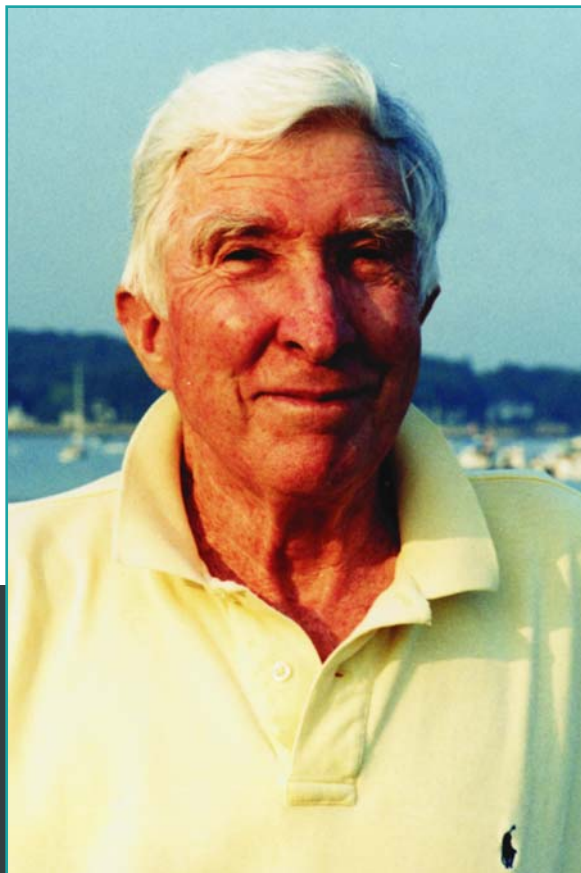




The Accelerating Expansion of the Universe

John Updike

It is not true that developments in physics go ignored by professional humanists or by the common man. The basic facts get to us all and frame the way we think and even, in this instance of the fictional Martin Fairweather, feel. The picture physics paints of the material universe is arresting enough to make the newspapers but far from flattering to our individual identities. Astronomy is what we have now instead of theology. The terrors are less, but the comforts are nil.

John Updike

[The opening of Updike's short story "The Accelerating Expansion of the Universe" is reprinted here with a comment from the author, his kind permission, and that of *Harper's Magazine*, which published the entire story in its October 2004 issue.]

Why should it bother Martin Fairweather? In his long, literate lifetime he had read of many revisions of cosmic theory. Edwin Hubble's discovery of universal expansion had occurred a few years before he was born; by the time of his young manhood, the theory of the Big Bang, with its overtones of Christian Creation by fiat—"Let there be light"—had prevailed over the rather more Buddhist steady-state theory claiming that space itself produced, out of nothingness, one hydrogen atom at a time. In recent decades, in astronomy as in finance, billions had replaced millions as the useful unit: a billion galaxies, a billion stars in each. Ever stronger telescopes, including one suspended in space and named after Hubble, revealed a swarm of fuzzy ovals, each a Milky Way. Such revelations, stupefying for those who tried truly to conceive of the distances and time spans, the amounts of brute matter and of vacancy seething with virtual particles, had held for Fairweather the far-

etched hope of a last turn: a culminating piece in the great skyey puzzle would vindicate Mankind's sensation of central importance and disclose a titanic mercy lurking behind the cosmic arrangements.

But the fact, discovered by two independent teams of researchers, seemed to be that not only did deep space show no relenting in the speed of the farthest galaxies but instead a detectable acceleration, so that an eventual dispersion of everything into absolute cold and darkness could be confidently predicted. We are riding a pointless explosion to nowhere. Only an invisible, malevolent anti-gravity, a so-called Dark Force, explained it. Why should Fairweather take it personally? The universe would by a generous margin outlive him—that had always been true. But he had somehow relied on eternity, on there being an eternity even if he wasn't invited to participate in it. The accelerating expansion of the universe imposed an ignominious, cruelly diluted finitude on the enclosing vastness. The eternal hypothetical structures—God, Paradise, the moral law within—now had utterly no base to stand on. All would melt away. He, no mystic, had always taken a sneaky comfort in the idea of a universal pulse, an alternating Big Bang and Big Crunch, each time recasting matter into an unimaginably small furnace, a subatomic point of fresh beginning. Now this comfort was taken from him, and he drifted into a steady state—an estranging fever, scarcely detectable by those around him—of depression. ■

John Updike is a novelist, poet, short-story writer, and essayist. *Villages*, his most recent novel, was published by Alfred A. Knopf in 2004. Updike lives near Boston. Although he once called "sex, art, and religion" the three great secrets of life, readers who notice how often scientific metaphors crop up in his work know that physics belongs on the list too.