Pinning down our ‘great leap forward’: When did ancient humans start to act behaviorally modern?

Based on fossil and DNA evidence, people that looked like us (anatomically modern) appeared in Africa about 300,000 years ago. But the archaeological record of tools and artifacts suggests they only started to act like us (behaviorally modern) 50,000 to 60,000 years ago, after thousands of generations of stasis.

This abrupt shift is sometimes called the “great leap forward”

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If we compare ourselves with pre-leap humans, then, we find vast differences. Take the development of the concept of symbolism, for example: The use of objects, images, and signs to represent ideas, is a huge part of what makes us, us. It’s the key that unlocked language, along with cultural, religious, and technological innovation.

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What drove this unprecedented, world-girdling success? “It was not their technology alone,” as cognitive archaeologists Frederick L. Coolidge and Thomas Wynn write in The Rise of Homo Sapiens. “It was something about their minds, an ability they possessed that their cousins did not.”

That “something,” in their view, is executive function: A set of complex mental processes that, among other things, enable us to achieve our goals by planning ahead, focusing our attention, reasoning abstractly and exercising self-control. The neuropsychologist Muriel Lezak has called it “the heart of all socially useful, personally enhancing, constructive, and creative abilities.”

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