meditations on quality of life

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COMPILED BY EUGENE RAIKHEL

he prospect of living forever, or at least a millennium, has served as a theme for storytellers throughout history. Although writers disagree over whether freedom from death would lead to an enchanted existence, an eternity of boredom and decrepitude-or more likely, some amalgam of the twofew doubt its power to fascinate people. The three excerpts from stories we have chosen (two contemporary, one from the 18th century) imagine how the achievement of a deathless existence, or the attempt to achieve it at all costs, might affect human society as well as the tenor of people's everyday lives.



The Immortal in the Mirror

How would the option of eternal life change the way we view ourselves and the people close to us? In the epilogue to his 1999 book *Time of Our Lives: The Science of Human Aging*, Tom Kirkwood explores these issues through an imagined future in which people are regularly rejuvenated by a technique called fraitching. This technology harnesses the mutability of stem cells, inducing them to migrate to particular parts of the body and brain to replace older cells. Although fraitching has the potential to extend human lives indefinitely, parenthood comes with certain trade-offs that protect society from the perils of a world in which death is a rarity.

Gregor had entered Miranda's life a short time after her ninth fraitch, which, she reflected, would put her in her late 220s. Gregor himself was then nearing his third fraitch, which made him about 150 years her junior. Not that it mattered.

Miranda's love for Gregor had taken

her by surprise. It had been immediate and deep, eclipsing the previous loves of her long life. Make no mistake, Miranda's earlier loves had lacked neither warmth nor joy. One of them even resulted in the birth of her cherished son, Nico, now one of her closest friends. But the problem, if problem it had been, was that Miranda had always held something important in reserve.

Holding back from full commitment was a habit conditioned by the boundless possibilities of an unlimited future.

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NANTES TRIPTYCH (1992), BY BILL VIOLA

The only known strategy to cope with this awesome prospect, short of mindnumbing drugs and escapist diversions, was to cultivate and preserve an exaggerated love of oneself. In the early centuries after fraitch technology was developed, the emotional burden of long life was poorly understood and the suicide rate grew alarmingly high. Psychofraitching of the mind quickly became as important as the regeneration of the cells and tissues of the body.

After their first meeting by the river, and during the heady weeks that followed, Miranda had been startled to discover that Gregor loved her with an

intensity and passion that went way beyond all of her previous experience. Not short of passion herself, Miranda found her reserve and self-absorption melting away. She delighted in Gregor's presence and he in hers. When Miranda gave up her farmland home to live permanently in the limestone caves where Gregor had carved his beautiful dwelling, her friends were jolted with the shock. With the quaint exception of the Snuggees, a near-invisible sect that inhabited the far north-east and practiced, so it was said, the bizarre habit of "family living," most individuals preferred to live alone, meeting by

choice to share bounded periods of time.

Fifteen full and happy years passed quickly in Miranda's and Gregor's lives, their time occupied with creative work and play. During these years, Miranda's love for Gregor had grown ever stronger and deeper, until the day finally came that Miranda made the decision that would alter their lives for ever. Miranda decided that she wanted to share with Gregor the making of a child.

In a world freed from the necessity of aging, the making of children had very great significance. Children were still needed to replace those who died from accidents or suicides, but the accidental

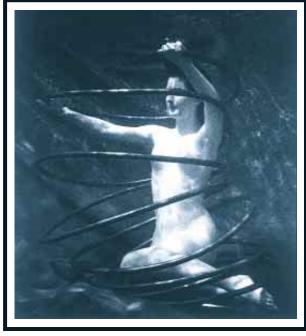
quality of life

death rate was so small that their production had to be strictly controlled. The method was simple and stark. Each individual at birth was genetically screened and assigned the right to share in the making of a certain number of children. The usual number was two, but sometimes a smaller number was awarded to limit the spread of harmful genotypes. Exceptionally, a person might be allowed three children if, for example, the recent toll of accidents had been unusually great. The bonus of a third child was awarded by random selection.

To guard against abuse of the quota system and to protect against possible genetic damage to the reproductive cells, which might have a very long wait before use, all fertilizations were carried out in vitro from stored germ cells. Once sufficient germ cells had been removed to cold storage, the gonads were rendered sterile.

To share in the making of a child, a couple would declare their request in a civil ceremony of great solemnity, and following rigorous checks on quota status and genetic compatibility, the fertilization would be performed. The resulting embryo would then be raised to term either within the womb of the mother or, as was increasingly the custom, in fetal incubators. For a person with a quota of two, like Miranda, the making of a first child was without major consequence. The parents might choose to participate closely in the rearing of the infant, or they might spend only occasional time with their child, as they preferred. They might do so jointly or, more usually, as individuals. A greater preoccupation with self had weakened the traditional bonding of parents with each other and with their child.

In the interests of all, it had become both custom and law that the primary



THIS MORTAL COIL (1992), BY CHRISTINA HOPE

responsibility for the welfare and education of the child rested with the community of which the child would, in due course, become a long-term participant.

