Since time immemorial, mortals have bemoaned their mortality, have longed to escape it, groped for some hope of eternal life. I speak, of course, of human mortals. Men alone of all creatures know that they must die, men alone mourn their dead, bury their dead, remember their dead. So much is mortality taken to mark the human condition, that the attribute "mortal" has tended to be monopolized for man: in Homeric and later Greek usage, for example, "mortals" is almost a synonym for "men," contrasting them to the envied, ageless immortality of the gods. Memento mori rings through the ages as a persistent philosophical and religious admonition in aid of a truly human life. As Psalm 90 puts it, "Teach us to number our days, that we may get a heart of wisdom."

Over this incurably anthropocentric emphasis, not much thought was spent on the obvious truth that we share the lot of mortality with our fellow creatures, that all life is mortal, indeed that death is coextensive with life. Reflection shows that this must be so; that you cannot have the one without the other. Let this be our first theme: mortality as an essential attribute of life as such—only later to focus on specifically human aspects of it.

Two meanings merge in the term mortal: that the creature so called can die, is exposed to the constant possibility of death; and that, eventually, it must die, is destined for the ultimate necessity of death. In the continual possibility I place the burden, in the ultimate necessity I place the blessing of mortality. The second of these propositions may sound strange. Let me argue both.

I begin with mortality as the ever-present potential of death for everything alive, concurrent with the life process itself. This "potential" means more than the truism of being destructible, which holds for every composite material structure, dead or alive. With sufficient force, even the diamond can be crushed, and everything alive can be killed by any number of outside causes, prominent among them other life. However, the inmost relation of life to possible death goes deeper than that: it resides in the organic constitution as such, in its very mode of being. I have to spell out this mode to lay bare the roots of mortality in life itself. To this end I now beg you to keep me company on a stretch of ontological inquiry. By this, we philosophers mean an inquiry into the manner of being characteristic of entities of one kind or another—in our case, of the kind called "organism," as this is the sole physical form in which, to our knowledge, life exists. What is the way of being of an organism?

Our opening observation is that organisms are entities whose being is their own doing. That is to say that they exist only in virtue of what they do. And this in the radical sense that the being they earn from this doing is not a possession they then own in separation from the activity by which it was generated, but is the continuation of that very activity itself, made possible by what it has just performed. Thus to say that the being of organisms is their own doing is also to say that doing what they do is their being itself; being for them consists in doing what they have to do in order to go on to be. It follows directly that to cease doing it means ceasing to be; and since the requisite doing depends not on themselves alone, but also on the compliance of an environment that can either be granted or denied, the peril of cessation is with the organism from the beginning. Here we have the basic link of life with death, the ground of mortality in its very constitution.

What we have couched so far in the abstract terms of being and doing, the language of ontology, can now be called by its familiar name: metabolism. This concretely is the 'doing' referred to in our opening remark about entities whose being is their own doing, and metabolism can well serve

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as the defining property of life: all living things have it, no nonliving thing has it. What it denotes is this: to exist by way of exchanging matter with the environment, transiently incorporate it, use it, excrete it again. The German Stoffwechsel expresses it nicely. Let us realize how unusual, nay unique a trait this is in the vast world of matter.

How does an ordinary physical thing—a proton, a molecule, a stone, a planet—endure? Well, just by being there. Its being now is the sufficient reason for its also being later, if perhaps in a different place. This is so because of the constancy of matter, one of the prime laws of nature ever since, soon after the Big Bang, the exploding chaos solidified into discrete, highly durable units. In the universe hence evolving, the single stubborn particle, say a proton, is simply and fixedly what it is, identical with itself over time, and with no need to maintain that identity by anything it does. Its conservation is mere remaining, not a reassertion of being from moment to moment. It is there once and for all. Saying, then, of a composite, macroscopic body—this stone in our collection—that it is the same as yesterday amounts to saying that it still consists of the same elementary parts as before.

