



CHAPTER 9

CAN A CHRISTIAN ACCEPT THE THEORY OF EVOLUTION?

A DINNER PARTY CONVERSATION

A man is invited to dinner with friends of his wife's. He knows the host, of course, and a few other guests, but he does not know everyone. He strikes up a conversation with another gentleman after they share a knowing chuckle at their obsession with their mobile phones. Both are checking for messages from the babysitter and quickly checking the game scores for the Monday night football game they could be watching. Their wives are with the other ladies, chatting in the living room. They make small talk about the difficulties of getting out on a Monday night and about how the blue cheese-stuffed colossal green olives served for appetizers go well with the unoaked Chardonnay. They are not really interested in the olives or the dinner party. With nothing else to talk about, one man decides to ask the other about his work.

"Well, I am an evolutionary biologist. I specialize currently in genomic studies of Neanderthal ancestry in humans."

The first man is somewhat taken aback. "Oh, how interesting. Say that again—you study genes of what?"

"Neanderthal ancestry. Yes, that usually gets a brow raised."

"In humans?"

"In humans. Our genetics suggest that modern man and *Homo neanderthalensis* bred once upon a time. *Homo sapiens* and Neanderthals, we believe, share a common ancestor from Africa more than 500,000 years ago. The Neanderthal ancestors migrated to Europe

and Asia. The modern human ancestors stayed in Africa until about 100,000 years ago and then migrated. So for a time both species coexisted in Eurasia. Scientists have now sequenced the Neanderthal genome in DNA taken from fossils. The genetic material suggests that our ancestors interbred some, but not a lot, with Neanderthals before Neanderthals went extinct about 30,000 years ago.¹ They bred about 37,000 to 86,000 years ago.² Eurasian genomes today are 1 to 4 percent Neanderthal DNA. I'm interested in how this bit of DNA that stayed with us down through time has affected the current human population. Sorry, I tend to go on and on when asked about work. Clearly, I don't get out enough." He winds himself down with a self-effacing grimace.

The other man stares at his new acquaintance, having a conversation with himself in his head instead of speaking. Well, how do you like that? Here's a guy standing right in front of me, a dad, a football fan, a scientist, a professional, an expert, and he's saying this in all seriousness. Humans and Neanderthals had sex and made babies! And what am I? Descended from apes? The staring man stares at his wine glass, kind of embarrassed because he does not know what to say; then he stares at the scientist's glass and wonders if maybe he is drunk; then he stares at the ugly colossal olive with the lump of cheese goop in it. Then he checks his phone again, but suddenly remembers it is his turn to talk. He decides he may as well state the obvious.

"Well, that's remarkable."

The scientist takes this response as a cue to continue. "Yes, quite! Researchers found Neanderthal ancestry at specific loci in the genomes of people living today. I am interested in what benefits those loci give to modern humans. Mating with Neanderthals was probably both helpful and harmful. The hybrid babies were probably too infertile to maintain a lineage, but some of the genes stayed with some of us, maybe the genes that allowed humans to live in climates colder than in Africa. Neanderthals were quite robust and well adapted to cold climates. Researchers have identified a set of genes that affect the keratinocytes in modern human skin and hair cells. There's potentially a medical benefit to understanding our ancestral genetics better."³

Knowing it would be rude to keep repeating that Neanderthal-human sex is remarkable, the staring man decides to weigh in with veracity. "I'll be honest, man, I've never heard of anything like that. It's shocking to think humans and Neanderthals mated. It's even shocking, to me, just to imagine Neanderthals existed at all. I don't really have a problem accepting evolution, I guess, but to meet someone who speaks about nonhuman prehumans, or whatever they are called, so matter-of-factly is just rattling."

"I get that a lot when I am outside my circle of colleagues. I guess I forget not everyone is used to thinking about our ancestry this way. Can I ask you something?"

"Shoot."

"Are you religious?"

"Yes, I am. That's why what you're talking about sounds so otherworldly to me. I was just teaching my son about Adam and Eve yesterday after church. One man and one woman from whom we are all descended, and all that. What you're saying is so different, it's like we live in two different realities."

"Does it bother you that people like me talk about humans evolving from primates?"

"It does. I don't know what to do with that information . . . but I don't doubt that you are serious and intelligent."

"Thanks for saying that. I am not religious. No reason really. I was raised in a home that wasn't religious. We weren't antireligious, but it just wasn't a thing. For me, hearing about Adam and Eve and the Do-Not-Touch tree sounds otherworldly. I wouldn't even know where to begin to try to verify such a story."

"Touché, dude. Hey, looks like dinner's about to begin. Let's eat and hope to catch the end of the game."

The two men go back to their wives and share an enjoyable evening together, football notwithstanding. Both have much to think about, but there is at first probably less for the nonreligious scientist. The biologist does not have much use for thinking about Genesis. He does not need to think about Genesis for his work—so he assumes—nor does he need to think about it for his life as a husband and father.

He does not think Adam and Eve ever really existed, so he has little reason to worry about explaining their story with the story line of his work. Nonetheless, he admits to himself every once in a while, when he allows himself to go there, that the stories of human origins he tells his son at bedtime are ultimately flat: "Son, you and I are offspring of offspring, points on a network of evolution leaving behind offspring who are points on the network of evolution." His science has no accounting for meaning and purpose, and nothing makes that void as troublesome as being a parent, but perhaps his encounter with the other father has planted a seed.