However, the making of the final child of a person's quota was an entirely different matter. The birth of this last child signaled the parent's forfeiture of the right to any further fraitches beyond an immediate and final one, at the completion of which a Capsule was implanted. This terminal fraitch delivered the same rejuvenatory effects of the earlier fraitches, but the implanted Cap-

sule imposed a delayed sentence of death. At a random point in time, between 40 and 50 years from the date of implantation, the Capsule would detonate, causing the release of a sequence of neurotoxins that would bring painless death in 5 days. Any attempt at surgical removal of the Capsule would trigger immediate detonation. The bearer of such a Capsule became a Timed One.

It was this fate that Miranda elected for herself when she decided to make a child with Gregor.

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CHRISTINA HOPE Superstock

Upgrade or Die

The current obsession with aging might pale in comparison with that of a society constructed entirely around the quest for youth, suggests cyberpunk author Bruce Sterling. His 1996 novel *Holy Fire* depicts a time one century from the present, where political power is held by "gerontocrats" and the economy fueled by the "medical-industrial complex." In this world, living longer means taking a gamble on an "upgrade" that might leave you with obsolete hardware. There were a hundred clever ways to judge a life-extension upgrade. Stay with the blue chips and you were practically guaranteed a steady rate of survival. Volunteer early for some brilliant new start-up, however, and you'd probably outlive the rest of your generation. Keep in mind, though, that novelty and technical sweetness were no guarantees of genuine long-term success. Many lines of medical advancement folded in a spindling crash of medical vaporware, leaving their survivors internally scarred and psychically wrecked.

Medical upgrades were always improving, never steadily, but with convulsive organic jumps. Any blue-chip upgrade licensed in the 2090s would be (very roughly speaking) about twice as effective as the best available in the 2080s....

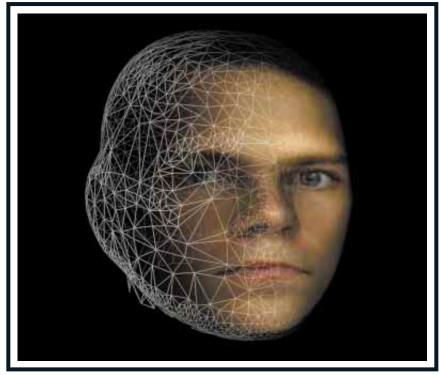
Given these circumstances, it was wise to postpone your upgrade for as long as possible. The longer you waited, the better your choices would become. Unfortunately, the natural aging process never stopped in the meantime, so waiting too long made you subject to serious cumulative damage from natural metabolic decline. Sooner or later you had to hold your nose and make your choice. Since the outcome of leading-edge research was unknown by definition, the authorities could make no guarantees. Therefore, the pursuit of longevity was declared a fundamental freedom left to the choice of the individual. The polity offered its best advice, consensually derived in endless open meetings through vast thriving packs of experts, but advice was nothing better than advice.

If you were smart or lucky, you chose an upgrade path with excellent longterm potential. Your odds were good. You would be around for quite a while. Your choice would become and remain popular. The installed base of users would expand, and that would help you quite a lot. If anything went wrong with your upgrade, there'd be plenty of expertise in dealing with it.

If you were unlucky or foolish, your short-term gains would reveal serious long-term flaws. As the years ground on, you'd become isolated, freakish, obsolescent. The truly bad techniques were the ones that complicated your transitions to another and better upgrade. Once your quality of life was irreparably degraded, you'd have no choice but to turn your attention to the quality of your death.

There were various methods of hedging your bets. You could, for instance, be conspicuously and repeatedly good. You always voted, you committed no crimes, you worked for charities, you looked after your fellow citizens with a smile on your face and a song in your heart. You joined civil support and served on net committees. You took a tangible wholehearted interest in the basic well-being of civilization. The community officially wanted you kept alive. You were probably old, probably well behaved, and probably a woman. You were awarded certain special considerations by a polity that appreciated your valuable public spirit. You were the exact sort of person who had basically seized power in modern society.

If you were responsible in your own daily health-care practices, the polity appreciated the way in which you eased the general strain on medical resources. You had objectively demonstrated your firm will to live. Your serious-minded, meticulous approach to longevity was easily verified by anyone, through your public medical records. You had discipline and forethought. You could be almost guaranteed good health, or at least good health care. Nowadays mere wealth guaranteed very little. People who publicly destroyed their own health had a rather hard time staying wealthy—not because it took good health to become wealthy, but because it took other people's confidence to make and keep money. If you were on a conspicuously public metabolic bender, then you weren't



VIRTUAL HEAD (1999)

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kept alive fairly cheaply, because you had been well maintained. You deserved to live.

Some people destroyed their health, yet they rarely did this through deliberate intention. They did it because they lacked foresight, because they were careless, impatient, and irresponsible. There were enormous numbers of medically careless people in the world. There had once been titanic, earth-shattering numbers of such people, but hygienically careless people had died in their billions during the plagues of the 2030s and 2040s. The survivors were a permanently cautious and foresightful lot. Careless people had become a declining interest group with a shrinking demographic share.

Once upon a time, having money had

the kind of person that people trusted nowadays. You were a credit risk and a bad business partner. You had points demerits and got cheap medical care.