Now by this criterion a living organism would have no identity over time. Repeated inspections would find it to consist less and less of the initial components, more and more of new ones of the same kind that have taken their place, until the two compared states have perhaps no components in common anymore. Yet no biologist would take this to mean that he is not dealing with the same organic individual. On the contrary, he would consider any other finding incompatible with the sameness of a living entity qua living: if it showed the same inventory of parts after a long enough interval, he would conclude that the body in question has soon after the earlier inspection ceased to live and is in that decisive respect no longer “the same,” that is, no longer a “creature,” but a corpse. Thus we are faced with the ontological fact of an identity totally different from inert physical identity, yet grounded in transactions among items of that simple identity. We have to ponder this highly intriguing fact.

It presents something of a paradox. On the one hand, the living body is a composite of matter, and at any one time its reality totally coincides with its contemporary stuff. On the other hand, it is not identical with this or any such simultaneous total, as this is forever vanishing downstream in the flow of exchange.

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must be averted ever anew. Life, in other words, carries death within itself.

Yet if it is true that with metabolizing existence not-being made its appearance in the world as an alternative embodied in the existence itself, it is equally true that thereby to be first assumes an emphatic sense: intrinsically qualified by the threat of its negative it must affirm itself, and existence affirmed is existence as a concern. Being has become a task rather than a given state, a possibility ever to be realized anew in opposition to its ever-present contrary, not-being, which inevitably will engulf it in the end.

With the hint at inevitability, we are ahead of our story. As told so far in these musings of mine, we can sum up the inherent dialectics of life
somewhat like this: committed to itself, put at the mercy of its own performance, life must depend on conditions over which it has no control and which may deny themselves at any time. Thus dependent on favor or disfavor of outer reality, life is exposed to the world from which it has set itself off and by means of which it must yet maintain itself. Emancipated from the identity with matter, life is yet in need of it; free, yet under the whip of necessity; separate, yet in indispensable contact; seeking contact, yet in danger of being destroyed by it and threatened no less by its want—imperiled thus from both sides, importunity and aloofness of the world, and balanced on the narrow

ridge between the two. In its process, which must not cease, liable to interference; in the straining of its temporality always facing the imminent no-more: thus does the living form carry on its separatist existence in matter—paradoxical, unstable, precarious, finite, and in intimate company with death. The fear of death with which the hazard of this existence is charged is a never-ending comment on the audacity of the original venture upon which substance embarked in turning organic.

But we may well ask at this point, Is it worth the candle? Why all the toil? Why leave the safe shore of self-sufficient permanence for the troubled waters of mortality in the first place? Why venture upon the anxious gamble of self-preservation at all? With the hindsight of billions of years and the present witness of our inwardness, which surely is part of the evidence, we are not without clues for a speculative guess. Let us dare it.

The basic clue is that life says yes to itself. By clinging to itself it declares that it values itself. But one clings only to what can be taken away. From the organism, which has being strictly on loan, it can be taken and will be unless from moment to moment reclaimed. Continued metabolism is such a reclaiming, which ever reasserts the value of Being against its lapsing into nothingness. Indeed to say yes, so it seems, requires the co-presence of the alternative to which to say no. Life has it in the sting of death that perpetually lies in wait, ever again to be staved off, and precisely the challenge of the no stirs and powers the yes. Are we then, perhaps, allowed to say that mortality is the narrow gate through which alone value—the addressee of a yes—could enter the otherwise indifferent universe? That the same crack in the massive unconcern of matter that gave value an opening had also to let in the fear of losing it? We shall presently have to say something about the kind of value purchased at this cost. First allow me one further step in this speculation that roams beyond proof. Is it too bold to conjecture that in the cosmically rare opportunity of organismic existence, when at last it was offered on this planet by lucky circumstance, the secret essence of Being, locked in matter, seized the long-awaited chance to affirm itself and in doing so to make itself more and more worth affirming? The fact and course of evolution point that way. Then organisms would be the manner in which universal Being says yes to itself. We have learned that it can do so only by also daring the risk of not-being, with whose possibility it is now paired. Only in confrontation with ever-possible not-being could being come to feel itself, affirm itself, make itself its own purpose. Through negated not-being, "to be" turns into a constant choosing of itself. Thus it is only an apparent paradox that it should be death and holding it off by acts of self-preservation which set the seal upon the self-affirmation of Being.

