

when life knows no bounds

BY MARK FISCHETTI AND GARY STIX, *ISSUE EDITORS*

Once you see the pictures, you never forget. They elicit horror, pain and, yes, a gawking fascination. An eight-year-old boy, bald with withering limbs. A nine-year-old girl stooped like a 99-year-old woman. They suffer from progeria—premature aging—and usually meet their death by the time they reach their early teens.

What's remarkable, however, is that many of these kids are happy to be alive. Some have an uncanny emotional maturity; they are cognizant of their genetic death sentence and embrace the short time they have left. Their example suggests that knowledge of one's own mortality, even at an age when the concept is normally unfathomable, can endow life with essential meaning.

The possibility of slowing the processes that cause us to age, and thereby extending the human life span, has been raised by recent scientific findings that have simultaneously provoked blistering polemics among ethicists, clergy and gerontologists. What becomes of childhood, youth, the middle years and old age if people routinely live to 150? "Don't worry, Dad, I'll go to college when I'm 30 maybe, 40 for sure. Until then, I want to drink beer with my friends. Who wants to be a wage slave for 80 years?"

The philosophers maintain that if there is no end to our existence, there is no motivation to fill it, to accomplish, to do good "before we go." They might have an argument if life were to become infinite, but it won't. Research targeted to increasing average life span isn't focused on immortality but on stretching it from 76 (in the U.S.) to 100 or even 120. If it succeeds, we'll still be inspired to live full lives.

A spate of laboratory experiments has provided clues, at the cellular level, to the processes of aging. The implications have fueled hopes that medical advances will slow our de-

cline, extending longevity well beyond the century mark. At a minimum, the findings could lead to therapies that counter the major killers in old age, such as heart disease and cancer.

Gerontologists have a long way to go. First they have to settle on a good definition of aging. Is senescence a genetic program that kicks in once we pass our childbearing years and evolution no longer needs us? Or is it a gradual degrading of the body from daily wear and tear? We may be closing in on an answer. But even if we find the mechanisms that cause aging, that doesn't mean we will have figured out how to stop it. We know something about how cancer and AIDS work, but we haven't knocked them out. With that in mind, a "cure" for death from old age may be nothing more than mere fantasy.

Still, researchers have rounded up at least one or two likely suspects in the war on decrepitude. Oxidizing agents in our bodies, created as we metabolize food, cause our cells to degrade in the same way that rust eats away at a car. New drugs, some of which may be cousins of the vitamins we now gobble down like jelly beans, may combat the effects of these potent chemicals. A harshly restrictive diet might also slow our inevitable decline.

If any of these ideas have merit, the ethicists may find long-term job security. What would happen to society if we could all live to 100, much less 120 and up? Could it accommodate a massive population of old people? What would a "family" mean? Could we ever afford to retire? It's possible that we could manage the enormity of the upheavals if longevity crept up over time. After all, the average life span in the U.S. alone has risen from 47 to 76 since 1900. That's a 62 percent increase, and we've dealt with it.

But what if we suddenly found, say, a wonder antioxidant or some other metabolic miracle that would immediately al-

