

“Questions You Might Ask”

Who are you? And where do you come from? Those are questions I might ask newcomers or visitors to the congregation or folks I'm just meeting for the first time. They're the subject of casual introductions and everyday chit chat. But in a deeper sense, these are also religious inquiries that every wisdom tradition tries to answer.

So the Hindu replies that *atman is Brahman*. You are the infinite. Your little self is identical with the absolute.

For a Confucian, on the other hand, who you are is defined by your position in your family and community. You may be an elder daughter or younger son, whose roles and expectations are defined by custom and the will of Heaven. Whereas Buddhists say that underneath the passing parade of sensations you call your ego, there is only non-duality: neither self nor other, while a Christian might suggest that you are in essence a child of God.

But you get the idea. Who are you, underneath all of the scripts and cultural conditioning and Freudian baggage we carry around, underneath your identity as a consumer or Red Sox fan? Who are you when the lights are out and you're by yourself and no one is looking? When you gaze into the mirror and are most honest? Who are you, when your nametag is off--and does the answer frighten you, make you nervous, or are you at peace with yourself?

It's a question most of us learn to answer from a very early age.

"I am Ayaan, the daughter of Hirsi, the son of Magan."

I am sitting with my grandmother on a grass mat under the talal tree. Behind us is our house, and the branches of the talal are all that shields us from the sun blazing down on the white sand. "Go on," my grandmother says, glaring at me.

"And Magan was the son of Isse."

"And then?"

Isse was the son of Guleid, was the son of Ali. Was the son of Wai'ays. Was the son of Muhammad. Ali. Umar." I hesitate for a moment. "Osman. Mahamud." I catch my breath, proud of myself. Well done for a five-year-old, tracing her forbears back three centuries.

In her memoir of growing up, Ayaan says she soon learned to go back another five hundred years, to the very beginning of her clan. In Somalia, the question "who are you?" could only be answered if you knew your bloodline in detail. And learning where you came from was more than a matter of genealogical interest. Kinship determined who could be counted on to share food and hospitality. "Although a child belongs to the clan of his father, it may be useful to remember the details of your mother's bloodline, too," says Ayaan, "in case you travel and need a stranger's help."

So knowing who you are means knowing who you're related to. It means knowing who's friend and who's foe. Who can be trusted and who can't. Who exists within our network of mutual aid and care and who exists outside that network.

Ayaan says it was years later when she began to attend a real school, not a *madrasah*, when she started to read books other than the Qu'ran. She and her family were no longer in Somalia, but in Kenya, living among people that her family considered infidels.

One time, I informed my mother that people had walked on the moon. Ma said it was nonsense. 'The Christians are so fanciful they could take an airplane to a mountain and think it's the moon,' she told me. The day I came home and told her humans had descended from apes, she told me, 'That's the end of your school fees. Kenyans may have come from apes, yes. But not Muslims.'

That was Darwin's insight and heresy, after all, that people came from furry primates, challenging the teachings of Muslims and Christians, Hindus and Jews, of all the great religions really, giving an entirely new answer to the old question, "who are you?"

In a famous exchange, the year after the publication of *The Origin of Species*, Thomas Huxley met Samuel Wilberforce, the Bishop of Oxford, at a gathering called to debate the new theory that all living beings derived from a common ancestor. The hall was packed. According to one witness, the Bishop spoke with a "light, scoffing tone" as he turned a smile on his antagonist and begged to learn, whether it was on his grandmother's or grandfather's side that Mr. Huxley claimed to be descended from an ape? Huxley rose slowly, with dignity, and replied that he was not ashamed to have a monkey for an ancestor—but would be mortified to be associated with a anyone who used oratorical tricks to obscure the truth.

Were Huxley alive today, he might have responded that his family tree could be traced most easily on his mother's side. While our nuclear DNA comes from both our parents, mitochondrial DNA is strictly matrilineal. It is hard to establish paternity, because nuclear DNA mixes in new combinations with each coupling, scrambling every generation, so that while I have half my father's genes, I inherited only a quarter of my grandfather's. But the DNA tucked inside intracellular mitochondria never changes. I have exactly the same mtDNA as my mother. And the mtDNA of my wife is precisely the same as that of my daughter and, with slight variations, resembles the mtDNA of every other woman on earth. Those variations come from genetic drift—randomly occurring mutations in the genome that take place with statistical regularity over the course of centuries. And because the rate of mutation is relatively constant and predictable over long time spans, a "molecular clock" can be established. And this clock tells us that the mtDNA of every woman now living stems from a Mitochondrial Eve who roamed eastern Africa approximately two hundred thousand years ago.

