I attended a workshop in New Delhi recently in which an academic research chemist told me that there is no tension between religion and science in India the way there is in the United States. To support this claim she said that there is virtually no religious opposition to the teaching of evolution in the schools in India, a country in which the dominant form of religion is Hinduism. I want to take this one step further and suggest that much of the universe story is rather easy to accept from a Hindu perspective. Viewing this narrative primarily as a creation story, I want to highlight briefly a few of the fundamental points it makes about the nature of the self and reality, and then introduce Hindu notions of the creative process for comparative purposes before moving on to a consideration of two direct applications of such notions by Mahatma Gandhi and Arne Naess, the Norwegian philosopher who delineated the eco-philosophy known as Deep Ecology.

The picture we get of the nature of reality from reading about the coming into being of the universe in *Journey of the Universe* is that first it is a UNI-verse. That is, although it is comprised of spectacular diversity, it is simultaneously singular; everything is radically interconnected, as everything has the same origin. Or simply put, the universe is a highly differentiated shape-shifting unity. Regarding life on Earth, there are no sharp ontological boundaries between different life forms, or between animate and inanimate forms for that matter. The principle of autopoiesis, that cosmogenic self-organizing and self-manifesting power in all transformations, means that all life forms – including us – were in some sense latent in the molten rocks that once covered this
planet. Reality, then, is best viewed as an emergent reality, ever expanding and unfolding as I speak. And, importantly, we ourselves are nondifferent from the interconnected, unified reality. Such ideas can readily be found in Hindu accounts of creation, though to be clear, I am not suggesting that we find the scientific version of the story of the universe in Hindu scriptures that is now emerging due to the development of modern scientific instruments, such as advanced telescopes, atom smashers, and microscopes. As Brian Swimme and Mary Evelyn Tucker say in the opening of *Journey of the Universe*, no previous generation could have fully imagined the vision of the universe available to us today. Many of the fundamental ideas about the nature of reality, however, are shared with those found in a variety of Hindu scriptures.

In the beginning was that One (*tad ekam*), variously identified as Purusha, Brahman, or Atman. For whatever reason (and although several motives are identified in early Hindu scriptures, there are early Vedic texts that acknowledge the unknowability of the cause of origins [e.g., Rig Veda 10.129]), the one divided itself, extending and expanding itself into the vast multiplicity of forms that we can perceive with our senses, as well as an unmanifest dimension of reality beyond perception (e.g., Rig Veda 10.90 and Brihadaranyaka Upanishad 1.4). The *Vishnu Purana* compares the miracle of the vast universe contracting into and manifesting out of Vishnu, the supreme progenitor of the universe, to the miracle of an enormous and multifaceted banyan tree coming from a tiny seed. “As the wide-spreading Nyagrodha tree is compressed in a small seed, so at the time of dissolution, the whole universe is compressed in thee as its germ. As the Nyagrodha germinates from the seed, and becomes first a shoot, and then rises into loftiness, so the created world proceeds from thee, and expands into multitude.”\(^i\)
Singularity remains at the unmanifest level (avyakta, amurta, akshara), whereas the manifest level is characterized by ever-changing diversity (vyakta, murta, kshara) [e.g. Brihadaranyaka Upanishad 2.3; Bhagavad Gita 8.3-4, 15.16]. Significantly, the two dimensions of reality are interconnected. As stated in the Bhagavad Gita (8.18), all changing manifest things and beings emerge out of the unmanifest and then after some time are absorbed back into the unmanifest, which gives birth to new forms down the line. We might note, then, deep similarities between the universe story as told in Journey of the Universe and foundational Hindu creation myths: both conceive of reality as a unified and radically interconnected expanding one in which no sharp ontological boundary separates the great plethora of diverse manifestations. Within Vedantic Hindu worldviews and cultural practices, not only humans but animals too are regarded as having intrinsic value, trees are understood to be sentient persons, and even so-called non-animate things such as rocks, mountains, and rivers are viewed as powerful beings.

What are the implications of all this? How might such notions be applied to our conceptions of and relationships with nonhuman life forms? We may do no better than reflect on a few statements by Gandhi to understand answers to such questions from a Hindu perspective. Gandhi exemplifies one who in the twentieth century lived out an interpretive possibility of the Vedantic view of reality and gave expression to one of its key ethical implications: compassionate nonviolence and respectful justice toward all beings. On a number of occasions Gandhi stated that the goal of his life was to achieve “Self-realization,” which he defined as the identification with the totality of all life. Gandhi expressed his belief in the interconnected nature of all life by representing every living being as a unique drop of water in the ocean of life: “The ocean is composed of
drops of water; each drop is an entity and yet it is part of a whole; ‘the one and the
many.’ In this ocean of life, we are little drops. My doctrine means that I must identify
myself with life, with everything that lives, that I must share the majority of life in the
presence of God. The sum-total of this life is God.” The interconnected unity of life
was what Gandhi called the “rockbottom foundation” of his thinking. He testifies: “I
believe in advaita (nondualism, unity). I believe in the essential unity of man and for that
matter of all that lives.”

