This year's programs will explore personal perspectives on the big religious questions, through the lens of Unitarian Universalism. Questions like, does God exist, or is there an ultimate truth? Many UU's consider these questions unanswerable in any universal sense. But we ask them anyway, mostly because we cannot help ourselves. The exercise often produces what I would call "collateral wisdom," answers to lesser questions that still have private significance. The process can also stretch the spirit. The poet Robert Browning wrote, "Ah, but a man's reach should exceed his grasp, or what's a heaven for?"

The most pressing and perplexing religious questions tend to involve the self. Who *are* you? Where did you come from, what is your highest purpose in life, and what happens to you when you die? If all politics is local, as Tip O'Neal said, I would venture to say all metaphysics is personal. For each of us, reality begins with our own consciousness. At the heart of this consciousness is the idea of the human soul – that inexplicable force that animates the mind, personality, conscience and will. It is your subjective self, your essence or indivisible core. The urge to find our source is irresistible, like the salmon's impulse to return to its spawning grounds. And so is the urge to preserve our identity by immortalizing the soul. Who wouldn't want to overcome death, or see their departed loved ones again, or witness the ultimate reconciliation of earthly injustice?

But is this soul real or imaginary, permanent or evanescent? Does anyone really know? I was taught that the soul has no form, but my child's imagination found that vague and unsatisfying. So I concocted the image of a teardrop. Sue Monk Kidd wrote, "I'd pictured it like a pilot light burning inside a person – a drop of fire from the invisible inferno people called God."

The Greek philosopher Thales said anything that moves on its own power must have a soul (apparently for him, even magnets had souls). Since that time, many cultures and religions have adopted a belief in some kind of soul. Most have conceived of the soul as transcending the natural world and therefore surviving physical death. The Pythagoreans viewed the soul as the liberation from bondage to matter, the ultimate escape from bodily suffering. Early Christianity inherited much of this Greek philosophy, although the dichotomy served a moral rather than existential purpose. A hundred years ago Emma Goldman wrote, "Since its very inception, Christianity…has instilled fear in man, turning him into a dual being, whose life energies are spent in the struggle between body and soul. In decrying the body as something evil, the flesh as the tempter to everything that is sinful, man has mutiliated his being in the vain attrempt to keep his soul pure…"

The Catholics believe each human soul is divinely created at the instant of conception. This fuels their opposition to abortion and may explain their acceptance, contrary to most Christians, of human evolution (since it only addresses physiological development). Two millennia ago, Judaism was divided

on this issue. Adhering to the older tradition, the Sadducees did not believe in an immortal soul. The Pharisees disagreed, and their influence ultimately prevailed, at least among orthodox Jews. The Mormons believe the soul has no beginning or ending, but is co-eternal with God. In Hinduism, the soul is an externally existing spiritual substance and the abiding self that moves from one body to the next at rebirth. By contrast, Buddhism denies the existence of an unchanging or eternal soul, whether created by God or emanating from a Divine Essence.

You will find all of these beliefs and more, represented within the eclectic Unitarian Universalist movement. But today I will focus on religious naturalism, a prominent perspective within UU that Janelle Gray introduced this congregation to a few years ago. Religious naturalism seeks to balance the exacting principles of scientific inquiry with an appreciation for beauty and mystery. By what authority do I subject the soul to scientific scrutiny? Unlike questions about God, the common notion of the soul spills over into areas of legitimate scientific study. Qualities like consciousness, will and personality have definite links to the human brain. Claims about the soul are also answerable to personal experience. If the soul is permanent and exists apart from my brain, why is my consciousness interrupted by a general anesthetic? Why is my personality altered by drugs, by a brain injury, or by aging? And why does my concept of “self” evolve over the course of a lifetime? Empirical evidence points to a link between the soul and the physiological self. It suggests that whatever the soul may be, it is not immortal and it can be accounted for without appealing to supernatural causes.

You may be familiar with Occam’s razor, which states that among competing explanations that appear equally plausible, the simplest explanation is usually the correct one. This doesn’t mean the more simple-minded, but the one requiring the simplest or fewest assumptions. Consider for example, the theory of evolution vs. Creationism. Evolution offers a reason for everything except the emergence of the earliest, single-cell life form, which at present it must assume existed “a priori” (without a known cause or antecedent). Creationism, on the other hand, postulates the spontaneous appearance of even the most complex life forms. A recent adaptation of Creationism argues that complexity necessitates intelligent design. Therefore it must also assume the existence of a creator even more complex than its creation, which implies design by an even higher intelligence, ad infinitum.

