

*Why We Believe*

## FOUNDATIONAL QUESTIONS IN SCIENCE

At its deepest level, science becomes nearly indistinguishable from philosophy. The most fundamental scientific questions address the ultimate nature of the world. Foundational Questions in Science, jointly published by Templeton Press and Yale University Press, invites prominent scientists to ask these questions, describe our current best approaches to the answers, and tell us where such answers may lead: the new realities they point to and the further questions they compel us to ask. Intended for interested lay readers, students, and young scientists, these short volumes show how science approaches the mysteries of the world around us and offer readers a chance to explore the implications at the profoundest and most exciting levels.

Why We Believe  
*Evolution and the Human  
Way of Being*



Agustín Fuentes

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To Humanity,  
we who are neither accident nor miracle



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## *Preface*

**B**ELIEF IS the most prominent, promising, and dangerous capacity that humanity has evolved.

Belief is the ability to draw on our range of cognitive and social resources, our histories and experiences, and combine them with our imagination. It is the power to think beyond what is here and now and develop mental representations in order to see and feel and know something— an idea, a vision, a necessity, a possibility, a truth—that is not immediately present to the senses, and then to invest, wholly and authentically, in that “something” so that it becomes one’s reality.

Beliefs and belief systems permeate human neurobiologies, bodies, and ecologies, acting as dynamic agents in evolutionary processes. The human capacity for belief, the specifics of belief, and our diverse belief systems structure and shape our daily lives, our societies, and the world around us. We are human, therefore we believe.

### SHERRINGTON’S CHALLENGE

Eighty years ago, when giving his famous Gifford Lectures in Edinburgh, the Nobel Prize-winning neurophysiologist

Charles Scott Sherrington mused<sup>1</sup> that the development of the human, in body and mind, was neither “accident nor miracle,” that “organisms must be the sum of their parts and more,” and that the mind “makes an effective contribution to life.” What continued to elude the science of his time, he went on, was an explanation for how all of that could be true. While a complete and final answer to “the human” still eludes us (and maybe always will), we are far better able than Sherrington was in 1937 to offer insights about how humans evolved and how we develop in body and in mind.

In this book I take up Sherrington’s challenge and update his questions:

- ▶ How do we understand humanity as neither the result of random processes nor the product of divine intervention?
- ▶ How can we be made up entirely of biological parts and organic processes and still dream, hope, and believe?
- ▶ How can our minds and our beliefs shape ourselves, other life around us, and even the planet itself?

If we can answer these questions, not just of human development, but of human becoming, of human believing, then we can step closer to the goals Sherrington sought.

Today we have a much better scientific understanding of the processes of human development and evolution than Sherrington did. Developmental biology, genomics, and evolutionary science have made enormous leaps in the past century and especially in the past few decades. The same is true for the study of the human past. Paleoanthropology, archaeology, anthropology, and neurobiology have given us a radically new landscape of understanding, of knowing, and of forecasting about ourselves, other life, and the whole planet.

In the first two decades of the twenty-first century we've redefined the very foundations of our evolutionary history, how our biology functions, and what it means to ask how we become who we are. Humans are neither accident nor miracle, and the explanation of who and why we are is an amazingly complex, dynamic, enticing, and unfinished story. It is a story in which belief is central, as both an outcome and a cause.

My own background is as an anthropologist, meaning I am trained in the biological and behavioral study of humans and our closest relatives. I have spent the past thirty years in deep engagement with the bodies, actions, and ecologies of humans past and present, of primates across the globe, and as an active participant in the debates about, and modeling of, evolutionary processes. I have long been enmeshed in enriching, enlightening, and maddening collaborations with a diverse array of scientists, philosophers, theologians, and other scholars. It is this type of transdisciplinary engagement, the cross-fertilization of ideas, methods, and theoretical grounds that I bring to bear on the data from human bodies and behavior past and present.

As an evolutionary scientist I try to uncover the specific origins, functions, and processes that undergird our capacity for belief. As a social scientist I seek to understand these findings in the context of the human experience: our social structures, belief systems, and daily lives. My goal in pursuing both of these pathways is to develop a better understanding of what it means to be human—past, present, and future.

In this book I share with you a story of our evolution rooted in the scientific endeavor, in the facts of our bodies, genes, ecologies, histories, and behaviors, but one that tries not to lose sight of the equally relevant philosophical narratives that run alongside and through the science. Unlike most evolutionary narratives, the

one I present ties the explanation of humanity to our distinctive capacity for belief.

## A LITTLE CLARIFICATION OF TERMINOLOGY AND CONTENT

In this book I use the term “belief” to mean more than its basic definition of “trust, faith, or confidence in someone or something.”<sup>2</sup> Belief is also a richer concept than the slightly antagonistic Wikipedia definition: “the state of mind in which a person thinks something to be the case, with or without there being empirical evidence to prove that something is the case with factual certainty.”<sup>3</sup> It is not about being fooled.

The literary theorist Terry Eagleton, drawing on the philosopher Kierkegaard, tells us that the act of *Believing* is an act of being wholly and completely in love with a concept, an experience, a knowledge.<sup>4</sup> But believing is also an avenue to imagining and becoming, in ways that need not be rooted in the daily material reality but that can be infused with hope. Believing can be fearing an unknown but wholly felt entity or perception, or it can be a certainty of something that cannot be seen, grasped, or measured. Believing is completely real but often without material substance. And most critically, undergirding and infusing belief is the human capacity to imagine, to be creative, to hope and dream, and to infuse the world with meaning.

Belief, for better and worse, is a deeply and distinctly human process.

When hearing the word “belief,” most assume it refers to some form of religion. Let me be absolutely clear: the human capacity for belief is not only about religion, spirituality, ritual, or some notion of the supernatural. It is not only our ability to have faith

in something or someone, or our capacity for self-deception (even though these are important parts of the human experience). Throughout this book, I separate the *having of faith*—the specific content of belief—from the *capacity to have faith*, which arises from our core ability to believe. This is a critical distinction, especially when it comes to the belief systems that most would call “religion.”

That said, religious belief is a major element in the human story and directly related to our capacity to believe, and thus one of the arenas on which we focus here. Yet I do not seek to explain or provide evidence for the emergence of any given set of faith practices. This is not something a scientist can honestly or effectively do, and anyway it is not what this book is about. I touch on specific beliefs, but only in passing, because the particulars of any given faith are best elaborated by the faithful. They cannot be explained by evolutionary scientists.

## FOUR KEY QUESTIONS

Humans can see the world around them, imagine how it might be different, and translate those imaginings into reality . . . or at least try to. Meaning, imagination, and hope, which constitute our capacity for belief, are as central to the human story as bones, genes, and ecologies. As a species, we are distinguished by our extraordinary capacity for creative cooperation, our ability to dream big and make those dreams materialize, and our powerful aptitudes for compassion and cruelty—all of which are constructive of, and mediated by, our capacity for and practices of belief.

I propose that we can best understand *why we believe* by answering four key questions:

1. How do humans relate to the rest of the work biologically and ecologically?
2. What key evolutionary events and processes make us human?
3. How did the changes we made in the world enable the infrastructure for contemporary belief?
4. *How* do we believe? (What are the processes by which we believe?)

Adding these four together, we can offer an evolutionary answer to the question “Why do we believe?” As you will see, the answer allows us to examine specific categories of belief such as religion, economics, and love, and leads us to a final consideration: today in the twenty-first century, does belief still matter?