


lose, friendships fade, and lines of a play get flubbed. The passion that engages a teen does not always translate well to the rest of the world — be it fashion or music or a great plan to change the world. Part of the joy of being a teen is creating one's own bubble, even when the realities of the outside world want to burst it. It is God who is the obvious choice to play the "heavy" in sharing this hard truth, calling out Jonah at the end of the story for presuming to understand things the way they really are.

So much of teen life is about struggling for autonomy and control in a world that requires an artful balance between the individual and the larger community, between destiny and free will, and what "I" want and what "you" want. Part of the beauty of Jonah is that, despite all of his ups and downs, his ins and

outs, the ultimate lesson of the story remains open and unresolved. It is very much like a parable, meant to be heard and reflected upon long after its telling is done.

When I listen to Jonah, I learn about the complexities of being an individual who wants to be of use to the community. I learn that fiery indignation and expectation need not be extinguished by the imperfection of the people and places the dreamer carries within.

This lesson makes Jonah a wonderful choice to read on Yom Kippur as penitents emerge from internal reflection to the realities of the mundane world. It is also a profound story for understanding the imperfect, frustrating, and beautiful passion and power that teens show as they strive to create themselves and be in the world. 

Jonah and the Multiverse

HOWARD SMITH

Yom Kippur is about *teshuvah* — the possibility of repentance and the exercise of free will. Jonah ran from God's instruction because he believed in *teshuvah*, and — according to the rabbis — because he did not want the people of Nineveh to repent and thereby embarrass Israel. Unlike events of nature, which are prescribed by physical laws, human actions are free; they are not predetermined. Shockingly, the turning point of the story of Jonah — his admission of guilt — does not come as he asserts his free will but the opposite, when he realizes that the free course of nature has been constrained by the sailors' casting of lots. What must Jonah have thought when against all odds he picked up that short stick? Uh-oh: Random events are not accidents. A sailor's ritual, a game of chance, has marked him. God's hand is in everything! Jonah is not free to flee.

The motif of chance resonates throughout Yom Kippur. In the morning, we hear about the "lots" used in the high priest's selection of the goat for Azazel. And Hasidim note that even the sound of the name, "Yom K'Purim," alludes to lots ("*purim*"), and to the mysteries that define the seemingly opposite holiday of Purim in which God remains hidden.

Atheists and pantheists believe that all events are determined by the laws of nature.

Most scientists, perhaps most *Sh'ma* readers as well, would also agree. Known laws (and the laws of nature are known) can be used to predict future results. When a system is complicated, however — for example, because trillions and trillions of atoms are jostling around — its evolution is too hard to calculate exactly, and we rely on statistical analyses to compute the most probable outcome. But the most probable outcome may not be the actual outcome. The result, though predetermined, is a chance (random) event.

The behavior of chance — the occurrence of one choice from many possibilities — has assumed remarkable new significance in modern science. A feature of our universe acknowledged universally by physicists, the Anthropic Principle, states that the universe is perfectly adapted to nurture intelligent life. If any of the physical parameters of the cosmos — for example the speed of light, the charge on the electron, the strength of gravity, the size of Planck's constant, or the details of the big bang creation — differed in value even slightly from what they actually are, we could not exist. There is no known reason why the physical constants should take the values they have — or, indeed, why they should take any particular values. All possible numbers are equally likely. So why do they have these numbers that

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enable life? Put another way, why are we here?

There are only two answers to this dilemma. The religious answer is that the universe was designed this way, to be perfect for life. The scientific alternative is that there exists a nearly infinite number of universes — the “multiverse” — each one with randomly different numbers for these physical parameters. Each universe is equally probable and life cannot take root in most of them. We just live in the one that works. There is no design in the scientific picture, only chance and the fact that even extremely unlikely situations will happen if given adequate opportunity.

For me, this is an incredible realization, as shocking as Jonah’s when he got that short straw. Science, as the result of recent discoveries in cosmology and physics, has a credible and detailed explanation for why we are here and how we got here: luck. So who needs God? Are physical laws indeed all there is? Are all events (even ones too complicated to predict) predetermined? Is *teshuvah* possible?

The Anthropic Principle remains today a fundamental challenge. Whether we are

scientifically or religiously inclined, we need to ask ourselves: What explains the universe — purposeful or random activity, a guiding hand or a multiverse? I do not believe that the scientific answer is more rational. In fact, it may be less rational because of its complexity.

Does the realization that perhaps nothing is accidental lead us to greater self-awareness or less?

Teshuvah is a similar mystery. While free will seems impossible in a world ruled by the determinist laws of nature, we nevertheless imagine that we exercise it with every breath. Can we, like Jonah, influence our own destinies? Does the sudden realization that something else is afoot, that perhaps nothing is accidental, lead us to greater self-awareness or to less? Science, like the book of Jonah, does not definitively answer these questions, but it does frame this ancient issue in a modern context, and it does so in the starkest, most dramatic way, teaching us that the principles we struggle with on Yom Kippur are ... cosmic.

Great Fish

RUBY NAMDAR

Now God had prepared a great fish to swallow up Jonah. And Jonah was in the belly of the fish for three days and three nights. Then Jonah prayed unto his God out of the fish’s belly, and God spoke unto the fish, and it vomited out Jonah upon the dry land.

This bizarre yet strangely resonant story likens the belly of the great fish to the depths of hell, to the lowest spiritual and existential point from which the only path is upward.

Our ancestors, neither mariners nor intimate with the sea and its creatures, were, nonetheless, intrigued by these depths and often used them as theological metaphors and images. The great fish of the sea are used as proof or symbol of God’s omnipotence: Imagine the greatness of the god who created these mighty sea creatures! At the same time, the great fish represent chaos, and they are often treated as a challenge to the same omnipotence — as rivals or rebels against the sovereignty of the Creator. This duality is typical of all biblical and rabbinic myths and stories surrounding these mysterious creatures and may represent an unspoken ambivalence about the monotheistic notion of an omnipotent god, a notion that was

counterintuitive for early monotheists whose minds still bore the remnants of paganism and its tendency to admire and worship great natural phenomena.

The legendary *taninim* (translated into English as “the great whales”) are introduced in the first creation story (Genesis 1:21) and are named as if to emphasize that they are — with all their power and enormity — among God’s creatures. Later, in Psalm 148:7, the same *taninim* (translated now as “dragons”) suffer the misfortune of having their heads broken in the waters, again as a manifestation of God’s greatness.

A similar fate befalls leviathan, another “great fish” of mythic proportions. In the spectacularly stylized poetry of Psalm 104:25-26, the great leviathan is mentioned as God’s play-thing, as the Creator’s toy: “So here is this great and wide sea, wherein are things
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