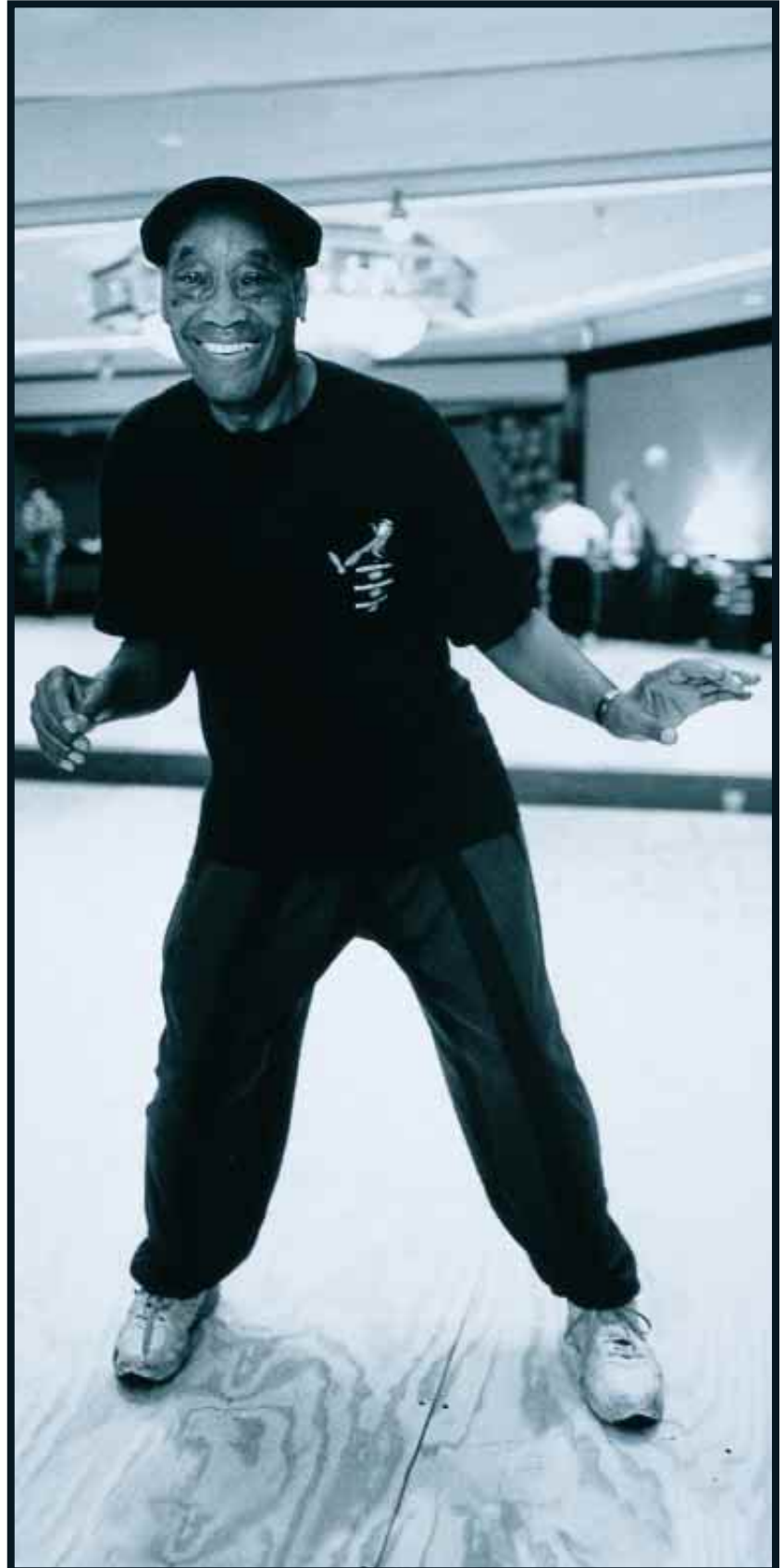


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low the world to live much longer? Millions in the developed world might be able to pay for the therapy. Could the billions of poor also do so? Society could rocket toward social and financial convulsions.

That's why some pragmatic philosophers take aim at the funding of longevity research, which they say steals money that would be better spent on improving the quality of life in old age, instead of the quantity of years. But research to extend life is exactly where cures may be found for some of the most debilitating ills the elderly face: Alzheimer's, Parkinson's, heart disease, liver and kidney disease, and cancer, not to mention depression and social isolation.

The ethical arguments are important, but they may be overridden, at least in the short run, by our instincts for survival. Just ask yourself, Do you want to die next year? Probably not. Do you want to die when you're 80? "Well," you might reason, "perhaps, if I had lived a full life and was no longer in good health." But ask a 79-year-old—even a very sick one—if he wants to die "next year," and studies have shown that his answer will almost surely be the same as yours: "No thank you." Whether extra decades of life are a thrill or a bore, cheating death is a fundamental human quest. Just as certain, though, is that if the science fulfills its promise, the emerging centenarian society will transform work, family and social institutions in ways we cannot even begin to imagine.



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