



My hopes for Israel's human-evolution gallery

Understanding who we are and how we got here is essential to forging connections in an increasingly polarized society, says Israel Hershkovitz.

A few days after the museum gallery on human evolution opened to visitors, I was checking the exhibits when I heard an admonishment behind me: “Kids, don’t believe anything they tell you here.” The voice belonged to a traditional Orthodox Jewish man who had just entered with his wife and their children. I approached him and asked if he found the exhibition offensive. He reassured me that he was joking, saying: “One must always be open to new ideas.”

For me, that encounter sums up the value of the permanent exhibition on human evolution — the first of its kind in Israel — at the Steinhardt Museum of Natural History’s Dan David Center for Human Evolution and Biohistory Research, which opened on 25 November at Tel Aviv University. It brings ideas about human evolution to a public increasingly lacking exposure to this type of education, and offers people a way of exploring the topic on their own terms.

I created the exhibition along with my research colleagues at the centre, Hila May and Rachel Sarig. We are also establishing labs and other advanced research facilities. Yet, I feel that the public gallery will remain one of our crowning achievements.

As have other Western countries, Israel has seen conservative religious values increasingly clash with secular ideals. Last year, public schools saw a reduction in teaching hours in science, technology, mathematics and English, but not in Jewish studies. Evolution by natural selection is rarely taught to students at public schools, let alone in the many religious schools. In a poll of Israeli adults run by the Israeli newspaper *Haaretz* last year, 37% said they don’t believe that humans and apes share a common ancestor. Even more disturbing: that percentage grows to 50% among those aged 18–24, highlighting the increasing hold of conservative religion on Israel’s youth.

That is why it is heartening to see Orthodox families visiting the public gallery. As we celebrate Charles Darwin’s 210th birthday this week, thousands of people — many from religiously conservative groups — have already visited the exhibition. There is clearly a need and a desire among all Israelis to learn about ourselves, from how we started walking on two legs to how we learnt to speak and create art.

My colleagues and I designed the gallery to tell the story of humans and our remote ancestors over the past 7 million years in an approachable way. Walking through the exhibition, visitors learn about the milestones in our evolution, propelled by a question that we all ask ourselves, regardless of faith: “What makes us human?”

The focus is on similarities rather than differences: we emphasize likenesses in bones across species, and explain that chimpanzees and humans are about 98.8% identical genetically and that modern humans were once part of a big family — but that all other hominin species are now extinct. We show how we can glean knowledge about them from genetics, archaeology and fossils, many of which are found within a few

kilometres of the museum. This indirectly highlights that a scientific approach to human origins requires evidence.

Our challenge was to establish concepts in ways that will appeal to all Israelis (Jews, Christians, Muslims and others, religious and secular). We did not overload the exhibition with casts of fossils, which mean little to most people. Instead, we designed exhibits that visitors — mainly children — can interact with. For instance, in one activity designed to teach the importance of opposable thumbs, children attempt to rotate a screw using only their four fingers; in another, they are quizzed on whether they can recognize facial expressions. Everything is labelled in Arabic, English and Hebrew.

The heart of the exhibition is humanity’s major milestones: walking upright, making tools, controlling fire, thinking symbolically, communicating well and domesticating plants and animals. We show how ancient bones reveal social, cultural and biological aspects of past human societies, including the practice of violence, health conditions, diets, division of labour, ritual behaviour and ornamentation. We discuss research methods, such as ancient-DNA analysis, and how carrying out anthropological studies enables us to reconstruct daily life and major historical events. Finally, we demonstrate how humans are currently shaping our own evolution.

There has been some resistance. One popular Facebook page run by a nationalist religious group called for the gallery to be closed, claiming that “there is no consensus in Israeli society” on whether evolution is real. Yet conservative religious families visit the museum. It is touching to see their curious children handling the exhibits.

The centre plans to open field exhibitions on human evolution near major archaeological sites in Israel, such as prehistoric caves in Mount Carmel, designated as a World Heritage Site by the United Nations Educational, Scientific and Cultural Organization. These exhibits will link the global story with the prehistory of this region, long seen as the ‘central bus station’ in human evolution, through which many different hominin groups journeyed in the past 2 million years, on their way out of Africa. Explaining to visitors that major events took place at sites that have been excavated in Israel — often just a few kilometres from where most of our visitors live — makes human evolution more relatable.

Through this approach, I hope that future generations can learn what Darwin first realized on his famous voyage: that evidence of the connectedness of living things — including us — is all around. If we are open to new ideas, we can see it. ■

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