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WHAT IS BIG HISTORY?

Big history puts forward one large story that helps explain how everything got to be the way it is, where we fit in, and where this may lead. In this lecture David Christian explains big history, the **scale** of its 13.7 billion year **time-line**, the many **approaches to knowledge** it involves, and how it fits within a long-running human tradition of creating **origin stories**. After reading the text below and watching the video lecture, you should be able to define big history, identify what makes it challenging, and explain why it's worth the trouble.

Key questions

- 1 What is big history?
- 2 Why should you care?

Transcript

Earth is the place we humans call home. It's a very beautiful place with staggering variety: gorgeous landscapes from mountains to rivers to oceans; a staggering variety of different species from redwoods to swallows to beavers to spiders; and, of course, 7 billion other humans like you and me — perhaps the weirdest species of all.

0:11-1:02

Look above us and we see the Sun, the battery of life on Earth. It's one of 100 billion stars in our galaxy, the Milky Way; and the Milky Way is just one of 100–200 billion galaxies in the Universe.

So, how did things get to be the way they are? How was the Universe created? Why does it work the way it does? Why are stars so big? Why are you and I so small? Why do we find ourselves in this particular part of the Universe, on this tiny planet buzzing with life? Why are humans so powerful? What does it mean to be “human”?

1:02-2:04

BIG QUESTIONS

These are wonderful questions and they have been asked by people in all societies. They have also been asked by a lot of people with great expertise: geologists ask them; **biologists** ask them; **astronomers**, **physicists**, **historians**, and **anthropologists** ask them.

APPROACHES TO
KNOWLEDGE

What we want to do in this course is to take the expert answers and try to blend them into a single coherent story that will explain how everything came to be the way it is, how we fit in, and where, perhaps, everything is going.

2:04-2:58

Take a look at this [timeline](#).

TIMELINE It shows my own journey through time. What I've done is placed on it events that seem important in my own life. We can think of them as thresholds, or crucial turning points in my life.

For example, at the age of 3 months I traveled to Nigeria. I went to Canada, where I met my wife. I went to university to train as a Russian historian and I got my first job in Australia. All of those things were important.

Now, I carry three passports because I've traveled so much. And the trouble is, I'm not really sure, in a sense, what country I belong to or, in a sense, who I am. I was never really content just to learn or teach the history of one country. (Russia, in my case.) What I wanted to know was the history of humanity as a whole.

2:58-3:36

BIG QUESTIONS ABOUT HUMAN EXISTENCE That question forced me back. If you want to know about humanity, you have to ask about how humans evolved from primates. You could push that back and ask about how primates evolved. Back and back and back until, eventually, you're talking about the origins of life on Earth. Once you're doing that, why not ask about the origin of Earth and the whole Universe.

Now, these questions are huge but they seemed really important to me because asking them gave me a sense of understanding what I am and what it is I am a part of.

I realized that all human societies have asked these same questions, I think for the same reason I did, but their answers are very diverse. Some say the Universe appeared very recently; others that it's always been there. Some say that the Universe has always existed, some say it was created very recently. Some say it was made by the gods, some say it arose out of a sort of cosmic mush.

And each of these stories then goes on to explain the origins of the stars, the Sun and Moon, the mountains and seas, the plants, the animals, and, of course, you and me.

Big history is a modern version of all these [stories](#). It's based on the best information available in our society, but of course it's not perfect. New information keeps appearing, and as a result, we have to keep adjusting the story and improving it. There are many areas to which we don't have perfect answers — we're really not sure. So, the story keeps changing in small ways and that, frankly, is one of the things that make it so exciting.

3:36-4:40

ORIGIN STORIES

A MODERN SCIENTIFIC ORIGIN STORY

4:40-5:41 Now, you've seen my personal timeline. You can think of it as a sort of personal origin story and you can all write timelines of your own. To some of you it may seem pretty long, but if you want to look for a long timeline, think about the history of the Universe's — that timeline is **13.7 billion years** long! Take time out to get your mind around that figure. If you were to count numbers, each number a second, and you counted up to a million, how long would it take you? It would take you about 11.5 days. To count to a billion it would take you 1,000 times as long, about 32 years. And to count to 13.7 billion would take you over 400 years.

SCALE

5:41-6:34 That's a huge story, but that's the story we're going to tell in this course.

THRESHOLDS
OF COMPLEXITY

It's a fantastic story. It's got lots of twists and turns, lots of unanswered questions, lots of fascinating ideas and stories in it.

One of the things we're really going to focus on is the idea of increasing **complexity**. Over 13.7 billion years, what we see is that gradually there appear in the Universe — at what we'll call "**threshold**" moments — new things, more complex things with entirely new qualities. We'll focus on eight of these thresholds, and they culminate in today's world. The last threshold is today's world, and that is one of the most complex things we know.

By the end of this course, you will have surveyed the whole history of the Universe and you'll know how you fit into it.

So, let's get started.