If this is the burden life was saddled with from the start, what then is its reward? What is the value paid for with the coin of mortality? What in the outcome was there to affirm? We alluded to it when we said that, in organisms, Being came to "feel" itself. Feeling is the prime condition for anything to be possibly worthwhile. It can be so only as the datum for a feeling and as the feeling of this datum. The presence of feeling as such, whatever its content or mode, is infinitely superior to the total absence of it. Thus the capacity for feeling, which arose in organisms, is the mother-value of all values. With its arising in organic evolution, reality gained a dimension it lacked in the form of bare matter and which also thereafter remains confined to this narrow foothold in biological entities: the dimension of subjective inwardness. Perhaps aspired to since creation, such inwardness found its eventual cradle with the advent of metabolizing life. Where in its advance to higher forms that mysterious dimension actually opened we cannot know. I am inclined to suspect the infinitesimal beginning of it in the earliest self-sustaining and self-replicating cells—a germinal inwardness, the faintest glimmer of diffused subjectivity long before it concentrated in brains as its specialized organs. Be that as it may. Somewhere
in the ascent of evolution, at the latest with the twin rise of perception and motility in animals, that invisible inner dimension burst forth into the bloom of ever more conscious, subjective life: inwardness externalizing itself in behavior and shared in communication.

The gain is double edged like every trait of life. Feeling lies open to pain as well as to pleasure, its keenness cutting both ways; lust has its match in anguish, desire in fear; purpose is either attained or thwarted, and the capacity for enjoying the one is the same as that for suffering from the other. In short, the gift of subjectivity only sharpens the yes-no polarity of all life, each side feeding on the strength of the other. Is it, in the balance, still a gain, vindicating the bitter burden of mortality to which the gift is tied, which it makes even more onerous to bear? This is a question of the kind that cannot be answered without an element of personal decision. As part of my pleading for a yes to it, I offer two comments.

The first is about the relation of means and ends in an organism's equipment for living. Biologists are wont to tell us (and, I think, with excellent reasons) that this or that organ or behavior pattern has been "selected" out of chance mutations for the survival advantage it bestowed on its possessors. Accordingly, the evolution of consciousness must bespeak its utility in the struggle for survival. Survival as such would be the end, consciousness an incremental means thereto. But that implies its having causal power over behavior, and such a power is—by the canons of natural science—attributable only to the physical events in the brain, not to the subjective phenomena accompanying them; and those brain events in turn must be wholly the consequence of physical antecedents. Causes must be as objective throughout as the effects—so decrees a materialist axiom. In terms of causality, therefore, a nonconscious robot mechanism with the same behavioral output could do as well and would have sufficed for natural selection. In other words, evolutionary mechanics, as understood by its proponents, explains the evolution of brains, not of consciousness. Nature, then, is credited with throwing in a redundancy, the free gift of consciousness, now debunked as useless and, moreover, as deceptive in its causal pretense.

There is but one escape here from absurdity, and that is to trust the self-testimony of our subjective inwardness, namely, that it is (to a degree) causally effective in governing our behavior, therefore indeed eligible for natural selection as one more means of survival. But with the same act of trust, we have also endorsed its inherent claim that, beyond all instrumentality, it is for its own sake and an end in itself. There is a lesson in this about the general relation of means and ends in organic existence.

To secure survival is indeed one end of organic endowment, but when we ask, Survival of what? we must often count the endowment itself among the intrinsic goods it helps to preserve. Faculties of the psychological order are the most telling cases in point. Such "means" of survival as perception and emotion, understanding and will, command of limbs and discrimination of goals are never to be judged as means merely, but also as qualities of the life to be preserved and therefore as aspects of the end. It is the subtle logic of life that it employs means which modify the end and themselves become part of it. The feeling animal strives to preserve itself as a feeling, not just metabolizing creature, that is, it strives to continue the very activity of feeling; the perceiving animal strives to preserve itself as a perceiving creature... and so on. Even the sickest of us, if he wants to live on at all, wants to do so thinking and sensing, not merely digesting. Without these subject faculties that emerged in animals, there would be much less to preserve, and this less of what is to be preserved is the same as the less wherewith it is preserved. The self-rewarding experience of the means in action make the preservation they promote more worthwhile. Whatever the changing

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contents, whatever the tested utility, awareness as such proclaims its own supreme worth.