That’s why I prefer the simpler explanation, whether for the human race or for the human identity. If the fossil records show increasing divergence and complexity of species with the passage of geologic time, why couldn’t the individual soul also acquire its complexity as the brain gradually awakens to external stimuli and weaves together the threads of its own consciousness? Why do we insist that our identity be cast forever in the cosmos? I can appreciate infinity without possessing it; in fact, my mortality makes it all the more amazing. A phenomenon can be wonderful without being supernatural; in fact, the harmony and symmetry

of natural law infuse the world with wonder. Two notes sound pleasant together, not because they are sung by angels, but because they vibrate the eardrum at integer multiples, or harmonics, of some fundamental frequency. Two complementary colors look pleasing together because their wavelengths neutralize each other on the human retina. As Galileo marveled, “God created the Universe in the language of mathematics.”

Will James, the philosopher, physician and reputed father of American psychology, saw no scientific basis or need for the concept of an autonomous soul. Over a century ago, he described the soul as “spirit at the mercy of bodily happenings.” He preferred the more clinical term, “mind,” of which the soul is the subjective center or spiritual essence. He held that the mind and the brain constitute inner and outer aspects of the same reality. Although a Methodist, James strikes me as a religious naturalist. He said physiological causes “do not diminish the depth, purity, worthiness, or spiritual quality” of a thought or emotion.

Despite the work of James and others, the mind-body dualism that grew out of primitive times still persists. The brain has been likened to computer hardware, with the mind akin to software, portable to and functional on any other hardware. This analogy has serious flaws. Digital computers use binary-coded information that doesn’t depend on the medium (that’s what makes them so robust). Conversely, the brain is an analog instrument. It stores, transmits, and responds to information comprising a continuum of possible values that depend on the medium. Each signal in the brain relies on electrochemistry and web-like neural connections, not merely for its transmission, but for its *content* as well. “The medium *is* the message,” as Marshall McLuhan said. Neuroscientist Giulio Tononi theorized that to be conscious, you need to be “a single, integrated entity with a large repertoire of highly differentiated states.” Computer information is not integrated, since its data pathways lack the cross-connectivity of the brain. Nor is it highly differentiated. Christof Koch, Professor of Biology and Engineering at Cal Tech, noted that computers work with nothing more than “a vast, random tapestry of zeros and ones.”

If you replace the hardware (e.g. CPU) in your computer, you can still load and run the same software you used before. But if surgeons were able to successfully give you a brain transplant, I doubt that you could recapture the mind you had before the transplant. Rather than software, I would compare the mind to “firmware,” a set of instructions similar to software, but permanently embedded in the hardware. The firmware *pattern* can be replicated in other hardware, but the firmware itself is not portable. When its host dies, it does not take up residence in another device or ascend to heaven!

The religious naturalist, then, conceives of a fully integrated body and soul. Some have equated this non-dualistic viewpoint to materialism. But philosopher and mathematician Bertrand Russell found this accusation too simplistic. “The old

distinction between body and soul has evaporated quite as much because matter has lost its solidity as because mind has lost its spirituality." We think of matter as substantial and rigid, but the farther we delve into its structure the less it conforms to this representation. At the subatomic level it is predominantly void and dynamic in nature. The nucleus of a typical atom contains virtually all its mass. If you scaled this nucleus up to the size of a pea, the atom's inner-most electron shell would occupy an entire football stadium. If I pound the pulpit (a very un-Unitarian thing to do), we perceive the coming together of two impenetrable masses. But closer examination reveals that the collision actually occurs between mutually repulsive energy fields. Russell noted that quantum mechanics has reduced matter to "a series of events, driven by probability, just as the mind has not the identity of a single continuing thing, but is a series of occurrences, bound together by certain intimate relations".

All of this casts suspicion on "matter" as a reliable means of classification. Just think about the recent need to invent terms like "dark matter" and "anti-matter." Science has pushed our powers of perception beyond our powers of comprehension. Matter, like space and time, is a concept humans devised to make sense of the universe. While helpful in our every-day existence, these Kantian "categories of understanding" can lead to confusion when answering the big questions. Just as the traditional concepts of space and time were shattered by Einstein's theories of relativity, recent scientific observations threaten our long-held notions of material reality.

Even without the insights of modern physics, anyone who understands religious naturalism would not equate it with materialism. Last year Michelle Lagory shared some words from Chet Raymo that refute the materialist label. "Let it only be said that the world is shot through with a mystery that manifests itself no less in what is revealed by science – the universe of the galaxies and the eons, the eternally weaving DNA, the electrochemical flickering that is consciousness – than in the creations of novelists, poets, visual artists and musicians."

In my view the soul, like Raymo's flickering consciousness, is ephemeral not eternal, contingent not self-existing. It is "at the mercy of bodily happenings," from DNA to neurons and synapses. That makes it no less beautiful, for the soul is far greater than the sum of its parts – a flash of the sacred from deep within each human being. A Beethoven symphony is much more than an assemblage of musical instruments, even though it would be silent without them. A Picasso painting transcends the artist's brush strokes, even though each stroke counts immeasurably.

