **143**(11):4, 14 March 1994.