But must we assent? This question leads over to my second comment. What if the sum of suffering in the living world forever exceeds the sum of enjoyment? What if, especially in the human world, the sum of misery is so much greater than that of happiness as the record of the ages seems to suggest? I am inclined in this matter to side with the verdict of the pessimists. Most probably the balance sheet, if we could really assemble it, would look bleak. But would that be a valid ground to deny the worth of awareness, that things would be better if it were not in the world at all? There one should listen to the voice of its victims, those least bribed by the tasting of pleasures. The votes of the
lucky may be ignored, but those of the suffering unlucky count double in weight and authority. And there we find that almost no amount of misery dims the yes to sentient selfhood. Greatest suffering still clings to it, rarely is the road of suicide taken, never is there a “survival” without feeling wished for. The very record of suffering mankind teaches us that the partisanship of inwardness for itself invincibly withstands the balancing of pains and pleasures and rebuffs our judging it by this standard.

More important still, something in us protests against basing a metaphysical judgment on hedonistic grounds. The presence of any worthwhileness in the universe at all—and we have seen that this is bound to feeling—immeasurably outweighs any cost of suffering it exacts. Since it is in

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the last resort mortality which levies that cost, but is equally the condition for such to exist that can pay it, and existence of this sort is the sole seat of meaning in the world, the burden of mortality laid on all of us is heavy and meaningful at once.

Up to this point we have been dealing with mortality as the possibility of death lurking in all life at all times and countered continually by acts of self-preservation. Ultimate certainty of death, intrinsic limitation of individual life spans, is a different matter, and that is the meaning we have mostly in mind when we speak of our own “mortality.” We are then speaking of death as the terminal point on the long road of aging. That word has so far not appeared in our discourse; and indeed, familiar and seemingly self-evident as the phenomenon is to us, aging—that is, internal organic attrition by the life process itself—is not a universal biological trait, not even in quite complex organisms. It is surprising to learn how many and how diverse species are non-senescent, for example, in groups such as bony fishes, sea anemones, and bivalve mollusks. Attrition there is left entirely to extrinsic causes of death, which suffice to balance popula-
tion numbers in the interplay with reproduction and amount to certainty of death for each individual within a time frame typical for the species. However, throughout the higher biological orders, aging at a species-determined rate that ends in dying is the pervasive rule (without exception, for example, in warm-blooded animals) and it must have some adaptive benefits, else evolution would not have let it arise. What these benefits are is a subject of speculation among biologists. On principle, they may derive either directly from the trait itself or from some other traits to which senescence is linked as their necessary price. We will not join in this debate, but rather say a word about the general evolutionary aspect of death and dying in their remorseless actuality, whether from extrinsic or intrinsic necessity. The term evolution itself already reveals the creative role of individual finitude, which has decreed that whatever lives must also die. For what else is natural selection with its survival premium, this main engine of evolution, than the use of death for the promotion of novelty, for the favoring of diversity, and for the singling out of higher forms of life with the blossoming forth of subjectivity? At work to this effect—so we saw—is a mixture of death by extrinsic causes (foremost the merciless feeding of life on life) and the organically programmed dying of parent generations to make room for their offspring. With the advent and ascent of man, the latter kind of mortality, inbuilt numbering of our days, gains increasing importance in incidence and significance, and from here on our discourse will keep to the human context alone and consider in what sense mortality may be a blessing specifically for our own kind.