If the sky had a soul I think it would be the rainbow, whose symmetry, translucence and fleeting spectrum of color, give it a mystical quality. In fact, the word "spectrum" comes from the Latin for "apparition," and was first applied to rainbows by Isaac Newton. A rainbow occupies no particular space and has no

mass or dimension. If you divert your gaze it ceases to exist. Its essential ingredients are sunlight, water droplets in the air, and human vision. Even so, it can only appear under certain atmospheric conditions and solar angles. It is not a self sufficient entity, but an impression created by circumstance and made all the more exquisite by the element of surprise. Indeed, the rainbow is subordinate to its parts, yet greater than their sum.

Though we all may witness a rainbow, each of us sees a slightly different version. Why? As sunlight penetrates a spherical water droplet, it bends because the wavelengths of light compress going from air to water. Its component colors, each having a different wavelength, bend at slightly different angles. This transforms white light into a color spectrum. The refracted light then reflects off the back of the raindrop and exits through the front, bending again and spreading the color spectrum even more as the waves widen from water back to air. All of this happens for every sunlit droplet in the sky, but we only notice it when the droplets form a certain angle between the sun and our eyes. That's why the rainbow appears as a circular arc, maintaining this constant angle and growing larger as the sun approaches the horizon. Why only this special angle? Light rays from the sun that reflect back to the observer, tend to concentrate and reinforce each other at angles near 41º, forming the primary rainbow. This can be predicted using calculus and the laws of optics. The secondary rainbow is fainter, but next time you see both rainbows, notice their color sequences are inverted. If that fails to fascinate you, think of how the photoreceptors in the eye and the mapping machinery in the brain convert wavelengths of light into color images. And perhaps the most intriguing question of all: why do these images hold such aesthetic appeal?

To be fair, there is another explanation for the rainbow. In the book of Genesis, God tells Noah, "You see, I have set my rainbow in the sky. This will be the sign of the covenant I have made with you and all creatures, never again to destroy the earth by a flood." It is not surprising that early cultures looked upon rainbows as heavenly manifestations. But today this explanation defies common sense. That God would "set" the rainbow at the time of the flood implies that the natural laws I just described were absent before the flood. But I doubt even the staunchest Bible believer would make such a claim. And assuming natural law to be immutable, one can only conclude that the story itself arose many generations after the flood supposedly occurred. How else could Hebrew lore have forgotten that rainbows predated the flood?

So we have rainbows by physics, or rainbows by divine fiat. Ignoring for a moment which is more plausible, I ask you, which explanation *inspires* you more? Knowledge and insight can unleash the imagination. Under the microscope of science, what looked like a single miracle explodes into a thousand miracles! As Albert Einstein attested, the revelations of science can evoke a deeply spiritual response. The same is true for art. Understanding chord

structures and orchestral combinations heightens our experience of classical music. It is an unfortunate tendency of religion to reduce something intricate and wonderful to secret magic, rendering it impervious to the curious mind.

I think of the soul as an impression, not an illusion. Illusions are perceptions of things that don't exist, whereas an impression conveys *more* than what exists. Have you ever experienced an earnest dialog, perhaps with someone having a different native language, which for an instant dissolved all pretenses and exposed the genuine person? Have you ever peered into a child's eyes or a poet's heart, and sensed something pure and profound? We need a word for this. To me the soul is the ideal self, far outshining the tangible self and signifying an exalted state – a condition to which one aspires but never attains and only momentarily approaches.

If the rainbow were permanently affixed to the sky, would it arouse the same awe? Surely our eyes would become desensitized to it. For me the prospect of an everlasting soul is no different. I may be seduced by eternity, but given a few days without the normal distractions, I soon grow tired of myself. The Greek poet Pindar said, "Brief is the season of man's delight." In my opinion the brevity of life *contributes* to its delight, and at times makes it bearable.

Of course, I could be mistaken. We mortals usually are. Long ago, Socrates confessed, "My wisdom is of no account – a shadow in a dream." Twenty-five hundred years later, confronted with the same fundamental questions, humans are still groping in the shadows and dreaming of salvation. The soul remains largely a mystery. Like the rainbow, I see its splendor, yet I find it to be without substance. I feel its texture, though I cannot touch it. I perceive its depth, though it defies measurement. I hear its cry for meaning, though it makes no sound.

We could argue which comes first, body or soul, material existence or spiritual essence. But I think the more pertinent question is not "*are* we really matter?" but "*do* we really matter?" If the Universe is silent on this question, then we are truly free to answer it ourselves. And the answer comes into view as we choose to engage the world, to endure suffering, and to pursue our nobler nature. This is the destiny of the soul.