

CHRISTIAN ANSWERS TO HARD QUESTIONS

**DID ADAM
EXIST?**

VERN S. POYTHRESS

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Christian Interpretations of Genesis 1

Christianity and the Role of Philosophy

Creation, Evolution, and Intelligent Design

Did Adam Exist?

How Can I Know for Sure?

How Did Evil Come into the World?

The Morality of God in the Old Testament

Should You Believe in God?

Was Jesus Really Born of a Virgin?

Peter A. Lillback and Steven T. Huff, Series Editors

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PHILADELPHIA, PENNSYLVANIA

R&R
P U B L I S H I N G
P.O. BOX 817 • PHILLIPSBURG • NEW JERSEY 08865-0817

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Westminster Seminary Press, LLC, a Pennsylvania limited liability company, is a wholly owned subsidiary of Westminster Theological Seminary.

This work is a co-publication of P&R Publishing and Westminster Seminary Press, LLC.

An earlier form of this booklet was published as “Adam versus Claims from Genetics,” *Westminster Theological Journal* 75, 1 (2013): 65–82. Used by permission.

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ISBN: 978-1-59638-917-5 (pbk)

ISBN: 978-1-59638-918-2 (ePub)

ISBN: 978-1-59638-919-9 (Mobi)

Printed in the United States of America

Library of Congress Cataloging-in-Publication Data

Poythress, Vern S.

Did Adam exist? / Vern S. Poythress.

pages cm. -- (Christian answers to hard questions)

Includes bibliographical references.

ISBN 978-1-59638-917-5 (pbk.)

1. Adam (Biblical figure) 2. Bible and science. I. Title.

BS580.A4P69 2013

222'.11092--dc23

2013030936

DID ADAM AND EVE EXIST? Does science say otherwise? The Human Genome Project has produced voluminous data about the information contained in human DNA. Various news media and scientists tell us that this information demonstrates our ape ancestry. How do we evaluate these claims?

We cannot within a short compass examine all the claims and all the evidence in detail. But we can summarize some of the main points and direct readers to more extensive information. Other works discuss the biblical and theological basis for believing that Adam was a historical person.¹ Here we concentrate on the arguments that depend on appeals to science.

99 PERCENT COMMON DNA

We may begin with a commonly cited statistic: the 99 percent identity between human DNA and chimp DNA. In 2005 the Cornell University News Service reported, “Chimpanzees and humans share a common ancestor, and even today 99 percent of the two species’ DNA is identical.”² In 2010 the University of California at San Francisco News Center mentioned the same figure: “The genetic codes of chimps and humans are 99 percent identical.”³ In 2005 the *National Institutes of Health News* reported that “our closest living relatives share perfect identity with 96 percent of our DNA sequence.”⁴

But assessing these claims is more challenging than it may appear. Note that the NIH report mentions 96 percent instead of 99 percent. Why? The same NIH report also includes the figure of 99 percent further on in its description, so none of the figures is in error. It turns out that the 99 percent figure arises from using a number of restrictions: (1) ignore repetitive portions; (2) compare only sequences that can be aligned naturally with

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one another; and (3) consider only base-pair substitutions, not “indels” (see below).

BEFORE WE MOVE ON

- + What do we discover as we investigate the commonly cited statistic that 99 percent of human and chimp DNA is identical?
- + What does this discovery tell us about how we should receive even widely reported scientific claims?
- + How much do you know about DNA? What does this mean for you as you assess information about it?

Comparisons of this kind get technical because there can be several kinds of correspondence and noncorrespondence between DNA strands. Let us lay out briefly some of the issues. At the level of molecular structure, DNA contains a “code” composed of four “letters,” namely, ACGT (the letters stand for four distinct bases: adenine, cytosine, guanine, and thymine). The DNA code uses a particular sequence of letters, such as ATTGTTCTCGGC, to specify the exact sequence of amino acids to be used to construct a protein.⁵ Human DNA and chimp DNA align when one finds the same sequence of letters in both kinds of DNA:

Human: G-C-C-G-A-T-A-A-G-C-A-C

Chimp: G-C-C-G-A-T-A-A-G-C-A-C

A variation is called a *substitution* when there is a different letter at some one point in the sequence:

Human: G-C-C-G-A-T-A-A-G-C-A-C

| | | | | | | | | |

Chimp: G-C-C-G-A-G-A-A-G-C-A-C

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(The T does not match the G in the middle of the sequence.) A variation is called an *indel* (short for insertion/deletion) when one of the sequences has extra letters:

Human:	G-C-C-G-A-T-G-C-T-G-T-A-A-A-G-C-A-C
Chimp:	G-C-C-G-A-T- A-A-G-C-A-C

If the comparison focuses only on substitutions within aligned protein-coding regions, the match is 99 percent. Indels constitute roughly a 3 percent difference in addition to the 1 percent for substitutions, leading to the figure of 96 percent offered by the NIH.

BEFORE WE MOVE ON

- + What are three kinds of correspondence and noncorrespondence between DNA strands?
- + How was the 99 percent statistic reached? What about the 96 percent statistic? What is the difference between substitutions and indels?

OR LESS

But we have only begun. The 96 percent figure deals only with DNA regions for which an alignment or partially matching sequence can be found. It turns out that not all the regions of human DNA align with chimp DNA. A technical article in 2002 reported that 28 percent of the total DNA had to be excluded because of alignment problems, and that “for 7% of the chimpanzee sequences, no region with similarity could be detected in the human genome.”⁶

Even when there is alignment, the alignment with other primate DNA may be closer than the alignment with chimp

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DNA: “For about 23% of our genome, we share no immediate genetic ancestry with our closest living relative, the chimpanzee. This encompasses genes and exons to the same extent as intergenic regions.”⁷ The study in question analyzed similarities with orangutan, gorilla, and rhesus monkey, and found cases in which human DNA aligns better with one of these than with chimpanzees.