Reaching ripe old age and dying from mere attrition of the body is, as a common phenomenon, very much an artifact. In the state of nature, so Hobbes put it, human life is nasty, brutish, and short. Civil society, according to him, was founded mainly for protection from violent—and that means premature—death. This is surely too narrow a view of the motives, but one effect of civilization, this comprehensive artifact of human intelligence, is undeniably the progressive taming of the extraneous causes of death for humans. It has also mightily enhanced the powers of their mutual destruction. But the net result is that at least in technologically advanced societies, more and more people reach the natural limit of life. Scientific medicine has a major share in this result, and it is beginning to try to push back that limit itself. At any rate the theoretical prospect seems no longer precluded. This makes it tempting to hitch the further pursuit of our theme to
the question of whether it is right to combat not merely premature death but death as such, that is, whether lengthening life indefinitely is a legitimate goal of medicine. We will discuss this on two planes: that of the common good of mankind and that of the individual good for the self.

The common good of mankind is tied to civilization, and this with all its feats and faults would not have come about and not keep moving without the ever-repeated turnover of generations. Here we have come to the point where we can no longer postpone complementing the consideration of death with that of birth, its essential counterpart, to which we have paid no attention so far. It was of course tacitly included in our consideration of individual mortality as a prerequisite of biological evolution. In the incomparably faster, nonbiological evolution the human species enacts within its biological identity through the transgenerational handing-on and accumulation of learning, the interplay of death and birth assumes a very new and profound relevance. “Natality” (to use a coinage of my long-departed friend Hannah Arendt) is as essential an attribute of the human condition as is mortality. It denotes the fact that we all have been born, which means that each of us had a beginning when others already had long been there, and this ensures that there will always be such that see the world for the first time, see things with new eyes, wonder where others are dulled by habit, start out from where they had arrived. Youth with its fumbling and follies, its eagerness and questioning is the eternal hope of mankind. Without its constant arrival, the wellspring of novelty would dry up, for those grown older have found their answers and gotten set in their ways. The ever-renewed beginning, which can only be had at the price of ever-repeated ending, is mankind’s safeguard against lapsing into boredom and routine, its chance of retaining the spontaneity of life. There is also this bonus of “natality” that every one of the newcomers is different and unique. Such is the working of sexual reproduction that none of its outcome is, in genetic makeup, the replica of any before and none will ever be replicated thereafter. (This is one reason humans should never be “cloned.”)

Now obviously, just as mortality finds its compensation in natality, conversely natality gets its scope from mortality: dying of the old makes place for the young. This rule becomes more stringent as our numbers push or already exceed the limits of environmental tolerance. The specter of overpopulation casts its pall over the access of new life anyway; and the proportion of youth must shrink in a population forced to become static but increasing its average age by the successful fight against premature death. Should we then try to lengthen life further by tinkering with and outwitting the naturally ordained, biological timing of our mortality—thus further narrowing the space of youth in our aging society? I think the common good of mankind bids us answer no. The question was rather academic, for no serious prospect is in sight for breaking the existing barrier. But the dream is taking form in our technological intoxication. The real point of our reflection was the linkage of mortality with creativity in human history. Whoever, therefore, relishes the cultural harvest of the ages in any of its many facets and does not wish to be without it, and most surely the praiser and advocate of progress, should see in mortality a blessing and not a curse.

However, the good of mankind and the good of the individual are not necessarily the same, and someone might say: Granted that mortality is good for mankind as a whole and I am grateful for its bounty paid for by others, for myself I still ardently wish I were exempt from it and could go on interminably to enjoy its fruit—past, present, and future. Of course (so we might imagine him to add) this must be an exception, but why not have a select few equally favored for companions in immortality? For interminably you are free to substitute “twice or triple the normal maximum” and qualify immortality accordingly.

Would that wish at least stand the test of imagined fulfillment? I know of one attempt to tackle that question: Jonathan Swift’s harrowing description in Gulliver’s Travels of the Struldbrugs or “Immortals,” who “sometimes, though very rarely” happen to be born in the kingdom of Luggnagg. When first hearing of them, Gulliver is enraptured by the thought of their good fortune and that of a society harboring such fonts of experience and wisdom. But he learns that theirs is a miserable lot, universally pitied and despised; their unending lives turn into ever more worthless burdens to them and the mortals around them; even the company of their own kind becomes intolerable, so that, for example, marriages are dissolved at a certain age, “for the law thinks . . . 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”—or a husband, I hasten to add. And so on—one should read Gulliver’s vivid description.