Eve didn't live alone, of course, nor with a mate named Adam. She was in all likelihood the member of a small troop in Tanzania or nearby. Agriculture was far in the future. Hunting and gathering prevailed, organized cooperatively to take down larger prey. She

and others in her band made simple stone tools. They used fire and tended hearths, passing on their culture as well as their chromosomes to their offspring. While recognizably human, her troop shared the earth and competed with Neanderthals, whose genome have just been coded, as well as with now extinct hominids like the diminutive *Homo Floresiensis*, about the size of a hobbit. And with these and other human-like creatures, Eve shared a common ancestor—another, more distant "Mitochondrial Eve" who lived in the even more remote past.

How far back do we need to go to find an Eve common to both animals and people? The molecular clock doesn't keep perfect time. Chimps share most of the genetic code that makes us human, but how much is debatable. One recent study from the Chimp Sequencing and Analysis Consortium found a ninety-six percent match between the two species, while another team working at Wayne State University School of Medicine put the correlation at 99.4 percent. The differences in the findings depend on which pieces of the gene sequence you measure and consider important. And these discrepancies shift the date of our human genesis; perhaps our two lines diverged seven million years ago, rather than only five. But the one to four percent that distinguishes chimp from human is small compared to our joint inheritance, what we have in common. People and animals are a lot alike.

Bonobos, for example, like Kanzi, who resides at the Great Ape Trust in Iowa, have learned to understand complex spoken English. Wearing a welder's mask to prevent any non-verbal cues, Kanzi's trainer asks the little chimp to put pine needles in the refrigerator and carry out other unlikely tasks, receiving perfect compliance each time. On an outing into the woods, Kanzi touches the symbols for "marshmallows" and "fire" on a keyboard. Given a handful of twigs, he snaps them, kindles a match, and toasts the marshmallows on a stick. As well as "making fire," Kanzi has learned to craft stone knives like those found in the Olduvai Gorge where humans originated, crude but easily cutting rope and hide.

But none of this was known a half century ago. When Jane Goodall first ventured to Africa in 1960, no long term studies of the chimpanzee had ever been done. She and her students were the first to understand that chimps organize themselves to cooperate in hunting and sharing food (rather like the troop of Mitochondrial Eve). She introduced us to the apes' gentle side: their kissing, snuggling, and playful childhoods so like our own. When Goodall first observed the chimpanzees using wands of grass to fish for termites, the discovery so rocked the scientific world that her mentor, Louis Leakey, suggested it might be time to redefine the meaning of "tool," redefine "human," or simply admit that chimpanzees were people, too.

Which finds support among biologists, who have begun to group all the Great Apes (including you and me) into the same biological family. And some would go even farther, suggesting that chimpanzees and bonobos be reclassified as members of our own genus, *Homo*.

Think of that. We might all be Homos here! Would that bother you, to know that we're

related to Kanzi or his sister Panbanisha? When Bishop Wilberforce suggested that Mister Huxley might be descended from an ape, it was the worst insult he could think of—causing at least one Victorian lady in the audience to faint dead away. And when Ayaan's mother compared Kenyans to apes, she meant they were despicable, sub-human, uncivilized, utterly unlike her proud people. That's why the theory of evolution stirred so much resistance from the religious quarter. Because no one wants to be likened to an animal.

But Darwin's answer to the question "who are you?" wasn't so different from the traditional religious answers, after all. Hindu or Confucian, Christian or Buddhist or Moslem, every faith teaches that who you are is something more and different than your skin-encapsulated ego. Who you are is more than the collection of memories and perceptions and electrochemical reactions trapped inside the few cubic inches of your private braincase. Every faith suggests that we need to expand the horizon of our personal identity. Who you are is older, broader, more encompassing than you might imagine. Your sense of individual self-importance has to be deflated and humbled before you can enter into a fuller understanding of the grandeur and mystery of which you're just one expression. And the world's varied religions have varied ways of hinting at this larger self: The veil of illusion has to be pierced before enlightenment can dawn, before you can realize your own Buddha nature. You have to lose yourself to find it.

And Darwin did induce humility and puncture human pride. He forever changed our rather inflated self-image. For ever after *The Origin of Species*, it was impossible to believe that we had descended from the angels or were touched like Michelangelo's Adam by the Creator's finger from on high. For Darwin said that who you are is an outgrowth of nature and the universe itself. Human beings are not separate from the earth. We belong to the larger family of life in all its hairy complexity. You're part of a tribe billions of years in the making, a strand in an interconnected web. And not only are you bigger and older than you thought, as we know now, the descendant of vanished stars and titanic energies. Your circle of relationship and mutual responsibility is wider also. So that animals aren't just commodities or resources or conveniences given to us by Jehovah to eat or wear or experiment on. They're part of our clan, our own bloodline, meant to be included in our circle of compassion and care. Until we understand that, we don't really know who we are. And our own humanity remains diminished and incomplete.

Who are you? And where are you from? How do you define your family or trace your own descent? Who belongs to the community of peers and equals who deserve our dignity and respect? Why should some races and religions be preferred to others? Or certain skin colors be privileged? And why are certain creatures regarded as divine while others are considered disposable? Thanks to Charles Darwin, our answers and our morals are evolving.