The believer has much more to think about in the moment. Truly, he has the sense that it would have been better never to have known about Neanderthals at all. Period. Nada. Zilch. They totally mess up the vision he has in his mind, and they mess up what he thought he accepted about evolution. The Church does not teach a literal, six-day-creation interpretation of Genesis. The thing is, he had not really thought evolution posed any difficulty for his faith, until suddenly he found himself unsure how to connect this rather shocking information about Neanderthals with what he teaches his son. If there were Neanderthals, there were others, but what others? He decides to look it up and learn more about it in the coming weeks and months. His son will surely ask him about evolution someday, and the father wants to be ready with answers.

What is a person of faith supposed to do with the very legitimate-sounding information that Neanderthals and humans bred? One reaction is to reject all of it and refuse to think about it. Many people do that. They guffaw at the notion that humans evolved from apes (more accurately, apelike creatures), they call it nonsense, and they decide they are done with the topic. I strongly warn against this attitude, especially if other people look to you for guidance. You will stifle curiosity about a legitimate subject of discourse and set those other people up for overwhelming confusion if they ever actually sit down and learn the least bit about evolutionary science.

Another reaction would be to remain open to the scientific conclusions, even if you are not sure what to make of them. The science

of evolution is not simple. It is an entire field of study, with methods, terminology, and established theories. New papers about new discoveries and ideas regarding the history and future of life are constantly being published. Devotion to science can, of course, go to extremes if people think they know more than they know or take current scientific consensus as hard truth that cannot be questioned. We know this happens. It has been labeled scientism (see chapter 2). Such a heavy dependency on science is foolish because it demands more of science than science can give. But remaining open to the ongoing discoveries of science is prudent.

The best reaction is to remain curious about science, but also to maintain some objectivity where truth is certain. Let us unpack it.

REAL AND LITERAL

As Catholics, we hold divinely revealed truths as certain dogma, certain in the sense of deserving total assent in faith to what God has revealed for the sake of our salvation. Since the topic of evolution is so controversial, probably the most controversial faith-and-science topic of our times, it is critical for us to have a solid grasp of the dogmas that cannot be negotiated or denied. It is also critical that we know how to distinguish between dogma and opinion. The Church carefully articulates every expression of dogmatic truth. These are truths that science can never deny, although science may help us understand what they mean. Remembering the axiom "truth cannot contradict truth" (*Providentissimus Deus*, 23), read the decisions of the Pontifical Biblical Commission in 1909:

- a) The first three chapters of Genesis contain narratives of real events . . . , no myths, no mere allegories or symbols of religious truths, no legends.
- b) In regard to those facts, which touch the foundations of the Christian religion . . . , the literal historical sense is to be adhered to. Such facts are, *inter alia*, the creation of all things by God in the beginning of time and the special creation of humanity.

c) It is not necessary to understand all individual words and sentences in the literal sense. . . . Passages which are variously interpreted by the fathers and by theologians may be interpreted according to one's own judgment with the reservation, however, that one submits one's judgment to the decision of the Church, and to the dictates of the Faith.

d) As the Sacred Writer had not the intention of representing with scientific accuracy the intrinsic constitution of things and the sequence of the works of creation but of communicating knowledge in a popular way suitable to the idiom and to the pre-scientific development of his time, the account is not to be regarded or measured as if it were couched in language which is strictly scientific. . . .

e) The word "day" need not be taken in the literal sense of a natural day of twenty-four hours but can also be understood in the improper sense of a longer space of time.⁴

Notice the statement that Genesis contains narratives of real events and the statement that it is not necessary to understand all sentences in the literal sense. A narrative is an account of events, but there is room for further development and interpretation. The guidance is clear that the creation of all things by God in the beginning of time and the special creation of humanity must be taken literally. The Biblical Commission also states that the sacred writer was not writing scientifically to give a fact-by-fact sequential account of the "intrinsic constitution of things," but was writing in a "popular way" to communicate knowledge. This statement suggests that Genesis 1-3 is a real story that is not intended to be understood literally.

It is helpful to distinguish between "real" and "literal." The word "real" means to actually exist. Stemming from the postclassical Latin *realis*, the word simply means "actual."⁵ The word "literal" comes from postclassical Latin *litteralis* (also *litalis*), but it relates to letters, books,

or literature.⁶ Theologically, it is defined as "of or relating to the 'letter' of a text, obtained by taking words and passages in their primary or usual meaning, without regard to any underlying significance, or allegory." "Literal" can also mean "actual," but in the concrete sense as opposed to any figurative or metaphorical sense. The "letter" in the definition means the precise words, terms, or strict verbal interpretation of a statement.

Even creationists do not take every phrase in Genesis literally because the literal interpretation is not as full as the real interpretation. For example, in the third chapter, Eve sees that the tree is good to eat, fair to the eyes, and delightful to behold; she takes the fruit and eats it. Then she gives it to her husband, and Adam eats it. In verse 7, the text says, "And the eyes of them both were opened" (Gn 3:7). They perceive themselves to be naked and sewed fig leaves together to cover themselves. A literal interpretation of this sentence would compel us to believe that Adam and Eve had walked around up to that point with their eyes closed. A real interpretation allows us to believe that Adam and Eve's biological eyes were open all along, but that their mental vision, their perception, changed after they committed the first sin of humanity—they saw their nakedness differently. This interpretation fits with the context and carries much more meaning than the strictly literal interpretation that the immediate consequence of original sin was merely to alter the position of four eyelids.

IMMEDIATE FASHIONING

The Fourth Lateran and First Vatican Councils (1215 and 1869-1870, respectively) declared that God "immediately from the beginning of time fashioned each creature out of nothing, spiritual and corporeal, namely angelic and mundane, and then the human creation, common as it were, composed of both spirit and body."⁷ Following the logic of this statement, we understand that the soul cannot be said to evolve materially since only material things can undergo physical change and the soul is immaterial. But the statement leaves open the possibility—quite evident from evolutionary science—that the body can, does, and will evolve. The doctrine given above, however, clearly