For the purposes of our question, Swift’s fantasy has one flaw: his immortals are denied death but not spared the infirmities of old age and the indignities of senility—which of course heavily prejudgets the outcome of his thought experiment.
Our test of imagined fulfillment must assume that it is not the gift of miraculous chance but of scientific control over the natural causes of death and, therefore, over the aging processes that lead to it, so that the life thus lengthened also retains its bodily vigor. Would the indefinite lengthening then be desirable for the subjects themselves? Let us waive such objections as the resentment of the many against the exception of the few, however obtained, and the ignobility of the wish for it, the breach of solidarity with the common mortal lot. Let us judge on purely egotistical grounds. One of Gulliver’s descriptions gives us a valuable hint: “They have no remembrance of anything but of what they learned and observed in their youth and middle age.” This touches a point independent of senile decrepitude: we are finite beings and even if our vital functions continued unimpaired, there are limits to what our brains can store and keep adding to. It is the mental side of our being that sooner or later must call a halt even if the magicians of biotechnology invent tricks for keeping the body machine going indefinitely. Old age, in humans, means a long past, which the mind must accommodate in its present as the substratum of personal identity. The past in us grows all the time, with its load of knowledge and opinion and emotions and choices and acquired aptitudes and habits and, of course, things upon things remembered or somehow recorded even if forgotten. There is a finite space for all this, and those magicians would also periodically have to clear the mind (like a computer memory) of its old contents to make place for the new.

These are weird fantasies—we use them merely to bring out the mental side of the question concerning mortality and the individual good. The simple truth of our finiteness is that we could, by whatever means, go on interminably only at the price of either losing the past and therewith our real identity, or living only in the past and therefore without a real present. We cannot seriously wish either and thus not a physical enduring at that price. It would leave us stranded in a world we no longer understand even as spectators, walking anachronisms who have outlived themselves. It is a changing world because of the newcomers who keep arriving and who leave us behind. Trying to keep pace with them is doomed to inglorious failure, especially as the pace has quickened so much. Growing older, we get our warnings, no matter in what physical shape we are. To take, just for once, my own example: a native sensibility for visual and poetic art persists, not much dulled, in my old age; I can still be moved by the works I have learned to love and have grown old with. But the art of our own time is alien to me, I don’t understand its language, and in that respect I feel already a stranger in the world. The prospect of unendingly becoming one evermore and in every respect would be frightening, and the certainty that prevents it is reassuring. So we do not need the horror fiction of the wretched Struldbrugs to make us reject the desire for earthly immortality: not even the fountains of youth, which biotechnology may have to offer one day to circumvent the physical penalties of it, can justify the goal of extorting from nature more than its original allowance to our species for the length of our days. On this point, then, the private good does concur with the public good. Herewith I rest my case for mortality as a blessing.

Mind you, this side of it, which is perceived only by thought and not felt in experience, detracts nothing from the burden that the ever present contingency of death lays on all flesh. Also, what we have said about “blessing” for the individual person is true only after a completed life, in the fullness of time. This is a premise far from being realized as a rule, and in all too many populations with a low life expectancy it is the rare exception. It is a duty of civilization to combat premature death among humankind worldwide and in all its causes—hunger, diseases, war, and so on. As to our mortal condition as such, our understanding can have no quarrel about it with creation unless life itself is denied. As to each of us, the knowledge that we are here but briefly and a nonnegotiable limit is set to our expected time may even be necessary as the incentive to number our days and make them count.

Jeanette Lappé Memorial Prize

On behalf of the Lappé family The Hastings Center is pleased to award the 1991 Jeanette Lappé Memorial Prize to Richard Barry Jones, a postgraduate student at the Centre for the Study of Philosophy and Health Care, Swansea, Wales, U.K., for his submission, “To Each According to His Needs: Is This the Best Rule of Thumb in Rationing Health Care?”

We welcome this opportunity to recognize and encourage the work of young scholars in bioethics and thank all those who participated in the 1991 competition.