Even the cheap medical treatments were improving radically, so you were almost sure to do very well by historical standards. But those who destroyed their health still died young, by comparison with the elite. If you wanted to destroy your health, that was your individual prerogative. Once you were thoroughly wrecked, the polity would encourage you to die.

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quality of life The Dreadful Prospect

Gerontology, the science of aging, focuses more on improving mental and physical health during the time we've got than on extending our natural life span. And for good reason. To live forever may not be to attain the exalted status of the Greek gods. Long before the advent of the scientific study of the old, Jonathan Swift documented, in his classic account of the Struldbrugs from *Gulliver's Travels*, why an eternity of aging—absent the things that make living worthwhile—may not be something to wish for.

One day, in much good company, I was asked by a person of quality, whether I had seen any of their *Struldbrugs*, or immortals. I said I had not; and desired he would explain to me what he meant by such an appellation, applied to a mortal creature. He told me that sometimes, though very rarely, a child happened to be born in a family with a red circular spot in the forehead, directly over the left eyebrow, which was an infallible mark that it should never die....

I freely own myself to have been struck with inexpressible delight upon hearing this account.... I cried out as in a rapture, "Happy nation, where every child hath at least a chance for being immortal! Happy people, who enjoy so many living examples of ancient virtue, and have masters ready to instruct them in the wisdom of all former ages! But happiest beyond all comparison are those excellent Struldbrugs, who, being born exempt from that universal calamity of human nature, have their minds free and disengaged, without the weight and depression of spirits caused by the continual apprehension of death!" ...

I enlarged upon many other topics, which the natural desire of endless life and sublunary happiness could easily furnish me with. When I had ended, and the sum of my discourse had been interpreted as before to the rest of the company, there was a good deal of talk among them in the language of the country, not without some laughter at my expense. At last, the same gentleman who had been my interpreter said he was desired by the rest to set me right in a few mistakes, which I had fallen into through the common imbecility of human nature, and upon that allowance was less answerable for them....

After this preface, he gave me a particular account of the Struldbrugs among them. He said they commonly acted like mortals till about thirty years old, after which, by degrees, they grew melancholy and dejected, increasing in both till they came to fourscore. This he learned from their own confession: for otherwise, there not being above two or three of that species born in an age, they were too few to form a general observation by. When they came to fourscore years, which is reckoned the extremity of living in this country, they had not only all the follies and infirmities of other old men, but many more which arose from the dreadful prospect of never dying. They were not only opinionative, pee-



STRULDBRUGS (1912), BY MILO WINTER

vain, talkative, but incapable of friendship, and dead to all natural affection, which never descended below their grandchildren. Envy and impotent desires are their prevailing passions. But those objects against which their envy seems principally directed, are the vices of the vounger sort and the deaths of the old. By reflecting on the former, they find themselves cut off from all possibility of pleasure; and whenever they see a funeral, they lament and repine that others have gone to a harbor of rest to which they themselves never can hope to arrive. They have no remembrance of anything but what they learned and

vish, covetous, morose,

observed in their youth and middle age, and even that is very imperfect; and for the truth or particulars of any fact, it is safer to depend on common traditions than upon their best recollections. The least miserable among them appear to be those who turn to dotage, and entirely lose their memories; these meet with more pity and assistance, because they want many bad qualities which abound in others.

If a Struldbrug happen to marry one of his own kind, the marriage is dissolved of course by the courtesy of the kingdom, as soon as the younger of the two comes to be fourscore. For the law thinks it a reasonable indulgence, that those who are condemned, without any fault of their own, to a perpetual continuance in the world, should not have their misery doubled by the load of a wife. As soon as they have completed the term of eighty years, they are looked on as dead in law; their heirs immediately succeed to their estates; only a small pittance is reserved for their support; and the poor ones are maintained at the public charge. After that period, they are held incapable of any employment of trust or profit; they cannot purchase lands, or take leases; neither are they allowed to be witnesses in any cause, either civil or criminal, not even for the decision of meers and bounds.

At ninety, they lose their teeth and hair; they have at that age

no distinction of taste, but eat and drink whatever they can get, without relish or appetite. The diseases they were subject to still continue, without increasing or diminishing. In talking, they forget the common appellation of things, and the names of persons, even of those who are their nearest friends and relations.

For the same reason, they never can amuse themselves with reading, because their memory will not serve to carry them from the beginning of a

sentence to the end; and by this defect, va they are deprived of the only entertainment whereof they might otherwise be capable. can

The language of this country being always upon the flux, the *Struldbrugs* of one age do not understand those of another; neither are they able, after two hundred years, to hold any conversation (farther than by a few general words) with their neighbors the mortals; and thus they lie under the disad-

TWO HEADS, BY LEONARDO DA VINCI (1452-1519)

vantage of living like foreigners in their own country. This was the account given me of the *Struldbrugs*, as near as I can remember.

The full electronic text of *Gulliver's Travels*, which includes the account of the Struldbrugs in chapter 10, can be downloaded without charge from Project Gutenberg at ftp://metalab.unc.edu/pub/docs/books/gutenberg/etext97/gltrv10.txt on the World Wide Web.