BEFORE WE MOVE ON

- + What new issue have we discovered about the 96 percent “identical” genetic codes? How does this change the situation?
- + Does human DNA always align best with chimp DNA? How might this change your attitude to the first statistic given?

THE CHALLENGE OF INTERPRETING DATA

The data from the Human Genome Project and similar projects for chimpanzees and other animals has to be interpreted. It does not interpret itself. What is the significance of the similarities? Do they in fact show that human beings have ape ancestry? Do they imply that we are little more than naked apes? Do they tell us who we are as human beings?

The reigning framework for the interpretation of genetic information and biological origin is Darwinism. Darwinism is much more than the observation that we can breed dogs or that we can study the effects of mutations in fruit flies.⁸ Darwinism says that all kinds of living things came into being by purely gradualistic processes. In the popular mind, and indeed also among many scientists, Darwinism also involves the additional assumption that the process of change over time was unguided

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and purposeless—in other words, God, if he exists, is absent. When applied to the question of human origins, Darwinism implies that we are here by accident, and the kind of race that we are is an accident. Darwinism excludes design by a supernatural Designer; it also excludes in principle the idea of a sudden origin of a new kind of living thing through direct creation from non-living material, or through multiple simultaneous mutations, or through large-scale reorganization of living cells, or through any other kind of event that could realistically have taken place only through the presence of a Designer.

We must take into account the influence of Darwinism as a framework, because the framework guides how people interpret the significance of genetic similarities. The similarities exist—of that there is no doubt. But what do they mean?

BEFORE WE MOVE ON

- + Scientific data does not interpret itself. What would happen if it did? What happens because it does not?
- + What does the author mean by calling Darwinism a *framework*?
- + On the most basic level, what does Darwinism say about living creatures? What do many people assume that Darwinism also says? What does this brand of Darwinism exclude?

NO PURPOSE?

First, we should distinguish two issues: the issue of purpose and the issue of gradual processes. They are distinct. According to the teaching of the Bible, God is continually involved in ruling the world providentially. He is intimately involved in regular, gradual processes; his presence is not confined to miracles or

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exceptions. The following verses in the Bible illustrate God's involvement:

You [God] make springs gush forth in the valleys.

(Ps. 104:10)

You cause the grass to grow for the livestock
and plants for man to cultivate. (Ps. 104:14)

You make darkness, and it is night. (Ps. 104:20)

When you send forth your Spirit, they [the next generation
of animals] are created,
and you renew the face of the ground. (Ps. 104:30)

In particular, God is active in the formation of human life in a mother's womb:

For you formed my inward parts;
you knitted me together in my mother's womb. (Ps. 139:13)

God is active as the Primary Cause in addition to the secondary causes that are involved in springwater, the growth of grass, the coming of darkness, the birth of animals, and the gestation and birth of human beings. God has purposes in all these events. Within the picture presented in the Bible, scientific analysis of the secondary causes describes *how* God brings about his purposes—he does so through gradual processes.

Now, for the sake of argument, let us suppose that the mainstream picture of gradualism is true; that is, purely gradual processes produced all living things. That picture is completely compatible with God's having done it all for his own purposes.⁹ When Darwinism says that the process is "purposeless," it might

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mean merely that scientific research, narrowly conceived, is not competent to discern the purposes, but only the processes. But in the popular mind, Darwinism is much more: it implies that the purposelessness of the process is definitively established. And that claim overreaches the evidence and the competence of science. It is really a philosophical and religious claim. It makes sense only if a person already knows or believes that God does not exist or that he cannot have purposes that he is accomplishing in gradual processes. The belief is simply smuggled in; it is not an inference just from raw data.

Moreover, the belief about absence of purpose has the potential for feeding back into scientific investigation and influencing scientific interpretation. If there is no God or no purpose, gradualism is virtually the only option, and adherents may cling to it uncritically.¹⁰

BEFORE WE MOVE ON

- ✦ In what ways does the Bible describe God's involvement with the world? If God is the Primary Cause, why and how do secondary causes work?
- ✦ How would we know whether something were purposeless? If we believe in purposelessness, what options do we have?

GRADUALISM

Now consider the second issue, the issue of gradualism. According to the picture in the Bible, God can work as he wishes. Many times he works through gradual processes, as we have observed. The regularity of these processes reflects God's faithfulness. But he is not a prisoner within these processes. His rule over the world is what establishes the processes in the first place.¹¹ He is free to work exceptionally, whenever he wishes. The

Can we still believe in a historical Adam? Vern Poythress offers a theologically and scientifically informed evaluation of the claims that genetic analyses show Adam could not have existed.

“Poythress boldly and knowledgeably tackles some of the scientific reasoning that has been used to argue that humans are nothing more than advanced apes. . . . He exemplifies the right use of critical thinking in science and in faith.”

—C. John Collins, Professor of Old Testament, Covenant Theological Seminary, St. Louis

“Most non-scientists don’t know what to make of scientific arguments questioning the historicity of Genesis, and most theologians do not feel competent to evaluate the scientific arguments or their reliability. Dr. Poythress, who is well informed on the subject, breaks down the main scientific arguments about human origins in ways accessible to the general reader.”

—Ann Gauger, Senior Research Scientist, Biologic Institute, Redmond, Washington

Written to equip and strengthen laypeople in their defense of the faith, *Christian Answers to Hard Questions* challenges contemporary opposition to Christianity with concise, practical answers.

Peter A. Lillback and Steven T. Huff, Series Editors

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www.prpbooks.com

Cover design by Trinet Internet Solutions, Inc.

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ISBN: 978-1-59638-917-5

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