The ethical life for Gandhi, therefore, depends on a deep understanding of the
interconnected nature of reality, which leads to the capacity for empathetically
identifying with all other beings. The application of Gandhi’s ethic certainly did not stop
with concern for only the human. Seemingly aware of the Tennessee Scopes Monkey
Trial of 1925, in which the teaching of evolution was put on trial, Gandhi wrote: “My
ethics not only permit me to claim, but requires me to own kinship with not merely the
ape, but the horse and the sheep, the lion and the leopard, the snake and the scorpion.”
Gandhi was well known for not allowing trees to be cut or snakes to be killed in his
ashram outside Ahmedabad. The identification with all life leads to an ever-expanding
ethics, taking more and more into its widening circle of compassion until finally it
includes the Whole. “My religion,” writes Gandhi, “embraces all life. I want to realize
brotherhood or identity not merely with the beings called human, but I want to realize
identity with all life, even with such things as crawl upon the earth. I want, if I don’t give
you a shock, to realize identity with even the crawling things upon earth, because we
claim descent from the same God, and that being so, all life in whatever form it appears
must be essentially one.” With this claim Gandhi has moved beyond what is now
commonly called in ecological philosophy “anthropocentrism” – the belief that humans are somehow separate from and ontologically superior to all other life forms.

Although Gandhi’s ideas were directed primarily toward addressing issues of social injustice in the context of colonialism and the caste system, they were the inspiration for Arne Naess, who applied these teachings to contemporary environmental challenges. To be clear, I do not mean to suggest that Gandhi was the only source of Naess’s thinking. In many respects, the ecological sciences themselves laid the foundation of his thought. Naess remarks: “The ‘everything hangs together’ maxim of ecology applies to the self and its relation to other living beings, ecosystems, the ecosphere, and the Earth with its long history.” Here Naess also identifies another source of his thinking, and that is the story of the universe that has emerged from contemporary science. Indeed, the writings of Thomas Berry are widely celebrated in Deep Ecological circles, and reflection on and use of the universe story has became increasingly important in the on-going development of Deep Ecological thought (e.g., George Sessions), exercises (e.g. John Seed and Joanna Macy’s Council of All Beings) and direct actions (e.g., Julia Butterfly). Following Gandhi, Naess was fond of quoting the Bhagavad Gita (6.29), which states that the most realized person is the one who sees one’s Self in all beings and all beings in one’s Self, and therefore regards all beings with an equal eye. This led him to the expression of an ecological philosophy based on an understanding of the intrinsic value of all life, biocentric equality, and Self-Realization, which he defines as the all-sided maturity of identifying ourselves with all living beings. Naess insists that from the perspective of this realization, when we defend Nature, “We are engaged in self-defense,” for the deep self is nondifferent from the
entirety of nature. The deep ecologist Gary Snyder asserts: “there is no self-realization without the Whole Self, and the whole self is the whole thing.” With this we return to an understanding of the self that emerges from Vedantic Hindu scripture: the Self is nondifferent from the totality of reality; and with this we also return to an understanding of the self that emerges from the universe story narrated in Journey of the Universe: our bodies – like all bodies on the planet – are comprised of the very same materials that burst out of an on-going series of transformative eruptions, from the first flaring forth of the Big Bang, to the supernova explosion that created our solar system, to that mysteriously novel emergence of increasingly diversified cellular life. Jerry Garcia sang it well: With this realization, when you look with eyes of wonder upon any part of the world, you “Wake up to find out that you are the eyes of the world.”

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ii See, for example, Gandhi’s introduction to The Bhagavad Gita (Berkeley: Berkely Hills Books, 2000), p. 17.
iv M. Gandhi, All Men are Brothers, (Lausanne, United Nations Educational, Scientific and Cultural Organization, 1958), p. 118.
v Ibid., p. 119.
vii The very first of the eight platform principles. See “Platform Principles of the Deep Ecology Movement,” in The Deep Ecology Movement, pp. 49-53. Importantly, Naess writes: “The term ‘life’ is used here in a more comprehensive nontechnical way to refer also to what biologists classify as ‘nonliving’: rivers (watersheds), landscapes, ecosystems. For supporters of deep ecology, slogans such as ‘Let the river live’ illustrate this broader usage so common in most cultures (p. 50).”
ix Ibid. p. 21.